

# CHAIRMAN OF THE JOINT CHIEFS OF STAFF INSTRUCTION

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EXPLOSIVES SAFETY AND MUNITIONS RISK MANAGEMENT FOR JOINT OPERATIONS PLANNING, TRAINING, AND EXECUTION

Reference: See Enclosure D.

1. <u>Purpose</u>. This instruction:

- a. Establishes policies and practices for integrating Explosives Safety and Munitions Risk Management (ESMRM) in the Joint Operation Planning Process to facilitate planning to support the full spectrum of operations during peacetime and wartime periods, as defined in reference (a).
- b. Establishes procedures for integrating ESMRM into the military planning process and procedures for identifying the potential hazards/consequences/risks associated with munitions (i.e., military, foreign, other) to enable informed decision making.
- c. Clarifies the level in the chain of command that risk and consequence decisions will be accepted and approved when the explosives safety requirements of reference (b) cannot be met. Enclosure C of this instruction provides a framework for conducting ESMRM Consequence and Risk Identification (C&RI) Assessments.
- d. Clarifies roles in the coordination of U.S. consequence acceptance decisions with multinational partners when military munitions are involved in operations.
- e. Clarifies the reporting and approval processes for ESMRM site approvals, deviations, and assessments throughout planning and execution for enduring and non-enduring locations. The framework includes:

- (1) The chain of command for enduring locations (installations) that can meet the ESMRM requirements of reference (b).
- (2) The chain of command for non-enduring locations (contingency bases) established to support war and contingency operations (such as bases in Afghanistan) that cannot meet the ESMRM requirements of reference (b).
- (3) The approval process for ESMRM C&RI assessments conducted at Aerial and Seaports of Embarkation/Debarkation (S/APOD and S/APOE) and at en route infrastructure support facilities (DoD and non-DoD controlled) that are used to support Geographic Combatant Commander (GCC) operational and contingency plans.
- (4) The approval process for military construction (MILCON) within areas that cannot meet explosives safety requirements and require a deviation.
- f. Clarifies that logistics operations involving military munitions that do not meet requirements of Enclosure B are permitted to continue until the risks and consequences have been assessed per Enclosure C and accepted at the level of command delegated by the GCC.
- 2. Cancellation. None.

# 3. Applicability

- a. This instruction applies to the Joint Staff, Military Services, Defense agencies, the Combatant Commands, sub-unified commands, joint task forces (JTF), and their subordinate component commands (hereafter referred to collectively as the "DoD Components").
- b. This instruction applies to the S/APOD and S/APOE and en route infrastructure identified in the operational planning process unless access by an assessment team is restricted by the host nation.
- c. This instruction does not apply to overseas "enduring" (e.g. Main Operating Bases) or DoD installations within the United States and U.S. territories. The Military Services shall continue to use the established Military Service chain of command to address ESMRM related requirements as specified in reference (b) for enduring locations.

### 4. Executive Summary

a. The Nation's ability to project and sustain military power depends on effective joint military logistics. Logistics functions involving military munitions pose inherent risk to effective military operations. History and

experience have demonstrated that a catastrophic incident involving munitions has the potential to significantly disrupt and adversely impact military operations.

- b. Explosives site approvals shall be obtained using guidance in reference (b) for all locations where military munitions are present of forecasted for future military operations. This instruction details the procedures and the process for risk and consequence acceptance when reference (b) cannot be met. Planning for risks and potential consequences from the unintended functioning of munitions enables commanders to understand and make decisions based on ESMRM information and contributes to mission success.
- c. Combatant Command authority specifically states that the GCC is ultimately responsible for everything under their command. Explosives safety is one area where the Combatant Commander can influence decisions relating to risk taking at locations where military munitions are present. This instruction provides a process to incorporate ESMRM into planning, training, and execution, and to enable the appropriate level within the operational chain of command to make risk and consequence decisions.
- d. The enclosures specify roles, responsibilities, and processes for integrating ESMRM into military planning, training, and operations.
- e. For those locations where military munitions are present or forecasted to be present that can meet the requirements of reference (b), Enclosure B outlines the process and types of site plans to be developed and submitted through the Military Service to the Department of Defense Explosives Safety Board (DDESB) for an approval decision.
- f. ESMRM C&RI assessment will be performed, or requested to be performed by the lead Service or Base Operating Support Integrator (BOS-I) for those locations that cannot meet the requirements of reference (b).
- (1) ESMRM C&RI assessments will enable the senior designated operational or base commanders to make informed operational risk decisions. The level of risk will determine the level within the chain of command that can approve a deviation from the standards of reference (b).
- (2) The BOS-I will determine the risk level using their Military Services' operational risk management program.
- g. The ESMRM C&RI assessment process requires consistent and systematic identification and communication of risks, consequences, and potential actions to mitigate those risks to the appropriate commander for an acceptance decision.

- (1) Acceptance of potential military munitions-related consequences requires GCC approval unless the GCC delegates consequence acceptance to a subordinate commander as appropriate. High or greater consequences will always be accepted by a General or Flag Officer in the operational chain of command.
- (2) In all cases, both the ESMRM C&RI assessments and the derived qualitative measure (e.g. ASAP-X) used to identify the risk and consequences will be forwarded up the operational chain of command as a consolidated package. This package helps to ensure that potential consequences and mitigating strategies are effectively communicated throughout the operational chain of command.
- h. Integrating ESMRM into combined, joint, coalition, and partner nation plans, exercises and missions is required unless strategic or compelling operational needs mandate otherwise. Deviating from reference (b) shall comply with requirements in Enclosure C.
- i. Due to the hostile environment inherent to operations at Combat Operating Bases (COB) and Combat Outposts (COP), the GCC shall provide specific guidance on risk and consequence management from military munitions at these locations. Procedural requirements in this instruction relating to ESMRM shall be applied to COBs and COPs when the GCC determines it appropriate, given all operational and force protection considerations.
- 5. <u>Policy</u>. This instruction requires the operational chain of command (e.g., Service Component commander, JTF commander, subordinate unified commander, and GCC) to integrate ESMRM in accordance with reference (c) into the planning and execution processes. This instruction establishes and clarifies procedures for incorporating ESMRM practices roles and responsibilities (i.e. strategic estimate, theatre strategy, security cooperation planning, plans and orders, and joint operational planning and execution) and specifies roles and responsibilities for the GCC, and the functional, subordinate unified, Service Component, and JTF Commander.
- 6. Definitions. See Enclosure E.
- 7. Responsibilities. See Enclosure A.
- 8. Summary of Changes. None.
- 9. <u>Releasability</u>. This instruction is approved for public release; distribution is unlimited. DoD Components (to include the Combatant Commands), other Federal agencies, and the public may obtain copies of this

instruction/manual/notice through the Internet from the CJCS Directives Home Page--http://www.dtic.mil/cjcs\_directives.

10. Effective Date. This instruction is effective upon receipt.

CRAIG A. FRANKLIN Major General, USAF Vice Director, Joint Staff

## Enclosures:

- A Roles and Responsibilities
- B Explosives Safety and Munitions Risk Management Site Planning Process
- C Explosives Safety Munitions Risk Management Consequence and Risk Identification Assessment Process
  - D References
  - E Glossary

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#### ENCLOSURE A

#### ROLES AND RESPONSIBILITIES

- 1. <u>Background</u>. This enclosure defines the roles and responsibilities for those commands, organizations, and commanders having responsibilities in the ESMRM process.
- a. <u>Purpose of ESMRM</u>. The foundational premise of ESMRM involves upfront identification and clear communication to the appropriate level of command of the risks and consequences to and from munitions during all phases of military planning, training, and execution.
  - b. Role of ESMRM in Military Planning, Joint Training, and Operations
- (1) Implementing effective ESMRM procedures to identify and address the potential hazards/consequences/risks associated with munitions is a command priority.
- (2) ESMRM when accomplished as part of the planning process and performed consistently in training and during execution is an enabler that directly contributes to mission success.
- (3) ESMRM provides all levels of leadership greater visibility of risks and potential consequences associated with munitions during all phases of military planning, joint/combined training, and operations.
- (4) ESMRM requires planning to allow ESMRM C&RI assessments to be used throughout all military planning, joint/combined training, and operational cycles to enable informed decision making.
- (5) ESMRM provides through the C&RI assessment process (Figure A-1) senior leaders the awareness of the potential consequences to the mission from military munitions and the information necessary to make a risk decision for the potential risks and consequences when they cannot be mitigated or eliminated.
- (6) ESMRM information shall be included as part of joint/combined exercises and training. Lessons learned from exercises and training should be used to update existing ESMRM C&RI assessments.

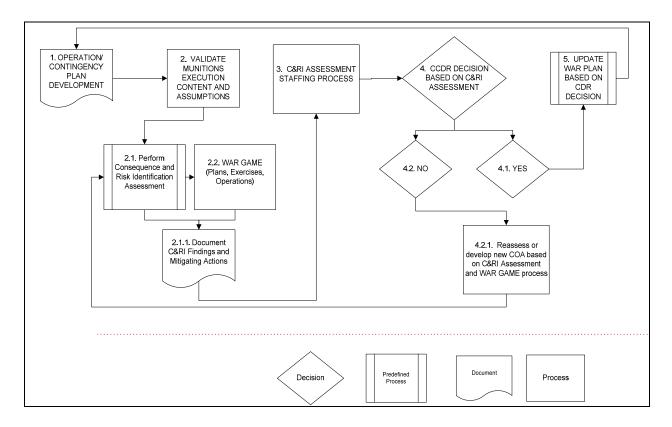


Figure A - 1. Combatant Commander ESMRM Process Flow

- 2. <u>Responsibilities</u>. Military Services and Combatant Commanders shall conduct ESMRM procedures in accordance with the following:
  - a. Geographic Combatant Commanders (GCC) shall:
- (1) Accept or delegate the authority to make the consequence-based approval decisions to a subordinate commander.
- (2) Coordinate ESMRM C&RI assessments at all strategic S/APOD and S/APOE in respective Areas of Responsibility (AOR). Enclosure (C), Step 3, paragraph (4) provides a list of potential participants.
- (3) Integrate ESMRM into operational and exercise planning, training, and execution. Integrating ESMRM early in the planning process and in the execution phases enables commanders to accomplish their missions and enhances mission effectiveness while minimizing exposure to the damaging consequences of munitions from accidental initiation or enemy fire.
  - (4) For multinational operations:

- (a) Integrate U.S. ESMRM decisions based on a C&RI assessment and C&RI related data into North Atlantic Treaty Organization, coalition, and multinational operations when military munitions are involved.
- (b) Ensure U.S. ESMRM decisions based on a C&RI assessment and C&RI related data are communicated to multinational partners.
- (5) Task, as necessary, a Service Component or JTF with BOS-I responsibilities to integrate joint and multinational explosives safety, and ESMRM tenets into master planning and real estate and infrastructure management. The BOS-I role is critical for ESMRM due to the significant consequences to and from munitions that can occur when risks are not addressed during planning, and implemented and maintained during execution.
- (6) Review and/or take action on all consequence acceptance decisions for all locations, logistics nodes, and lines of communication (LOC) when the requirements of reference (b) cannot be met.
- (7) For consequence acceptance decisions that require MILCON, before construction begins in accordance with reference (b), the GCC will submit a GCC endorsement to the appropriate Military Service Secretary for MILCON funding and project approval that contains the following:
  - (a) Statement of operational necessity.
  - (b) Acceptance of the potential consequences from munitions and munitions-related operations.
  - (c) Validation frequency of the strategic or compelling operational requirements to ensure the identification of risks and exposures. Review frequency shall not exceed 5 years.
  - (d) C&RI assessment as contained in Enclosure C.
- (8) Validate existing ESMRM C&RI-based decisions during the operational planning process.
- (9) Ensure subordinate commanders comply with existing ESMRM policy.
- (10) Coordinate with Functional Combatant Commands operating in their AOR on ESMRM matters.
- (11) Maintain or have access to a repository of ESMRM-related decisions and ESMRM C&RI assessments made within the GCC's AOR.

A-3 Enclosure A

- (12) Provide the DDESB documentation, including the ESMRM C&RI assessment, for ESMRM C&RI-based decisions, upon concurrence or approval, per reference (c).
- (13) Integrate ESMRM into the evaluation of the operational environment during the strategic guidance step of the joint staff estimate process during operations planning.
- (14) Seek Joint Staff/J-2 assistance when strategic S/APOD and S/APOE infrastructure information is not available to support conducting physical ESMRM C&RI assessments.
- (15) Keep the DoD General Counsel (GC) informed on compliance with all international agreements in force for which they are responsible per reference (d).
- (16) The U.S. Northern Command should maintain awareness of consequence-based decisions for all U.S. strategic locations, logistics nodes, and Lines of Communications (LOC).
- (17) Submit lessons learned to the Joint Lessons Learned Information System (JLLIS).

# b. Functional Combatant Commanders

- (1) Functional Combatant Commanders shall:
- (a) Ensure subordinate commanders comply with existing ESMRM policy.
- (b) Support requests for assistance to conduct ESMRM C&RI assessments. Whenever possible, combine ESMRM C&RI assessments with existing assessments to minimize duplication of effort.
- (c) Integrate ESMRM into the evaluation of the operational environment during the strategic guidance step of the Joint Staff estimate process during operations planning.
- (d) Provide all consequence-based decisions and supporting ESMRM C&RI assessments to the appropriate GCC in accordance with Enclosure C.
- (2) The U.S. Transportation Command, in addition to the requirements listed above, as the Distribution Process Owner shall maintain or have access to a repository of ESMRM information related to individual port studies for exercise and operation planning.

- c. <u>Subordinate Unified Commanders</u>. Subordinate unified commanders shall:
- (1) Integrate ESMRM into operational and exercise planning, and execution. Integrating ESMRM early in the planning process and in the execution phases enables commanders to accomplish their mission, and enhances mission effectiveness while minimizing exposure to the damaging consequences of munitions from accidental initiation or enemy fire.
  - (2) When delegated risk decision authority:
    - (a) Develop ERSMRM C&RI assessments for assigned areas of responsibility within the theater of operations.
    - (b) Review and take appropriate action on ESMRM C&RI assessments submitted for non-enduring locations within the theater of operations when the requirements of reference of (b) cannot be met.
- (3) Validate existing consequence acceptance decisions and information contained in the assessment during the review and exercise of OPLANs and CONPLANs, and when:
- (a) Changing conditions in the operational environment affect risks and consequences to or from munitions.
- (b) Changes of command necessitate a new commander accept existing consequences.
- (4) Ensure subordinate commanders comply with existing ESMRM policy.
- (5) In coordination with and as directed by the GCC, notify, as appropriate, affected U.S. and host nation government officials to ensure communication of the potential risk to host nation personnel or assets associated with DoD logistics operations involving military munitions. Communications with host nation government officials shall be made in coordination with the U.S. Embassy (Defense Attaché Office) or Department of State, as appropriate.
- (6) Provide all supporting ESMRM C&RI assessments documentation to the GCC.
- (7) Maintain or have access to all supporting ESMRM C&RI assessments documentation provided to the GCC.

(8) In coordination with and as directed by the GCC, keep the DoD GC informed on compliance with all international agreements in force for which they are responsible per reference (d).

# d. Joint Task Forces Commanders. JTF Commanders shall:

- (1) Integrate ESMRM into operational and exercise planning and execution. Integrating ESMRM early in the planning process and in the execution phases enables commanders to accomplish their mission and enhances mission effectiveness while minimizing exposure to the damaging consequences of munitions from accidental initiation or enemy fire.
  - (2) When delegated risk decision authority:
- (a) Develop ERSMRM C&RI assessments for assigned areas of responsibility within the theater of operations.
- (b) Review and take appropriate action on ESMRM C&RI assessments submitted for non-enduring locations within the theater of operations when the requirements of reference of (b) cannot be met.
- (3) Review and provide a recommendation to the appropriate decision authority on ESMRM C&RI assessments submitted for all non-enduring locations within the theater of operations when the requirements of reference (b) cannot be met.
- (4) Implement commander's consequence acceptance decisions based on ESMRM C&RI risk assessments for all operational locations, logistics nodes, and lines of communication for operation planning when the requirements of reference (b) cannot be met.
- (5) Provide all consequence-based decisions and supporting ESMRM C&RI assessments to the GCC or subordinate unified commanders as appropriate.
- (6) Maintain or have access to all supporting ESMRM C&RI assessments documentation provided to the GCC.
- (7) Ensure subordinate commanders comply with existing ESMRM policy.

## e. Joint Staff. Joint Staff shall:

(1) Assist the Military Services and Combatant Commands in resolving ESMRM issues.

- (2) Ensure, as appropriate, information requirements necessary to support ESMRM for operation planning are added to the Intelligence Task List for all current OPLANs and CONPLANs.
  - (3) Maintain this instruction in coordination with the DDESB.
- (4) Periodically provide implementation training for this instruction in coordination with the DDESB.
- (5) Review in concert with the DDESB all DoD publications to ensure ESMRM requirements are included.
  - (6) Conduct ESMRM review of orders prior to approval.
- f. <u>Service Component Commanders</u>. Service Component Commanders shall:
- (1) Coordinate or conduct ESMRM C&RI assessments at all S/APOD and S/APOE, and en route infrastructure support facilities as specified in operational and contingency plans to address risk from deviations from reference (b).
- (2) Integrate ESMRM into operational and exercise planning and execution. Integrating ESMRM early in the planning process and in the execution phases enables commanders to accomplish their mission and enhances mission effectiveness while minimizing exposure to the damaging consequences of munitions from accidental initiation.
- (a) Develop ESMRM C&RI assessments for assigned areas of responsibility within the theater of operations for operational locations that cannot meet the requirements of reference (b).
- (b) Assist Service base commanders and BOS-I in developing ESMRM C&RI assessments. When required, Service Component Commanders are encouraged to solicit support from their respective Military Services for assistance in performing ESMRM C&RI assessments.
- (c) Receive, review and provide a recommendation, on ESMRM C&RI assessments submitted for all non-enduring locations within the theater of operations when the requirements of reference (b) cannot be met.
- (3) Ensure subordinate commanders comply with existing ESMRM policy.

- (4) When reference (b) requirements can be met, develop and submit an explosives safety site plan for submission through the Military Service component chain of command to the DDESB.
- (5) Implement and maintain effective ESMRM procedures that comply with the requirements in reference (b) for all DoD activities that involve or have the potential to involve military munitions.
- (6) Maintain awareness of, and where appropriate, take action to eliminate or mitigate deviations from the requirements of reference (b).
- (7) Provide all supporting ESMRM C&RI assessments documentation to the GCC or subordinate unified commander, as appropriate.
- (8) Maintain or have access to all supporting ESMRM C&RI assessments documentation provided to the GCC.
- (9) Ensure commanders and BOS-Is comply with existing ESMRM policy.
- (10) Review for approval explosives safety event waivers for short term operations not to exceed 30 days.
  - g. <u>DDESB</u>. It is DoD policy that the DDESB shall:
    - (1) Assist the JCS J-4 to maintain this instruction.
- (2) In accordance with reference (c) integrate GCCs into the DoD Explosives Safety Management Programmatic Evaluation cycle.
- (3) When requested and in coordination with the component commander's supporting Military Service safety center, support strategic plan reviews, auditing, developing ESMRM C&RI assessments, and provide ESMRM advice.
- (4) When requested by the GCC, provide ESMRM training and/or assistance with the implementation of this instruction to the GCC or components.
- h. <u>Senior Designated Operational Commander</u>. The senior operational commander on a contingency base shall:
- (1) Communicate military munitions infrastructure support requirements and any explosives safety concerns to the contingency base commander.

- (2) When delegated decision making authority make consequence acceptance decision based on the ESMRM C&RI assessment and Service-specific Operational Risk Management procedures.
- (3) Forward ESMRM C&RI assessments, risk mitigation efforts, and consequence decision through the operational chain of command for action as appropriate.
- (4) Provide the effected installation or base commander supporting documents for ESMRM C&RI-based decisions.
- (5) Maintain or have access to all supporting ESMRM C&RI assessments documentation provided to the GCC.

# i. Contingency Location or Base Commander

- (1) Ensure that the BOS-I develops and submits explosives safety site plans for DDESB approval through the Service Component Commander for munitions operations that can meet ESMRM requirements in reference (b). If necessary, request explosives safety site plan development assistance through the supporting Service Component Commander.
- (2) Resolve munitions storage requirements and potential encroachment concerns during exercises and operational mission execution.
- (3) Deconflict all tenant (e.g. U.S., multinational forces, coalition partners) munitions operations requirements to ensure adherence to existing approvals and conditions. If existing approvals and assessment conditions cannot be met due to operationally required changes, develop and submit for approval modified explosives safety site plans or a request for an ESMRM C&RI assessment.
- (4) Ensure that the BOS-I performs an ESMRM C&RI assessment for munitions operations that cannot meet the requirements of reference (b). If necessary, request a ESMRM C&RI assessment through the supporting Service Component Commander.
- (a) The supporting Military Service's operational risk management process will be used by the BOS-I or agent performing the ESMRM C&RI assessment to determine the hazard severity of the potential consequences.
- (b) In all cases, both the ESMRM C&RI assessments and the derived qualitative measure (e.g. ASAP-X) used to identify the hazard severity determinations will be forwarded through the operational chain of command as

A-9 Enclosure A

a single package to help ensure that potential consequences and mitigating strategies are effectively communicated.

- (5) Forward ESMRM C&RI assessments, risk mitigation efforts, and consequence decision through the operational chain of command for action as appropriate.
- (6) Comply with the conditions contained in explosives safety site approvals. Approved explosives safety site plans shall be incorporated into the applicable master plan. If mission requirements later necessitate a deviation to an approved explosives safety site plan, perform an ESMRM C&RI assessment and either:
- (a) Submit an explosives safety site plan amendment to the approved explosives safety site plan if standards in reference (b) can be met or
- (b) Conduct, or request support to conduct, an ESMRM C&RI assessment if standards in reference (b) cannot be met.
- (7) Comply with the conditions in ESMRM C&RI assessments for approved munitions-related operations. Risk and consequence reduction conditions shall be incorporated into the master plan.
- (8) Integrate the approved ESMRM explosives safety site plan and consequence acceptance decision conditions into master plans and monitor compliance with those terms and conditions.
- (9) Maintain or have access to all supporting ESMRM C&RI assessments documentation for the location under their purview provided to the GCC.
- j. <u>Base Operating Support Integrator</u>. When delegated BOS-I responsibilities by the contingency base commander, the BOS-I shall:
- (1) Identify munitions space requirements and potential encroachment issues during exercises and operational mission execution to the base commander for resolution.
- (2) Develop and submit explosives safety site plans for DDESB approval through the Service Component Commander for munitions operations that can meet ESMRM requirements in reference (b).
- (3) Conduct an ESMRM C&RI assessment for munitions operations that cannot meet the requirements in reference (b). If necessary, request a ESMRM C&RI assessment through the supporting Service Component Commander.

- (4) Forward ESMRM C&RI assessments and proposed risk mitigation efforts to the base commander for action.
- (5) Comply with conditions contained in explosives safety site approvals. Approved explosives safety site plans shall be incorporated into the master plan. If mission requirements later necessitate a deviation to an approved explosives safety site plan, perform an ESMRM assessment and either:
- (a) Submit an explosives safety site plan amendment to the approved site plan if standards in reference (b) can be met or
- (b) Conduct, or request support to conduct, an ESMRM C&RI assessment if standards in reference (b) cannot be met.
- (6) Adhere to risk and consequence reduction conditions in ESMRM C&RI assessments for approved munitions operations. Risk and consequence reduction conditions shall be incorporated into the master plan.
- (7) Maintain or have access to all approved site plans and supporting ESMRM C&RI assessments documentation for the location under their purview.
  - (8) Validate existing consequence acceptance decisions when:
- a. Changing conditions in the operational environment affect risks and consequences to or from munitions.
- b. Change of command necessitates that a new commander accepts existing potential consequences.

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### **ENCLOSURE B**

# EXPLOSIVES SAFETY AND MUNITIONS RISK MANAGEMENT SITE PLANNING PROCESS

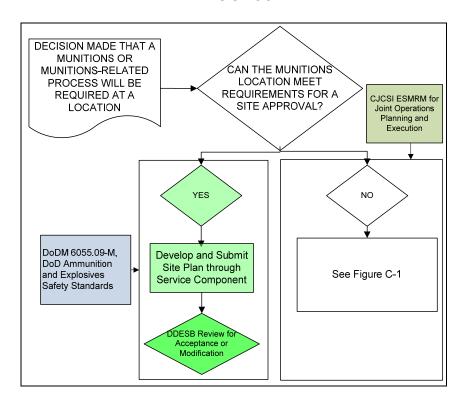


Figure B - 1. Explosives Safety Site Planning Process Decision Matrix (Locations that can meet requirements)

- 1. <u>Background</u>. Requests for approval will go through the Service Component and Military Department chain of command to the DDESB. Figure B-1 provides a graphic description of the process contained in this enclosure.
- 2. <u>Applicability</u>. This enclosure applies to all locations that can meet the requirements of reference (b). The ESMRM explosives safety site planning process is based on reference (b). Reference (b) is applicable to all DoD Components and all DoD operations, activities, and installations worldwide and is designed to:
- a. Manage the potential risks associated with military munitions and other encumbering explosives or munitions.
- b. Provide the minimum requirements for protecting against loss of life or serious injury and damage to property or the environment.

- 3. <u>Purpose of ESMRM Explosives Safety Site Planning Process</u>. The ESMRM explosives safety site planning process includes conducting and documenting a comprehensive assessment of existing and future potential explosion sites (PES) as well as existing and future exposed sites (ES) that is documented.
- a. PES include facilities or logistics operations involving DoD military munitions (also at times referred to as ordnance or ammunition and explosives (AE)) regardless of location, and non-DoD AE when located on a DoD installation or when encumbering DoD AE. ES may be AE-related, non-AE-related, or PES.
- b. Effective explosives safety site planning consists of evaluating PES and ES with respect to reference (b) and DoD Component explosives safety requirements, and incorporates risk management, mission criticality, operational, economic, and security considerations as well as environmental and legal criteria to meet the DoD Component's mission policies, goals, and objectives.
- 4. <u>Required Explosives Safety Submissions (often referred to as site plans)</u>. Per reference (e), required explosives safety submissions (RESS) must be submitted to the DDESB for final review and approval for:
  - a. New construction of AE facilities.
- b. New construction of non-AE related facilities within Quantity-Distance (QD) arcs.
- c. Facility modifications, change of mission, or change of operations that increase explosive hazard, (e.g., personnel exposures, Net Explosive Weight (NEW), change in hazard division (HD), nature of operation).
- d. Change of use of non-AE related facilities that require application of more stringent explosives safety criteria. (For example, an airfield restricted to DoD use only, changed to joint DoD and non-DoD use).
- e. Stability, Peace and Contingency Operations, and associated training locations that have been determined to be permanent (i.e., AE-related facilities where logistics operations are expected to continue for more than 12 months) or recurrent (i.e., AE-related facilities where logistics operations are expected to occur on a periodic basis regardless of the duration of the operation).
- 5. <u>Five Categories of Required Explosives Safety Submissions (RESS)</u>. The five categories are:
- a. <u>QD Safety Submission</u>. The QD safety submissions (i.e., Explosives Site Plan and Chemical Agent Site Plan) involve evaluating the spatial relationships

between potential explosion sites (PESs) and exposed sites (ESs) based on the deterministic QD criteria of Reference (b) for exposure, placement, and construction of the PESs and ESs. Application of the QD criteria, which are based on tests, modeling, and criteria established for other risks (e.g., air travel), provide an acceptable level of risk that is equal to or less than the qualitative threshold established by the DDESB; however, it does not provide for risk-free protection. Reference (b) defines circumstances under which QD safety submissions must be submitted to the DDESB, as well as the required content of safety submissions.

- b. <u>Munitions Response Chemical Safety Submissions (MRCSS)</u>. An MRCSS (formerly a chemical safety submission, or CSS) addresses the potential effects of an inadvertent release of chemical agent from a chemical munition or from a configuration that is not a munition during munitions response activities (e.g., intrusive field work). Involves either the intentional physical contact with Munitions and Explosives of Concern (MEC) (i.e., chemical munitions) or chemical agents in other than munitions configurations, or the conduct of ground disturbing or other intrusive activities in areas known or suspected to contain MEC or chemical agents in other than munitions configurations. When explosive hazards are known or suspected to exist along with chemical agent hazards within a response area (e.g., the munitions response area (MRA) or munitions response site), a submission that addresses both explosives and chemical agent safety is required.
- c. <u>Munitions Response Explosives Safety Submissions (MRESS)</u>. An MRESS (formerly explosives safety submission, or ESS) addresses explosives safety requirements for munitions responses (e.g., field activities) that involve either the intentional physical contact with MEC or conducting ground-disturbing or other intrusive activities in areas known or suspected to contain MEC.
- d. <u>Risk-Based Safety Submissions (RBSS)</u>. An RBSS addresses ESs and PESs that cannot meet the deterministic QD criteria, but meet DDESB-approved, risk-based siting acceptance criteria in Reference (b). These safety submissions are evaluated using a Quantitative Risk Assessment (QRA) tool such as Safety Assessment for Explosives Risk (commonly known as SAFER) or an equivalent DDESB-approved QRA tool.
- e. <u>Hybrid Safety Submissions (HSS)</u>. An HSS addresses facilities and operations that may not conform to deterministic QD criteria of reference (b) or risk-based criteria. Once a DoD Component accepts the explosives or chemical agent safety risk for the nonconforming part of an HSS, the HSS is forwarded to the DDESB for approval of the conforming portion. The DDESB staff may review and comment on the characterization of the nonconforming portion, but will generally not take a position on the acceptability of the explosives or

chemical agent safety risk or the approval of the deviation. HSS may also include a DoD Component's submission of a plan (e.g., for implosion of buildings) that may or may not meet established criteria or for which criteria may not exist, but for which the DoD Component wants a DDESB staff technical review for either approval or recommendations for mitigation of potential explosive or chemical agent hazards.

6. <u>Deviations</u>. When strategic or compelling operational requirements necessitate deviation from reference (b), and required explosives safety submissions cannot be done, the GCC or delegated commander, shall perform risk assessments in accordance with Enclosure C and submit in accordance with Enclosure A.

# ENCLOSURE C

# EXPLOSIVES SAFETY AND MUNITIONS RISK MANAGEMENT CONSEQUENCE AND RISK IDENTIFICATION ASSESSMENT

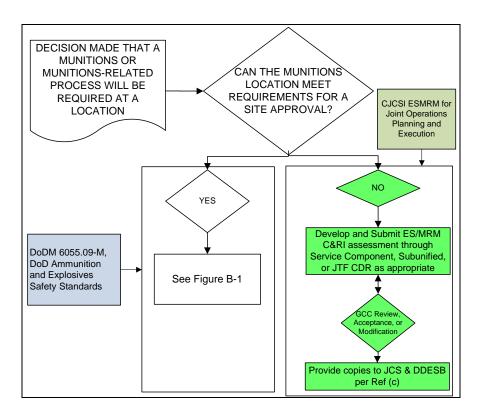


Figure C - 1. Site Planning Process Decision Matrix (Locations that cannot meet requirements)

- 1. <u>Background</u>. There are a number of situations where military munitions are handled, assembled, tested, and store where explosives safety criteria as expressed in reference (b) cannot be met. Accordingly, a process for addressing those situations has been developed for use by the GCCs and the subordinate commanders. Figure C-1 provides a graphic illustration of the process described in this enclosure.
- a. ESMRM C&RI assessments will enable informed operational risk decisions to be made based on the potential consequence associated with an explosives incident. The identified hazard severity or risk assessment codes will determine the level within the chain of command that can approve the deviation from the standards of reference (b).

- b. Acceptance of potential military munitions-related consequences requires GCC approval unless the GCC delegates consequence acceptance to a subordinate commander as appropriate. High or greater consequences will always be accepted by a General or Flag Officer in the operational chain of command.
- c. In all cases, both the ESMRM C&RI assessments and the derived qualitative measure used to identify the risk and consequences will be forwarded up the chain of command as a single package to ensure that potential consequences and mitigating strategies are effectively communicated throughout the chain of command.
- 2. <u>Applicability</u>. This enclosure applies to locations that cannot meet the siting requirements of reference (b).
- 3. <u>Purpose</u>. The purpose of this enclosure is to:
- a. Establish the standardized and repeatable process for performing an ESMRM C&RI assessment. The primary focus of the ESMRM C&RI assessment is to identify risks and consequences to and from munitions and munitions-related activities when deviating from reference (b).
- b. Identify risks and consequences to and from munitions at locations where munitions are or are forecasted to be present to the appropriate level within the chain of command for consequence acceptance decisions.
- 4. <u>Assessment Maintenance and Update Frequency</u>. Strategic, operational, and tactical environments are dynamic and fluid; therefore ESMRM C&RI assessments should be maintained and updated to ensure their currency since the supporting information is likely to change over time resulting in outdated recommendations. An ESMRM C&RI assessment will be re-evaluated to determine if the conditions have changed that may require re-assessment for consequence acceptance when one of the following occurs:
- a. For strategic locations (e.g. S/APOD and S/APOE) identified in operational plans and the U.S. Transportation Command En-Route Infrastructure Management Plan:
  - (1) 24 months has passed since last assessment.
  - (2) GCC change of command.
  - (3) OPLAN or CONPLAN changes occur.
- (4) Changes in risk from munitions at a specific location that affects personnel, equipment, or infrastructure.

- b. For non-enduring locations ESMRM C&RI assessments shall be resubmitted for consequence acceptance when one of the following occurs:
  - (1) 24 months has passed since last assessment.
  - (2) BOS-I or the contingency base commander change command.
- (3) Significant changes at a specific location occur that affect personnel, equipment, or infrastructure.
- 5. <u>ESMRM C&RI Assessment Process</u>. Successfully performing an assessment requires performing nine discrete steps illustrated in Figure C-2 below.

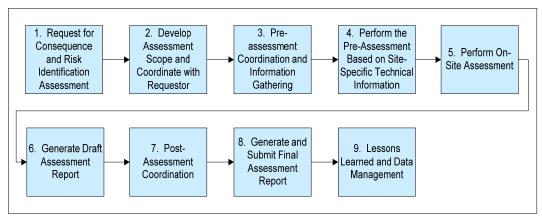


Figure C - 2. ESMRM C&RI Process Flow

6. <u>Methodology</u>. The ESMRM C&RI assessment is based on a variety of tools which may include quantity-distance (Q-D) and risk-based tools, observations, interviews, information gathered before and during the assessment, as well as analysis and use of applicable DoD and DoD Component issuances. The methodologies used in each ESMRM C&RI assessment will be identified in both the draft and final assessment reports.

# 7. Steps in the ESMRM C&RI Process

- a. <u>Step 1: Request for ESMRM C&RI Assessment</u>. The BOS-I through the base commander or senior designated operational commander will initiate a request for an ESMRM C&RI assessment of the non-enduring locations through the Military Service component.
  - b. Step 2: Develop Assessment Scope and Coordinate with Requestor
- (1) <u>Content</u>. Before beginning an ESMRM C&RI assessment, a documented and agreed upon scope should include, at a minimum:

- (a) Scope content agreement and signature page with both the requestor and assessment team lead signatures to ensure understanding and to manage process and output expectations.
  - (b) Assessment location and LOC.
  - (c) Assessment approach and methodology.
  - (d) Assessment team composition.
  - (e) Timelines (assessment and deliverables).
  - (f) Deliverables (report and briefs).
  - (g) Any required follow-on actions.
- (2) <u>Modifications</u>. Recognizing the reality and dynamic nature of assessments, as well as the conditions at locations identified in the scope, the scope may require modification to assess and develop a comprehensive final report.
- (a) All modifications to the scope should be documented for complete understanding and become part of the report.
- (b) Both the requestor and the assessment team lead shall agree to all modifications; either party can initiate a modification.
- (3) <u>Assessment Team Composition</u>. The assessment team lead will assemble a team based on the type of assessment requested and the location. Team members may include (but are not limited to) representatives from:
  - (a) Department of Defense Explosives Safety Board.
  - (b) Military Service Explosives Safety Center.
  - (c) Surface Deployment and Distribution Command.
- (d) Supporting engineering command (e.g., Naval Facilities Engineering Command (NAVFAC), throughput assessors and engineers, Army Corps of Engineers (COE)).
  - (e) Military Service Expeditionary Support Team.
  - (f) Defense Threat Reduction Agency.
  - (g) U.S. Defense Attaché Office.

- (h) Air Mobility Command.
- (i) Military Sealift Command

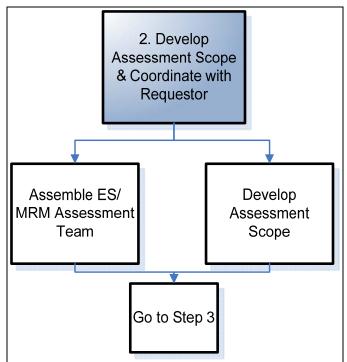


Figure C - 3. Step 2 in ESMRM C&RI Process: Develop Assessment Scope and Coordinate with Requestor

- c. <u>Step 3: Pre-Assessment Coordination and Information Gathering</u>. The purpose of this step is to acquire necessary information, making necessary advance arrangements and coordination in preparation of performing the assessment. This step requires addressing logistics requirements.
  - (1) Travel to the assessment location.
- (2) Gather and review site-specific technical information. Site-specific technical information may include:
  - (a) Existing site plans.
- (b) Existing deviations, ESMRM C&RI assessments and consequence acceptance documents.
  - (c) Operations plan details and supporting information.
- (d) Relevant concept of operations for exercise or other military operation.

- (e) Maps and overhead imagery.
- (f) Supporting infrastructure relating to munitions and munitions processes.
  - (g) Status of forces agreements.
  - (h) International agreements.
  - (i) Host nation munitions and munitions processes information.
  - (j) Local host nation logistic node laws and regulations.
  - (k) Allied Ammunition Storage and Transport Publication-5 Section 4.
  - (l) Host nation explosives safety laws, limitations, and regulations.
  - (m) Exposures (e.g. population density, vehicles, infrastructure).
  - (n) Coordination with external organizations.
  - (3) Ensure that logistics requirements are met. These may include:
    - (a) Medical (e.g., vaccinations, certificates).
    - (b) Country clearance.
    - (c) Personal protective equipment.
    - (d) Transportation and hotel/housing.
    - (e) Advance notifications.
    - (f) Applicable restrictions and limiting factors.
    - (g) Host nation and local requirements.
    - (h) Political conditions (country brief).
- (i) Training (e.g., antiterrorism/force protection and combatant command-specific).
- (j) Equipment critical to mission success (e.g., Global Positioning System, camera, laptop computer, range finder, communications equipment).
  - (k) Personal security clearance (JPAS) information as required.
  - (4) Coordination with external organizations (as required).

- (a) Combatant Command.
- (b) DDESB.
- (c) Military Service components.
- (d) U.S. Transportation Command staff (to include appropriate components).
- (e) Military Service explosives safety centers (i.e., U.S. Army Technical Center for Explosives Safety, Navy Ordnance Safety and Security Activity, Air Force Safety Center, Marine Corps Systems Command Code 403).
  - (f) Supporting engineering activity (e.g., NAVFAC, COE, SDDC).
  - (g) State Department.
  - (h) Military attaché.
  - (i) Defense Intelligence Agency.
  - (i) Joint Staff J2/3/4/5/7.
  - (k) National Geospatial-Intelligence Agency.
  - (1) Military Service component expeditionary support team.
  - (m) Host nation support.

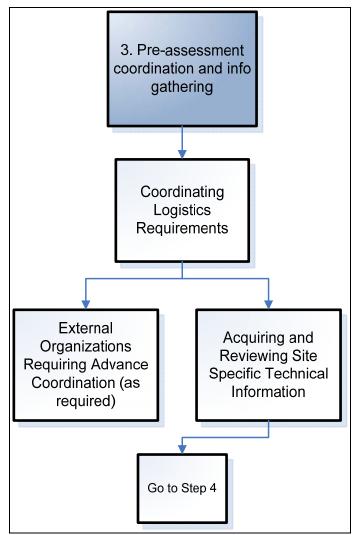


Figure C - 4. Step 3 in ESMRM C&RI Process: Pre-Assessment Coordination and Information Gathering

d. <u>Step 4: Performing the Pre-Assessment Based on Site-Specific Technical Information</u>. The information from Step 4 should be analyzed to determine the munitions and munitions-related process risks in preparation for the on-site assessment.

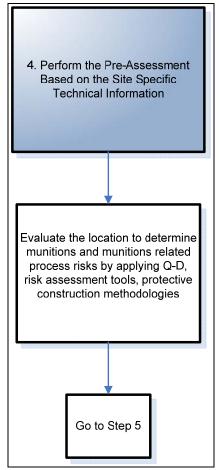


Figure C - 5. Step 4 in ESMRM C&RI Process: Performing the Pre-Assessment Based on Site-Specific Technical Information

- e. <u>Step 5: Performing the On-Site Assessment</u>. Assessing S/APOD and S/APOE and non-enduring locations within a Combatant Command's AOR enables the assessment team to assess LOC as a single system with respect to the mission, vulnerabilities, and hazards to operations. Typically, LOC include, but are not limited to, seaports of embarkation, seaports of debarkation, airports of embarkation, airports of debarkation, railheads, and roads.
- (1) After completing Step 4, the team will perform the required assessment on-site. The team will assess LOC that support munitions and munitions-related processes within a predetermined distance (no less than inhabited building distance) as part of the ESMRM C&RI assessment process to develop recommendations and possible solutions to manage those risks.
- (2) On-Site information gathering. During this step, the assessment team will assess locations and LOC identified in the scope to identify the consequences and risks to and from munitions and munitions-related processes. The assessment team will consider and assess a variety of

processes and supporting infrastructure in proximity to the munitions and munitions-related processes.

- (a) The following information should be considered:
- <u>1.</u> Reception, staging, onward movement and integration (RSO&I), and required equipment (e.g., heavy equipment transports).
- <u>2.</u> Supporting equipment necessary to enable the offload of containerized munitions (e.g., cranes, material handling equipment).
- 3. Tactical assembly areas and large gun siting/checkout areas as part of RSO&I.
  - <u>4.</u> Supporting munitions-enabling infrastructure.
- <u>5.</u> Roads for munitions transport to include width assessment based on the type of vehicles used.
  - 6. Storage pads/area.
- $\underline{7.}$  Surface transportation routes of ingress/egress (e.g., rail or road).
  - 8. Availability of emergency response equipment.
- <u>9.</u> Location and information on potential ES such as facilities, hospitals, schools, and houses.
  - 10. Location of hazardous materials.
  - 11. Commercial operations.
- <u>12.</u> Placement of utilities (e.g., gas pipes, power stations, electrical lines).
  - 13. Clear zones around unloading and loading points.
  - 14. Location of critical communications equipment.
- <u>15.</u> Impact of munitions and munitions-related processes on the rest of the mission.
  - 16. Ability to access the unloading and loading points.
  - <u>17.</u> Lightning protection systems.
- 18. Risks to munitions and munitions-related processes. (e.g. liquefied natural gas or bulk fuels facilities).

- 19. Ability to throughput multiple missions at a single location.
- (b) A preliminary on-site out brief will be generated. The assessment team will provide a preliminary on-site out brief of the recommendations to the appropriate commander. Emphasis must be placed on the preliminary aspect since the assessment team will need to develop the draft report and finalize it before final recommendations can be provided.

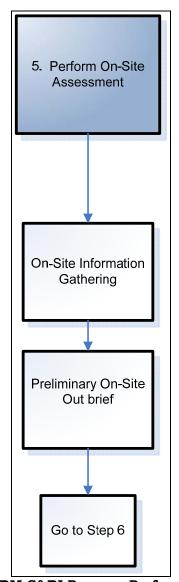


Figure C - 6. Step 5 in ESMRM C&RI Process: Performing the On-Site Assessment

f. <u>Step 6: Generate Draft Assessment Report</u>. After completing the preassessment and on-site assessment (if required), the assessment team lead will, in coordination with assessment team members, develop a draft report.

- (1) Report Contents.
  - (a) Executive summary.
  - (b) Purpose.
  - (c) Scope (with signatures and modifications).
- (d) Methodology used to assess the strategic location and determine munitions and munitions-related process risks (e.g., Q-D, risk assessment tools, protective construction methodologies).
- (e) Explosives safety technical information (e.g., site plans, deviations, exposures).
  - (f) Identification of munitions and munitions-related processes.
- (g) Infrastructure analysis based on risk to and from munitions and munitions-related processes.
- (h) Overall risks to and from munitions and munitions-related processes.
- (i) Recommendations for mitigating military munitions risks to protect people, property, and the environment, while sustaining and maximizing operational capabilities and readiness.
  - (i) Additional information as required.
- (2) Timelines for Developing the Assessment Report. The draft assessment report shall be generated within 10 days of returning from the assessment and provided to team members for review and comment. The draft report will be returned to the BOS-I for execution assessments within 30 days and 90 days for planning assessments.
- (a) Comment Adjudication. The team lead shall provide the Document Comment Resolution Matrix found below in Table C-1 to the requestor and team members. All comments will be captured, submitted, and adjudicated using this matrix.
- (b) Timelines for Developing the Final Assessment Report. The final assessment report shall be provided to the requestor after adjudicating all comments.

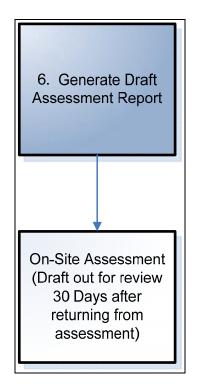


Figure C - 7. Step 6 in ESMRM C&RI Process: Generate Draft Assessment Report

Name: Organization:							Phone:	
#	Staff	Туре	Page	Para	Line	Comments	Rationale	Adjudication Decision

#### Type

- Critical Comments are such that you will recommend nonconcurrence on the final if not incorporated. You must provide convincing support for such nonconcurrence in the Rationale section.
- Substantive Comments will not necessarily justify a nonoccurrence if not incorporated.
- Administrative Comments are those that require consideration.

Page. Page numbers are expressed in decimal form using this format, Page I-2 = 1.02, enabling proper sorting of consolidated comments.

Paragraph. Paragraph number that pertains to the comment expressed (e.g., 4a, 6g).

Line. Line number on the designated page that pertains to the comment, expressed in decimal form (e.g., line 1=1, line 4-5 = 4.5, line 45-67 = 45.67).

- For figures where there is no line number, use "F" with the figure number expressed in decimal form (i.e., figure II-2 as line number F2.02).
- For appendices, use the "F" and the appendix letter with the figure number (e.g., Appendix D, Figure 13 as line number FD.13; Appendix C, Annex A, Figure 7 as line number FCA.07)

Comment. Provide comments using line-in-line-out format. To facilitate adjudication of comments, copy and insert complete sentences into the matrix. This makes it unnecessary to refer back to the publication to understand the rationale for the change. Do not use Tools/Track Changes mode to edit the comments in the matrix. Include deleted material in the comment in the strikethrough mode. Add material in the comment with underlining. Do not combine separate comments into one long comment in the matrix, (i.e., five comments rolled up into one).

Rationale. Provide concise, objective explanation of the rationale for the comment.

#### Adjudication Decision

- A Accept
- R Reject (Rationale required for rejection)
- M Accept with modification (Rationale required for modification)

**Table C-1. Document Comment Resolution Matrix** 

- g. <u>Step 7: Post-Assessment Coordination</u>. Completing this step ensures the report is technically accurate and that the requestor understands the recommendations and coordination is accomplished prior to publishing the final report. Coordination should address to whom and when the report out brief will be presented.
- h. <u>Step 8: Generate and Submit Final Assessment Report</u>. This step provides the assessment report to the requestor with current information and recommendations to make munitions-related consequence-based decisions.
- (1) Final Briefs. The assessment team will develop the final brief and coordinate any required final briefs in conjunction with developing the report. Final briefs will be provided by the assessment team lead and members agreed to in the scope.
- (2) Final Report. The assessing organization will provide the final report to the requestor and may brief recommendations as defined in the scope.
  - (3) Follow-On Actions. As required.

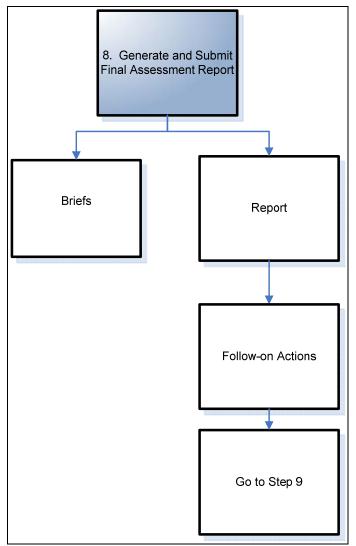


Figure C - 8. Step 8 in ESMRM C&RI Process: Generate and Submit Final Assessment Report

i. Step 9: Lessons Learned and Information Management. This step improves the assessment process by capturing and leveraging lessons learned, as well as effectively managing and maintaining the data from the assessments process. Assessment information and the consequence based decision should be provided to the Combatant Commander planners for integration into plans, training exercises, and operational documents.

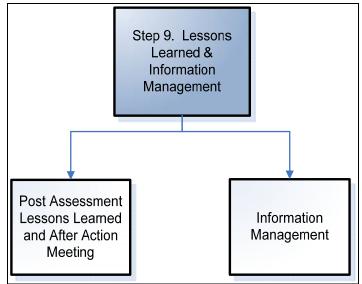


Figure C - 9. Step 9 in ESMRM C&RI Process: Lessons Learned and Information Management

#### ENCLOSURE D

### REFERENCES

- a. Joint Publication 1-02, "Department of Defense Dictionary of Military and Associated Terms, 8 November 2010 (As Amended Through 15 August 2011)"
- b. DoDM 6055.09-M, "DoD Ammunition and Explosives Safety Standards," 4 August 2010
- c. DoDD 6055.9E, "Explosives Safety Management and the DoD Explosives Safety Board," 19 August 2005
- d. DoDD 5530.3, "International Agreements," June 11, 1987 (certified current as of 21 November 2003)
- e. DoDI 6055.16, "Explosives Safety Management Program", 29 July 2008

# Other Relevant Doctrinal / Instructional Documents

Title 10, United States Code, Chapter 6, Section 164 (Commanders of Combatant Commands: assignment, powers and duties)

Title 10, United States Code, Chapter 7, Section 172 (Ammunition Storage Board)

DoDD 4715.1E, Environment, Safety, and Occupational Health (ESOH), 19 March 2005

DoDD 5158.04, "United States Transportation Command (USTRANSCOM)", 27 July 2007

DoD 4140.1R, "DoD Supply Chain Materiel Management Regulation," 23 May 2003

DoD Instruction 6055.16, "Explosives Safety Management Program," 29 July 2008

CJCSM 3122.01A, "Joint Operation Planning and Execution System (JOPES) Volume I (Planning Policies and Procedures)," 7 December 2007

CJCSM 3314.01, "Intelligence Planning," 28 February 2008

CJCSI 3100.01B, "Joint Strategic Planning System", 12 December 2008

CJCSI 3110.03 Series, "Logistics Supplement to the Joint Strategic Capabilities Plan (JSCP) FY 2005 (U)" (Current as of 9 May 2007)

CJCSI 3141.01D, "Management and Review of Campaign and Contingency Plans," 24 April 2008

CJSCI 4310.01C, "Logistics Planning Guidance for Global Pre-Positioned Material Capabilities," 30 July 2009

Joint Publication 2-0, "Joint Intelligence," 22 June 2007

Joint Publication 3-0, "Joint Operations," 11 August 2011

Joint Publication 3-10, "Joint Security Operations in Theater," 30 June 2011

Joint Publication 3-34, "Joint Engineer Operations," 12 February 2007

Joint Publication 4-0, "Joint Logistics," 18 July 2008

Joint Publication 4-01, "Joint Doctrine for Defense Transportation System," 19 March 2003

Joint Publication 5-0, "Joint Operation Planning," 11 August 2011

### ENCLOSURE E

### **GLOSSARY**

Unless otherwise stated, the terms and definitions contained in this glossary are for the purposes of this instruction only.

**base operating support integrator** — The individual assigned to provide facilities-based infrastructure support at non-enduring locations (contingency bases) in a GCC's area of responsibility or enduring locations under the responsibility of the Military Departments. Also called **BOS-I**.

**combat operating base** — A non-enduring temporary operating location directly involved in combat operations where operations do not last more than 365 days and involve 50, but not more than 100, U.S. military personnel. Also called **COB**.

**combat outpost** — A non-enduring temporary operating location directly involved in combat operations where operations do not last more than 365 days and involve 49 or less U.S. military personnel. Also called **COP**.

**en route infrastructure** – the fundamental structures and systems required for the employment of both organic and commercial strategic lift capability.

**explosives safety munitions risk management** - 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. Also called **ESMRM**.

**high or greater consequences** – consequences or hazard severity typically found in the upper tiers of the Military Services' Operational Risk Management risk matrices.

**United States** – Includes the land area, internal waters, territorial sea, and airspace of the United States, including: (a) U. S. territories; and (b) other areas over which the U. S. Government has complete jurisdiction and control or has exclusive authority or defense responsibility.

(JP 1-02. SOURCE: JP 1)

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