
**Sixth Conference of the High Contracting Parties
to Protocol V on Explosive Remnants of War to
the Convention on Prohibitions or Restrictions
on the Use of Certain Conventional Weapons
Which May Be Deemed to Be Excessively
Injurious or to Have Indiscriminate Effects**

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Item 10 of the provisional agenda
Review of the status and operation of the Protocol

Report on generic preventive measures

**Submitted by the Coordinator¹ on generic preventive measures, in
accordance with article 9 and the Technical Annex of the Protocol**

I. Introduction

1. The Fifth Conference of the High Contracting Parties to Protocol V on Explosive Remnants of War to the CCW decided that the Meeting of Experts in 2012 should continue the practice of addressing one specific technical issue directly related to the implementation of Article 9 and Part 3 of the Technical Annex of Protocol V.
2. It was decided to invite all High Contracting Parties to share during the Meeting of Experts in 2012 their national technical approaches and experiences in implementing Article 9 and Part 3 of the Technical Annex of Protocol V. Also, High Contracting Parties were invited to indicate how the guide adopted by the Fourth Conference of the High Contracting Parties has contributed to the implementation of Part 3 of the Technical Annex.
3. Following open ended consultations, it was agreed to focus on the issue of safety in ammunition storage facilities at the 2012 Meeting of Experts. Although considerable work has been carried out in this area, the safe and secure storage of ammunition continues to be an ongoing challenge for States.

II. Dealing with particular topics: safety in ammunition storage facilities

4. In the opening the session, the Coordinator, Mr. Amadei, was greatly encouraged that 34 High Contracting Parties had implemented elements of Part 3 of the Technical Annex to the Protocol as laws, regulations and guidelines. The Coordinator undertook to

¹ In accordance with the relevant decision of the Fifth Conference of the High Contracting Parties to Protocol V on Explosive Remnants of War as contained in paragraph 43(e) of its final document (CCW/P.V/CONF/2011/12), the discussion on generic preventive measures pursuant to Article 9 and Part 3 of the Technical annex of the Protocol was coordinated by Mr. Mario Amadei, Brigadier General, of Italy.

follow-up with those High Contracting Parties that had have yet reported on any work or measures to implement Part 3 of the Technical Annex.

5. To set the scene for the discussions on the safety of ammunition storage, Ms. Pilar L. Reina, Small Arms Survey (SAS), presented the unplanned explosions at munitions sites (UEMS) database². According to available data, the yearly number of UEMS in both developed and developing countries is continuously growing. Ms. Reina underscored the following points:

- (a) There is a tendency to view surplus ammunition as an asset rather than a liability;
- (b) Existing lists and databases are thin on details; and
- (c) The effects of UEMS on human security are poorly understood.

6. Mr. Anton Martyniuk, Organization for Security and Co-operation in Europe (OSCE), noted that compliance with basic norms on ammunition stockpile management is often regarded as being expensive, but the costs of in compliance and the impact on populations is far greater. The OSCE has assistance programmes in several European countries and these focuses on disposal of munitions and stockpile safety. The OSCE provides assistance only to those countries that meet its set criteria, including the presence of a serious threat or challenge. The objectives of the OSCE's assistance programmes are:

- (a) Disposal of surplus ammunition, preferably by destruction;
- (b) Establishing procedures, plans and programmes in order to ensure that storage facilities meet the required safety and security standards; and
- (c) Developing the concerned country's capabilities.

7. Key issues from the OSCE concerning the safe storage of ammunition were:

- (a) Surplus stocks – the security of stockpiles has to be treated as a priority issue;
- (b) States requesting assistance need to reduce their stockpiles, store ammunition in the most secure and safe places and eliminate any threats to the local population and environment;
- (c) High risk ammunition - included ammunition that is older than 20 years, not stored in its original packaging, stored together with other types of ammunition, ammunition with incomplete history records, produced during a conflict and stocks stored outside;
- (d) Storage buildings - governments need to consider what really are their defence needs, assess how many buildings they would need to store ammunition, and locate ammunition depots across the country; and
- (e) Unsafe handling and transportation practises - more attention is needed to who is on site, is there a sufficient number of personnel, what type of training did they receive, and the duration of training and frequency of refresher exercises.

8. Mr. Frederic Peugeot, Trust Fund Project Manager for the North Atlantic Treaty Organization (NATO), made a presentation on the NATO Fund's assistance programmes that are aimed at reducing the risk of accidental explosions with serious consequences for local populations. Regulation is required at four levels and those are – international,

² For the purposes of the database, an unplanned explosion at a munitions site included "accidents resulting in explosions of abandoned damaged or inappropriately stored or properly stored stockpiles of munitions and explosives".

regional, national and local. An example of regulation at the local level is ensuring that there are standard and priority procedures for how people should work at storage and demilitarization sites. In terms of building ammunition depots, Mr. Peugeot emphasised that the first question concerns whether there is sufficient space and if so, then lighter structures can be put in place. If not then the structure would need to be reinforced. Connected to the design and construction of depots is understanding the number of warehouses and magazines needed, which in turn requires consideration to be given to the compatibility of the explosives. Aging ammunition is a serious risk and armed forces need to consider whether their ammunition is in a suitable condition to be used.

9. Mr. Chris Loughran, Head of International Development and Evaluation Department of the Mine Action Group (MAG), presented current MAG operations and particularly those in Burundi, Republic of Congo, Puntland and Somaliland. MAG regards the International Ammunition Technical Guidelines (IATGs) as a significant development and encourages States to implement procedures that are based on these Guidelines. Carrying out needs assessments and capacity building is important for ensuring that work in this area is not only reactionary. The handling and safe storage of ammunition is ultimately an issue for States and therefore, national ownership is a key principle of any assistance programmes. Mr. Gustavo Laurie, United Nations Mine Action Service (UNMAS), supported the call for implementation of the IATGs.

10 Argentina made a presentation on its Armed Forces' preventative technical measures. Argentina has in place a legal framework and standards that applied throughout the lifecycle of its munitions. During each of the life cycle stages, Argentina carries out different testing methods on its munitions. This included visual inspection and non-destructive tests, static and dynamic laboratory testing and methodologies for the evaluation and testing of the remaining active life of the munitions. All test results are analysed and recommendations made which could lead to re-manufacturing or disposal. Testing makes it possible to reduce failures during storage, transportation and use.

11 Brazil presented its Air Forces technical approaches to and experiences in implementing Article 9 and Part 3 of the Technical Annex of Protocol V. For the different stages of the lifecycle of its munitions, Brazil has in place standards and procedures, including criteria on the training of personnel. On the storage of ammunition, Brazil ensures that there is a high level of safety and security through ensuring the compatibility of ammunition which is stored together, controlling stockpiles through the use of inventories, frequently checking on the quantities of munitions being stored, and adhering to a clear chain of command. Most of Brazil's storage facilities are earth covered igloos and inside these structures there is constant control of the temperature and humidity levels. For Brazil, two key elements are the need to follow standards and ensure all personnel are properly trained.

12 Romania regarded the safe and secure storage of its ammunition as a priority. Romania has in place a legal framework on the storage of ammunition. Ammunition is stored in different facilities in accordance with standards on the compatibility of different types of ammunition which could be stored together and load capacity. Romania's storage facilities have administrative and technical areas. Only technical personnel are allowed into the technical areas and this is recorded in a daily log. Romania emphasised the importance of constantly organising and updating records on the storage of ammunition.

13 Montenegro outlined the work of its armed forces to dispose of surplus stockpiles and identify and destroy defective ammunition. Previously Montenegro had stockpiles which were 30 to 40 years old and the size of its stockpiles was disproportionate to its defence needs. Also, due to a lack of storage space some stockpiles were located outside. In cooperation with the United States of America, Montenegro destroyed significant surplus stockpiles. In order to address the safety of ammunition storage, Montenegro's objectives

were to improve the storage infrastructure; install security systems, fire alarms and fire fighting equipment; improve the accounting system for ammunition; improve ammunition management and develop the capacity of personnel.

14 The Democratic Republic of Congo has experienced a number of serious accidents caused by the unsafe storage of ammunition. The main causes of the accidents had been the physical or chemical deterioration of ammunition and explosives, dangerous storage modalities and unsuitable facilities, unsafe management practices, unsuitable transportation modalities and poor conditions of stockpiles. The Democratic Republic of Congo has in place a programme, which focuses on implementing the following corrective measures: drafting of instruction manuals for the inventory, demilitarization and disposal of defective munitions; elaboration of national standards and security norms for munitions and weapons management; and institution of a section responsible for ammunition stabilization and safety programmes within the Congolese Mine Action Centre. Two of the expected results were the re-location of ammunition storage facilities away from populated areas and an evaluation of aging and surplus stocks.

15 Guatemala spoke about its efforts in cooperation with the Organization of American States (OAS) to destroy aging ammunition. The programme had resulted so far in destroying more than 600 metric tons of ammunition charged with high explosive or white phosphorous, thereby reducing the risks of the civilian population being exposed to unplanned explosions.

16 Switzerland spoke on the relevance of Protocol V within the broader issue of safety and security of ammunition storage facilities. Since this issue was dealt within different fora, Switzerland believes it would be useful to focus on those aspects of safety and security of ammunition depots that are relevant for Protocol V and what further contribution this Protocol could make to the safe and secure storage of ammunition.

17 Mr. Guy Rhodes, Geneva International Centre for Humanitarian Demining (GICHD), made a statement on the initiatives that it has undertaken to address and prevent unplanned explosions. GICHD published a 'Guide to Ammunition Storage' which provides an overview of standards and norms for safe storage and control of ammunition. Also, GICHD has embarked on further developing the Information Management System for Mine Action (IMSMA) to include ammunition storage issues.

18 From the meeting it emerged that:

(a) The problem of unplanned explosions at munitions sites (UEMS) is of increasing concern due to the frequent occurrence of such accidents and serious consequences for civilian populations. These concerns led to donor States, international and regional organisations and NGOs to actively engage with States requiring assistance on the safe and secure storage of ammunition. Assistance programmes focus on developing and implementing norms, regulations and procedures in line with internationally recognised standards, disposal, including destruction of surplus ammunition, stockpile security and management, and building national capacity. Such programmes aim at ensuring long term sustainability and engagement.

(b) Aging, physical or chemical deterioration; excess and unstable stockpiles of conventional weapons and munitions; incompatible types of ammunition being stored together; ammunition being stored outside; poor record keeping were key risk factors that needed to be addressed. The implementation of technical arrangements in these situations must include evaluating the shelf life of ammunition and their reliability; carrying out effective methods of disposal of unreliable stocks or surplus, possibly by destruction; determining the number of facilities needed in order to safely store the ammunition and establishing accounting systems.

(c) The inappropriate location of ammunition storage facilities is an aggravating factor in the case of UEMS. Accidents that caused the greatest number of casualties occurred in facilities located in urbanised areas. Corrective measures are to be adopted ensuring that ammunition depot and manufacturing facilities are moved far from towns and villages and effective measures to restrict the access to the storage sites are put in place.

(d) Article 9 of Protocol V encourages High Contracting Parties to take generic preventive measures aimed at minimizing the occurrence of explosive remnants of war, including those referred to in Part 3 of the technical annex, which explicitly includes the adoption of appropriate stockpile arrangements able to minimize the risks of explosion in stockpiles. Generic preventive measures need to be applied in all situations. However, Protocol V applies to situations resulting from conflicts with the view to minimizing the risks and effects of explosive remnants of war in post conflict situations. It appears to some that dealing with the issue of UEMS in peace situations exceeds the scope of application of Protocol V.

III. Recommendations

19 The Sixth Conference of the High Contracting Parties to Protocol V may wish to take the following decisions:

(a) To consider what further contribution Protocol V could provide to the safe and secure storage of ammunition in peace time;

(b) For the Coordinator on Generic Preventive Measures, with the support of the CCW Implementation Support Unit, to follow-up with those High Contracting Parties which have not reported on their implementation of generic preventive measures;

(c) To continue the practice of addressing one specific technical issue directly related to the implementation of Article 9 and Part 3 of the Technical Annex of Protocol V; and

(d) To invite all High Contracting Parties to share during the 2013 Meeting of Experts their national technical approaches and experiences in implementing Article 9 and Part 3 of the Technical Annex of Protocol V. High Contracting Parties may indicate how the guide³ has contributed to the implementation of Part 3 of the Technical Annex.

³ The text of the guide is reproduced in document CCW/P.V/CONF/2010/6/Add.1. The guide was adopted by the Fourth Conference of the High Contracting Parties, which recommended that it be implemented in the national systems of the High Contracting Parties to Protocol V as best practice.