

The OSCE Secretariat bears no responsibility for the content of this document and circulates it without altering its content. The distribution by OSCE Conference Services of this document is without prejudice to OSCE decisions, as set out in documents agreed by OSCE participating States.

FSC.DEL/82/21/Rev.2
24 January 2022

ENGLISH only

Distributed at the request of Germany, Austria and Switzerland

OSCE Best Practice Guide on Ammunition Marking, Registration and Record-Keeping

The update of the Guide is led by the government of Germany.

This Guide was originally drafted by Germany as FSC.DEL/73/07/Rev.1/Corr.1 and adopted in 2007 by FSC Decision Nr. 12/07.

Table of Contents

I.	Aim and Scope	3
II.	General Policies and Procedures.....	3
III.	Marking of Ammunition and Ammunition Packaging.....	5
1.	Purpose of Marking Ammunition and Ammunition Packaging.....	5
2.	Types and Methods of Marking Ammunition	6
2.1	Ammunition Marking by Inscription	6
2.1.1	Permanent Inscriptions	6
2.1.2	Non-permanent Inscriptions	6
2.1.3	Labeling	6
2.2	Marking Ammunition with Color Codes.....	6
2.3	Marking Ammunition with Symbols	7
2.4	Palpable Markings.....	7
3.	Types and Methods of Marking Ammunition Packaging.....	7
IV.	Registration and Record-keeping.....	8
1.	Purpose of Registration and Record-keeping	8
2.	Registration and Record-Keeping Principles	8
2.1	Registration stages	8
2.1.1	Registration and Record-keeping during the Production Process	8
2.1.2	Registration and Record-Keeping during Materiel/Functional Testing	9
2.1.3	Registration and Record-Keeping during shipment and receipt	9
2.1.4	Registration and Record-Keeping during storage.....	9
2.1.5	Registration and Record-Keeping in Case of Loss or Theft.....	10
2.1.6	Registration and Record-Keeping at Consumption/Use or Disposal/Destruction.....	10
2.2	Registers and Type of Information to be Recorded	10
V.	Definition of Terms.....	12
VI.	Further Reading on Conventional Ammunition: Marking, Registration and Record-keeping	15
VII.	List of Annexes.....	15
Annex 1:	Ammunition Data Card (Sample - DD Form 1650 (US))	16
Annex 2:	Stack Tally Card (Sample from IATG).....	17
Annex 3:	Lot Surveillance Card (Sample from German Armed Forces).....	18

I. Aim and Scope

This Best Practice Guide applies exclusively to state-owned stockpiles of conventional ammunition for military, paramilitary, security and police forces of a participating state in accordance with section II and III of the OSCE Document on Stockpiles of Conventional Ammunition (FSC.DOC/1/03, dated 19 November 2003). All other ammunition, such as ammunition in private possession or ammunition used for non-conventional weapons like NBC weapons or other CBRN devices, is excluded. It contains information especially useful for those who are working on establishing national policy and procedures. Consequently the information and recommendations provided may be used as a basis for developing policy guidance, general operational guidelines and procedures on all aspects of ammunition marking, registration and record-keeping.

The possibility of understanding and interpreting ammunition markings is vital for building up further regulations on stockpiling of conventional ammunition (i.e. management procedures) and may help participating States to use their resources more efficiently. Any investigation conducted on the basis of the markings on conventional ammunition and its packaging and on the basis of the relevant records should contribute towards combatting the illicit proliferation of ammunition and thus especially the illicit use of small arms and light weapons (SALW).

II. General Policies and Procedures

All aspects of ammunition management are part of a life-cycle management approach involving continuous risk management. At the core of this approach is the improvement of stockpile management practices, which serve as a means to reduce the probability of unplanned explosions at munitions sites and the diversion of ammunition.

By using registration and record-keeping systems, in particular those supported by digital systems, a state improves its capability to assess the quality and quantity of its stockpiles, distinguish between serviceable and unserviceable ammunition and detect loss or theft from the ammunition stockpile.

National ownership is a prerequisite for the creation of appropriate framework conditions, and it is promoted by such conditions. The establishment of effective and well-coordinated national standards sends a clear signal that ammunition management is a national responsibility. A state will not be able to achieve any long-term improvement of its management procedures without introducing national legislation, regulations and norms for the management of ammunition. Thus, the development of appropriate standards and guidelines is an important national responsibility and depends, among others, on national needs and priorities. These may vary considerably from state to state.

National norms for the safety and security of ammunition and explosives comprise not only the legal framework but, first and foremost, the technical aspects of stockpile management. In addition to complying with existing national laws and other relevant national norms, national standards should also be consistent with the guiding principles of the International Ammunition Technical Guidelines (IATG). National standards should reflect a state's policies and include requirements and guidelines for ammunition accounting, storage, processing, disposal, safety and security and transport. The IATG recommendations explicitly take into account the level of resources and technical expertise available to a state for the implementation of a comprehensive Life-Cycle-Management system of conventional ammunition.

The minimum criteria should be arranged in a logical order or a logical framework and will facilitate the monitoring and technical inspection of ammunition, thereby enabling a state to assess the stability and reliability of ammunition, prevent accumulations of aging, unstable and unsafe ammunition and reduce the probability of unsafe use, handling, storage and disposal of stockpiles. As a result, the key elements of the OSCE Document on Stockpiles of Conventional Ammunition will be implemented.

The recommended Standard Operating Procedures (SOPs) are the documents describing how laws and national norms are put into practice, especially on the local level, i.e. at the legitimate location of ammunition

and explosives. Usually, SOPs are drafted by competent technical experts on behalf of the director or commander of an ammunition storage site.

Packaging and Marking

The packaging of ammunition and explosives with appropriate and specially designed ammunition packaging material, developed and tested for adequate protection of its contents from all foreseeable hazards throughout its envisaged life, is an important safety measure.

When ammunition is removed from its authorized packaging it is exposed to potential physical damage and other environmental deterioration, which may seriously affect its safety and reliability. In addition, packaging also facilitates the logistic processes of moving, storing and handling ammunition. The removal of ammunition from its authorized storage and transport packaging may also have a negative impact on the stipulated hazard divisions.

For these reasons, ammunition should always be kept, stored and transported in its authorized packaging until it is used as intended or finally disposed of.

The packaging should also have markings that provide the responsible staff on site with information so that they can store, handle and transport the ammunition safely and efficiently. Proper markings, labels and seals that are placed on ammunition and packaging include the necessary important safety information. Some markings are mandatory according to the UN hazard classification system, while other markings facilitate logistic management and control processes at facilities.

The UN Model Regulations are internationally accepted best practices for packaging and marking dangerous goods (including ammunition and explosives) and contain practical information on the packaging and marking of ammunition. The corresponding IATG Module 06.40 is based on the UN Model Regulations.

For further information on marking and packaging see Chapter III.

Record-Keeping

Ammunition which is not managed and not monitored may be stolen, damaged or misused and deteriorate to such a degree that it reacts in an unintended manner. As part of its record-keeping, and in order to create a safe and secure environment, a state has to be able to maintain an overview of its ammunition and account for and manage its stockpiles efficiently throughout their life cycle. A lack of basic stockpile management increases the probability that the ammunition may not function as designed, may become unsafe, or could be subject to diversion to an unauthorized third party.

Record-keeping also provides important information to support management-related functional elements (planning, procurement, stockpile management and disposal).

A state's ammunition record-keeping system should be organized in such a way that detailed records are kept (according to specific type, quantity, lot and/or serial number and exact location) as required throughout the whole life cycle of the ammunition.

For further information on registration and record-keeping see Chapter IV.

III. Marking of Ammunition and Ammunition Packaging

1. Purpose of Marking Ammunition and Ammunition Packaging

Ammunition and its packaging have always been labeled with a wide variety of different markings for quality control, logistic and mission-tactical purposes as well as to prevent accidents. A key feature is to provide information about type and nature of ammunition and their explosives charge. In detail, such markings can serve the following purposes and may provide information on:

- the exact identification of all types of ammunition and/or the ammunition designation in any situation, even in darkness or limited visibility;
- the stock number;
- the quantity of ammunition contained within the package;
- the caliber of the ammunition and the length of the cartridge case;
- the manufacturer of the ammunition;
- the date of manufacture of the ammunition (year and/or month);
- the production lot to which the ammunition belongs. In the context of accident prevention, the lot designation may be used to recall a specific production lot, which has shown irregularities during use or technical ammunition checks and therefore should be barred from further use. By analogy, the same applies to production lots, which are to be disposed of on the grounds of obsolescence. Lot designations are often used in stockpile management because they provide more detailed information on a specific quantity of ammunition manufactured under the same production period than the mere indication of the corresponding ammunition type and nature. Ammunition consumption, too, is frequently documented on the basis of lot designations. The lot designation often contains coded information on the manufacturer, the year of production, the month of production, the sequence of production and the state of modification of the ammunition;
- the ammunition's unique serial number. More complex high-quality types of ammunition (such as MANPADS, anti-tank guided missiles, rockets and torpedoes) in particular have only, or in addition to the lot designation, a distinct individual serial number – like weapons systems – allowing the identification of a particular ammunition item;
- the hazard classification (Hazard class and Compatibility group);
- any specific hazards arising from the ammunition and requiring specific ammunition handling procedures, e.g. explosives or other hazardous substances (e.g. phosphorus) contained by the ammunition;
- the functioning of the ammunition and thus its usability for certain tactical purposes (e.g. demolition, armor-piercing or tracer effect);
- the usability of the ammunition for certain types of weapons (guns, howitzers, mortars etc.);
- specific fuse effects/capabilities (e.g. of proximity fuses).

This list of reasons for the marking of ammunition and/or its packaging is neither exhaustive, nor does it imply that, in practice, each and every cartridge or package is marked with all of the above-mentioned information.

Marking ammunition packaging facilitates safe and efficient ammunition logistics. Markings used for logical record-keeping (e.g. ammunition designation or nature, lot designation or serial number) as well as information on specific hazards arising from the ammunition should be affixed to the ammunition packaging because ammunition will usually be kept in these packages during fixed storage and transport.

All ammunition should be marked appropriately and accurately, in accordance with domestic legislation and practice. Markings on ammunition and its packaging may serve all the useful purposes mentioned above. Appropriate markings contribute significantly to accident prevention, safety and security, the administrative management of ammunition stockpiles and to help tracing the origin of the ammunition in the context of disciplinary or criminal investigations (e.g. concerning the illicit possession and use of or trafficking in ammunition).

To achieve maximum effect and avoid any confusion, ammunition should be marked during manufacture. The following section provides information on the types and methods of marking ammunition.

2. Types and Methods of Marking Ammunition

Due to the significance of ammunition markings for ammunition users, the markings are usually applied in such a way that they are clearly visible but difficult to alter or remove. This is not the case if the information is printed or stenciled only on the ammunition packaging. The most common types of ammunition marking are described in the section below.

2.1 Ammunition Marking by Inscription

By means of inscriptions (a sequence of letters and/or numbers) information such as the type and nature of ammunition, the ammunition model, the caliber, the length of the cartridge case, the manufacturer, the year/month of production and, in particular, the lot designation and/or the serial number should be applied or affixed. There are three main methods to convey such information:

2.1.1 Permanent Inscriptions

Depending on the production process, “permanent inscriptions” are usually engraved, cast, stamped or hammered into the outer surface of the ammunition casing – either by applying conventional methods of deformation or engraving or by using laser techniques. This type of inscription is considered to be “permanent” because even if a marking appears to have been removed completely it can still be detected by forensic methods. As regards small arms ammunition with a cartridge case, these permanent markings are usually applied to the cartridge base.

2.1.2 Non-permanent Inscriptions

Depending on the production process, “non-permanent inscriptions” are usually painted, drawn or printed directly onto the outer surface of the ammunition casing or packaging. Painted markings are commonly used for the information required for logistics (i.e. Lot-number) and usage. Therefore, the marking color often serves to indicate the type of ammunition, the intended use or to provide information on the hazardous substances the ammunition contains.

2.1.3 Labeling

Sometimes, especially on very large ammunition items (i.e. large air delivered bombs) filled-in adhesive notes (labels, stickers or metal plates) are attached directly to the ammunition, or filled-in tags are fastened to ammunition to provide the above-mentioned information. This method of marking ammunition with labels should be used with caution, particularly regarding gun ammunition; labels or other materials affixed to the ammunition which were not part of the manufacturing and testing process may lead to safety and/or performance problems.

2.2 Marking Ammunition with Color Codes

Especially major-caliber conventional ammunition is often covered with a coat of paint or dyed (e.g. plastic parts). In most cases, the coat of paint also serves as a protective finish and/or camouflage painting and is therefore usually applied to the entire surface of the ammunition casing. The colors used for this purpose indicate, for example, the intended use of the ammunition or provide information on hazardous substances the ammunition contains.

Instead of dyeing large parts of the ammunition casing, the ammunition (including small arms ammunition¹) can also be marked with rings of paint (color bands) or coloured bullet tips to denote, for example, that the ammunition at hand is tracer or armour piercing ammunition or contains hazardous additives such as phosphorus.

2.3 Marking Ammunition with Symbols

Symbols applied to ammunition usually provide information on the proper handling of the ammunition concerned (e.g. during transport, storage and use) or on its type (e.g. high-explosive, incendiary, armor-piercing ammunition) or they indicate compliance with certain international standards on overall dimensions, performance and effectiveness of the ammunition. These symbols may be “permanent” or “non-permanent”.

2.4 Palpable Markings

Markings that are not only visible but also palpable usually serve to identify the effect of the ammunition when it is dark or visibility is limited. Ideally, this method of marking should be integrated into the ammunition manufacturing process; adding grooves, notches or other palpable markings that were not part of the manufacturing or testing process may lead to safety and/or performance problems.

Examples of visible and palpable markings include:

- a knurl circling the cartridge case or the edge of the cartridge case base;
- longitudinal grooves on the jacket of the cartridge case;
- notches on the base of the cartridge case;
- position cams on the jacket of a proximity or time fuse to indicate range.

3. Types and Methods of Marking Ammunition Packaging

Ammunition packaging is usually marked with “permanent” (e.g. stamped or burnt-in) labels or symbols or with “non-permanent” stickers, tags or symbols (e.g. coat of paint, adhesive notes or tags). As already mentioned, in addition to identification information listed above in Section III, paragraph 1, ammunition packaging usually features information relevant to logistics, quality control or for the purpose of preventing accidents during transport or storage of packed ammunition. To facilitate record-keeping, the manufacturer should apply the lot designation/serial number of the packed ammunition as well as the number of pieces to the exterior of each ammunition box.

¹ Since small-caliber ammunition is produced in large quantities, this type of marking may be prohibitive due to high costs, particularly if applied after manufacture. Therefore, this method of marking should ideally be integrated into the ammunition manufacturing process.

IV. Registration and Record-keeping

1. Purpose of Registration and Record-keeping

According to the OSCE Document on Stockpiles of Conventional Ammunition, there is general agreement that ammunition stockpiles including ammunition in surplus and/or awaiting disposal or destruction should be registered and recorded as comprehensively as possible.²

To this end, registration and record-keeping should span the entire life cycle of ammunition from its production to its consumption and/or disposal/destruction. Based on registration and sustained record-keeping, it is possible to provide accurate information on:

- the exact types/natures and/or models of the ammunition in stock;
- respective quantities of the different types of ammunition;
- their technical condition;
- the shelf life of any item and
- the current storage location of the ammunition.

The ability to provide this information is a basic prerequisite for supplying the respective end-users with serviceable ammunition according to their needs, preventing accidents involving ammunition, replenishing stockpiles or preparing procurement plans. In addition, the above-mentioned ability to provide information allows early detection of any loss due to theft or embezzlement and facilitates subsequent investigations. Registration and record-keeping are key to controlling legal ammunition stockpiles and preventing them from becoming illicit.

2. Registration and Record-Keeping Principles

This section will introduce some essential principles governing the registration and record-keeping of ammunition.

2.1 Registration stages

Registration and record-keeping of ammunition should take place at every point in its life cycle. Stages listed below are explained in more detail in paragraph 2.1.1 to 2.1.6.

- manufacture;
- materiel/functional testing;
- shipment and receipt;
- storage;
- loss or theft;
- consumption/use or disposal/destruction.

2.1.1 Registration and Record-keeping during the Production Process

It is a common practice that during the production process manufacturers divide ammunition, ammunition components and explosives into production batches, so-called “lots”. The manufacturer assigns each lot a unique designation, which allows the unambiguous identification and registration of the ammunition of this particular lot. Common quantities of ammunition assigned to one lot designation are, for example, 500,000 rounds of small arms ammunition, up to 5,000 cartridges of

²See OSCE Document on Stockpiles of Conventional Ammunition, Section II, paragraph 16.

tank ammunition and up to 500 MANPADS missiles.³

The manufacturer records the produced quantities of ammunition in production status reports, using the respective lot designation. This registration by the manufacturer marks the beginning of the documentation of the ammunition's life cycle. Manufacturers should create an ammunition data card (ADC), the "birth certificate" of the ammunition, for each lot produced. The ADC includes the quantity of ammunition that has actually been produced, along with further technical and component details and test results. The ADC, or a copy thereof, usually accompanies partial quantities of an ammunition lot. (Example ADC see Annex 1)

2.1.2 Registration and Record-Keeping during Materiel/Functional Testing

In each case, and especially if a state participates in a materiel/functional testing system or a standardization regime for ammunition, the testing authority and the client should keep a record of the testing for each individual lot designation.

2.1.3 Registration and Record-Keeping during shipment and receipt

Each time ammunition is physically transferred/ received from one ammunition storage site to another there should be clear responsibilities during the handover, comparison and accounting procedures. The ammunition to be transferred should be compared with the pertinent data in the records accompanying the ammunition shipment (e.g. transport/consignment document, delivery list, Ammunition Data Card). This comparison should be carried out in the form of a visual inspection by both the person handing over the ammunition and the person receiving it. Both should receive documentary evidence of the result of the comparison, which then provides the basis for subsequent book-keeping activities (addition to or removal from a stockpile). All relevant data on additions or removals of ammunition in a depot confirmed by documentary evidence should be forwarded to the central record office of the organization in charge of the respective depots.

2.1.4 Registration and Record-Keeping during storage

Any major organization (such as police and armed forces) which stocks ammunition should keep a central documentary stock record of the ammunition it has purchased or taken possession of. This stock record should be kept by reliable and well-trained staff pursuant to the generally accepted accounting principles (e.g. by way of additions, removal and stocktaking). On the operational level, the use of stack tally cards is a proven measure to support accurate ammunition accounting and stocktaking. Each ammunition stack should have a tally card attached to it that records the necessary data for that particular stack. For more detailed information see IATG 03.10 "Inventory Management" and Annex 2 of this document.

Dedicated logistic support offices should be established which document and manage stockpiles and transfers of ammunition for specific supply areas, provide effective support in storage space planning and management and conduct ammunition surveillance operations. These offices can also provide lot-specific ammunition control and other ammunition management processes and furnish information for logistic control purposes. A regular comparison between the stockpiles of a storage facility and the central stock record office has proven useful. To this end, all storage facilities (depots) should draw up lists of the existing lots of individual types of ammunition (so-called "lot lists") and forward them to the central record office. Since many storage facilities house various types of ammunition (e.g. shells, rockets, bombs, etc.), it is advisable to report the stockpiles of each individual type of ammunition at adequate regular intervals at different predetermined dates to the central stock record office. Physical inventory

³ Sampling procedures in accordance with ISO 2859.

procedures are included in the OSCE Best Practice Guide on Procedures for Stockpile Management and Security.

Regular stocktaking of all held ammunition inventory is an invaluable aid to accounting accuracy.

Regular internal inventories as described in the Best Practice Guide on Procedures for Stockpile Management and Security can be properly conducted on this basis as well.

Further details on registration and record-keeping during the storage and transport of ammunition are provided in the OSCE Best Practice Guides on Procedures for Stockpile Management and Security and on Safe Ammunition Transportation which were prepared in the context of the OSCE Document on Stockpiles of Conventional Ammunition.

2.1.5 Registration and Record-Keeping in Case of Loss or Theft

Any loss or theft of ammunition should be recorded by the affected storage facility and the central stock record office to facilitate the prompt notification of the national competent authorities.

2.1.6 Registration and Record-Keeping at Consumption/Use or Disposal/Destruction

Any facility or organization (e.g. military or police units, battalion, brigade) using or disposing of ammunition should be accountable for all ammunition in its stockpiles or sphere of responsibility. To this end, the facility/organization should keep a stock status report of all existing ammunition items which lists all ammunition lots and the exact storage locations.

Every consumption, transfer or disposal of ammunition in the context of training activities (firing practice) or during operations should be documented in consumption records (e.g. ammunition and scoring logs). The level of detail of such records depends on national requirements and may vary widely. These records serve as documentary evidence and should be kept for a period of at least three full calendar years after the final entry was made.

Entities carrying out the disposal or destruction of ammunition at the direction of competent national authorities should keep records about:

- the unserviceable ammunition destroyed;
- the serviceable ammunition used to effect the disposal;
- the chosen method of disposal.

2.2 Registers and Type of Information to be Recorded

There are obviously many registration and record-keeping procedures. All of them ought to be effective and easy to put into practice.

All registers used for record-keeping purposes should be duly authenticated. The authorities of any state should ensure that active ammunition inventory records are kept until the ammunition is completely consumed and/or disposed of. The archived ammunition records should be retained by a central facility for a period of at least 20 years and ideally for an unlimited time. If other entities than government agencies are authorized to keep certain records, they should ensure that all active records containing the above-mentioned information are kept according to the standard of government agencies for as long as they perform this function. As soon as those entities have completed this function, they should transfer the records in their possession to the competent government authority or company, which continues their task. To make sure that the information to be recorded meets the purposes mentioned in Section IV, paragraph 1, it should include at least the following details:

- description of the manufacturer;

- stock number;
- detailed description of the ammunition, in particular type and model, caliber, type of explosives and pyrotechnic substances;
- technical condition of the ammunition and/or condition code;
- lot designation;
- proof of ownership;
- serial number (if any);
- hazard class/division.

As appropriate, a record of the origin and destination of the ammunition should be kept and, if applicable, of the export or import licenses including end-user certificates.

If required by national legislation, the above-mentioned information should be transmitted to the competent national authorities.

V. Definition of Terms

Accountable Agency

Subunit, unit, agency or facility obliged to keep documentary evidence of its equipment, stockpiles or inventories.

Ammunition

In the context of this Best Practice Guide to the OSCE Document on Stockpiles of Conventional Ammunition the technical term “ammunition” includes all substances and items that have or may have explosive properties such as

- a) explosive substances and pyrotechnic mixtures;
- b) items containing explosives;
- c) substances and items listed neither under a) nor b) that were produced to cause a practical effect by means of an explosion or a pyrotechnic effect;
- d) smoke-producing substances.

This definition includes conventional ammunition, explosive material and detonating devices of land-air- and sea-based weapons systems. The following broad categories shall provide an overview:

- a) ammunition for small arms and light weapons (SALW);
- b) ammunition for major weapon and equipment systems including guided missiles;
- c) rockets;
- d) land mines and other types of mines;
- e) other conventional ammunition, explosive material and detonating devices;
- f) flares, signal cartridges, grenades, pyrotechnic simulators, and smoke-producing munitions;
- g) mock-up models of these items for training and practice firing purposes, provided that they contain explosive or pyrotechnic substances.

Ammunition Accident

Unexpected event involving ammunition in which an unintentional ammunition-specific effect leads to personal injury or damage to property.

Ammunition Data Card (ADC)

Record created at the time of manufacture of the ammunition. It includes a list of components used to manufacture the ammunition as well as technical details, processes, quantity, packaging and recipient.

Ammunition Packaging Material

Ammunition packaging material is packaging for ammunition and forms an ammunition package together with the ammunition. It is made of packaging material designed to enclose ammunition or hold it together so that it can be transported and stored.

Ammunition Surveillance

Identification or evaluation of the actual state of the ammunition and its packaging.

Ammunition surveillance includes:

- a) checking the ammunition for safety and serviceability;
- b) checking the ammunition for changes, i.e. corrosion, deterioration of explosives or pyrotechnic substances;

- c) subjecting ammunition to a visual inspection, disassembly of ammunition for component testing;
- d) performing tests on ammunition (example: continuity test, pull test, tests on components, chemical tests (ageing), functional tests).

Explosive Substances

Solid or liquid substances or mixtures which can, by way of chemical reaction, generate gases of such high temperature, pressure and speed that they may cause destruction in the vicinity.

Explosives

Blasting agents, explosive charges, propellant fuels, initiating agents, igniting agents and pyrotechnic charges.

Lot

A lot is the quantity of ammunition or explosives produced by a manufacturer according to the same production data and the same production process and under approximately identical production conditions without any interruptions.

Lot Designation/Lot number

A designation allocated to a lot that uniquely identifies that lot. The ammunition is marked with the lot designation (also referred as Lot Number) which includes the above-mentioned details.

Lot Surveillance Card

The lot surveillance card/file serves to monitor stockpiles by determining the date of the last examination; it also includes information on the condition of the ammunition.

Nature of Ammunition

Ammunition with the same intended use and the same effect.

Examples: high-explosive ammunition, HEAT ammunition, high-explosive plastic ammunition, fragmentation ammunition, illuminating ammunition, armor-piercing ammunition.

Propellants

Substances made of solid or liquid deflagrating explosives that are used for propulsion.

Property Accounting

Stock management procedure for the purpose of determining authorized levels and requirements, keeping stock records, managing defense materiel, registering records and entering them into the books as well as preparing reports.

Provisioning

Provisioning of ammunition is the stockpiling of ammunition for the purpose of smoothly and immediately meeting any current, planned or short-term demand for ammunition at dedicated locations.

Pyrotechnic Mixtures

Substances or mixtures designed to generate an effect in the form of heat, light, sound, gas or smoke or a combination of these effects as a result of non-detonative, self-sustaining, exothermic chemical reactions.

Record-keeping

In this context, the term “record-keeping” means the maintenance of data with regard to the identifiability of any ammunition item, its legal status and its storage location at a given stage of its

life cycle.

Registration

In this context, the term “registration” means the collection of data with regard to the identifiability of any ammunition item, its legal status and its storage location at a given phase of its life cycle.

Serviceable Ammunition

Ammunition, which meets the minimum technical requirements in terms of serviceability, performance and safety and has been cleared for use.

Shelf life

The length of time an item of ammunition may be stored under specific conditions before the performance of that ammunition may degrade, ammunition becoming unsafe or failing to meet specified performance criteria.

Stack Tally Card

A card with a special layout that is attached to an ammunition stack and contains and records particular information for that stack.

Stock

A given quantity of explosive ordnance.

Stockpile

A large, accumulated stock of explosive ordnance. Often used interchangeably with stock or to denote the ammunition retained in a specific ammunition storage facility or depot.

Stock number (National Stock Number)

A national Stock Number is simply the official label applied to an item of supply that is repeatedly procured, stocked, stored, issued and used throughout the national supply system. It is a unique, item identifying, digit numeric code.

Stock Record

Documentary list and corresponding supporting documents with regard to the material taken in possession, which is kept in accordance with the generally accepted accounting principles.

Stock Status Report

List of existing supply items for materiel planning, stock management etc. It gives an overview of existing stockpiles on the basis of stock number, lot number, condition and storage location.

Type of Ammunition

Ammunition with the same basic designation and nominal size and belonging to the same weapon/equipment system.

Examples of ammunition types:

- a) cartridge 7.62 mm x 51 / .308
- b) projectile/Shell 155-H (155mm Howitzers)
- c) anti-tank guided missile (ATGM)

VI. Further Reading on Conventional Ammunition: Marking, Registration and Record-keeping

- a) UN Resolution 60/74, Problems arising from the accumulation of conventional ammunition stockpiles in surplus, 11 January 2006;
- b) OSCE Document on Stockpiles of Conventional Ammunition, FSC.DOC/1/03, dated 19 November 2003;
- c) Allied Ordnance Publication (AOP)-2, Identification of Ammunition, NATO, 2017;
- d) International Ammunition Technical Guidelines, UNODA, New York, 2015;
- e) Critical Path Guide to the International Ammunition Technical Guidelines, UNODA, New York, 2019.

VII. List of Annexes

Annex 1: Ammunition Data Card (Sample – DD Form 1650 (US))

Annex 2: Stack Tally Card (Sample from IATG 03.10 “Inventory Management”)

Annex 3: Lot Surveillance Card (Sample from German Armed Forces)

Annex 1: Ammunition Data Card (Sample - DD Form 1650 (US))

AMMUNITION DATA CARD					Form Approved OMB No. 0704-0188	
<p>The public reporting burden for this collection of information is estimated to average 14 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to the Department of Defense, Executive Services Directorate (0704-0188). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ORGANIZATION.</p>						
1. ITEM NOMENCLATURE		2. NSN	3. DODIC	4. LOT NUMBER		
5. MANUFACTURER, LOADING OR ASSEMBLY ACTIVITY			6. NET QUANTITY		7. PACKING OF LOT	
8. CONTRACT OR ORDER NO.		9. DRAWING AND REVISION		10. SPECIFICATION AND REVISION		
11. DATE STARTED		12. DATE COMPLETED	13. DATE INSPECTED		14. LINE	15. ZONE WEIGHT
16. SPECIFICATIONS						
a. CHARGE WEIGHT		b. INDEX OF POWDER	c. MAXIMUM PACKING DEPTH IN INCHES	d. PRODUCTION PACKING DEPTH RANGE IN INCHES	e. EXPLOSIVE WEIGHT PER PACKAGE	
17. TEST SAMPLES						
a. NUMBER	b. SENT TO		c. DATE SHIPPED		d. MODE OF SHIPMENT	
18. DOT NOMENCLATURE		19. HAZARD CLASS		20. GOVERNMENT QUALITY ASSURANCE ACTIVITY		
21. REMARKS						
22. DISPOSITION		23. GOVERNMENT INSPECTOR				
		a. TYPED NAME		b. SIGNATURE		c. DATE SIGNED
24. COMPONENTS						
a. COMPONENT	b. DRAWING NO.	c. MANUFACTURER	d. DATE MFG.	e. LOT NO.	f. QUANTITY	

Annex 3: Lot Surveillance Card (Sample from German Armed Forces)

Ammunition Description / Item Nomenclature			Lot Designation and Year of production		Ammunition storage site		
National Stock Number			Shelf life		Manufacturer		
Ammunition short code			Packaging		Remarks		
Inspection-Report – No.	Date of Inspection	Quantity	Type of Inspection	Type of error	ESH	Results	Condition Code
1	2	3	4	5	6	7	8

The Lot-Surveillance-Card is used to monitor the stocks, to determine the date of the last inspection (or proof) and contains information on the condition of the ammunition.

After each inspection (or proof), the results should be transferred to the card index.

For this purpose, the following entries should be made:

Column 1: Number of the inspection report;

Column 2: Termination of the inspection;

Column 3: Quantity of inspected ammunition;

Column 4: Type of inspection (e.g. after receipt, before shipment, regular inspection);

Column 5: Type of error (e.g. damage, aging, unknown);

Column 6: Number of Explosive Storehouse inside the storage site;

Column 7: Results (keywords, short text, especially to explain the change of the condition code);

Column 8: Entry from inspection report (Condition Code);

The card index should be arranged by National Stock Number (NSN) and within by alphabetical order of manufacturer.