

# UNITED STATES FORCES KOREA INSTRUCTION

FKSF USFKI 4360.01 DISTRIBUTION: A, B, C 15 February 2022

EXPLOSIVES SAFETY AND MUNITIONS RISK MANAGEMENT FOR JOINT OPERATIONS, PLANNING, AND EXECUTION IN U.S. FORCES KOREA

References: See Enclosure C

## 1. Purpose.

- a. Implements requirements for explosives safety and munitions risk management (ESMRM) for joint operations, planning, and execution in U.S. Forces Korea in accordance with references 2a and 3a.
- b. Assigns responsibilities for assessment and risk decision making involving explosives/munitions operations in the joint operating environment within U.S. Forces Korea and the Korean Theater of Operations (KTO).
- 2. <u>Applicability and scope</u>. This instruction applies to Headquarters, U.S. Forces Korea (USFK), Special Operations Command Korea (SOCKOR); 7th Air Force / Air Force Forces Korea (AFFOR-K); 8th Army / Army Forces Korea (ARFOR-K); Marine Corps Forces Korea (MARFOR-K); Naval Forces Korea (NAVFOR-K); and other USFK affiliates; hereafter referred to as service components.
- 3. Policy. Explosives Safety Site Plan approvals must be obtained using guidance in references 1a and 1b for locations where DoD munitions are present or forecasted for future U.S. military operations and/or when DoD personnel and property are endangered by known host-nation or off-installation munitions related risks. This instruction details the procedures and the process for attaining munitions-related risk decisions when the applicable explosives safety criteria of reference 1c cannot be met or as required for siting per reference 1a. Planning for potential risks and potential consequences from an unintended or intentional initiation of DoD munitions provides commanders the information needed to make informed risk decisions based on ESMRM principles. Such planning also contributes to mission success.
- 4. Definitions. See Enclosure C.
- 5. Roles, responsibilities, and authorities.
  - a. Commander, United States Forces Korea

- (1) Delegates risk assessment and risk decision authorities to subordinate service component commanders and combined/joint forces (when activated) as detailed in paragraph 6 below.
- (2) Notification of the level of risk accepted on the USINDOPACOM Commander's behalf is required when a munitions related risk is assessed as "high risk", as defined in reference 2b, or where inter-magazine distance violations exist. Notification and reporting requirements are outlined in paragraph 2 of Enclosure A.
  - b. Commanders of service components and joint forces.
- (1) Shall fulfill ESMRM responsibilities as stated in references 2a and 3a, and in accordance with this instruction.
- (2) This responsibility extends to locations where there are, or are anticipated to be, joint operations where assignment of Base Operating Support-Integrator (BOS-I)/lead service responsibility has occurred; (i.e., the designated service shall have ESMRM responsibility/risk decision authority). USFK intends to use existing service processes to the maximum extent possible. Adjustments to those processes may be necessary to incorporate any additional requirements generated by reference 2a or reference 3a.
- (a) Commanders must ensure personnel who initiate and review explosives safety risk acceptance for ammunition and explosive related operations, facilities, or equipment are qualified to provide the commander with the information needed to make an informed decision regarding the risk decision being made.
- (b) Commanders shall provide timely notification (within next full duty day) to the USFK J4 in the event a munitions related risk is assessed as "high risk", as defined in reference 2b, or where inter-magazine distance violations exist.
- (c) Commanders shall provide an annual ESMRM report to the USFK J4 as outlined in paragraph 3 of Enclosure A.
- (d) If the assignment of prime responsibility (for example, BOS-I) is uncertain, notify USFK J4 for assignment of a lead agency for purposes of conducting assessments.
  - c. USFK J4, additional responsibilities.
- (1) Serves as the USFK Executive Director for ESMRM and acts on behalf of the Commander, USFK to fulfill the requirements of reference 2a.
- (2) Provides timely notification to the Commander, USFK in the event of service component notifications of assessments deemed as "high risk", as defined in reference 2b, or where inter-magazine distance violations exist.

- (3) Compiles annual reports as outlined in paragraph 3 of Enclosure A of this instruction, and submits a summary report to the Department of Defense Explosives Safety Board (DDESB).
- (4) Upon notification that assignment of primary responsibility is uncertain, the USFK J4 will assign a lead agency for purposes of conducting munitions related assessments and support activities.

## d. USFK Safety

- (1) Provides technical support related to explosives safety and munitions risk management requirements as outlined in this instruction and supporting publications.
- (2) Provides support to service components to conduct munitions risk management assessments (MRMA) as requested
- (3) Conducts site safety inspections of munitions related infrastructure and operations to ensure the Commander has visibility of munitions related risks.
- (4) Prepares notifications of munitions related risk for review and submission by the USFK J-4 in accordance with reference 2a and 4b.

# 6. <u>Delegation of authority.</u>

- e. Commander, USFK has the ultimate responsibility for ESMRM for all U.S. munitions related operations and munitions related infrastructure in Korea.
- f. Commander, USFK delegates munitions related risk decision authority to subordinate GOs/FOs as follows<sup>1</sup>.
- (1) Consistent with resources and authorities provided by references 2a and 3a, the Commander, Marine Corps Forces Korea is delegated munitions related risk decision authority for explosives safety at facilities in the ROK where the Marine Corps is the designated service base commander, at ROK facilities storing Marine Corps U.S. titled munitions, and/or locations where the Marine Corps is the designated BOS-I. This authority may not be further delegated.
- (2) Consistent with resources and authorities provided by references 2a and 3a, the Commander, Naval Forces Korea is delegated munitions related risk decision authority for explosives safety at facilities in the ROK where the Navy is the designated service base commander, at ROK facilities storing Navy U.S. titled munitions, and/or

<sup>&</sup>lt;sup>1</sup> Unlike the other service components, 7th Air Force is in an ADCON relationship with U.S. Forces Korea. As such, the USFK Commander does not have risk delegation authorities for Air Force explosives safety related risks. The 7th Air Force Commander has been delegated risk decision authorities from PACAF.

locations where the Navy is the designated BOS-I. This authority may not be further delegated.

- (3) Consistent with resources and authorities provided by references 2a and 3a, the Commander, 8th Army is delegated munitions related risk decision authority for explosives safety at facilities in the ROK where the Army is the designated service base commander, at ROK facilities storing Army U.S. titled munitions, at designated SALS-K sites, and/or locations where the Army is the designated BOS-I. This authority may be further delegated only to GOs within Headquarters, 8th Army.
- (4) Consistent with resources and authorities provided by references 2a and 3a, the Director, USFK J-4 is delegated munitions related risk decision authority for locations without a designated BOS-I service component, at joint operational locations such as S/APODs as required, and for enroute infrastructure and supporting logistic nodes supporting munitions related operations. This authority may not be further delegated.
- g. Commanders with delegated risk decision authority shall coordinate with the USFK J-4 to obtain and maintain access to ESMRM-related decisions, and ESMRM MRMAs made in Korea.
- 7. Summary of changes. NA.
- 8. <u>Releasability.</u> UNRESTRICTED. This instruction is approved for public release; distribution is unlimited on NIPRNET at <a href="https://pacom.deps.mil/cmds/usfk/USFKDirectives/Pages/Home.aspx">https://pacom.deps.mil/cmds/usfk/USFKDirectives/Pages/Home.aspx</a>.
- 9. Effective date. 15 February 2022

FOR THE COMMANDING GENERAL:

BRAD M. SULLIVAN Major General, USAF Chief of Staff

**Enclosures:** 

A - ESMRM Requirements

B – USFK Munitions Risk Decision Documentation

C – References

GL – Glossary

#### **ENCLOSURE A ESMRM REQUIRMENTS**

# 1. General requirements.

- a. USFK ESMRM process directs subordinate service components commanders and combined/joint forces (when activated) to incorporate ESMRM into planning, training, and execution, and assigns the appropriate level within the chain of command to make risk and consequence decisions for all locations where military munitions are present or forecasted for future military operations.
- b. Enduring locations and non-enduring locations are subject to the requirements of reference 1c, and, wherever possible, should have or be in the process of obtaining DDESB site approval. The MRMA methodology contained in reference 2a provides a model to assess risk and to document measures to mitigate that risk to acceptable levels when a deviation from DoD standards is necessary to achieve operational/training objectives. MRMAs shall be conducted in compliance with reference 2a. Use of the MRMA methodology contained in reference 2a is mandatory for non-enduring locations.
- c. All locations involving military munitions (storage locations, staging areas, transportation nodes, etc.), whether current or planned, should be identified and have either DDESB approved site plans or locally generated site plans submitted through service channels for DDESB approval. Approved MRMAs may be used to fulfill this requirement for locations where there is no continuous U.S. or ROK military presence such as commercial seaports.
- d. MRMAs will be performed by MRMA teams comprised of service component qualified explosives safety personnel. If qualified personnel are unavailable, support will be requested by the lead service or BOS-I to the USFK J-4. The USFK J-4 will coordinate for qualified explosives safety support personnel from USFK or the other service components.
- e. In all cases, when necessary to deviate from DoD explosives safety standards as outlined in reference 1c, copies of the acceptance document will be forwarded as a consolidated package to the USFK J-4. Routing of these documents to USFK assures full understanding of risk and potential consequences accepted in theater on the COCOM's behalf. This requirement is in addition to any routing that might otherwise be necessary to process such documentation through service or other channels.

## 2. Reporting processes and requirements.

a. An ESMRM MRMA consists of a 9-step process as detailed in reference 2a. The service submission must include mitigating factors/controls, a Certification of need for the conduct of the specific evolution within the context of the parent exercise/operations and acceptance of risk at the level appropriate to the service guidelines and this instruction, whichever is higher. This principle applies to all assessments, regardless of whether Commander, USFK has retained or delegated ultimate risk decision authorities.

## b. Assessment reporting.

- (1) Upon assessment completion by the lead service or BOS-I, send an assessment report to the appropriate designated risk decision authority.
- (2) Report of assessment of munitions related risk level deemed to be of "high risk" as defined in reference 2b, requires the approval of a GOs/FOs and expedited reporting as detailed in reference 3a.
- c. Unscheduled requests due to unforeseen reporting arising from conduct of operations/exercises.
- (1) For locations with a BOS-I service component assigned, the BOS-I service component, through the base commander or senior designated operational commander, will initiate a request for an ESMRM MRMA of the contingency location(s) through the service component. The BOS-I service component will send a copy of the request to USFK J4 for USFK situational awareness.
- (2) For locations without a BOS-I service component assigned, the base commander or senior designated operational commander will initiate and send a request for an ESMRM MRMA of the contingency location(s) to the USFK J-4. The USFK J-4 will assign a lead service to conduct an MRMA. The lead service will then schedule an assessment, or, when deemed appropriate, submit a request for ESMRM MRMA technical assistance to service safety center with notification of request provided to USFK.
- d. Compliance during execution of operations or exercises (MRMA current and in force).
- (1) A final munitions related risk decision is largely based upon the risk mitigating measures that are a mandatory element of the MRMA. Risk decision / acceptance documents must include a plan for monitoring and verification that all such measures are employed throughout execution. A summary report to the USFK J-4 which confirms implementation is required at conclusion of operations/exercise.
- (2) Expedient risk acceptance requests: It is unlikely that any MRMA will anticipate all possible scenarios that can arise during conduct of operations involving military ammunition and explosives. The intent of this instruction is to avoid conduct of any operation outside the safety guidelines enacted by reference 1c; and, when necessary, to insure an informed, conscious decision is made, and the appropriate risk decision authority has weighed the risks against operational necessity. Time may not permit full, "boots on ground" assessments and collectable data may not be ideal. These conditions have the effect of increasing risk, and limiting the ability to mitigate identified risks, but they do not prevent the decision authority from making a risk decision. When conditions warrant, make every effort to produce the best possible assessment for presentation to the decision authority. The risk decision authority will decide if the uncertainty elevates the risk to an unacceptable level or not. In these situations when a

proper MRMA cannot be conducted, the responsible service shall notify the USFK J-4 within next full duty day of the munitions related risk decision.

# e. Update frequency.

- (1) An MRMA that supports a strategic, enduring, contingency, or exercise location under DoD control (e.g., military seaports and airfields) will be validated every 24 months for waivers and five years for exemptions when the deviation is required to support either temporary operational requirements or the completion of corrective actions to eliminate a deviation.
- (2) Unless there is a continuous U.S. military presence, all sites must be assessed prior to each use to ensure no introduction of additional hazards or exposures have occurred that changes the original risk, exposure or mitigating measures. Provided there is no increase in the level of risk, as defined in reference 2b, the risk decision remains valid.

## 3. Annual report of military munitions operating locations.

- a. Service component commands will submit an annual report of military munitions operating locations to the USFK J-4 no later than September 30th each year.
- b. Reporting shall conform to the requirements outlined in Appendix 3A of reference 3a. Copies of reports provided to U.S. USINDOPACOM as required in reference 3a are acceptable for this reporting requirement.
- c. The report shall contain all sites within Korea where U.S. titled military munitions are present or forecasted for future military operations.

## 4. ROK Government Notification of Munitions-Related Risk.

- a. USFK shall notify the ROK government of munitions-related risks in accordance with references 2a and 4b when one or more of the following conditions exist:
- (1) There is the potential for Inter-Magazine Distance violations to exist between ROK and U.S.-storage magazines.
- (2) The storage of certain amounts and/or types of ammunition in one side's magazine/site could affect the amount and/or types of ammunition stored in the other side's magazine/site.
- (3) New construction is being planned within an existing Explosives Safety Quantity-Distance (ESQD) arc or new construction of a Potential Explosion Site is being planned that will create new ESQD arcs that impact the other party or put personnel or infrastructure at risk. This includes encroachment upon military facilities, easements, and military protection zones caused by new or planned construction from civil and/or commercial organizations located both on and outside military facilities. Note: Notification

is made as early as possible during the planning phase of the project to provide both parties opportunities to mitigate munitions-related risk.

- (4) ESQD arcs extend beyond military installation boundaries and/or safety restrictive zones at sites storing U.S.-titled munitions and personnel, facilities, or infrastructure are at risk.
  - (5) A munitions-related risk is assessed as high or extremely high.
  - b. Notification Requirements.
    - (1) Official notification consists of the following:
      - (a) A notification memorandum that contains:
- <u>1.</u> A description of the munitions-related risks that raise the potential for loss and probability of loss.
  - 2. A list of mitigation actions taken.
- 3. Requested and recommended mitigation actions to be taken by the other party.
- (b) A Bilateral Munitions Risk Assessment/Decision document or service component risk assessment/decision document.
- (c) An aerial image of the Potential Explosion Site with overlay of the ESQD arcs.
- (2) Service components shall provide USFK Safety with the required notification documentation for munitions related infrastructure meeting the conditions described above. The completed notification package is prepared by USFK Safety and signed by the USFK J-4. The completed notification packet shall then be forwarded to the ROK Co-Chair of the BFG and to the Defense Attaché Office of the U.S. Embassy in Korea in accordance with reference 2a and 4b. Service components may provide direct notifications to the Defense Attaché Office of the U.S. Embassy in Korea; however, they must also provide copies of this notification to USFK Safety.
- (3) Service components shall review conditions at all sites meeting the conditions of the above paragraph 4a at least annually and include findings and changes to conditions at the site in the annual report listed in paragraph 3a above.
- (4) USFK Safety shall ensure that munitions-related risks meeting the above criteria are also included in future BFG meeting agendas to further facilitate risk mitigation.
- 5. <u>USFK Explosives Safety Council</u>.

- a. Active participation by senior leaders of service components in the development of ESMRM policy, procedures, and priorities is essential to the implementation and maintenance of a sound explosives safety program. The primary vehicle for this participation is the USFK Explosives Safety Council.
- b. The USFK Explosives Safety Council is comprised of subject matter experts to identify munitions-related risks and develop site-specific recommendations to reduce risk at each site location. Required attendees include:
  - (1) The USFK ACoS, J4 (the Chairperson of the Council)
  - (2) The USFK Safety Director (the Vice Chairperson of the Council)
- (3) Service component explosives safety managers and munitions logistics managers or their designated representatives shall serve as service component representatives.
- (4) Optional attendees may include other pertinent staff and service component personnel as well as subject matter experts.
  - c. Policies.
- (1) The Council will meet at least semi-annually, or at other times at the call of the Chairman.
- (2) The USFK Safety Director shall coordinate with the service component explosives safety directors to identify issues for inclusion in the meetings. Coordination shall be made at least 10 working days prior to the scheduled meeting.
- (3) The USFK Safety Director shall provide meeting minutes (an executive summary and issues status) with 10 working days after a scheduled meeting. Minutes will be posted on the USFK Safety portal.

## 6. ROK/U.S. Explosives Safety Bilateral Focus Group.

- a. USFK and ROK MND recognize the need to ensure the safe storage and management of U.S.-titled munitions stored in the ROK. Out of a desire on the part of both parties to establish a bilateral means to assess and address explosives safety matters associated with U.S.-titled munitions, the ROK/U.S. Explosives Safety Bilateral Focus Group (BFG) was established. The mission of the BFG to provide oversight, direction, and guidance to identify, reduce, and if possible, eliminate munitions-related risks involving U.S.-titled munitions in the Republic of Korea.
- b. The BFG is comprised of U.S. and ROK subject matter experts to identify munitions-related risks and develop site-specific recommendations to reduce risk at each site location. Required attendees include:
  - (1) BFG Co-Chairs

- (a) The U.S. co-chair is the Assistant Chief of Staff, J4, USFK
- (b) The ROK co-chair is the Director General, Logistics Management Bureau, Ministry of National Defense

# (2) Vice Co-Chairs

- (a) The USFK Safety Director will serve as the U.S. Vice Co-Chair.
- (b) The ROK MND, Logistics Management Branch, Chief of Munitions Management will serve as the ROK Vice Co-Chair.

## (3) Service component members

- (a) U.S. service component explosives safety managers and munitions logistics managers or their designated representatives shall serve as U.S. service component representatives.
- (b) ROK service component explosives safety managers and munitions logistics managers or their designated representatives shall serve as ROK service component representatives.
- (4) Optional attendees may include other ROK and U.S. pertinent staff and service component personnel as well as subject matter experts.

## c. Policies.

- (1) The BFG convenes at least twice a year or when called upon by the Co-Chairpersons. Meeting times and locations are mutually agreed on by the BFG Co-Chairpersons. Either the U.S. or ROK Co-Chairperson may call additional sessions of the Bilateral Focus Group if required. Additionally,
- (a) The host of BFG meetings alternates between the ROK and U.S. Co-Chairperson. When the ROK Co-Chairperson presides, the meeting is held in a ROK facility; when the U.S. Co-Chairperson presides, the meeting is held in a U.S. facility.
- (b) In order to promote efficiency, the BFG conducts formal meetings based upon an agenda, which the two sides jointly prepare and sign, in written form, at least one week prior to the meeting.
- (c) The BFG Co-Chairpersons, other BFG representatives, their alternates and staffs, pertinent subcommittee chairpersons, and subject matter experts attend formal meetings of the BFG as needed based upon the meeting agenda. Relevant government officials may observe the meeting. Both sides agree on the composition of the attending delegation prior to the meeting, as there may be constraints according to the size of the conference facility.

- (2) The U.S. BFG Vice Co-Chairperson (Director, USFK Safety) prepares the minutes of the formal Bilateral Focus Group meetings and coordinates with the ROK BFG Vice Co-Chairperson (Director, MND Ammunition Transportation and Management Division) to develop and gain mutual approval of the minutes.
- (a) The minutes include, but are not limited to, a brief summary of the substantive content of the meeting and a list of urgent action items and relevant correspondence since the most recent BFG meeting.
- (b) The BFG Vice Co-Chairpersons distribute and archive the official minutes. If there are disagreements on the minutes, such as the application or interpretation of ROK or U.S. regulations, they are settled through mutual consultation.
- (3) The BFG concerns matters that are inherently sensitive to both governments. Discussions, analyses, documents, and other efforts of the BFG are not publicly released without the mutual consent of both sides.

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#### ENCLOSURE B USFK MUNITIONS RISK DECISION DOCUMENTATION

## 1. General Requirements.

- a. In accordance with reference 2a, USFK ESMRM processes require the Geographic Combatant Commander or delegated authority's acknowledgement and risk decision for deviations when the applicable explosives safety criteria outlined in reference 1c cannot be met.
- b. Within USFK, these authorities have been delegated in accordance with paragraph 6 above.
- c. When the applicable explosives safety criteria outlined in reference 1c cannot be maintained at sites where ROK military have collocated ammunition or where the ROK military provides storage resources for U.S. titled munitions, the responsible U.S. lead Military Service shall also acquire acknowledgement and risk decision for deviations by the proper ROK military risk decision authority whenever possible.
- d. The ROK risk decision authority levels and guidelines should parallel those of the respective U.S. lead Military Service. At no time will the ROK risk decision authority for high/serious or lead Military Service's equivalent risk assessment level be delegated below the GO/FO level.

## 2. Documentation.

- a. Deviations from explosives safety criteria outlined in reference 1c shall be documented using the lead Military Service's documentation and record keeping standards for munitions related deviations.
- b. The USFK Form 4360-1 (see next page) should be used as a cover page to document the bilateral risk decisions by both the ROK and U.S. risk decision authorities.
- c. The lead Military Service may document bilateral risk decisions using alternatives to the USFK Form 4360-1. As a minimum, alternative bilateral documentation must provide the following:
  - (1) The number of personnel exposed
  - (2) The potential number fatalities
  - (3) The potential number injuries
  - (4) The potential cost of infrastructure damage
- (5) Determination of the residual consequences, residual likelihood, and the residual level of risk.

Risk decisions and signatures of authorized ROK and U.S. risk decision authorities  MUNITIONS RISK DECISION COORDINATION 탄약위험결정 협조서											
SITE INFORMATION 부지정보											
1a. Country 국가: Korea		1b. Location 위치:			2. Service 군:			3a. Installation Type 시설유형:			
3b. Installation Name 시설명칭:					3c. Type of Site 부지유형:						
			DEVIATION	/IATION 안전	안전기준 미준수 정보						
4. Deviation # 안전기준 미준수 번호: 5a. E		5a. Effect	fective Date 유효일자:		5b. Expiration Date 만료일자:		6. Deviation From 안전기준 미준수 내용:			용:	
**				ragraph of Requirement 소요사항 관련번호/제목 및 구절: xplosives Safety Regulation							
9. Potential Consequences of Deviation from Approved Standards 승인된 기준에 대한 안전기집 미준수에 따른 잠재적인 결과:			9a. # Fatalities 사망자 9b. # 수: 수:		njuries 부상자 9c. Equip/Fac L 손실가액: \$		ac Loss \$ 장	비/시설 10. Date Deviation II 개시일:			ated 안전기준 미준수
11. Residual Consequences 잔여심각성:		12. Res 잔여개역						14a. Safety Professional/Analyst (POC Info) 안전전문가/분석관 (담당자 정보):			
14b. Analyst Signature 분석관 서명:			14c. Submitter (POC Inf	'담당자정보): 14d. Sub			omitter Signature 제출자 서명:				
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US DEVIATION RISK DECISION 미국 안전기준 미준수 위험 결정  I have reviewed the risk assessment and understand the hazard and potential consequences. I am approving this deviation and accepting the additional potential consequences and residual risk based on implementation of mitigation actions and current operational necessity. 본인은 위험평가 자료를 검토하였으며, 위험 및 잠재적 결과를 이해합니다. 본인은 이 안전기준 미준수를 승인하며, 안화 조치 이행 및 현재의 작전적 필요에 근거하여 추가적인 잠재적 결과 및 잔여위험을 수용합니다.  15a. Decision Authority 결정권자:  15b. Unit/Comm 부대/사령부:  16a. DATE 일자:  16b. Expiration Date 만료일자:  17. RANK/TITLE 계급/직책:											
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# **ENCLOSURE C REFERENCES**

- 1. Department of Defense Directives and Instructions.
  - a. DOD Directive 6055.09E, Explosives Safety Management (ESM), 26 June 2019
- b. DoD Instruction 6055.16, Explosives Safety Management Program, 31 August 2018
- c. DESR 6055.09, Edition 1, DoD Explosives Safety Management and the DoD Explosives Safety Board, 13 January 2019
- d. DDESB Technical Paper 14, Approved Methods and Algorithms for DoD Risk-Based Explosives Siting, Revision 3, February 2007
- 2. Chairman of the Joint Chiefs of Staff Instructions and Manuals.
- a. CJCSI 4360.01C, Explosives Safety and Munitions Risk Management for Joint Operations, Planning, Training, and Execution, 7 May 2021
  - b. CJCS Manual 3105.01, Joint Risk Analysis, 05 September 2019

## 3. U.S. USINDOPACOM Publications

a. USPACOMINST 0601.8, Explosives Safety and Munitions Risk Management (ESMRM) for Joint Operations Planning and Execution, 15 July 2016.

#### 4. USFK Publications

- a. USFK Regulation 385-1, USFK Safety Program, 28 September 2009.
- Standard Operating Procedures for the Bilateral Focus Group to Address Munitions Storage, Risk Reduction and Mitigation between USFK and ROK MND, 27 May 2021

#### 5. U.S. Air Force Publications

- a. Air Force Policy Directive 91-2, Safety Programs, 01 May 2017
- b. Air Force Instruction 90-802, Risk Management, 11 February 2013
- c. Air Force Manual 91-201, Explosives Safety Standards, 21 March 2017

#### 6. U.S. Army Publications

- a. AR 385-10, The Army Safety Program, 24 February 2017.
- b. DA Pamphlet 385-30, Mishap Risk Management, 02 December 2014

c. DA Pamphlet 385-64, Ammunition and Explosives Safety Standards, 24 May 2011.

# 7. <u>U.S. Marine Corps Publications</u>

- a. Marine Corps Order 3500.27C Risk Management, 26 November 2014
- b. Marine Corps Order 5100.29C Vol. 8, Marine Corps Explosives Safety Management Program, 5 August 2021

# 8. <u>U.S. Navy Publications</u>

- a. OPNAVINST 8020.14A, Department of the Navy Explosives Safety Management Policy Manual, 15 February 2013.
  - b. OPNAVINST 3500.39D Operational Risk Management, 29 March 2018

#### **GLOSSARY**

#### 1. Acronyms

ACoS	Assistant Chief of Staff
AD	Ammunition Depot
ΛCD	Ammunition Supply Pair

ASP Ammunition Supply Point

BFG ROK/US Explosives Safety Bilateral Focus Group

BOS Base Operating Support

BOS-I Base Operating Support-Integrator

CoS Chief of Staff

DDESB Department of Defense Explosives Safety Board

DoD Department of Defense

ESMRM Explosives Safety and Munitions Risk Management

FOS Forward Operating Site
GO/FO General Officer/Flag Officer
MND Ministry of National Defense

MAGNUM Munitions Activities Gained by Negotiations between USAF/ROKAF

Memorandum of Understanding

MRMA Munitions Risk Management Assessment

NEW Net Explosives Weight PES Potential Explosion Site

SALS-K Single Ammunition Logistics Supply System – Korea

ROK Republic of Korea

U.S. United States (of America)
UNC United Nations Command
USFK United States Forces Korea

## 2. General Terms and Definitions.

**Automated Safety Assessment Protocol-Explosives (ASAP-X)**. ASAP-X is a Microsoft Excel spreadsheet designed to assist DoD personnel in assessing hazards associated with Explosive Safety Quantity-Distance (ESQD) noncompliance. There are two versions located on the DDESB Website: <a href="http://www.ddesb.pentagon.mil">http://www.ddesb.pentagon.mil</a>.

**BOS.** The administrative and logistical support at either an enduring or a non-enduring location. This support includes services for, but not limited to, legal, personnel, security, facilities management, infrastructure, and other administrative or logistical services as determined by DoD, USP ACOM, or Military Departments.

**BOS-I.** The individual or organization assigned to provide facilities-based infrastructure support at non-enduring locations in a geographic combatant commander's area of responsibility. The BOS-I role is critical for ESMRM due to the significant consequences, to DoD personnel and property, when potentially endangered by DoD munitions and/or known host nation or off-installation munitions hazards, that can occur when risks are not addressed during planning or if identified risk mitigation measures are not implemented

and maintained throughout mission execution.

**Contingency Location.** A non-enduring location outside the United States that supports and sustains operations during named and unnamed contingencies, or other operations as directed by appropriate authority.

**Deviation.** Refers to the mechanisms by which a DoD Component can accept, assess, and document the risk for not complying with or "deviating" from the requirements of reference 1c. Specific deviation mechanisms include waivers (nonrecurring and recurring), exemptions, and Secretarial exemptions and certifications. In certain situations, strict compliance with explosives safety standards (reference b) could adversely affect the successful outcome of DoD operations. In such situations, any DoD military munitions safety risk must be weighed against strategic or compelling operational requirements.

**Enduring Location.** A geographic site designated by the DoD for strategic access and use to support U.S. security interests for the foreseeable future. The following types of sites are considered enduring for U.S. Government purposes: Main Operating Base; Forward Operating Site; and Cooperative Security Location. All three types of locations may be composed of more than one distinct site.

**ESMRM.** A systematic approach that integrates risk analysis into operational planning, military training exercises, and contingency operations with the goal of identifying potentially adverse consequences associated with munitions operations, risk reduction alternatives, and risk acceptance criteria for senior officials to make the risk decision.

**Lead Service.** A Service designated by DoD, USPACOM, or USFK within Korea with the responsibility of BOS at a contingency location.

**Munitions Related Risk.** Munitions related risk describes the likelihood of an ammunition or explosives related event and its resulting consequences should an event occur. Munitions related risks represent real or potential conditions associated with ammunition and explosives that could lead to an unplanned event or series of events resulting in death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment.

#### Risk Management Terms and Definitions

**Acceptable Risk.** A level of risk associated with a hazard that DoD Components determine is allowable, and can remain from the standpoint of balancing benefit to the mission against the potential for accidental losses or harm to personnel, equipment, and mission.

**Consequences.** The magnitude or severity of potential harm to include: death, injury, occupational illness, damage to or loss of equipment or property, damage to the environment, or monetary loss. Harm is generally estimated considering vulnerability, the scale of damage, and the speed of recovery/resiliency.

**Hazard.** A real or potential condition that could lead to an unplanned event or series of events (i.e. mishap) resulting in death, injury, occupational illness, damage to or loss of equipment or property, or damage to the environment.

**Likelihood.** An expression of the probability of occurrence of a mishap.

**Munitions Risk Management Assessment (MRMA).** An MRMA is a procedure for risk recognition and ranking specific to ammunition and explosives related activities. The process is designed to inform leaders of the risk associated with munitions based on potential consequence associated with an explosives incident. The MRMA provides decision makers with an estimate of the number of personnel exposed to the risk, the potential fatalities, injuries, and infrastructure damage. The level of risk decision is dependent upon the level of risk associated with a deviation from the applicable explosives safety criteria of reference 1c.

**Risk.** Risk is the effect of uncertainty on objectives, regardless of the domain or circumstances; therefore, an event or hazard (or any other risk source) should not be described as a risk. Risk should be described as the likelihood of an event (or hazard or source of risk) and its consequences. Risk can expose an organization to either an opportunity, a threat, or both.

**Risk Assessments.** Risk assessments are procedures for risk recognition and ranking. Risk assessments identify hazards that could negatively impact an organization's ability to conduct its mission. These assessments help identify inherent risks and provide measures, processes, and controls to reduce the impact of these risks.

**Risk Decision.** The result of a well-specified, logically defensible process to determine acceptable risk from the standpoint of balancing benefit to the mission against the potential for accidental losses or harm to personnel, equipment, and mission (e.g., consequences and likelihood).

**Risk Management.** Risk management is the systematic application of policies, procedures, and practices for activities involving communication, establishing context, assessing risk (identification, analyzing, and evaluating risk), treating risk, monitoring and reviewing, and reporting and recording.

**Risk Tolerance.** Risk tolerance, also sometimes known as risk appetite, defines the level and nature of risk that is acceptable. Risk tolerance is the amount and type of risk that a risk decision maker is willing to accept in order to meet their strategic objectives. Organizations will have different risk tolerances depending on their mission, culture, and objectives. A range of risk tolerances may exist for different risks and these may change over time.

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