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Ammunition and Explosives Stockpile Management

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Warning

This document is current with effect from the date shown on the cover page. As the Regional Micro-Disarmament Standards/Guidelines (RMDS/G) are subject to regular review and revision, users should regularly consult the RMDS/G project website in order to verify their current status: www.seesac.org

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Foreword

On 08 May 2003 the development of regional micro-disarmament[1] standards and guidelines was discussed during the RACVIAC sponsored seminar on '***SALW - A year after Implementation of the Stability Pact Plan*** '. The consensus was that such standards and guidelines were desirable, and SEESAC agreed to develop a framework and then take responsibility for the future development of regional standards. It was agreed RMDS/G would be designed to support the work at the operational level, and would go further than the more generic 'best practice' documents currently available. After a wide-ranging discussion between stakeholders as to the status of RMDS/G it has been agreed that the term 'standards' will refer to the technical issues, whilst 'guidelines' will apply to 'programme' issues.

This RMDS/G [2] reflects the development of operational procedures, practices and norms, which have occurred over the past four years in the area of Small Arms and Light Weapons (SALW)[3] control. Best operational practices have been identified and reviewed from within the region and beyond, and included as appropriate within this RMDS/G.

SEESAC has a mandate under the Stability Pact Regional Implementation Plan to fulfil, among others, operational objectives of 1) sharing information on and enhancing co-operation in the establishment and implementation of SALW control and reduction programmes and approaches among regional actors; and 2) providing linkage and co-ordination with the other relevant regional initiatives. The development of RMDS/G is one means of fulfilling that mandate.

The work of preparing, reviewing and revising these standards and guidelines is conducted by SEESAC, with the support of international, governmental and non-governmental organisations and consultants. The latest version of each standard, together with background information on the development work, can be found at www.seesac.org. RMDS/G will be reviewed at least every three years to reflect developing SALW control norms and practices, and to incorporate changes to international regulations and requirements. The latest review was conducted on 01 March 2006, which has reflected the development of the UN Integrated Disarmament, Demobilization and Reintegration Standards (IDDRS) www.unddr.org, which include RMDS/G as a normative reference in the Disarmament and the SALW Control modules.

[1] Defined as: 'The monitoring, collection, control and final disposal of small arms, related ammunition and explosives and light weapons of combatants and often also of the civilian population. It includes the development of responsible weapons and ammunition management programmes'. Often used interchangeably with SALW control in the past, but SALW Control is now the recognised terminology. The term Micro-Disarmament has only been used here to ensure consistency of the RMDS/G concept, rather than renaming the standards.

[2] The layout and format of RMDS/G are based on the highly successful International Mine Action Standards (IMAS). The cooperation of the UN Mine Action Service (UNMAS) is acknowledged by SEESAC during the development of RMDS/G.

[3] There is no agreed international definition of SALW. For the purposes of RMDS/G the following definition will apply: '***All lethal conventional munitions that can be carried by an individual combatant or a light vehicle, that also do not require a substantial logistic and maintenance capability***'

Introduction

Stockpile management is a wide ranging term when applied to ammunition and explosives, as it also covers areas such as the determination of stockpile size, the types of stockpiles and the management of ammunition in service. These areas are in addition to the specific technical areas of security and safety of stockpiles.

Ammunition and explosives may deteriorate or become damaged unless they are correctly stored, handled and transported, with the resultant effect that they may fail to function as designed and may become dangerous in storage, handling, transport and use. Stockpile management in accordance with best practices is an important component in ensuring that a national authority fulfills its 'Duty of Care' for ensuring that an ammunition stockpile is correctly looked after. Other RMDS/G provide guidelines for the safety, security and destruction of ammunition and explosives, whilst this RMDS/G concentrates on stockpile management in terms of wider management responsibilities.

Ammunition and explosives stockpile management

1 Scope

This RMDS/G provides specifications and guidelines for the stockpile management of ammunition and explosives that are either: 1) recovered during SALW collection operations; 2) awaiting destruction; 3) national stockpiles; or 4) are surplus in storage.

In this standard, the term 'explosives' is used to refer to both explosives and explosive materials, unless stated otherwise in the text. (See Clause 3 below).

2 References

A list of normative references is given in Annex A. Normative references are important documents to which reference is made in this standard, and which form part of the provisions of this standard.

3 Terms and definitions

A list of terms and definitions used in this standard is given in Annex B. A complete glossary of all the terms and definitions used in the RMDS/G series of standards is given in RMDS/G 02.10.

In the RMDS/G series of standards, the words 'shall', 'should' and 'may' are used to indicate the intended degree of compliance. This use is consistent with the language used in ISO standards and guidelines.

a) 'shall' is used to indicate requirements, methods or specifications that are to be adopted in order to satisfy the standard in full;

b) 'should' is used to indicate the preferred requirements, methods or specifications; and

c) 'may' is used to indicate a possible method or course of action.

The term **'national authority'** refers to the government department(s), organisation(s) or institution(s) in each SALW country charged with the regulation, management and co-ordination of SALW activities.

The term '**explosives**' is used to refer to a substance or mixture of substances, which, under external influences, is capable of rapidly releasing energy in the form of gases and heat.

The term '**ammunition**' (or munition) is used to refer to a complete device charged with **explosives**, propellants, pyrotechnics, initiating composition, or nuclear, biological or chemical material for use in military operations, including demolitions. [AAP-6].

Note: In common usage, 'munitions' (plural) can be military weapons, ammunition and equipment.

The term '**stockpile management**' is used to those procedures and activities regarding SALW safety and security in accounting, storage, transportation and handling.

The term '**surplus stocks**' refers to the quantity of ammunition and explosives exceeding the defence stockpile.

4 General

Stockpile management is a term that can have many definitions. Within RMDS/G, the definition is covered in Clause 3 above, yet there are further implications for the safe, efficient and effective management of ammunition and explosives than this definition really covers. In a wider sense, stockpile management can be used to cover the following areas:

a) definition of stockpile types;

b) determination of required stockpile levels;

c) location of stockpiles;

d) financial management of stockpiles;

e) accounting for ammunition and explosives, (covered in RMDS/G 04.20);

f) safety, storage and transport of ammunition and explosives, (covered in RMDS/G 05.40);

g) disposal of surplus ammunition and explosives; and

h) destruction of ammunition and explosives, (covered in RMDS/G 05.20);

This RMDS/G provides guidelines concerning stockpile management issues that are not already covered in detail in the normative references at Annex A.

5 Types of stockpiles

There may be a range of individual ammunition and explosive stockpiles within a country, that are under the control of separate organisations, (such as the police, military (both active and reserve), border guards, ammunition production company holdings etc), but each should have the following generic parts:

a) operational ammunition and explosives [4];

b) war reserve ammunition and explosives [5];

c) training ammunition and explosives [6];

d) experimental ammunition and explosives, (if a producing nation) [7];

e) production ammunition [8]; and

f) ammunition and explosives awaiting disposal, (surplus stocks) [9].

The total of all of these generic parts should be referred to as the '**defence stockpile'**.

Within each generic part of the defence stockpile, all ammunition and explosives should be classified [10] as to their condition. The ammunition condition is used to define the degree of serviceability of the ammunition and the degree of any constraints imposed on its use:

a) **Condition A - Serviceable stocks available for use**;

b) **Condition B - Stocks banned from use pending a technical investigation**:

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[4] The ammunition and explosives necessary to support the routine operations of military, police and other security agencies over an agreed period of time.

[5] The ammunition and explosives necessary to support the operations of military, police and other security agencies during external conflict or general war over an agreed period of time, (usually 30 days at intensive expenditure rates).

[6] The ammunition and explosives necessary to support the routine training of military, police and other security agencies. This will usually be an agreed percentage of the war reserve holdings, (which could be up to 15% of the war reserve).

[7] These holdings will be minimal, but must be included for intellectual accuracy.

[8] The ammunition and explosives that have been produced and are awaiting sale under the control of the manufacturer. These may be available to the military during general war, but would not form part of the war reserve as their availability cannot be guaranteed.

[9] The ammunition and explosives that have been identified as unserviceable, unstable or surplus to requirements.

[10] Best ammunition management practice also recommends that ammunition should also be classified by their Dangerous Goods Classification and UN Serial Number, Hazard Division, Compatibility Group and Hazard Classification Code.

- B1 - Unrestricted handling and movement;
- B2 - Subject to handling or movement constraint;
- B3 - Applicable to certain Lot and batch numbers only; and
- B4 - Shelf life expired.

c) **Condition C - Stocks unavailable for use pending technical inspection, repair, modification or test**:

- C1 - Minor processing or repair only required;
- C2 - Major processing or repair required;
- C3 - Awaiting inspection only; and
- C4 - Manufacturers processing or repair awaited.

d) **Condition D - Stocks for disposal**:

- D1 - Surplus, but serviceable stocks; and
- D2 - Unserviceable stocks.

When ammunition is subject to inspection and surveillance[11], which should be part of good stockpile management practice, it is inevitable that defects will be found. These defects will determine which 'Condition Group' the ammunition is placed in, and categorised as:

a) **Critical** - defects affecting safety in storage, handling, transportation or use;

b) **Major** - defects that affect the performance of the ammunition and that require remedial action to be taken;

c) **Minor** - defects that do not affect the safety or performance of the ammunition, but are of such a nature that the ammunition should not be issued prior to remedial action having been taken;

d) **Insignificant** - any defect that does not fall into any of these categories, but which could conceivably deteriorate into one of them if no remedial action is taken; or

e) **Technical** - any defect that requires further technical investigation.

Therefore it is possible that ammunition classified as B4, (shelf life expired), is not an urgent priority for disposal as further technical investigation may well extend its shelf life. Shelf life is an indication of the performance capability of the ammunition, and not its safety or stability in storage; only physical inspection and ammunition surveillance can determine this.

National authorities should therefore develop an ammunition stockpile management system that allows the condition of the ammunition to be clearly defined, as it is only in this way that disposal or destruction can be prioritised based on safety and security grounds.

[11] The economical surveillance of ammunition and accurate assessment of the quality, within known confidence levels, is achieved by taking a relatively small, random sample from a large bulk quantity.

6 Determination of required stockpile levels [12] [13]

It shall be the responsibility of the appropriate national authority to assess its own security situation in accordance with its legitimate security needs, and hence to decide on the size and structure of military and security forces in order to achieve its constitutional tasks, and how these forces should then be equipped.[14]

The determination of national ammunition and explosive stockpile levels will inevitably be intrinsically linked with any security sector reform initiatives that may be taking place. The determining factors for the size of a national stockpile will be the force structure, strategic concept of deployment[15] and equipment levels. Once these have been determined, then the physical quantity of ammunition and explosives necessary to support the force's strategic requirements can be determined.

6.1 Daily ammunition expenditure rates (DAER)

The Daily Ammunition Expenditure Rate (DAER) for a specific type of ammunition is the amount of ammunition that a single equipment, (such as an artillery gun), will use in one day of combat or conflict at a certain intensity. These figures are usually classified and are should be determined by operational analysis. For example the DAER for a 152mm Gun, at intensive war rates, may be 300 rounds per day, therefore to sustain an Artillery Battery of 8 Guns, over a 30 day period at intensive war rates would require 72,000 round of ammunition. An example spreadsheet to calculate this may look like this:

EQUIPMENT	DAER			FORCE EQPT LEVEL	NUMBER OF DAYS	FORCE DAER SUSTAINABILITY REQUIREMENT		
	PSO[16]	GW (L)[17]	GW (I)[18]			PSO	GW (L)	GW (I
Assault Rifle 5.45mm Ball	20	60	120	600	30	360,000	1,080,000	2,160,000
Rocket Anti Tank RPG 7	1	4	20	100	30	3,000	12,000	60,000
Mortar 60mm HE	1	10	20	40	30	1200	12,000	24,000
152mm Gun HE	0	50	200	20	30	0	30,000	120,000

The defence stockpile may then be calculated from an analysis of the DAER sustainability requirements to support the national defence and security strategy. For example it may be decided that the initial defence stockpile should be made of the following DAER components:

- Operational Stocks (Police) - 20 DAER at PSO rates
- Operational Stocks (Military) - 10 DAER at General War (Light) Rates
- War Reserve - 25 DAER at General War (Intensive) Rates
- Training Stocks - 10% of Defence Stockpile

The rate of ammunition usage at training, or on operations, and the condition of the ammunition over a period of time will then determine the restocking requirements of the defence stockpile. National authorities may choose to select a percentage reorder level, at which point new stocks are procured, whilst surplus stocks are then disposed of.

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[12] The OSCE Best Practice Guide - Definition and Indicators of a Surplus of SALW, Vienna, March 2003 provides further background information on how to determine surplus ammunition and explosives. This RMDS/G provides a methodology for determining the size of a national stockpile, thereby assuming that all stocks in excess of that are available for disposal.

[13] OSCE Document on Stockpiles of Conventional Ammunition, FSC.DOC/1/03, Vienna, 19 November 2003 provides a mechanism for assistance in the management and destruction of conventional ammunition stockpiles.

[14] A nation may well also have a requirement under treaty obligations, (for example NATO agreements), to maintain a defence stockpile capable of sustaining their armed forces for a certain period of time during conflict or general war. This will obviously have a major influence in determining the defence stockpile levels if treaty obligations are to be met.

[15] For example, the number of days sustainability required for the various levels of conflict.

[16] Peace Support Operations.

[17] General War (Light Rates).

[18] General War (Intensive Rates).

7 Location of stockpiles [19]

Stockpiles should be located close to where they are required to be issued to personnel, as this is the most efficient logistical method.

Stockpiles should be dispersed between two, or more locations, as this provides the best balance between national security policy, protection of stocks from attack or damage due to dispersement, and efficient stockpile management. A threat analysis should be conducted by the national authority to determine the number of stockpile locations required; although this will also be heavily influenced by the number of existing stockpile locations.

Stocks at each location should be kept to the minimum levels consistent with the role of the personnel and/or the explosive safety capacity of the site.

Danger areas and safety distances at the stockpile location shall be implemented in accordance with RMDS/G 05.40 - Ammunition and explosives storage and safety.

8 Inventory management of stockpiles

8.1 Ammunition management policy statements (AMPS)

The development of AMPS is one method that may be used to define policy for the management of an item of ammunition or explosive throughout its service life and is to list support information to assist staff with the maintenance and final disposal of the ammunition or explosive. The contents of AMPS are at Annex C.

8.2 Financial management of stockpiles

Ammunition is an expensive commodity, which could be regarded as an 'insurance' policy. It is hoped that it will never be needed, but long production lead times, and national security commitments mean that it must be procured in advance in order that it is available on demand. This all comes at a cost.

The national authority should develop financial accounting systems to identify the true costs of procuring, maintaining and final disposal of the defence stockpile. These costs will include:

a) initial procurement costs, (which will include research, development and purchase costs);

b) additional training requirements;

c) stockpile security costs [20];

d) stockpile storage costs [19];

e) stockpile maintenance and repair costs [19]; and

f) final disposal costs.

Once the ammunition has reached the end of its useful shelf life it may well be the case that disposal of the ammunition is a cheaper option, in the mid to long-term, than continued storage. The financial accounting system should be sophisticated enough to enable management to make such decisions.

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[19] Derived from OSCE Best Practice Guide - Stockpile Management and Security, Vienna, March 2003.

[20] To include infrastructure, depreciation of infrastructure, operating and staff costs over the anticipated life of the ammunition.

9 Disposal of surplus stockpiles

9.1 Disposal options

There are traditionally five methods of disposal of surplus ammunition and explosives;

a) sale;

b) gift;

c) increased use at training;

d) deep sea dumping; and

e) destruction.

9.2 Sale or gift

The sale or gifting of ammunition is the most cost effective means of disposal, but there are factors that need to be considered:

a) any sale or gift shall comply with the export control guidelines contained within RMDS/G 03.20 - Arms Control and Transfer Legislation and RMDS/G 03.30 - Export Documentation;

b) the quality of the ammunition and explosives at the end of its useful shelf life will not be as high as newly manufactured ammunition and explosives. This makes it unattractive to reputable end users, as it is highly unlikely to meet their performance standards. Any end user wishing to purchase ammunition of this age should be subject to the deepest scrutiny as to why they wish to purchase such ammunition; and

c) in order to comply with international transport regulations and guidelines the ammunition should be physically inspected to ensure that it is safe to export beyond national borders. This will mean additional costs.

9.3 Increased use at training

Whilst this is a desirable option, the following factors should be considered;

a) when the ammunition is used it will create additional wear on equipment (such as gun barrels, vehicle automotive systems etc). This will inevitably reduce the life of the parent equipment and will result in additional maintenance costs. Therefore these additional costs should be balance against the value of the training obtained from firing surplus ammunition stocks;

b) any significant increase in training may negate security and confidence building measures with neighbouring states; and

c) only limited stocks could be disposed of in this manner, as the costs of training, and time taken, would be unrealistic as a means of destroying a large proportion of the surplus defence stockpile.

9.4 Deep sea dumping

The dumping of ammunition and explosives at sea is subject to international agreements [21] [22] [23] as it is considered to be either hazardous or industrial waste. If a state is not a party to such an agreement, it is highly unlikely that they would receive any international donor assistance to dispose of their surplus ammunition and explosives in such a manner. There would also be a very strong negative reaction from international environmental groups.

9.5 Stockpile destruction

The most realistic disposal method is that of destruction. Stockpile destruction is the process of final conversion of ammunition and explosives into an inert state that can no longer function as designed [24]. The effective management of stockpile destruction planning and operational activities aims to physically destroy ammunition and explosives in a safe, cost effective and efficient manner.

Guidance on the national planning of stockpile destruction can be found in IMAS 11.10 - Guide to stockpile destruction and IMAS 11.30 - National planning guidelines for stockpile destruction (www.mineactionstandards.org).

10 Areas of responsibility

10.1 National SALW authority [25]

The national SALW authority shall develop documented procedures for the safe, effective and efficient management of the defence stockpile of ammunition and explosives.

10.2 SALW Control organisation

The SALW Control organisation shall establish and maintain SOPs that comply with the provisions of this RMDS/G, established international standards, the national SALW authority standards and other relevant standards or regulations.

In the absence of a national SALW authority or authorities, the SALW Control organisation should assume additional responsibilities. These include, but are not restricted to:

a) issue, maintain and update their own regulations, codes of practice, SOPs and other suitable provisions on the stockpile management of ammunition and explosives under their control until a national authority is in a position to take responsibility; and

b) assist in the framing of national regulations and codes of practice as appropriate.

10.3 Regional organizations

In certain areas of the world, regional organizations have been given a mandate by their member states to coordinate and support SALW control programmes within a state national boundaries. (For example EUFOR within Bosnia and Herzegovina).

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[21] Oslo Convention for the Prevention of Marine Pollution by Dumping from Ships and Aircraft, February, 1972 and subsequent amendments.

[22] London Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 29 December 1972 and subsequent amendments.

[23] OSPAR Convention, 1998.

[24] Definition: NATO Maintenance and Supply Agency (NAMSA), May 2000.

[25] In this case the national SALW authority, if the same as the national SALW commission, may be responsible to itself.

In these circumstances the regional organization should assume many of the responsibilities and roles of the national SALW authority, and could also act as a conduit for donor resources. The responsibilities and roles of regional organizations for SALW control will vary from state to state and may be subject to specific Memoranda of Understanding, or similar agreements.

10.4 SEESAC

SEESAC shall provide operational assistance, technical assistance and management information, within resources and on request, to all SALW intervention programmes within South Eastern and Eastern Europe, and assistance to SALW intervention programmes worldwide through the drafting and issuing of RMDS/G.

Annex A
(Informative)
References

The following normative documents contain provisions, which, through reference in this text, constitute provisions of this part of the standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of the standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid ISO or EN:

a) OSCE Document on Stockpiles of Conventional Ammunition, FSC.DOC/1/03, Vienna, 19 November 2003;

b) OSCE Best Practice Guide - Stockpile Management and Security, Vienna, March 2003;

c) OSCE Best Practice Guide - Definition and Indicators of a Surplus of SALW, Vienna, March 2003;

d) IMAS 11.10 - Guidelines for stockpile destruction;

e) IMAS 11.30 - National planning guidelines for stockpile destruction;

f) RMDS/G 03.20 - Arms control and transfer legislation;

g) RMDS/G 04.20 - SALW accounting;

h) RMDS/G 05.20 - SALW destruction;

i) RMDS/G 05.30 - Weapons storage and security; and

j) RMDS/G 05.40 - Ammunition and explosives storage and safety.

The latest version/edition of these references should be used. SEESAC hold copies of all references used in this standard. A register of the latest version/edition of the RMDS/G standards, guides and references is maintained by SEESAC, and can be read on the RMDS/G website: http://www.seesac.org/. National SALW authorities, employers and other interested bodies and organisations should obtain copies before commencing SALW programmes.

Annex B
(Informative)
Terms and definitions

B.1.1
ammunition
See **munition**

B.1.2
compatibility group
each article of military ammunition is assigned to one of the twelve compatibility groups on the basis of their characteristics and associated hazards to regulate the conditions under which they are handled. stored and transported.

B.1.3
demilitarisation
the complete range of processes that render weapons, ammunition, mines and explosives unfit for their originally intended purpose. [26]

Note: Demilitarisation not only involves the final destruction process, but also includes all of the other transport, storage, accounting and pre-processing operations that are equally as critical to achieving the final result.

B.1.4
destruction
the process of final conversion of weapons, ammunition, mines and explosives into an inert state that can no longer function as designed.

B.1.5
detonator
a device containing a sensitive **explosive** intended to produce a **detonation** wave. [AAP-6]

B.1.6
diurnal cycling
the exposure of ammunition and explosives to the temperature changes induced by day, night and change of season.

B.1.7
explosives
a substance or mixture of substances, which under external influences, is capable of rapidly releasing energy in the form of gases and heat. [AAP-6].

B.1.8
explosive materials
components or ancillary items, which contain some **explosives**, or behave in an explosive manner, such as **detonators** and **primers**.

B.1.9
explosive ordnance
all munitions containing **explosives**, nuclear fission or fusion materials and biological and chemical agents. This includes bombs and warheads; guided and ballistic missiles; artillery, mortar, rocket and small arms **ammunition**; all **mines**, torpedoes and depth charges; pyrotechnics; clusters and dispensers; cartridge and propellant actuated devices; electro-explosive devices; clandestine and improvised explosive devices; and all similar or related items or components explosive in nature. [AAP-6]

[26] IMAS 11.10.

B.1.10
fuze
a device that initiates an **explosive** train. [AAP-6]

B.1.11
micro-disarmament
the collection, control and disposal of small arms, ammunition, explosives, light and heavy weapons of combatants and often also of the civilian population. It includes the development of responsible weapons and ammunition management programmes.

B.1.12
micro-disarmament organisation
refers to any organisation (government, military or commercial entity) responsible for implementing SALW Control projects or tasks. The organisation may be a prime contractor, subcontractor, consultant or agent.

B.1.13
munition
a complete device charged with **explosives**, propellants, pyrotechnics, initiating composition, or nuclear, biological or chemical material for use in military operations, including **demolitions**. [AAP-6].

Note: In common usage, 'munitions' (plural) can be military weapons, ammunition and equipment.

B.1.14
NATO
(North Atlantic Treaty Organisation)

B.1.15
national authority
in the context of SALW, the term refers to.. the government department(s), organization(s) or institution(s) in a country charged with the regulation, management and coordination of **SALW** activities.

B.1.16
primer
a self-contained **munition** which is fitted into a cartridge case or firing mechanism and provides the means of igniting the propellant charge.

B.1.17
safe
the absence of risk. Normally the term **tolerable risk** is more appropriate and accurate.

B.1.18
safety
the reduction of risk to a tolerable level. [ISO Guide 51:1999(E)]

degree of freedom from unacceptable **risk**. [ISO Guide 51: 1999(E)]

B.1.19
Small Arms and Light Weapons (SALW)
all lethal conventional munitions that can be carried by an individual combatant or a light vehicle, that also do not require a substantial logistic and maintenance capability.

Note: There are a variety of definitions for SALW circulating and international consensus on a 'correct' definition has yet to be agreed. For the purposes of RMDS/G the above definition will be used.

B.1.20
standard
a standard is a documented agreement containing technical specifications or other precise criteria to be used consistently as rules, guidelines, or definitions of characteristics to ensure that materials, products, processes and services are fit for their purpose.

Note: RMDS/G aim to improve safety and efficiency in SALW Control by promoting the preferred procedures and practices at both headquarters and field level. To be effective, the standards should be definable, measurable, achievable and verifiable.

B.1.21
standing operating procedures (SOPs)
standard operating procedures

instructions that define the preferred or currently established method of conducting an operational task or activity.

Note: Their purpose is to promote recognisable and measurable degrees of discipline, uniformity, consistency and commonality within an organization, with the aim of improving operational effectiveness and safety. SOPs should reflect local requirements and circumstances.

B.1.22
stockpile
in the context of SALW, the term refers to ….. a large accumulated stock of **weapons** and **EO**.

B.1.23
stockpile destruction
the physical activities and destructive procedures leading to a reduction of the national **stockpile**.

B.1.24
stockpile management
those procedures and activities regarding SALW safety and security in accounting, storage, transportation and handling.

B.1.25
surveillance
the constant review of accumulating test results to ensure that the overall quality remains acceptable. The term is also applied to the continuing examination of the ammunition itself.

B.1.26
weapon
any thing used, designed or used or intended for use:[27]

a) in causing death or injury to any person; or

b) for the purposes of threatening or intimidating any person and without restricting the generality of the foregoing, includes a firearm.

[27] Criminal Code of Canada (CCofC) Section (S) 2 'Interpretation' Paragraph 2.

Annex C
(Informative)
Ammunition management policy statements (AMPS)

AMPS are one means of determining and disseminating policy for the safe, effective and efficient management of an ammunition type throughout its service life. AMPS can contribute to ensuring that the ammunition is correctly, and most cost efficiently, looked after during its service life, including its final disposal.

This annex provides an example of the layout of an AMPS:

1. Ammunition configuration

The paragraph on ammunition configuration is to include details of the designation and manufacturer. Similar details are to be given for components such as fuzes and primers, even if they are the subject of separate policy statements.

2. General

2.1 General description

The ammunition is to be described briefly and approx weights and dimensions are to be given.

2.2 Planned role and deployment

The planned role of the ammunition is to be explained with its deployment.

2.3 Associated equipments

Associated equipments are to be briefly described with, where appropriate, their use.

2.4 Deployment and use by other nations

Known or anticipated purchases of equipment by other nations, which may use the ammunition of the same design, (rather than similar ammunition of the same calibre), are to be listed.

3. Planned life

3.1 In-service date

The In-Service Date (ISD) is to be given.

3.2 Design shelf life

The designer's estimate of the minimum shelf life (Design Shelf-Life) for the ammunition is to be given.

3.3 Assessed shelf life

The Assessed Shelf-Life as stated by the relevant national technical authority or Cardinal Point Specification (CPS) is to be given.

3.4 Shelf-life extensions

Shelf-Life Extensions are to be included as amendments when they occur.

3.5 Arrangements for turnover at training

Brief details of the policy for guiding ammunition turnover from operational and war reserve to training are to be given.

4. Surveillance

The in-service surveillance and proof strategy is to be stated as advised by the relevant national technical authority.

4.1 Service quality requirement

The Service Quality Requirement (SQR) is to be expressed as a percentage.

4.2 Functional limiting quality

The Functional Limiting Quality (FLQ) is to be expressed as a percentage.

4.3 Operational limiting quality

If determined, the Operational Limiting Quality (OLQ) is to be expressed as a percentage.

5. Ammunition maintenance and repair policy

5.1 Policy

The maintenance policy is to be stated.

5.2 Tools, equipment and materials

The tools, equipment and materials required for maintenance and repair are to be listed, and an indication given of the planned deployment, sources of supply and equipment management policy. The information, if lengthy, may be included as an Annex to the AMPS.

6 Storage

6.1 Net explosive quantity

The total Net Explosive Quantity (NEQ) is to be given for each ammunition nature.

6.2 Hazard classification code

The Hazard Classification Code (HCC) is to be given for each ammunition nature.

6.3 Temperature limitations

The upper and lower ammunition temperature limits for storage and use, and the climatic zones for which the ammunition is cleared are to be given.

6.4 Stacking limitations

Any stacking limitations are to be given.

6.5 Special storage requirements

Any special storage requirements or limitations to the storage of the ammunition in normal or field storage conditions are to be given.

7 Transportability

7.1 Special requirements and restrictions on movement

Any special requirements for, or restrictions on, the movement of the ammunition by road, rail, sea and air are to be detailed.

7.2 Shipping stowage category

The shipping stowage category of the ammunition is to be given with any restrictions.

7.3 Air dropping

The suitability of the ammunition for air dropping is to be given.

8 Disposal

8.1 Individual rounds and bulk

Alternative methods of disposal for both an ammunition item and bulk stock are to be stated, and are to be cross-referenced to ammunition destruction technical procedures.

8.2 Demilitarization

Proposed methods for the disposal of bulk quantities under controlled conditions (demilitarization) are to be stated.

9 Technical publications

All reference publications are to be listed.

10 Packaging

10.1 Authorized service packs

The Authorized Service Packs are to be listed.

10.3 Expendable/reusable packaging

Packages and packing fitments that are reusable are to be identified.

10.4 Commercial packaging

Any non-service or commercial packaging is to be briefly described.

11 Staff

All staff implications for the logistic support of the ammunition system, including the maintenance of the system in-service, are to be stated. This is to include surveillance and final disposal.

12 Training requirements

12.1 Courses

Any special requirements for training ammunition technical staff such as special to the system courses are to be stated.

12.2 Training materials

Training materials, including inert cross-sectional instructional rounds, extra clothing or equipment needs are to be listed with their source of supply and deployment.

13 Safety

Any safety or health hazards associated with the ammunition, other than the obvious explosives hazards, which are apparent from its normal functioning, are to be stated.

14 Security classification

The security classification of the ammunition is to be stated and reference is to be given, if appropriate, to the relevant entries in any national list of classified equipment.

15 Management responsibilities

Organisations and agencies that have responsibilities for the ammunition system are to be detailed.

16 Additional information

This paragraph is to be used, if necessary, for management information that would be inappropriate to be included in any other section. It may include information on such matters as technical problems that resulted in design changes, or problems that affect storage or use of the ammunition.