

**GROUP OF GOVERNMENTAL EXPERTS OF
THE STATES PARTIES 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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Mines Other Than Anti-Personnel Mines (MOTAPM)

Working Group on Mines Other Than Anti-Personnel Mines

**REVISED PROPOSALS AND IDEAS ON MOTAPM IN THE GROUP OF
GOVERNMENTAL EXPERTS (GGE) WITH THE PURPOSE TO PROVIDE A BASIS
FOR FURTHER WORK**

**SET OF RECOMMENDATIONS ON MINES OTHER THAN ANTI-PERSONNEL
MINES (MOTAPM)**

Prepared by the Coordinator on MOTAPM

INTRODUCTION

1. This set of recommendations on mines other than anti-personnel mines (MOTAPM) is submitted to the Meeting of the States Parties (24 and 25 November 2005) for further action. This set of recommendations has been elaborated during the Twelfth session of the Group of Governmental Experts (GGE) as a follow-up of the papers entitled "Proposals and ideas on MOTAPM in the Group of Governmental Experts (GGE) with the purpose to provide a basis for further work" (documents CCW/GGE/VIII/WG.2/1, dated 11 June 2004, CCW/GGE/IX/WG.2/1, dated 15 October 2004, CCW/GGE/X/WG.2/1, dated 1 March 2005, CCW/GGE/XI/WG.2/1 dated 21 July 2005, CCW/GGE/XII/WG.2/1 dated 5 October 2005, and CCW/GGE/XII/WG.2/1/Rev.1 dated 18 November 2005) presented by the Coordinator. It reflects the progress made and comments expressed, as well as support given to the proposals, both formal and informal, and ideas on MOTAPM put forward since the establishment of the GGE in 2001.

I. GENERAL CONSIDERATIONS

2. This set of recommendations, as a further endeavour to pursue the general objectives of the CCW Convention and of humanitarian demining:

- (a) recognizes the serious humanitarian problems caused by the irresponsible use of mines other than anti-personnel mines during and after conflict, and the need to establish the necessary conditions for reconstruction and development;

(b) acknowledges the right of states to use such mines other than anti-personnel mines in accordance with their obligations under international law, including international humanitarian law;

(c) expresses the readiness of States to take all appropriate steps aimed at preventing the irresponsible use of mines other than anti-personnel mines and their illicit transfer.

3. This set of recommendations relates to the use on land, or transfer, of mines other than anti-personnel mines, including such mines laid to interdict beaches, waterway crossings or river crossings, but does not apply to the use of anti-ship mines at sea or in inland waterways.

4. This set of recommendations shall apply to situations referred to in Article 1 of the CCW Convention, as amended on 21 December 2001.

5. This set of recommendations is without prejudice to existing international humanitarian law, or other international instruments as applicable, or decisions by the Security Council of the United Nations, which provide for stricter obligations or which have wider applicability.

II. DEFINITIONS

6. For the purpose of this set of recommendations;

7. "**Mine** " means a munition placed under, on or near the ground or other surface area and designed to be exploded by the presence, proximity or contact of a person or vehicle.

8. "**Mine other than anti-personnel mine**", hereinafter referred to as "MOTAPM", means a mine which cannot be defined as an anti-personnel mine. An anti-personnel mine is a mine primarily designed to be exploded by the presence, proximity or contact of a person and that will incapacitate, injure or kill one or more persons.

9. "**Remotely-delivered MOTAPM** " means a MOTAPM not directly emplaced but delivered by artillery, missile, rocket, mortar, or similar means, or dropped from an aircraft. MOTAPMs delivered from a land-based system from less than 500 metres are not considered to be "remotely-delivered".

10. "**Minefield**" is a defined area in which mines have been emplaced and "mined area" is an area which is dangerous due to the presence of mines. "Phoney minefield" means an area free of mines that simulates a minefield. The term "minefield" includes phoney minefields.

11. "**Recording**" means a physical, administrative and technical operation designed to obtain, for the purpose of registration in official records, all available information facilitating the location of MOTAPMs and minefields and mined areas of MOTAPMs.

12. "**Self-destruction mechanism**" means an incorporated or externally attached automatically-functioning mechanism which secures the destruction of the munition into which it is incorporated or to which it is attached.

13. **"Self-neutralization mechanism"** means an incorporated automatically-functioning mechanism which renders inoperable the munition into which it is incorporated.

14. **"Self-deactivation"** means automatically rendering a munition inoperable by means of the irreversible exhaustion of a component, for example a battery, that is essential to the operation of the munition.

15. **"Transfer"** involves, in addition to the physical movement of MOTAPM into or from national territory, the transfer of title to and control over the MOTAPM, but does not involve the transfer of territory containing emplaced MOTAPMs.

16. **"Perimeter-marked area"** is an area which, in order to ensure the effective exclusion of civilians, is monitored by military or other authorized personnel, or protected by fencing or other means.

III. DETECTABILITY OF MOTAPMS

17. It is prohibited to use a non-detectable MOTAPM, subject to the exclusions specified below.

18. A MOTAPM is detectable if, upon emplacement:

- (a) it provides a response signal equivalent to a signal from eight grammes or more of iron in a single coherent mass buried five centimetres beneath the ground and can be detected by commonly available mine detection equipment; or
- (b) it can be reliably and effectively detected through the use of alternative methods and equipment that reflect developments in detection methodologies, and if the States, taking into account testing and evaluation by relevant institutions, have decided by a four-fifths majority of the States present and voting that such alternative methods and equipment are effective and commonly available.

19. A MOTAPM is also detectable if it can be reliably and effectively detected through the use of methods and equipment that are not commonly available but are readily available to a State, provided that:

- (a) the State in question has, before the use of such MOTAPM, demonstrated to the other States that the MOTAPM can be reliably and effectively detected through the use of such readily available methods or equipment; and
- (b) it is not used outside perimeter-marked areas located on the territory of the State in question.

20. A MOTAPM emplaced in a perimeter-marked area is excluded from the detectability requirement of this chapter.

21. It is prohibited to produce, after the entry into force of this set of recommendations, any MOTAPM that is not detectable.
22. All MOTAPMs from existing stocks shall meet the detectability requirement of this chapter prior to their emplacement, except in the case referred to in paragraph 20.
23. In the event that a State determines it cannot immediately comply with the requirements of this chapter, it may declare at the time of its notification of consent to be bound by this set of recommendations that it will defer compliance for a period not to exceed 12 years from the entry into force of this set of recommendations. In the meantime that State shall, to the extent feasible, minimize the use of any MOTAPM that does not meet the detectability requirement of this chapter.

IV. ACTIVE LIFE OF MOTAPMS

24. It is prohibited to use a remotely-delivered MOTAPM which does not incorporate a self-destruction mechanism or a self-neutralization mechanism with, in either case, a back-up self-deactivation feature (hereinafter referred to as "SD/SDA or SN/SDA"), whereby the MOTAPM will no longer function as a mine when it no longer serves the military purpose for which it was emplaced.
25. States shall not deliver a MOTAPM from a land-based system from less than 500 metres, nor shall they hand-emplace a MOTAPM, which does not incorporate a SD/SDA or SN/SDA, outside a perimeter marked area.
26. When implementing the recommendations of this chapter the States shall take all measures stipulated in Technical Annex A and should follow the best practices stipulated in Technical Annex B.
27. In the event that a State determines it cannot immediately comply with paragraphs 24 and 25, it may declare at the time of its notification of consent to be bound by this set of recommendations that it will defer compliance for a period not to exceed 12 years from the entry into force of this set of recommendations. In the meantime that State shall, to the extent feasible, minimize the use of any MOTAPM that does not so comply.

V. ACTIONS LIMITING THE IRRESPONSIBLE USE OF MOTAPMS

28. Each State shall take action with a view to limiting the irresponsible use of MOTAPMs, which may include:
- (a) Establishment of adequate national systems of relevant documentation;
 - (b) Effective export and import control measures relating to MOTAPMs;
 - (c) Effective management and security of stockpiles and transport of MOTAPMs;

- (d) Adoption of such measures as may be necessary, including, where appropriate, penal sanctions, to prevent and suppress activities prohibited by this set of recommendations; and
- (e) Enhanced cooperation with a view to implementing this set of recommendations.

VI. FUZE DESIGN AND SENSORS OF MOTAPMS

29. States should, to the extent feasible, follow the best practices on fuze design stipulated in Technical Annex B, paragraph 3.

VII. USE, RECORDING AND REMOVAL OF MOTAPMS, AND MINEFIELDS AND MINED AREAS OF MOTAPMS

30. The following general restrictions on the use of MOTAPMs apply.

- (a) Each State or party to a conflict is, in accordance with the provisions of this set of recommendations, responsible for all MOTAPMs employed by it and undertakes to clear, remove, destroy or maintain them as specified in the relevant paragraphs of this chapter.
- (b) It is prohibited in all circumstances to use any MOTAPM which is designed or of a nature to cause superfluous injury or unnecessary suffering.
- (c) It is prohibited to use a MOTAPM which employs a mechanism or device specifically designed to detonate the munition by the presence of commonly available mine detectors as a result of their magnetic or other non-contact influence during normal use in detection operations.
- (d) It is prohibited to use a self-deactivating MOTAPM equipped with an anti-handling device that is designed in such a manner that the anti-handling device is capable of functioning after the MOTAPM has ceased to be capable of functioning.
- (e) It is prohibited in all circumstances to direct any MOTAPM, either in offence or defence, or by way of reprisals, against the civilian population as such or against individual civilians or civilian objects.
- (f) The indiscriminate use of MOTAPMs is prohibited. Indiscriminate use is any placement of MOTAPMs:
 - (i) which is not on, or directed against, a military objective. In case of doubt as to whether an object which is normally dedicated to civilian purposes, such as a place of worship, a house or other dwelling or a school, is being used to make an effective contribution to military action, it shall be presumed not to be so used; or

- (ii) which employs a method or means of delivery which cannot be directed at a specific military objective; or
 - (iii) which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.
- (g) Several clearly separated and distinct military objectives located in a city, town, village or other area containing a similar concentration of civilians or civilian objects are not to be treated as a single military objective.
- (h) All feasible precautions shall be taken to protect civilians from the effects of MOTAPMs. Feasible precautions are those precautions which are practicable or practically possible taking into account all circumstances ruling at the time, including humanitarian and military considerations. These circumstances include, but are not limited to:
- (i) the short- and long-term effect of MOTAPMs upon the local civilian population for the duration of the minefield;
 - (ii) possible measures to protect civilians (for example, fencing, signs, warning and monitoring);
 - (iii) the availability and feasibility of using alternatives; and
 - (iv) the short- and long-term military requirements for a minefield.
- (i) Effective advance warning shall be given of any emplacement of a MOTAPM which may affect the civilian population, unless circumstances do not permit.

31. The following provisions on recording and use of information on MOTAPMs, and on minefields and mined areas of MOTAPMs, apply.

- (a) It is prohibited to use any MOTAPM unless it is recorded in accordance with Technical Annex A, paragraph 1.
- (b) All information concerning MOTAPMs, and minefields and mined areas of MOTAPMs shall be recorded in accordance with the provisions of Technical Annex A, paragraph 1.
- (c) All such records shall be retained by the parties to a conflict, who shall, without delay after the cessation of active hostilities, take all necessary and appropriate measures, including the use of such information, to protect civilians from the effects of MOTAPMs, and minefields and mined areas of MOTAPMs, in areas under their control. At the same time, they shall also make available to the other party or parties to the conflict and to the Secretary-General of the United Nations

all such information in their possession concerning MOTAPMs, and minefields and mined areas of MOTAPMs, laid by them in areas no longer under their control; provided, however, subject to reciprocity, where the forces of a party to a conflict are in the territory of an adverse party, either party may withhold such information from the Secretary-General and the other party, to the extent that security interests require such withholding, until neither party is in the territory of the other. In the latter case, the information withheld shall be disclosed as soon as those security interests permit. Wherever possible, the parties to the conflict shall seek, by mutual agreement, to provide for the release of such information at the earliest possible time in a manner consistent with the security interests of each party.

32.

- (a) A perimeter-marked area shall be marked by appropriate signage in accordance with Technical Annex A, sub-paragraph 1(e), except during periods of active hostilities. The marking shall be of a distinct and durable character and shall at least be visible to a person who is about to enter the perimeter-marked area.
- (b) During periods of active hostilities, a perimeter-marked area should, to the extent feasible, be appropriately marked. After the cessation of active hostilities and as soon as feasible, the area shall be marked in accordance with sub-paragraph (a) above.

33. The following provisions on removal of MOTAPMs, and minefields and mined areas of MOTAPMs, and international cooperation, apply.

- (a) Without delay after the cessation of active hostilities, all MOTAPMs, and minefields and mined areas of MOTAPMs, shall be cleared, removed, destroyed or maintained in accordance with the provisions of this set of recommendations.
- (b) States and parties to a conflict bear such responsibility with respect to MOTAPMs, and minefields and mined areas of MOTAPMs, in areas under their control.
- (c) With respect to MOTAPMs, and minefields and mined areas of MOTAPMs, laid by a party in areas over which it no longer exercises control, such party shall provide to the party in control of the area, pursuant to sub-paragraph (b) of this paragraph, to the extent permitted by such party, technical and material assistance necessary to fulfil such responsibility.
- (d) At all times necessary, the parties shall endeavour to reach agreement, both among themselves and, where appropriate, with other States and with international organizations, on the provisions of technical and material assistance, including, in appropriate circumstances, the undertaking of joint operations necessary to fulfil such responsibilities.

34. Protection from the effects of MOTAPMs, and minefields and mined areas of MOTAPMs:

(1) Application

- (a) With the exception of the forces and missions referred to in sub-paragraph 2 (a) (i) of this paragraph, this paragraph applies only to missions which are performing functions in an area with the consent of the State on whose territory the functions are performed.
- (b) The application of the provisions of this paragraph to parties to a conflict which are not parties to this set of recommendations shall not change their legal status or the legal status of a disputed territory, either explicitly or implicitly.

(2) Peace-keeping and certain other forces and missions

- (a) This paragraph applies to:
 - (i) any United Nations force or mission performing peace-keeping, observation or similar functions in any area in accordance with the Charter of the United Nations; and
 - (ii) any mission established pursuant to Chapter VIII of the Charter of the United Nations and performing its functions in the area of a conflict.
- (b) Each State or party to a conflict, if so requested by the head of a force or mission to which this paragraph applies, shall:
 - (i) so far as it is able, take such measures as are necessary to protect the force or mission from the effects of MOTAPMs in any area under its control;
 - (ii) if necessary in order effectively to protect such personnel, remove or render harmless, so far as it is able, all MOTAPMs, in that area; and
 - (iii) inform the head of the force or mission of the location of all known MOTAPMs, and minefields and mined areas of MOTAPMs, in the area in which the force or mission is performing its functions and, so far as is feasible, make available to the head of the force or mission all information in its possession concerning such MOTAPMs, and minefields and mined areas of MOTAPMs.

(3) Humanitarian and fact-finding missions of the United Nations System

- (a) This paragraph applies to any humanitarian or fact-finding mission of the United Nations System.
 - (b) Each State or party to a conflict, if so requested by the head of a mission to which this paragraph applies, shall:
 - (i) provide the personnel of the mission with the protections set out in sub-paragraph 2(b) (i) of this paragraph; and
 - (ii) if access to or through any place under its control is necessary for the performance of the mission's functions and in order to provide the personnel of the mission with safe passage to or through that place:
 - (aa) unless on-going hostilities prevent, inform the head of the mission of a safe route to that place if such information is available; or
 - (bb) if information identifying a safe route is not provided in accordance with sub-paragraph (aa), so far as is necessary and feasible, clear a lane through minefields of MOTAPMs.
- (4) Missions of the International Committee of the Red Cross
- (a) This paragraph applies to any mission of the International Committee of the Red Cross performing functions with the consent of the host State or States as provided for by the Geneva Conventions of 12 August 1949 and, where applicable, their Additional Protocols.
 - (b) Each State or party to a conflict, if so requested by the head of a mission to which this paragraph applies, shall:
 - (i) provide the personnel of the mission with the protections set out in sub-paragraph 2(b) (i) of this paragraph; and
 - (ii) take the measures set out in sub-paragraph 3(b) (ii) of this paragraph.
- (5) Other humanitarian missions and missions of enquiry
- (a) Insofar as paragraphs 2, 3 and 4 above do not apply to them, this paragraph applies to the following missions when they are performing functions in the area of a conflict or to assist the victims of a conflict:
 - (i) any humanitarian mission of a national Red Cross or Red Crescent Society or of their International Federation;

- (ii) any mission of an impartial humanitarian organization, including any impartial humanitarian demining mission; and
 - (iii) any mission of enquiry established pursuant to the provisions of the Geneva Conventions of 12 August 1949 and, where applicable, their Additional Protocols.
- (b) Each State or party to a conflict, if so requested by the head of a mission to which this paragraph applies, shall, so far as is feasible:
- (i) provide the personnel of the mission with the protections set out in sub-paragraph 2(b) (i) of this paragraph, and
 - (ii) take the measures set out in sub-paragraph 3(b) (ii) of this paragraph.

(6) Confidentiality

All information provided in confidence pursuant to this paragraph shall be treated by the recipient in strict confidence and shall not be released outside the force or mission concerned without the express authorization of the provider of the information.

(7) Respect for laws and regulations

Without prejudice to such privileges and immunities as they may enjoy or to the requirements of their duties, personnel participating in the forces and missions referred to in this paragraph shall:

- (a) respect the laws and regulations of the host State; and
- (b) refrain from any action or activity incompatible with the impartial and international nature of their duties.

VIII. TRANSFERS

35. In order to promote the purposes of this set of recommendations, each State:

- (a) undertakes not to transfer any MOTAPM to any recipient other than a State or State agency authorized to receive it;
- (b) undertakes not to transfer any MOTAPM which does not meet the detectability requirement of chapter III, except for the purpose of destruction or for development of and training in mine detection, mine clearance, or mine destruction techniques;
- (c) undertakes not to transfer any MOTAPM to States which are not bound by this set of recommendations, unless the recipient formally agrees to apply its provisions;

- (d) undertakes not to transfer any MOTAPM without an end-user certificate;
- (e) undertakes not to transfer any MOTAPM capable of being remotely-delivered and which does not incorporate a SD/SDA or SN/SDA; and
- (f) undertakes to exercise restraint in the transfer of any MOTAPM with Category One fuzing system, as described in Technical Annex B, sub-paragraph 3(b), except for the purpose of destruction or for development of and training in mine detection, mine clearance, or mine destruction techniques.

36. Pending the entry into force of this set of recommendations, all States will refrain from any action which would be inconsistent with this chapter.

37. The provisions and prescriptions of this Chapter will be effective upon the entry into force of this set of recommendations, irrespective of the transition period which the State could avail itself of in order to meet the requirements in Chapters III and IV.

IX. TRANSPARENCY AND OTHER CONFIDENCE-BUILDING MEASURES

38. Each State shall provide to the Depositary, who shall circulate to the other States, information on the implementation of the provisions of this set of recommendations.

- (a) This information should include the following elements:
 - (i) an initial report, to be provided upon the entry into force of this set of recommendations for each State; and
 - (ii) periodic updating of the report.
- (b) The report may include, inter alia:
 - (i) Dissemination of information on the provisions of this set of recommendations to their armed forces and to the civilian population;
 - (ii) Mine clearance and rehabilitation programmes;
 - (iii) Steps taken to meet technical requirements of the provisions of this set of recommendations and any other relevant information pertaining thereto, other than that relating to weapons technology;
 - (iv) Legislative and other measures taken for the implementation of the provisions of this set of recommendations;
 - (v) Measures taken on cooperation and assistance provided under chapter X of this set of recommendations; and

- (vi) General information on the national rules and requirements for transfers of MOTAPMs, and information on these transfers.

X. COOPERATION AND ASSISTANCE

39. Each State in a position to do so, shall enhance cooperation and assistance at bilateral, regional and international levels aimed at assisting the other States in the fulfilment of their obligations in respect of MOTAPMs. Cooperation and assistance may be provided through humanitarian organisations. Such cooperation and assistance may include the following:

- (a) Provision of technical and financial assistance, including exchange of experience, technology other than weapons technology, and information, in order to facilitate the implementation of necessary modifications to improve the reliability of, and minimize the humanitarian risks posed by, existing and future MOTAPMs. Such assistance may also be provided to facilitate the development, if feasible, of advanced mine detection equipment and to make such equipment readily available.
- (b) Cooperation and assistance in the destruction of stockpiles of MOTAPMs that do not meet and cannot be modified to meet the requirements of this set of recommendations.
- (c) Cooperation and technical, material and human assistance for the rapid and effective clearance, removal or destruction of MOTAPMs.
- (d) The timely provision of geographic and technical information on MOTAPMs to relevant humanitarian missions and to the database on mine action maintained within the United Nations System.
- (e) Cooperation and assistance on the provision of risk education for civilian populations.
- (f) Cooperation and assistance for the care and rehabilitation and the social and economic reintegration of victims of MOTAPMs.
- (g) Cooperation and assistance in the implementation of the provisions of this set of recommendations relating to MOTAPMs.

Technical Annex A

1. MINEFIELD RECORDING

(a) Recording of the location of MOTAPMs other than remotely -delivered MOTAPMs shall be carried out in accordance with the following provisions;

- (i) the location of the minefields and mined areas shall be specified accurately by relation to the coordinates of at least two reference points and the estimated dimensions of the area containing these weapons in relation to those reference points;
- (ii) maps, diagrams or other records shall be made in such a way as to indicate the location of minefields and mined areas in relation to reference points, and these records shall also indicate their perimeters and extent; and
- (iii) for the purposes of detection and clearance of MOTAPMs, maps, diagrams or other records shall contain complete information on the type, number, emplacing method, type of fuse and life time, date and time of laying, anti-handling devices (if any) and any other relevant information on all of these weapons laid. Whenever feasible the minefield record shall show the exact location of every MOTAPM, except in row minefields where the row location is sufficient.

(b) The estimated location and area of remotely-delivered MOTAPMs shall be specified by coordinates of reference points (normally corner points) and shall be ascertained and when feasible marked on the ground at the earliest opportunity. The total number and types of MOTAPMs laid, the date and time of laying and the self-destruction time periods shall also be recorded.

(c) Copies of records shall be held at a level of command sufficient to guarantee their safety as far as possible.

(d) All MOTAPMs produced after entry into force of this set of recommendations shall be marked in English or in the respective national language or languages with the following information:

- (i) Name of the country of origin; and
- (ii) Month and year of production; and
- (iii) Serial number or lot number.

The marking shall be visible, legible, durable and resistant to environmental effects, as far as possible.

International signs for Minefields and Mined Areas

(e) Signs similar to those specified within Protocol II of the CCW Convention as amended on 3 May 1996 and detailed below shall be utilized in the marking of minefields and mined areas to ensure their visibility and recognition by the civilian populations:

- (i) **Size and shape** : a triangle or square no smaller than 28 centimetres (11 inches) by 20 centimetres (7.9 inches) for a triangle, and 15 centimetres (6 inches) per side for a square;
- (ii) **Colour**: red or orange with a yellow reflecting border;
- (iii) **Symbol**: the symbol illustrated in the attachment, or an alternative readily recognizable in the area in which the sign is to be displayed as identifying a dangerous area;
- (iv) **Language**: the sign shall contain the word “mines” in one of the six official languages of the convention (Arabic, Chinese, English, French, Russian, and Spanish) and the language or languages prevalent in the area;
- (v) **Spacing**: signs shall be placed around the minefield at a distance to ensure their visibility at any point by a civilian approaching the area.

Technical Annex B

This Annex contains best practices for achieving the objectives of this set of recommendations. This Annex will be implemented by States on a voluntary basis.

1. CONTROL MEASURES

Prior to Commencement of Active Hostilities

- (a) All minefields, within the territory controlled by the party concerned, should be monitored by military or other authorized personnel, or protected by fencing or other means, to ensure the effective exclusion of civilians from the area.

During Active Hostilities

- (b) Parties to a conflict are to ensure, to the extent feasible, that all minefields known to them at the time and within territory under their control are either monitored by military or other authorized personnel or protected by fencing or other means, to ensure the effective exclusion of civilians from the area. Remotely-delivered MOTAPMs and nuisance minefields may be emplaced as required during active hostilities noting the recording requirements detailed in Technical Annex A.

After the Cessation of Active Hostilities

- (c) After the cessation of active hostilities all parties to a conflict should be encouraged to cooperate in order to facilitate, to the extent feasible, the exchange to the other parties concerned of all information in their possession concerning minefields, mined areas, and MOTAPMs laid by them in areas no longer under their control.
- (d) At the earliest opportunity and to the extent feasible all minefields within the territory controlled by the party concerned, are to be secured and monitored by military or other authorized personnel, or protected by fencing or other means to ensure the effective exclusion of civilians from the area. If fencing or other marking means have been removed from minefields during the conflict they are to be restored at the earliest opportunity in order to ensure the effective exclusion of civilians from the area.
- (e) At the earliest opportunity and to the extent feasible all remotely-delivered and nuisance minefields emplaced during active hostilities, and within the territory controlled by the party concerned, are to be appropriately recorded in accordance with Technical Annex A. In addition and to the extent feasible they are to be secured and monitored by military or other authorized personnel, or protected by fencing or other means, to ensure the effective exclusion of civilians from the area.

Common Warning Measures Required At All Times

- (f) To the extent feasible, and as soon as practicable after MOTAPMs are laid, signposted or other warning measures should be provided on all primary traffic routes into the mined area to

ensure the effective warning of civilians. A primary traffic route is one over which most population movement occurs between population centres. When providing these warning measures parties should be mindful of prevailing local environmental factors, such as regular flooding, which could contribute to the natural but unintended movement of MOTAPMs over time.

Marking Systems

(g) Marking systems are utilised to effectively and efficiently identify the perimeter or boundary between mined and unmined areas. They can include natural or artificial features or a combination thereof but to the extent feasible they will be enhanced through the inclusion of warning signs, as described in Technical Annex A.

(h) Notwithstanding the potential removal of these measures (fencing or other means) at the onset of active hostilities and the ongoing requirement in these circumstances for parties to ensure, to the extent feasible, that all minefields are monitored by military or other authorised personnel, to ensure the effective exclusion of civilians from the area, the following guidelines are provided for marking at all other times.

(i) Immediate Warning. Immediate markers are used to expediently mark hazards encountered by military or civilian personnel until a long-term or more permanent marker can be established. The basic pre-requisites for these markers are:

- (i) any marking means capable of identifying the hazardous areas as quickly as possible;
- (ii) visibility at not less than 50m indicating the location, direction and type of hazard; and
- (iii) the marking material(s) have a lifespan of at least 180 days.
- (iv) the marking means used should be readily recognizable in the area in which they are displayed as identifying a hazardous area.

(j) Immediate markers could include but should not be limited to:

- (i) mine marking tape; or
- (ii) wire, pickets (iron, timber, concrete, plastic or other) and signage; or
- (iii) painting of natural features such as trees and rocks in hazard recognition colours; or
- (iv) any other locally or otherwise available and accepted hazard recognition materials.
- (v) sign should be robustly emplaced and difficult to remove.

- (k) To the extent feasible, the location of the hazard and its marking details such as the marking systems employed should be promulgated in general terms to the civil population as soon as is practicable to ensure their effective exclusion from the area.
- (l) To the extent feasible they should be enhanced through the inclusion of warning signs, as described in Technical Annex A.
- (m) Long Term Warning. Long-term markers are to be used if the hazard is likely to remain in location for a protracted duration or when immediate hazard markers need to be replaced and upgraded.
- (n) Long-term markers represent an improvement on an immediate warning system and the minimum standard of a long term warning sign could include but should not be limited to:
 - (i) A fence (minimum single strand of barb wire) to waist height with appropriate military mine hazard recognition markers as detailed in Technical Annex A at intervals appropriate to the terrain and vegetation.
 - (ii) Permanent signage, visible to the extent feasible by day and by night, both proximate to the hazard itself and on all identifiable primary traffic routes into the area in which the hazard is contained.
- (o) Provision could be made to enhance the standard of the fence by adopting a best practice approach. This could include but should not be limited to any or a combination of the following options:
 - (i) A permanent cyclone wire type fence reinforced with barbed wire and anti-climbing measures inclusive with mine hazard markers at specified minimum intervals and type,
 - (ii) Concertina wire and pickets,
 - (iii) Concrete barricades, or
 - (iv) Other locally or otherwise available material enhancements.

2. SPECIFICATIONS ON SELF-DESTRUCTION, SELF-NEUTRALIZATION AND SELF-DEACTIVATION¹

- (a) MOTAPMs that are designed to self-destruct or self-neutralize should do so within 45 days after arming. Self-deactivation of MOTAPMs that fail to self-destruct or self-neutralize should take place within 120 days after arming.

¹ The assessment of the reliability rate of the SD/SDA or SN/SDA is left to the discretion of each State.

(b) Each State should take the measures necessary to ensure that no more than 10 percent (with a 90 percent confidence level) of activated MOTAPMs will fail to self-destruct or self-neutralize after 45 days.

(c) Each State should take the measures necessary to ensure that in combination with self-destruction or self-neutralization mechanisms, no more than one in a thousand of activated MOTAPMs will function as a mine after 120 days.

3. FUZE DESIGN AND SENSORS OF MOTAPM

(a) Based on information and data provided by States the following broadly available fuzes and sensors should be considered as relevant: acoustic sensors; break wires; fiber-optic wires; infra-red-sensors; magnetic sensors; pressure sensors; roller arms; scratch wire sensors; seismic/vibration sensors; tilt rods; trip wires.²

(b) The aforementioned broadly available fuzes and sensors should be graded into the following categories:

Category One: *Fuzing systems that cannot be designed not to be excessively sensitive.*

- (i) Break wires and trip wires do not appear to be a recommended method of activation, as it does not seem possible to design them in such a way that an individual cannot, within reason, initiate the mine.
- (ii) Tilt rods do not appear to be recommended method of activation, if they cannot be designed in such a way that an individual cannot, within reason, initiate the mine.

Category Two: *Fuzing systems that can be designed not to be excessively sensitive, but are best used in conjunction with other sensors.*

- (i) Acoustically activated fuzes use electronic sensors to react to acoustic pressure and recognize the acoustic signature. Use in conjunction with other sensors is preferable.
- (ii) Infrared activated fuzes should be designed so as not to be activated in the presence of a person. The sensor should be able to match detected heat signatures to the intended target preferably in conjunction with other sensors.
- (iii) Seismic/Vibration sensors cannot currently locate their targets precisely; their use in conjunction with other sensors appears therefore to be indispensable. The sensor should be capable to match a seismic signature to the intended target.

² The sequence of the fuzes and sensors is strictly alphabetical and does not entail an assessment of their availability, distribution or use.

Category Three: *Fuzing systems that can be designed not to be excessively sensitive, that can be designed to operate satisfactorily without other sensors and which fulfil the best practice safety guidelines of this Technical Annex.*

- (i) The pressure required to break the fiber-optic signal should be appropriate for the intended target.
 - (ii) To enhance military utility, magnetically activated mines should be capable of matching a magnetic signature to the intended target.
 - (iii) Pressure sensors, pressure activated mechanisms, should, where possible, be subject to a minimum pressure force appropriate for the intended target. Pressure should preferably be exerted over a significant area (equal to that of a vehicle) rather than a single point.
 - (iv) The number of turns required to initiate the roller arm fuze should be matched to the intended target.
 - (v) The scratch wire sensor should be designed for specific targets by optimizing the scratch time, frequency and amplitude required to initiate the sensor by the intended target.
- (c) All MOTAPMs, with the exception of those fitted with Category Three fuzes, should incorporate in future production, to the extent feasible, multi-sensor fuzes technology in order to reduce the possibility of inadvertent or accidental activation by a person taking into account operational, life cycle, environmental and climate factors.
- (d) The influence of environmental factors, particularly
- (i) of weather and climate as well as
 - (ii) of storage, handling and other external conditions
- should be taken into account when selecting the types of fuzes and determining the sensitivity of fuzes.
- (e) Considerations and proposals of technical measures should take into account operational, procurement as well as life cycle factors; they should address clearly identified humanitarian issues.
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