



SAFETY SERVICES ORGANISATION



Session 6.1

Ammunition Accidents

Ammunition Safety and Performance Module



Lesson Objectives

- **By the end of the lesson, you should be able to:**
 - Explain why there is no such thing as ‘perfect safety’
 - Describe why ammunition accidents occur
 - Explain that reporting and investigation of accidents will help to establish lessons for others to learn from and contribute to better safety for all
 - Describe a process for reporting and investigating ammunition accidents

Introduction

- Ammunition/explosives accidents happen around the world frequently,
 - [Accurate Energetic Systems, Tennessee 10/10/25](#)
- Accurate and timely reporting and investigation establishes lessons
- Methodical investigation:
 - Supports consistency of investigation standards
 - Ensures appropriate actions taken
 - Ensures consistency of questioning
 - Ensures quality of investigation reports



Definitions

Ammunition Accident:

- An ammunition accident, irrespective of cause or however minor, is any incident involving ammunition and explosives that results in death or injury to a person(s) and/or damage to equipment and/or property, military or civilian

Incident

- A generic term that includes all accidents, performance failures and faults involving ammunition or where ammunition is present.

All accidents are incidents but not all incidents are accidents

UK example

- **17 Apr 24 Explosion at BAE Systems Glascoed**
- An explosion took place at a site belonging to BAE Systems, the UK's biggest defence firm, in South Wales.
- It occurred at the factory in Glascoed, Monmouthshire at 10:49 BST on Wednesday, South Wales Fire and Rescue Service said.
- BAE Systems said there were no injuries and no risk to local residents.
- BBC Wales reporter Stephen Fairclough was at the scene.

- **Firework factory explosion leaves several dead and injured in India**



[YouTube](#)
The Telegraph
6 Feb 2024

The Need for Reporting

- **All accidents involving ammunition stockpiles must be reported so that appropriate action can be taken to prevent future occurrences**
- **Actions that may be taken because of an ammunition accident include:**
 - Revision of SOPs
 - Issue of bans and constraints
 - Repair of faults

The Need for Reporting

- **Reasons for having an effective reporting system:**
 - Improvement of safety processes, procedures, training
 - Prevention of recurrence
 - Legal compliance
 - Design modification
 - Transparency
- **The implications of failure to report an ammunition accident may lead to:**
 - Lethal consequences
 - A recurrence of an accident that may otherwise have been prevented
 - In some cases, it may be criminally negligent not to report an accident



The Reporting Process

- **The information required should include:**
 - Contact details – user and reporting unit
 - Date and time of ammunition accident
 - Details of any fatalities and/or injuries
 - Location
 - Type of ammunition involved (full technical name)
 - Weapon type involved (full technical name)
 - Batch, lot and/or serial number of the ammunition involved
 - Brief description of accident
 - Weather conditions
 - Action taken by user unit



Actions by the User

- Stop firing (if applicable)
- Give immediate first aid to any injured personnel
- In the case of fatal accidents, bodies should not be touched except to confirm death
- Out of respect, bodies should be covered until they can be removed from the scene
- Summon medical assistance if required
- Cordon off the area to preserve evidence for the investigating authority. Nothing should be moved and everything should remain as it is in situ



Actions by the User

- Record the names of potential witnesses
- Any weapons involved should only be touched if there is a requirement to make them safe to prevent further injuries
- Immediately report the ammunition accident in accordance with the instructions suggested in IATG 11.10, or other national instructions, and wait for further guidance from the nominated technical investigator



Investigation

- **All ammunition accidents must be investigated by a nominated authority.**
- **The technical investigator(s) will:**
 - Examine the scene and any weapons or equipment involved
 - Inspect and photograph, and either:
 - recover any pieces of the ammunition involved for further investigation
 - Arrange destruction if deemed unsafe
 - Question witnesses and managerial chain
 - Make an initial technical appraisal and recommend bans or constraints on the ammunition
 - Submit written accident report to authorities



Investigation – advice and assistance

- **The technical investigator may require and/or support others**
- **Additional specialist assistance could include:**
 - more experienced technical investigators;
 - ammunition and weapon system designers;
 - explosive chemists;
 - forensic scientists
 - technical specialists when RF hazards are a potential cause;
 - weapon system specialists, (including gunnery instructors); and
 - police and/or military police.



Classification of ammunition accidents

- **Fatal**
- **Major**
- **Serious**
- **Minor**
- **Near Miss**
- **Negligent Discharge**
- **Free from Explosive (FFE) Violation**

Lesson Objectives

- **You should now be able to:**
 - Explain why there is no such thing as ‘perfect safety’
 - Describe why ammunition accidents occur
 - Explain that reporting and investigation of accidents will help to establish lessons for others to learn from and contribute to better safety for all
 - Describe a process for reporting and investigating ammunition accidents

Questions



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