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NATO STANDARD

ATP-89

**MINIMUM STANDARDS OF
PROFICIENCY FOR TRAINED
AMMUNITION TECHNICAL
PERSONNEL**

Edition A Version 1

JANUARY 2017



NORTH ATLANTIC TREATY ORGANIZATION

ALLIED TECHNICAL PUBLICATION

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NORTH ATLANTIC TREATY ORGANIZATION (NATO)

NATO STANDARDIZATION OFFICE (NSO)

NATO LETTER OF PROMULGATION

19 January 2017

1. The enclosed Allied Technical Publication ATP-89, Edition A, Version 1, MINIMUM STANDARDS OF PROFICIENCY FOR TRAINED AMMUNITION TECHNICAL PERSONNEL, which has been approved by the nations in the Military Committee Land Standardization Board, is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 2622.
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4. This publication shall be handled in accordance with C-M(2002)60.



Edvardas MAŽEIKIS
Major General, LTUAF
Director, NATO Standardization Office

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RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
ESP	The date of implementation remains subject to the availability of the resources needed to undertake the training activities that must be conducted to achieve the different levels of proficiency established by the STANAG.
POL	Due to the allocation of duties and authorities functioning in the Polish Armed Forces regarding destruction of ammunition Poland will implement STANAG with the exception of p. A6, C4, D4 of ATP-89.
USA	The US does not recognize that ammunition technical personnel are qualified to accomplish the tasks in paragraph B.3.10 "Be able to assist to provide support during firing Land Guided Missiles" and Paragraph C.1.7 " Be able to provide support during firing of land guided missiles".
<p>Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.</p>	

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CHAPTER 1 GENERAL

1.1. GENERAL

1. Each Nation that transports and stores ammunition understands the need to train their own workforce. However, deployed missions or operations with two or more Nations contributing to the forces are increasing. This Multi-National environment (which may be further complicated when two or more land, maritime or air components are committed) highlights a serious concern of all Nations regarding whether allied forces provide the essential explosives training needed to ensure the safety of personnel and property that is critical to mission success. Each Nation solves this problem differently according to their needs; there is neither a correct nor an incorrect method.

2. Nations that transport, store and use munitions understand the need to train their own workforce to accomplish those tasks safely. They do this by providing a training curriculum (whether civilian or military) or by attending another Nation's technical ammunition training courses. Those training courses can vary in terms of specialty, depth (e.g., the technical level of training), and breadth (e.g., the competencies taught) and in the timeframe set aside for formal training. While training is a national responsibility, Nations leading or contributing personnel to a NATO Mission/Operation involving munitions related tasks must be qualified to the associated tasks. In the absence of qualified explosives safety personnel, formal arrangements (e.g., Memorandum of Agreement) must be established with other munitions-contributing Nations to provide qualified explosives safety personnel to ensure compliance with NATO requirements described in other chapters of this document.

3. The below listing provides descriptions of some of the munitions-related personnel skill sets that may be available:
 - a. Explosives Safety Officer (ESO). This is generally a highly trained individual (civilian or military) designated in writing to advise a commander on all explosives safety matters. This individual provides explosives safety management and oversight of the commander's Explosive Safety Munitions Risk Management (ESMRM) program. Minimum competencies required by an ESO are detailed at Annex D of this STANAG, and ANNEX B of AASTP-5. An individual qualified to be an ESO would have the skills necessary to support ESMRM throughout all phases. For the safety of all Nations present at a Multi-National Base, it is especially important that a Lead ESO be assigned to coordinate the execution of critical explosives safety elements, as defined in AASTP-5, on that base. In the absence of a Lead Nation, the NATO operational chain of command shall appoint a Lead ESO to perform those functions.

- b. Ammunition Technical Officer (ATO). This terminology is generally applied to a military officer who has received intensive, in-depth, formal munitions training. The level of training may vary by Nation, but generally, a fully trained ATO is well qualified to serve as an ESO and brings many other qualifications and skills that can enhance the Explosive Safety Program.
- c. Service-trained munitions-related military personnel. Many Nations provide Service-specific munitions training for their officers / NCOs pertaining to the functions they serve (e.g., ground, air, sea), with much of the basic material covered being common to all. In order to qualify an individual who has participated in such training as an ESO, it's important to assess the training they have completed against the competencies discussed above for an ESO.
- d. Ammunition Technician (Levels 1-3). This terminology is generally used to describe an individual (military or civilian) within the munitions supply chain who works at a fixed location such as an ammunition supply point, ammunition storage depot, pier facility or a flightline. They are capable of providing technical expertise in all aspects of the installation (e.g., logistics disposal, inventory control, receipts and issues, maintenance, aircraft loading/offloading, ship loading/offloading). The level and scope of training will vary by Nation. An assessment of an individual's training, skills, and experiences must be made against ESO minimum competencies, but generally, a fully trained and experienced AT should qualify to serve as an ESO. In addition, they may bring other qualification and skills that can enhance an Explosive Safety Program.
- e. Safety Engineers/Technicians/Quality Assurance Specialists. This category is generally made up of highly trained, civilian personnel, who are used to provide explosives safety support to deployed forces from home locations. They have also been deployed to provide in-theatre explosives safety support to their national forces. Such individuals could be identified as ESOs, provided their training and experience meet minimum competencies for an ESO.
- f. Ammunition Handler. This is the individual doing the actual munitions handling. These personnel receive basic explosives safety hazards training, warehousing and fire-fighting skills, and learn how to operate material handling equipment, basic firefighting, etc. An ammunition handler would not have the necessary skills to be an ESO.
- g. Aviation Ordnance Specialist. This is the individual doing the actual building up of ordnance and the loading of ordnance on aircraft. These personnel receive basic explosives safety hazards training, warehousing and fire-fighting skills, and learn how to operate material handling equipment, ordnance peculiar equipment and basic firefighting, etc. An aviation ordnance person would not have the necessary skills to be an ESO.

- h. Explosives Ordnance Disposal (EOD). EOD personnel, though highly trained for the disposal of ammunition, would generally not qualify as an ESO, except if they were also ATO and AT trained. Their in-depth understanding of munitions, the hazardous effects produced and mitigation / protection of those effects can make them an invaluable member of any Explosive Safety team. If destruction of munitions is an aspect being addressed, then EOD must be consulted to ensure that full consideration is given to the consequences of an intentional munition burn or detonation. Minimum standards of proficiency for trained EOD personnel can be found in STANAG 2389.
- i. Contractors. Personnel with all the necessary skills to do a required logistical function can generally be hired as a contractor. Contractors can play a significant role in explosive safety efforts and could provide a service that is not readily available to a nation. Typically, a contracted individual would not be assigned the role of an ESO, but in the event that is necessary, their experience and qualifications must meet minimum competencies for an ESO.

1.2. AIM

4. The aim of this agreement is to establish minimum standards of proficiency for trained ammunition technical personnel and trained ammunition technician officers to operate in multinational operations and to provide guidance to the multinational commanders on ammunition technical personnel capabilities.

1.3. AGREEMENT

5. Participating Nations agree to adopt the minimum standards of proficiency set out in Annexes A-D within their respective ammunition organizations. Nothing in this agreement should discourage Nations from exceeding the agreed standards where this is feasible.

6. Not all ammunition technical personnel need to be proficient in all categories shown at Annexes A-D, but where any technician is trained in a specific category that training should meet the minimum standard of proficiency shown in the respective Annex.

7. Minimum standards of proficiency for assistant to trained technical personnel are not provided as it is a national responsibility to provide ammunition technical personnel within their intimate support.

8. The lower level has to be able to provide support to the next higher level, the definition of the prerequisites is a national responsibility.

9. Nuclear Weapon/Ammunition technical personnel are not included in this STANAG.

1.4. IMPLEMENTATION OF THE AGREEMENT

This STANAG is implemented when a nation has issued the necessary orders or instructions to the forces assigned to NATO prescribing the adoption of the minimum standards of proficiency contained herein.

**ANNEX A
MINIMUM STANDARDS OF PROFICIENCY FOR AN AMMUNITION TECHNICAL
PERSONNEL LEVEL 1. (ASSISTANT).**

A.1. GENERAL

Must:

1. Be familiar with the national ammunition management's structure and procedures.

A.2. IDENTIFICATION

Must:

2. Be able to identify the ammunition used by the nation.
3. Be able to assist to control ammunition inventory.

A.3. AMMUNITION TECHNIQUES

Must:

4. Have knowledge on the characteristics of current national land used ammunition. (For Land Service personnel)
5. Have knowledge on the characteristics of current national air used ammunition. (For Air Service Personnel)
6. Have knowledge on the characteristics of current national maritime used ammunition. (For Marine Service Personnel)
7. Have knowledge on the characteristics of current national joint used ammunition.
8. Be able to assist to maintain ammunition.

A.4. STORAGE

Must:

9. Have a basic knowledge of compatibility rules.

10. Have a basic knowledge of safety rules.
11. Be able to assist to receive ammunition.
12. Be able to assist to store ammunition.
13. Be able to assist to issue ammunition.

A.5. TRANSPORTATION

Must:

14. Have knowledge of transportation rules based on transport of dangerous goods.
15. Be able to assist during the preparation of shipments.

A.6. DESTRUCTION OF AMMUNITION

Must:

16. Be able to assist to destroy non-fired obsolete or deteriorated ammunitions.

ANNEX B
**MINIMUM STANDARDS OF PROFICIENCY FOR AN AMMUNITION
TECHNICAL PERSONNEL LEVEL 2. (PERFORMANCE)**

B.1. GENERAL

Must:

1. The ammunition technical personnel level 2 shall be qualified ammunition technical personnel level 1.
2. Be able to advise users on ammunition related matters.
3. Be able to control ammunition inventory.

B.2. IDENTIFICATION

Must:

4. Be able to identify the NATO used ammunition.

B.3. AMMUNITION TECHNIQUES

Must:

5. Be able to advice on the characteristics of current national land used ammunition. (For Land Service Personnel)
6. Be able to advice on the characteristics of current national air used ammunition. (For Air Service Personnel)
7. Be able to advice on the characteristics of current national maritime used ammunition. (For Marine Service Personnel)
8. Be able to advice on the characteristics of current national joint used ammunition.
9. Be able to maintain ammunition.
10. Be able to assist to provide support during firing Land Guided Missiles.
11. Be able to assist to perform deployed operations.
12. Be able to assist to investigate ammunition incidents/accidents.

13. Be able to assist to investigate ammunition defects/malfunctions.
14. Be able to assist to inspect ammunition lock-ups and ammunition facilities.

B.4. STORAGE

Must:

15. Have knowledge of compatibility rules.
16. Have knowledge of safety rules.
17. Be able to receive ammunition.
18. Be able to issue ammunition.
19. Be able to store ammunition.

B.5. TRANSPORTATION

Must:

20. Be able to prepare shipments.

<p style="text-align: center;">ANNEX C MINIMUM STANDARDS OF PROFICIENCY FOR AMMUNITION TECHNICAL PERSONNEL LEVEL 3. (SUPERVISOR)</p>
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C.1. GENERAL

Must:

1. The ammunition technical personnel level 3 shall be qualified ammunition technical personnel level 2.
2. Be aware of the national ammunition management's structure and procedures.
3. Be able to explain the national ammunition management's policy.
4. Be able to administer ammunition and explosives safety program
5. Be able to perform technical administration.
6. Have knowledge and be able to understand the appropriate NATO documents.
7. Be able to provide support during firing of land guided missiles.
8. Be able to perform deployed operations.

C.2. AMMUNITION TECHNIQUES

Must:

9. Be able to investigate ammunition incidents/accidents.
10. Be able to supervise and to manage maintenance and renovation actions.
11. Be able to verify serviceability of ammunition.
12. Be able to perform technical service functions.

C.3. STORAGE

Must:

13. Be able to inspect ammunition lock-ups.

14. Be able to advise how to store ammunition.
15. Be able to inspect ammunition.
16. Be able to conduct ammunition facilities and ammunition lock-up inspections.

C.4. DESTRUCTION OF AMMUNITION

Must:

17. Be able to lead, under the supervision of a safety-director, a destruction of non-fired obsolete or deteriorated ammunitions.
18. Be able to destroy, under the supervision of a safety-director, conventional foreign non-fired ammunitions.

ANNEX D
**MINIMUM STANDARDS OF PROFICIENCY FOR AN AMMUNITION
TECHNICIAN OFFICER. (ATO) AND/OR AMMUNITION TECHNICAL
PERSONNEL LEVEL 4 (MANAGER)**

D.1. GENERAL

Must:

1. The ATO shall be qualified ammunition technical personnel level **2**.
2. Be able to explain the ammunition management's policy.
3. Be able to manage ammunition allocations.
4. Be able to advise on ammunition and explosive policies, directives and regulations.
5. If acting as an Explosives Safety Officer, following competencies should be required according AASTP-5 Edition 1 Version 2.
 - a. Have knowledge and understanding of NATO Standards and Guidelines regarding Storage, Maintenance and Transport of Ammunition.
 - b. Be able to identify FD applied from PES and to ES.
 - c. Be able to plan Ammunition Area (e.g., number of PES required, barricade requirements, appropriate FD).
 - d. Be able to organize an ammunition field depot based on economical storage principles and procedures.

D.2. AMMUNITION TECHNIQUES

Must:

6. Be able to advice on the use of ammunitions during operations.
7. Be able to provide technical advice on solutions for ammunition and explosive requirements.
8. Be able to manage ammunition and explosive operations.
9. Be able to serve as a SME (Senior Matters Expert) to a board to investigate ammunition and explosive accident, incident, defect and malfunction.

D.3. STORAGE

Must:

10. Be able to manage ammunition and explosives storage.
11. Be able to develop ammunition facilities.
12. Be able to conduct ammunition facilities inspections.

D.4. DESTRUCTION OF AMMUNITION

Must:

Be able to lead a destruction of non-fired obsolete or deteriorated ammunitions as a safety-director.

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