Army Civilian Corps Creed

I am an Army civilian—a member of the Army team.

I am dedicated to our Army, our Soldiers and civilians.

I will always support the mission.

I provide stability and continuity during war and peace.

I support and defend the Constitution of the United States and consider it an honor to serve our nation and our Army.

I live the Army values of loyalty, duty, respect, selfless service, honor, integrity, and personal courage.

I am an Army civilian.

ARMY SAFE
IS ARMY STRONG!
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Foreword

The catastrophic nature of explosives accidents and the need to remain vigilant makes it imperative that the Army implement a comprehensive and effective explosives safety management program. Leaders at every level and of every rank are responsible for safety. Soldiers, civilians, and DoD contractors are responsible for proactively implementing their command’s safety programs and for safely conducting the tasks they are assigned.

Safety professionals have a direct responsibility for supporting and continuously working to improve the Army’s explosives safety management program. Explosives safety professionals are an integral component of the Army Safety Program and the Army’s strategy for sustaining the Force, enhancing readiness, and preventing the loss resources on which the Army relies.

The explosives safety professional provides commanders an invaluable and indispensable asset. Safety professionals help commanders establish and maintain a positive safety culture focused on protecting both DoD personnel and assets and the public and public assets by preventing accidents and mitigating their effects. These professionals create and execute programs that outline organizational relationships and responsibilities for managing explosives safety, detecting and mitigating explosives risks, and ensuring compliance with explosives safety standards—standards that all too often were written in blood.

One of the most challenging duties of safety professionals is managing the safety of ammunition and explosives (AE) (also referred to as DoD military munitions) throughout their life cycle (i.e., from procurement to their final disposition. The efforts of these professional helps ensure the readiness of our warfighters and their ability to deliver lethality to the enemy while minimizing inherent risks. Safety professionals have the responsibility to ensure AE are developed, transported, handled, stored, used, and disposed of in a safe manner. The successful accomplishment of these functions requires dedicated, experienced professionals who possess highly specialized knowledge and abilities, effectively use explosives safety risk management tools, and readily accessible data and information.

Just as AE activities are integral to the Army mission, safety professionals are a vital part of the commander’s explosives safety management program. Commanders should ensure their explosives safety professionals are trained and certified commensurate with their job responsibilities, as outlined in this guide, and that they supply the appropriate level of expertise and support.

Timothy J. Daugherty

Brigadier General,
Director of Army Safety
and Commanding General U.S. Army Combat Readiness Center (USACRC)
I. Explosives Safety and the Role of the Safety Professional

As part of the profession of arms, Career Program-12 (CP-12) safety professionals furnish guidance and support for ammunition and explosives functions on a routine basis. Their responsibilities include safety functions associated with ammunition and explosives use, storage, transportation, production, surveillance, maintenance, research, testing, munition responses, demilitarization, and disposal. Career Program-12 professionals are critical in fulfilling their roles as the focal point for the commander’s explosives safety management plan.

When Army personnel use ammunition and explosives during live-fire training and testing or operational missions, specially trained Department of the Army Career Program (CP)12 civilian safety professionals assist commanders by ensuring explosives safety compliance and risk management are integrated into mission planning and execution. CP-12 career fields supporting explosives safety compliance and programs include explosives safety specialist (0017), safety and occupational health specialist (0018), and safety engineer (0803). These safety professionals monitor AE-related operations to ensure adequate controls, including mitigation measures are in place, and assist with the investigation of explosive mishaps or incidents. The functions these professionals perform are complex due to the large number and technical nature of explosives safety requirements.

Explosives safety responsibilities include preparing, staffing or reviewing the command’s Explosives Safety Management Program (ESMP) and Department of Defense Explosives Safety Board required explosives safety submissions; submitting explosives licenses; preparing waivers and exemptions; reviewing Deviation Approval and Risk Acceptance (DA Form 7632) documents; monitoring AE operations, including loading and unloading operations; and advising commanders on explosives safety-related matters. Safety professionals also participate in master planning and construction design reviews for AE operating facilities and the planned construction of other sites that may be exposed to the hazards associated with AE. Additionally, they must ensure safety inspections are conducted as required.

For some operations, safety professionals must provide leadership with even higher levels of explosives safety support. Specific examples include supporting munitions production, conducting radiographic surveillance and research, development, testing and evaluation of AE; supporting operational range clearance activities and the cleanup of AE on munitions response sites; overseeing the demilitarization or destruction of AE, including chemical munitions. For such AE missions, safety professionals perform critical reviews of risk assessments and standing operating procedures (SOPs). They also closely monitor compliance with explosives safety quantity-distance (ESQD) requirements and ensure plans and protective construction designs are appropriately reviewed. DoD-required explosives safety submissions are needed for these operations, and safety personnel should participate in their development and coordination. As with every hazardous operation, emergency preparedness is another important function in which CP-12 professionals have an essential role.

Explosives safety is a vital part of the Army’s Safety Program and a core competency of CP-12 safety and occupational health professionals. Across the Army, CP-12 professionals are responsible for supplying commanders with a wide range of explosives safety support. These professionals are key to the successful accomplishment of the Army’s worldwide mission. (See Appendix B for deployment considerations for Explosives Safety Professionals.)
As the senior individual responsible for explosives safety, commanders must perform the following:

• Establish an Explosives Safety Management Program (ESMP) (see Appendix A for requirements).

• Appoint a qualified safety manager as the point of contact for every aspect of the command's ESMP.

• Ensure personnel who initiate or review planned deviations from explosives safety criteria are qualified to provide the commander with the information needed to make an informed decision regarding mitigation measures and risk acceptance.

• Ensure budgets for operations, required training, and planned construction are adequate to implement ESMP requirements and mitigate hazards per Army Regulation (AR) 385-10.

• Ensure supervisory and non-supervisory military and civilian personnel complete required explosives safety training including periodic refresher training appropriate for their assigned duties. (See Figure 1-1, DA Pam 385-64.) Such training includes explosives risk management training for those responsible for the development and review of deviations and risk assessments.

• Ensure procedures are developed and implemented to require personnel responsible for managing AE to ensure supporting fire departments are provided current information on the type and location of AE in storage.

• Ensure the command’s ESMP addresses emergency response procedures to include procedures for command and control, evacuation of non-essential personnel, and communication between the on-site commander, first responders, and munitions managers.

• Ensure AE are stored only in approved storage locations and that the net explosives weight (NEW) stored does not exceed the NEW authorized.

• Maintain awareness of the ESMP’s posture and of explosives safety deviations, with medium or higher residual risk and duration greater than 60 days, through periodic briefings from the safety manager.
Rows of 55mm Base Burn Dual Purpose Improved Conventional Munitions rounds wait to be loaded into M109A6 Paladin self-propelled howitzers and M992 Field Artillery Support Vehicles.
III. What Commands Should Expect from CP-12 Explosives Safety Professionals

Explosives safety responsibilities for CP-12 safety and occupational health professionals include:

- Develop and manage the command’s ESMP, provide advice on AE safety and risk management.
- Ensure compliance with applicable federal, DoD, and Army explosives safety policies.
- Serve as the point of contact for ESMP-related operations and matters, including coordinating requirements with tenant unit commanders.
- Prepare, staff, and submit DDESJ-require explosives safety submissions, explosives licenses, deviation and risk acceptance requests; review Deviation Approval and Risk Acceptance (DA Form 7632) and related documents for completeness, including the identification and accuracy of mitigation measures, prior to forwarding them for approval; and maintain a list of approved explosives safety deviations and advise incoming commanders of plans for correcting situations necessitating a deviation.
- Ensure every potential explosion sites and exposed sites, both military and civilian, are indicated on approved explosives safety site plans and submissions.
- Ensure qualified personnel review plans and protective construction designs for AE operating facilities (e.g., manufacture, testing, storage) and engineering controls to be used during munitions response and other actions for compliance with applicable explosives safety standards.
- Ensure a safety inspection is conducted, at least annually, for areas at which AE-related activities (e.g., production, storage, response actions, demilitarization) routinely occur.
- Review the installation’s master plan for compliance with ESQD requirements for existing AE and non-AE related facilities and the planned construction of either, both prior to and after construction.
- Review policies, directives and SOPs, for compliance with applicable explosives safety requirements.
- Actively participate in installation master planning processes, and review the installation’s master plan, at least annually, to ensure construction is not planned within ESQD arcs.
- Ensure fire and chemical hazard symbols for AE storage locations are in place and the ESMP contains procedures for their placement and maintenance.
- Ensure procedures are developed and implemented to require personnel responsible for managing AE to ensure supporting fire departments are provided current information on the type and location of AE in storage.
- Train personnel (e.g., operational, security, firefighters) responsible for AE-related operations to understand fire and chemical agent hazard symbols and in the procedures and precautions for fighting fires when AE is involved or threatened.
- Ensure the command’s ESMP addresses emergency response procedures to include procedures for command and control, evacuation of non-essential personnel, and communication between the on-site commander, first responders, and munitions managers.
- Annually review the installation AE locations map to monitor encroachment within ESQD, and ensure required explosives safety site plans, submissions, and explosives licenses are in place.
• Periodically monitor selected AE-related activities to evaluate compliance with explosives safety criteria and integration of risk management.

• Assist commanders and staff with resolving explosives safety concerns associated with property known or suspected to contain unexploded ordnance.

• Investigate and report explosive mishaps or incidents and disseminate explosives safety-related lessons learned.

• Periodically brief commanders and staffs on the status of the commander’s ESMP and to keep them informed of explosives safety requirements and concerns.

• Safety is the responsibility of every leader, Soldier, civilian, and contractor. In addition to CP-12 safety and occupational health professionals, civilian Quality Assurance Specialists (Ammunition Surveillance) (QASAS) and Ammunition Warrant Officers (Military Occupational Specialty 890A) have specific responsibilities for supporting the Army’s ESMP. QASAS and Ammunition Warrant Officers furnish technical assistance to commanders and safety managers in planning, administering, and enforcing the explosives safety program. (DA Pam 385-64 provides additional information about the responsibilities of QASAS and Ammunition Warrant Officers.)

Dustin Cox (left), a material handler, explains how Crane Army’s Depot Operations has been exploring the use of tablets in its ammunition logistical operations to Brig. Gen. Richard B. Dix, commanding general, Joint Munitions Command, during his visit to Crane Army Ammunition Activity, Indiana.
IV. Qualifications for Explosives Safety Professionals

ANSI CP-12 CERTIFICATE

Safety professionals in the 0017 or 0018 job series must possess the American National Standards Institute (ANSI) accredited CP-12 Safety and Occupational Health Professional Certificate. Safety personnel in the 0081, 0690, 0803, or 1306 job series require approval of the appropriate job series Functional Proponent. Functional Proponents will review applicants’ resume and training record to validate that the applicant possesses the required safety and occupational health knowledge, skills, and abilities.

EXPLOSIVES SAFETY CERTIFICATE

Career Program-12 and the Director of Army Safety have established two levels of explosives safety competency for Army safety professionals. Training and eligibility requirements for each level are explained below.

Competency Level 1

In June 2012, Career Program-12 earned approval from the American National Standards Institute for an accredited Professional Certificate in Explosives Safety Level 1. This certificate distinguishes SOH and occupational health professionals possessing general knowledge and understanding of explosives safety requirements. The certificate upholds ASTM E2659-09, Standard Practice for Certificate Programs, and is recognized nationally and internationally under the ISO 9000 (Quality) Management System. This certificate is open to CP-12 SOH professionals and others who meet the minimum requirements.

Level 1 training, which is required for Army safety specialists, managers, and safety engineers regardless of assignment, is available to other safety and nonsafety job series. Level 1 training supplies general knowledge and understanding of explosives safety.

Competency development at Level 1 is accomplished through successful completion of the CP-12 ANSI certificate program and the four mandatory distance learning (DL) explosives courses specific to explosives safety functions (see Table 1). CP-12 ANSI courses are available through the Joint Services Safety and Occupational Health Training Program at the U.S. Army Combat Readiness Center. The four explosives courses are found at the Defense Ammunition Center (DAC) training website. (Go to www.dactces.org for distance learning course registration.) Workshop registration is through the Army Command’s, Army Service Component Command’s, or Direct Reporting Unit’s safety director.
### Table 1. Level 1 Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Course Description</th>
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<tbody>
<tr>
<td>Ammo 45 DL</td>
<td>Introduction to Ammunition (CERT) (DL, 8 hours), ATRRS course number 9E-F67/920-F35 (DL)</td>
<td>Basic training in safety and fundamental technical aspects of ammunition and explosives (AE) (also referred to as DoD military munition), including characteristics, safe handling procedures, and explosives safety requirements for receipt, storage, maintenance, demilitarization, and issue of AE.</td>
</tr>
<tr>
<td>Ammo 78 DL</td>
<td>Ammunition Publications (CERT) (DL 6 hours), New ATRRS course number 4E-F62/645-F46 (DL)</td>
<td>Describes publications used by all DoD services; supplies familiarization in the purpose, content, and format of DoD, Army, Air Force, and Navy publications.</td>
</tr>
<tr>
<td>Ammo 107 DL</td>
<td>Introduction to Explosives Safety Management for Safety Professionals (CERT) (IL 32 hours or DL 16 hours), New ATRRS course number 4E-F26/431-F10 (DL)</td>
<td>Covers a broad scope of explosives safety competency areas, including explosives safety program management, explosives materials, non-standard ammunition, explosive mishaps, accidents and incidents, emergency responses, AE transportation and storage, electrical safety, site planning, and licensing (Ammo 45, Ammo 63, and Ammo 78 are prerequisites).</td>
</tr>
</tbody>
</table>

### Competency Level 2

Level 2 (advanced) training is required for Career Program-12 personnel with significant roles or responsibilities in explosives safety. It is recommended only for those serving in an explosives safety position or assigned significant explosives safety technical and management functions. Such duties include ESMP management, tactical and deployed assignments, base operations, operations at AE operating facilities (e.g., production, storage, demilitarization), the conduct if munitions response, and AE research, development, testing, and evaluation (RDT&E). Level 2 training furnishes advanced knowledge and ability in the following areas:

- Electrical Safety
- Risk Management
- Munitions History Program
- Explosives Safety Quantity-Distance

- Site Planning
- Ammunition Storage
- U.S. Army Deviations Approval Process
- Explosives Safety Management Program.

Competency development at Level 2 occurs through a series of mandatory DL and IL courses (see Table 2). This course structure ensures Career Program-12 personnel with an explosives safety role or responsibility have the knowledge and ability necessary to support the Army’s explosives safety mission. Level 2 courses are offered through the DAC’s Directorate for Training. DAC supplies explosives safety and AE–related training through onsite mobile training teams, accredited off-campus instruction facilities, and DL products (www.dactces.org).
### Table 2. Level 2 Advanced Courses

<table>
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<tr>
<th>Course Code</th>
<th>Course Title and Description</th>
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</thead>
<tbody>
<tr>
<td>Ammo 28 DL, Army Electrical Explosives Safety (CERT) (DL 8 hours), ATRRS course number 4E-F33/645-F17</td>
<td>Instruction on the interpretation of guidance regulating the inspection, testing, documentation, and management of Army electrical explosives safety applicable to explosives operating and handling facilities and storage areas; topics include identification of lightning protection system components, design criteria, and requirements for grounding, bonding, control of static electricity, and electrical equipment in hazardous (classified) locations; includes an overview of the hazards of electromagnetic radiation to ordnance.</td>
</tr>
<tr>
<td>Ammo 54 DL, Risk Management and Preparation of SOPs for Ammunition and Explosives Operations (CERT) (DL 8 hours), New ATRRS course number 9E-F68/920-F36 (DL)</td>
<td>Instruction in preparation and review of AE SOPs in accordance with DoD, DA, and Army Materiel Command regulatory requirements; includes a broad overview of hazard analysis and risk management as it relates to AE operations.</td>
</tr>
<tr>
<td>Ammo 97, Munitions History Program (MHP) (CERT), (DL 4 hours), ATRRS course number 4E-F64/645-F48</td>
<td>Supplies extensive information to successfully navigate the MHP website and retrieve needed information and reports using the various explosives safety tools and programs available.</td>
</tr>
<tr>
<td>Ammo 99 DL, Application of U.S. Army ESQD Principles (CERT) (DL 24 hours), ATRRS course number 4E-E65/645-F49 (DL)</td>
<td>Application of explosives safety quantity distance (ESQD) principles to supply minimum required levels of protection; includes discussion on various levels of protection, expected damage effects at each level, interpretation of textual and tabular instructions for calculating minimum separation distances or explosives limits, and use of protective construction.</td>
</tr>
<tr>
<td>Ammo 100 DL, Army Explosives Safety Site Planning (ESSP) Course (DL 16 hours), ATRRS course number 4E-F25/431-F9 (DL)</td>
<td>Instruction on types of information and documentation needed to successfully submit preliminary and final ESSPs.</td>
</tr>
<tr>
<td>Ammo 112 DL, Explosives Storage Safety (CERT) (DL 8–10 hours), ATRRS course number 4E-F28/645-F12 (DL)</td>
<td>Overview of storage facilities, operations, and information necessary to interpret explosives safety requirements and recommend appropriate actions.</td>
</tr>
<tr>
<td>ESMP Workshop (IL 16 hours)</td>
<td>Furnishes insight and direction on establishing the commanders ESMP; includes roles and responsibilities for all levels of command and individuals in the command.</td>
</tr>
<tr>
<td>U.S. Army Deviations Approval Process (DARAD) Workshop (IL 12 hours)</td>
<td>Supplies detailed information on the requirements for use and extensive instruction on how to correctly fill out the DA Form 7632, “Deviation Approval and Risk Acceptance Document (DARAD)”</td>
</tr>
<tr>
<td>U.S. Army Explosives Safety Quantity-Distance (ESQD) Workshop (IL 32 hours)</td>
<td>Furnishes an alternative method of instruction for the Ammo 99 DL course.</td>
</tr>
<tr>
<td>Ammo 82, U.S. Army Explosives Safety Quantity Distance and Site Planning (CERT) (IL 80 Hours), ATRRS course number 4E-F24/431-F8</td>
<td>Instructor-led course that meets the requirements for both Ammo 99 and Ammo 100.</td>
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</table>

Note: Workshops are instructor led and provided by the CP-12 Proponency Office.
Safety professionals working in tactical environments, if deployed or in a garrison environment, should complete the Explosives Safety in Tactical Environments (IL, 8 hours) workshop. This workshop enables explosives safety professionals to support tactical operations.

Those Career Program-12 personnel with explosives safety roles and responsibilities for industrial operations, RDT&E, and munitions responses should also complete training in the requisite knowledge, skills, and abilities shown in Table 3. (The Army Materiel Command is generally responsible for AE industrial operations, with Army Test and Evaluation Command generally responsible for RDT&E and the U.S. Army Corps of Engineers responsible for the conduct of munitions responses.)

**Table 3. Additional Training Available**

<table>
<thead>
<tr>
<th>Training Workshop</th>
<th>Description</th>
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<tr>
<td>Explosives Safety in RDT&amp;E and Industrial Environments Workshop (IL 8 hours—mandatory for CP-12 personnel assigned to Army Materiel Command or Army Test and Evaluation Command explosives safety positions)</td>
<td>Provides personnel who have explosives safety roles and responsibilities in industrial, RDT&amp;E, and the conduct of munitions response with the requisite knowledge, skills, and abilities. The Army Materiel Command is generally responsible for AE industrial operations, with Army Test and Evaluation Command generally responsible for RDT&amp;E and the U.S. Army Corps of Engineers responsible for the conduct of munitions responses.</td>
</tr>
</tbody>
</table>

**CERTIFICATE SUBMISSION**

Applicable documents that show requirements have been satisfied will be forwarded via memorandum through the Army Command, Army Service Component Command, or Direct Reporting Unit’s safety director for endorsement. The CP-12 Explosives Safety Professional Certificate Review Panel verifies and approves that applicable requirements have been satisfied.
V. Keys to a Successful Explosives Safety Program

Leaders provide focus and resources while ensuring safety professionals are actively participating in all facets of the explosives safety program. This section outlines roles and responsibilities for effective explosives safety programs and provides leaders with key sources for support in assessing their explosives safety program.

LEADERSHIP

- Rely on the safety expertise of safety professionals in support of informed decision making
- Ensure safety professionals are part of planning and coordination of training events and contingency operations
- Support the development, implementation and maintenance of a command Explosives Safety Management Program through funding, personnel, and time
- Maintain open lines of communication with safety professionals through unfettered access by making them members of the commander’s special staff
- Establish a positive command safety culture through personal example and decisive engagement
- Establish an Explosives Safety Council
- Hold safety professionals accountable for the successful performance of the duties listed in position descriptions
- Expect safety professionals to detect and assess hazards and furnish viable mitigation options for the commander’s decision-making process

THE EXPLOSIVES SAFETY PROFESSIONAL

- Apply explosives safety principles, methods, and techniques in detecting and evaluating AE hazards, assessing risk, establishing mitigation strategies, and in managing, administering, and seeking to continuously improving the command’s ESMP.
- Apply knowledge of the principles, standards, and techniques of safety and occupational health in the administration of explosives safety activities, including the development, implementation, and evaluation of related program functions
- Maintain focus on supporting the customer and Army mission
- Ensure explosives safety assessments and recommendations are based on SOH principles and practices, applicable Army regulations, DoD regulations and directives, and federal laws and regulations, particularly Occupational Safety and Health Administration standards.
- Use time with leadership effectively and keep leaders informed
- Resolve issues at the lowest level and prioritize those that need elevation
• Be a team player who works effectively with other staff members
• Be visible throughout the command
• Use explosives safety techniques and analyses, and staff assistance visits and evaluations as tools to assist the command in complying with safety codes and regulations
• Be proactive, not reactive
• Participate during in-progress reviews and furnish safety oversight
• Participate in decision making process
• Pursue continuing education, obtain certifications appropriate for duties and responsibilities, and maintain required continuing education units (training and eligibility requirements for the Explosives Safety Certificate)
• Be accountable for performance of the duties listed in the applicable position description
• Participate in and observe exercises, operations, and demonstrations to maintain familiarity with explosives safety hazards and risks
• Maintain professionalism

HELP AVAILABLE TO LEADERS
Help is available to leaders in assessing their command’s ESMP. The Explosives Safety Assistance Visit (ESAV) Program is a joint initiative between the DAC/USATCES and Office of the Director of Army Safety. An ESAV is an evaluation of required explosives safety program elements to ascertain the effectiveness of an installation’s ESMP. Observations and recommendations are noted in a report solely supplied to the installation as a tool to assess and improve the overall program. Installations are not required to respond to ESAV recommendations. Observations and recommendations are for the installation’s use for continuous improvement.

If your organization has any questions regarding ESMP or AE safety, DAC will make every effort to assist in their resolution. Examples of assistance include development of required explosives safety submissions, including determination of site plan requirements; development of explosives site plans; and evaluation of explosives operation, the application of ESQD, and the adequacy of lightning protection systems. An ESAV can also help prepare your organization for the safety portion of a Headquarters DA –G-4’s Logistics Review and Technical Assistance Office review. If you would like an ESAV to assess or enhance your explosives safety program, contact DAC at (918) 420-8745 or DSN 956-8745.

Help is also available to commanders in creating and assessing the adequacy of command’s ESMP through the Explosives Safety Management Plan Development Guide, which aids commanders in developing an ESMP.

Additional sources for explosives safety support are listed in Appendix C.
VI. Questions Leaders Should Ask

This section identifies the questions new leaders and commanders should ask when assessing their explosives safety program.

1. Who is responsible for the commands Explosives Safety Management Program (ESMP)? What resources are available for the ESMP’s execution at each echelon, and are those responsible empowered to make decisions and manage those resources? What local governing documents guide the command’s ESMP, and from what Army Regulations are they derived?

   - AR 385-10, The Army Safety Program, Chapter 5, discusses requirements for a commander’s ESMP.
   - DA Pam 385-64, Ammunition and Explosives Safety Standards, Chapter 1, defines the requirements for an ESMP.
   - The Explosives Safety Management Plan Development Guide aids commanders in developing written ESMPs that support the Army Safety Program.

2. What policies, procedures, and programs exist to AE personnel are adequately trained and qualified? What process is in place to prepare, write, and review SOPs for explosives operations (i.e., who, what, when, where, ...

   - AR 385-10, Chapter 10, discusses safety training requirements;
   - DA Pam 385-64, Figure 1-1, lists specific required explosives safety courses.

   (See the Defense Ammunition Center training website at www.dactces.org for information on training courses.)

   - DA Pam 385-64, Paragraph 2-4, addresses requirements for AE-related SOPs.
   - AMC-R 700-107, Preparation of Standing Operating Procedures for Ammunition Operations, provides additional information.

Which units have an AE mission? What facilities are used to support AE missions? What is the status of DDESB required explosives safety submissions (i.e., explosive site plans (ESP))? Are ESP’s, when used, up-to date, reviewed? Are AE-related facilities and explosives safety quantity...
distance arcs (ESQD) indicated in the Facility’s Master Plan? Is the Fire Department provided an up-to-date listing of AE-related facilities? Where is my copy of the ESMP?

DA Pam 385-64:

- Paragraph 1-11, defines requirements for maintenance of the facility master plan, installation maps, and the required information
- Chapter 4, addresses ESP.
- Chapter 5, addresses explosives licenses.
- Chapter 8, explains ESQD arcs.
- *Explosive and Chemical Site Plan Development and Submission*, supplies further information on properly creating site plans.

What is the status of the DARAD for those AE facilities that deviate from explosives safety standards? Has the risk been accepted at the appropriate level? Where a Secretarial Certification (Sec Cert) is required for new construction or major modifications that violate explosives safety standards, has the Certificate of Compelling Reason?

- AR 385-10, Chapter 5, addresses requirements for RESS, Sec Cert, etc.
- DA Pam 385-64, Chapter 1, addresses risk management and explosives safety deviations and Sec Cert. Although a risk acceptance document ensures the appropriate level of command is aware of the risk being accepted and the mitigation measures to be implemented to reduce the risk being accepted.

3. What new construction or modifications are planned that could affect or are affected by explosives safety considerations (e.g., are within an ESQD)?

AR 385-10, Chapter 5, addresses requirements for ESP, Sec Certs, and etc.

- DA Pam 385-64:
  - Chapter 8, addresses ESQD arcs.
  - Chapter 16, addresses construction.

4. When was the last HQDA Munitions Management Logistics’ Review or Explosives Safety Assessment of Assistance Visit? What were the results? What is the status of findings? How does the ESMP’s address the command’s AE facility’s inspection program? What deviations (e.g., waivers, exceptions) does the command have, when were they last reviewed, how are they tracked, and prioritized for elimination?

AR 385-10, Paragraph 5-8, discusses DA Explosives Safety Reviews.

5. What local governing document guides execution of the command’s amnesty program (e.g., where are amnesty collection points located, who checks them, and how often are they checked)?

- DA Pam 710-2-1, Using Unit Supply System (Manual Procedures), Paragraph 11-19, addresses amnesty program setup and execution.
- DA Pam 385-64, Paragraph 2-18, addresses Army Ammunition and Explosives Amnesty Program requirements.

6. If we were to have explosives mishap, what plan does the command execute (e.g., notification checklist, evacuation procedures, recall procedures, request for explosive ordnance disposal support)? How does the command’s community relations program work with surrounding communities? Which AE facilities are governed by 40 Code of Federal Regulations, the Resource Conservation and Recovery Act, and the Waste Munitions Program? What is
the status of Environmental Protection Agency licenses for storage and treatment of waste military munitions?

- AR 385-10, Chapter 3, provides information about accident investigations and reporting requirements.

- AR 420-1, Army Facilities Management, Section IX, defines requirements for emergency response plans to explosives mishaps.

- AR 420-1, Appendix S, provides examples of memorandums of agreement (MOAs) with local firefighters.

- DA Pam 385-40, Army Accident Investigations and Reporting, outlines reporting requirements for AEE accident and incident reporting.

- DA Pam 385-64:
  - Is populated with explosive mishap response requirements;
  - Presents requirements for emergency planning and the Waste Munitions Program.
  - Paragraph 6-20, discusses requirements for emergency planning.
  - Chapter 18, discusses the Waste Munitions Program.
  - The Defense Environmental Network and Information Exchange is another useful resource.

7. What keeps me out of the media spotlight (for explosives safety and liability for items addressed above)?

Implement the required safety controls. Listen to advice given you by explosives safety professionals (safety, surveillance, munitions managers, logistics assistance representatives, and ammunition technician warrants). DoD and Army Regulations task military and civilian explosives safety and munitions management subject matter experts to preserve assets that enable mission accomplishment, specifically personnel and facilities under your command.
Appendix A.

Explosives Safety Management Programs

As the senior individual responsible for explosives safety, commanders are required to establish an Explosives Safety Management Program with the following characteristics:

- Prescribes requirements, responsibilities, and procedures for complying with AR 385-10, DA Pam 385-30, DA Pam 385-64, and DA Pam 385–65, and specifically addresses organization and staffing, site planning, facilities conformance, emergency response, tenants, master planning, ranges, contractors, accident prevention program, facility maintenance, demilitarization and destruction, risk management, explosives safety issuances, records management, inspections/evaluations/audits, and training.

- Addresses appointment of a qualified safety manager as the point of contact for management of the Explosives Safety Management Program.

- Defines safety responsibilities of all organizations (including tenants, covered by MOA) with ammunition and explosives missions and functions, and details requirements for creating an MOA or policy that outlines Explosives Safety Management Program requirements and responsibilities of both garrison and installation commanders and tenants.

- Defines safety office direct access to the commander and lines of communication and reporting between the safety office and other organizations with an explosives safety function.

- Prescribes responsibilities and procedures for knowledgeable and qualified personnel to create, coordinate, review, and approve site plans, safety submissions, and facility designs.

- Prescribes responsibilities, requirements, and procedures that ensure qualified personnel create, coordinate, review, and approve explosives safety deviation requests as delineated in DA Pam 385-30 and supply the commander with essential risk data regarding deficient situations.

- Charters and prescribes responsibilities, composition, and procedures for a local explosives safety council.

- Prescribes processes for operational continuity.

- Prescribes responsibilities, requirements, and procedures for conducting audits and surveys to assess Explosives Safety Management Program compliance with AR 385-10 and assess compliance of ammunition and explosives activities with DA Pam 385-64.

- Prescribes responsibilities, requirements, and procedures for investigation, reporting, and analysis of ammunition and explosives mishaps.
Appendix B.
Deployment Considerations for Explosives Safety Professionals

AUTHORITY TO DEPLOY
Department of Defense Directive (DoDD) 1404.10 establishes involuntary assignment of civilian employees to emergency-essential positions as necessary to meet exigencies of the circumstances and when unforeseen contingencies prevent prior selection of those positions as emergency-essential. Army policy dictates that civilians will support the military in carrying out its missions. Installations and activities will create and implement plans required to support military contingency operations and all other levels of mobilization.

The Civilian Readiness Program ensures qualified civilian employees are available in adequate numbers and with adequate skills to meet worldwide mission requirements during periods of national emergency, mobilization, war, military crisis, or other contingencies. An emergency-essential employee is an incumbent of an overseas position or an individual who would be sent overseas during a crisis situation. The position ensures success of combat operations or supports essential combat systems after mobilization, evacuation order, or other military crisis.

Deployed safety professionals are emergency-essential employees. As such, deployed safety professionals must sign DD Form 2365, “DoD Civilian Employee Overseas Emergency-Essential Position Agreement.” Other requirements include an approved deployment common access card, approved Standard Form 78, “Certification of Medical Examination,” and deployment-related medical and dental examinations and immunizations. Medical treatment is authorized while deployed. Commanders must integrate and document use of the civilian workforce in all types of operations and contingency plans and ensure civilian issues are addressed during execution. Positions classified as emergency-essential should be pre-identified prior to filling, with the position description and vacancy announcement annotated and conditions of employment clearly defined.

Safety professionals must meet the following criteria prior to deployment:

- Security clearance verification
- Passport (government and civilian), visa, or country clearance valid through deployment dates
- Current DoD civilian identification card reflecting Geneva Convention status with dates covering the entire deployment period
- Appropriate travel orders (temporary duty, temporary change of station, North Atlantic Treaty Organization, etc.)
- DD Form 93, “Record of Emergency Data”
- Validated deployment criteria checklists
- Deployment packet as directed by Civilian Personnel Advisory Center
- Deployment training requirements for the particular theater
- Physical and medical standards per Army directives.

Arrangements should be made to have the safety professional receive preventive dental treatment prior to deployment. Safety professionals should in and out process with their organization.

DUTY HOURS
Authority for establishing and changing tours of duty is delegated to the commander of the organization.
employing civilian personnel and in accordance with theater-directed civilian work schedules. Although the normal workweek is 40 hours, safety professionals in support of or in deployment status may be assigned to different work hours. Notice must be given when employees are assigned to a different tour of duty or workweek. Commanders must refer to Office of Personnel Management and Army guidelines for appropriate compensation.

BUDGET

Areas to consider when making budget decisions include the following:

- A salary for a 40-hour workweek, including benefits and locality pay for the region where the safety professional is normally employed
- Compliance with regulations when requesting overtime (approval and funding); deployed budgets should include 196 hours of overtime as well as danger and hazardous duty pay; the theater may have a work schedule dictating normal workweek with overtime included, but the final decision for overtime rests with the immediate supervisor; danger pay and hazardous duty pay (entitlements) may be paid, but are decided by the State Department and reviewed annually
- Temporary duty for training, continuing education, and conferences
- Uniform purchase and appropriate patches; wearing of uniforms by civilians is decided by the theater commander and uniforms are furnished free of charge, if required; per the director of contracting, government purchase cards may not be used to procure military uniforms for civilians
- Vehicles required to support the unit’s missions
- Printing for publications and informational materials
- Professional items
- Safety education—enhances Army operations and improves safety awareness through recognition and promotion of individual and organizational accident prevention measures; promotional materials such as posters, films and videos, technical publications, pamphlets, incentive items, and related materials are proven, cost-effective safety awareness tools and, therefore, should be budgeted for and used at all levels to promote safety.
REPORTING RESPONSIBILITIES

The safety manager and safety officer are members of the commander’s special staff. They report directly to the commander and manage the commander’s safety program.

CLOTHING AND EQUIPMENT

The primary duty uniform for the safety professional in field, support, and deployed environments is the same as the organization, unless otherwise directed. When wearing a military uniform, compliance with AR 670-1, Wear and Appearance of Army Uniforms and Insignia, is required. The primary duty uniform in garrison is appropriate attire that supports the organization.

RECOMMENDED EQUIPMENT

- Accident investigation kit
- Digital camera
- Video camera
- Global positioning system
- Optic range finder
- Compass
- 100/25 foot measuring tape
- Pocket/universal toolkit with case
- Flashlights
- Binoculars
- Night vision goggles
- General purpose tool bag
- Laptop computers, both secure internet protocol router and non-secure internet protocol router
- Printer/scanner
- BlackBerry in garrison and cell phone while deployed
- Vehicle, tactical/General Services Administration
- Other uniform and equipment unique to the organization or operation (Table of Allowances 50, Nomex, etc.)
- Transport cases, such as Pelican cases
- Safety vest
- Appropriate office supplies
- Steel-toed safety footwear for use in garrison
- Appropriate transportation for conditions in the operating environment
- Hard hat
- Oxygen analyzer meter
- Other personal protective equipment, as required (respirator, clothing, etc.)
- Ballistic eye protection
- Sunglasses

ENTITLEMENTS

Deployed safety professionals are entitled to the following while supporting overseas contingency operations:

- Government-provided legal assistance (limited to matters related to deployment, such as preparation of wills and powers of attorney and basic income tax assistance)
- Family care plan preparation assistance (the installation furnishes legal and other assistance as needed)
- Base exchange and commissary privileges in theater
- Use of Family, Morale, Welfare and Recreation facilities and activities
- Inclusion in the unit’s Family Readiness Group to ensure spouse and family support while deployed
- Additional training to meet deployment requirements
• Rapid fielding initiative equipment
• Medical and dental treatment as furnished to military members, including free care for illness, disease, or injury suffered during deployment.

Civilians are compensated for deployments (foreign post differential pay and possibly eminent danger pay). Percentages are based upon the region they support, and all income is taxable.

AWARDS
Several options are available to recognize the accomplishments of safety professionals. This recognition may be honorary, such as an achievement medal, or monetary, such as a step increase. Information on these awards can be found in AR 672-20. Of special note are the following:

• The Global War on Terrorism Civilian Service Medal recognizes the contributions of civil service personnel in a foreign country designated by the military’s Global War on Terrorism Expeditionary Medal criteria.

• The Office of the Secretary of Defense Medal for Valor recognizes acts of heroism or sacrifice with voluntary risk of personal safety in the face of danger on or off the job.

Thermite grenades are used as an ignition source in order to ensure that all the expired munitions are properly disposed of.

• The Secretary of Defense Medal for the Defense of Freedom recognizes the sacrifices of those injured or killed due to hostile action against the United States or while rescuing or attempting to rescue any other employee or individual subjected to injuries suffered under such conditions.
Appendix C.
Sources for Explosives Safety Support

TRAINING

- USACRC training website, including information on the Joint Services Safety and Occupational Health training program: https://safety.army.mil/training-courses

- Army Training Requirements and Resource System site, including general information, ATRRS course catalog, training registration and tracking, and support: https://www.atrrs.army.mil/

- Defense Ammunition Center training site, including complete course catalog, registration, and reporting requirements: www.dactces.org

- Defense Ammunition Center YouTube channel, which supplies ammunition and explosives educational and demonstrational videos: http://www.youtube.com/user/DefenseAmmoCntr

TECHNICAL REQUIREMENTS

- AmmoHelp, operated by Defense Ammunition Center, is an application that allows users to ask questions on any aspect of ammunition and explosives management, operations, and use; responses are generally supplied by subject matter experts in 24 hours, with a final response in five working days. Questions may be submitted online at https://mhp.redstone.army.mil/ or by email to usarmy.mcalester.usamc.list.dac-ammohelp@mail.mil

- USACRC Career Program-12 Safety and Occupational Health site, including policy, safety professional tools, and training guidance: https://safety.army.mil/CP-12/Home

- The U.S. Army Technical Center for Explosives Safety (USATCES) furnishes explosives safety technical support, including information on accident investigation, site planning, hazard classification, and chemical agent safety (USATCES also manages the Technical Library for Explosives Safety): https://www.dau.mil/cop/ammo/Pages/Default.aspx

- The Department of Defense Explosives Safety Board (DDESB) supplies safety and technical support related to the development, manufacturing, testing, handling, transportation, and storage of explosives, including chemical agents: https://www.ddesb.pentagon.mil/

ACCIDENT AND INCIDENT SUPPORT

- The US Army Combat Readiness Safety Center website furnishes users with all necessary information and guidance for the expeditious and accurate reporting of Army accidents: https://safety.army.mil/REPORTING-INVESTIGATION

- ReportIt Loss Reporting System is the official Army accident reporting tool: https://reportit.safety.army.mil/

- Knowledge Networks and Communities of Practice

- The Ammunition Community of Practice supports the ammunition community and all service warfighters by enabling them to share business artifacts, exchange tacit knowledge, supply reachback capability, solve problems, aid decision-making, and generate organizational learning: https://www.dau.mil/cop/ammo/Pages/Default.aspx

- The Army Knowledge Online (AKO) Ammunition Knowledge Network fosters collaboration and information sharing among Soldiers and civilian personnel: https://www.us.army.mil/suite/page/271609
• The AKO Hazardous Materials Transportation Community of Practice fosters collaboration and information sharing among Soldiers, civilians, and authorized contractors: https://www.dau.mil/cop/ammo/Pages/Topics/HAZMAT%20Transportation.aspx

MOBILE APPLICATIONS
http://itunes.apple.com
https://play.google.com/store/

• The Defense Ammunition Center Yellow Book is a ready consolidated reference to basic data and regulatory criteria for hazard classification, physical security, marking, transportation, and storage of conventional ammunition and explosives.

• Defense Ammunition Center Ammo Storage Compatibility Groups is a game for practicing storing ammo using storage compatibility groups.

• Defense Ammunition Center Explosives Safety Quantity-Distance Mobile is modeled after the Explosives Safety Quantity-Distance Calculator Excel spreadsheet. This application can calculate hazard class and division 1.1 net explosive weight quantity-distance that can be stored in a potential explosives site.

KEY PUBLICATIONS

• **AR 75-1**, *Malfunctions Involving Ammunition and Explosives*, supplies guidance, instruction, and responsibilities for reporting malfunctions associated with ammunition and explosives.

• **AR 75-14**, Office of the Chief of Naval Operations Instruction 8027.1G; Marine Corps Order (MCO) 8027.1D; Air Force Regulation 136-8, *Inter-Service Responsibilities for Explosive Ordnance Disposal*, delineates explosives ordnance disposal (EOD) responsibilities of the Army, Marine Corps, Navy, and Air Force.

• **AR 75-15**, *Policy for Explosive Ordnance Disposal*, Ch. 22, prescribes DA EOD policies, responsibilities, and procedures.
• **AR 190-11, Physical Security of Arms, Ammunition, and Explosives**, prescribes standards and criteria for the physical security of sensitive conventional arms, ammunition, and explosives, including non-nuclear missiles and rockets. Also prescribes policy, procedures, and standards and assigns responsibilities for the effective implementation and application of physical security of arms, ammunition, and explosives.

• **AR 385-10, The Army Safety Program**, addresses explosives safety, primarily in Chapter 5.

• **AR 385-63/MCO 3570.1C, Range Safety**, supplies range safety policy for the Army and Marine Corps, including establishment of range safety programs, risk management principles, and deviation authorities. Used in conjunction with DA Pam 385–63.

• **AR 420-1, Army Facilities Management**, supplies policies and responsibilities for conduct and management of facilities engineering, housing, fire and emergency services, and environmental support.

• **AR 600-20, Army Command Policy**, addresses Army-wide command.


• **DA Pam 385-1, Small Unit Safety Officer/Non-Commissioned Officer Guide**, supplies guidance in applying policies and procedures and necessary information for managing a unit safety program.

• **DA Pam 385-10, Army Safety Program**, establishes guidance, functions, policies, and procedures for the Army Safety Program.

• **DA Pam 385-30, Risk Management**, supplies guidance to assist users in implementing and integrating risk management into all phases of Army operations.

• **DA Pam 385-40, Army Accident Investigations and Reporting**, supplies accident and reporting procedures for various types of incidents, including explosives.

• **DA Pam 385-61, Toxic Army Chemical Agent Safety Standards**, describes minimum safety criteria, guidance, and procedures for use in processing, handling, storage, transportation, disposal, and decontamination of chemical agents and updates Army guidance and implementation procedures for conducting chemical agent safety programs in accordance with AR 385-10.

• **DA Pam 385-63, Range Safety**, establishes minimum requirements for Army and Marine Corps range safety programs; also establishes standards and procedures for safe firing of ammunition, demolitions, lasers, guided missiles, rockets, and bombs.

• **DA Pam 385-64, Ammunition and Explosives Safety Standards**, prescribes Army policy on ammunition and explosives safety standards and implements requirements of DoD 6055.09-M.

• **DA Pam 385-65, Explosive and Chemical Site Plan Development and Submission**, contains Army Safety Program implementation guidance.

• **Army Techniques Publication (ATP) 4-30, Munitions Distribution in the Theater of Operations**, describes how munitions units furnish munitions to the user; includes guidance on safety and risk management.

• **ATP 4-30.1, Ammunition Handbook: Tactics, Techniques, and Procedures for Munitions Handlers**, supplies ready reference and guidance for units and soldiers that handle munitions.

• **Army Tactics, Techniques, and Procedures (ATTP) 4-32, Explosive Ordnance Disposal Operations**, furnishes doctrinal guidance for EOD procedures.
• **ATTP 4-32.16, Multi-Service Tactics, Techniques, and Procedures for EOD**, describes why EOD forces are an important part of the combined arms team throughout all phases of full-spectrum operations and prescribes responsibilities for EOD forces in support of Army, Joint Force, and subordinate commanders.

• **Training Circular 25-8, Training Ranges**, is the primary guide for installation range development plan and for creating the Army Master Range Plan.

• **DoDD S-3325.01, Foreign Materiel Program**, describes DoD policies and procedures for managing and handling foreign munitions and explosives materials.

• **DoDD 4715.1E, Environment, Safety, and Occupational Health**, establishes policies on safety and occupational health to sustain and improve the DoD mission.

• **DoDD 4715.11, Environmental and Explosives Safety Management on Operational Ranges within the United States**, establishes policy for use and management of operational ranges within the United States and describes protection of DoD personnel and the public from explosives hazards.

• **DoDD 4715.12, Environmental and Explosives Safety Management on Operational Ranges outside the United States**, establishes policy for use and management of operational ranges outside the United States and describes protection of DoD personnel and the public from explosives hazards.

• **DoDD 5101.13E, DoD Executive Agent for the Unexploded Ordnance Center for Excellence**, establishes policies and assigns responsibility for centralized coordination for unexploded ordnance.

• **DoDD 5160.62, Single Manager Responsibility for Military Explosive Ordnance Disposal Technology and Training**, supplies policies and responsibilities for EOD technology and training.

• **DoDD 5160.65, Single Manager for Conventional Ammunition**, furnishes policies and responsibilities for the single manager for conventional ammunition (SMCA).

• **DoDD 6055.9E, Defense Explosives Safety Regulation**, updates policies, authorities, and responsibilities for DoD explosives safety management and authorizes DDESB as a standing joint board.

• **DTR 4500.9-R, Defense Transportation Regulation**, Chapter 205, “Transportation Protective Services,” supplies direction and procedures for transporting conventional ammunition and explosives. See also Military Freight Traffic Unified Rules Publication-1, which furnishes specific rules and responsibilities for the transport of munitions.

• **Department of Defense Instruction (DoDI) 4140.62, Material Potentially Presenting an Explosive Hazard**, supplies DoD instruction, policy, and responsibilities for the management and disposition of material potentially presenting an explosive hazard.

• **DoDI 4145.26, DoD Contractor’s Safety Requirements for Ammunition and Explosives**, furnishes guidance for implementing safety compliance responsibilities and authority.

• **DoDI 5100.76, Safeguarding Conventional Arms, Ammunition, and Explosives**, establishes policy and responsibilities for uniform worldwide standards for security of conventional ammunition and explosives.

• **DoDI 5160.68, Single Manager for Conventional Ammunition: Responsibilities of the SMCA, the Military Services, and the United States Special Operations Command**, specifies functional responsibilities and mission functions.

• **DoDI 6055.1, DoD Safety and Occupational Health Program**, supplies policies, procedures, and responsibilities for administering a comprehensive DoD safety and occupational health program.
• **DoD 6055.16 w/Change 1**, *Explosives Safety Management Program*, prescribes procedures for operation of the DoD Explosives Safety Management Program for military munitions and toxic agents.

• **DoD 4145.26-M**, *DoD Contractor’s Safety Manual for Ammunition and Explosives*, contains minimum contractual safety requirements to support DoD ammunition and explosives operations and objectives.

• **DoD 4160.28-M**, in three volumes, *Defense Demilitarization: Program Administration, Demilitarization Coding, and Procedural Guidance*.

• **DoD 5100.76-M**, *Physical Security of Sensitive Conventional Arms, Ammunition, and Explosives*, furnishes physical security guidance for protection of DoD-sensitive conventional ammunition and explosives.

• **DoD 6055.09-M**, *DoD Ammunition and Explosives Safety Standards*, Volumes 1 through 8, establishes DoD explosives safety standards.


• **Allied Ammunition Storage and Transport Publication 1** establishes safety principles as a guide between host countries and North Atlantic Treaty Organization forces in the development of mutually agreeable regulations for layout of ammunition storage depots and storage of conventional ammunition and explosives.


• **DA Safety and Occupational Health Career Field ANSI Accredited Career Program 12 Explosives Safety Professional Certificate-Level 1 Application Procedures**.

**Soldiers supporting Operation Inherent Resolve fire a Javelin anti-tank missile during live-fire training.**
The Explosives Safety Professional Development Triad establishes a progressive career development model for occupational series 0017. The model defines standard positions, training, and competency requirements across GS pay grades.
## Appendix E.
### CP-12 Explosives Safety Professional Certificate Program Requirements

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<th>Course Title</th>
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<th>New Course Number (ATRRS)</th>
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<td>Introduction to Ammunition (Cert.)</td>
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<td>AMMO-107-DL or AMMO-107</td>
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<td><strong>Level 2, Advanced</strong></td>
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<td>Risk Mgmt. &amp; Prep of SOP for Ammo. &amp; Exp. (Cert) or Risk Mgmt. &amp; Prep of SOP for Ammo. &amp; Exp. (Cert)</td>
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Army paratroopers shoot at targets during a live-fire exercise.