

# IMAS 09.10

2<sup>nd</sup> Edition  
2003-01-01

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## Clearance requirements

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Director,  
United Nations Mine Action Service (UNMAS),  
DC2 0650, United Nations,  
New York, NY 10017,  
USA

E-mail: [mineaction@un.org](mailto:mineaction@un.org)  
Telephone: (1 212) 963 1875  
Fax: (1 212) 963 2498

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Chief  
United Nations Mine Action Service (UNMAS)  
United Nations, FF-363, New York, NY 10017, USA  
E-mail: [mineaction@un.org](mailto:mineaction@un.org)  
Telephone: (1 212) 963 1875  
Fax: (1 212) 963 2498

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## Foreword

In July 1996, international standards for humanitarian mine clearance programmes were proposed by working groups at a conference in Denmark. Criteria were prescribed for all aspects of mine clearance, standards were recommended and a new universal definition of 'clearance' was agreed. In late 1996 the principles proposed in Denmark were developed by a UN-led working group into *International Standards for Humanitarian Mine Clearance Operations*. A first edition of these standards was issued by the UN Mine Action Service (UNMAS) in March 1997.

This IMAS reflects changes to operational procedures, practices and norms which have occurred over the past three years. The scope of these standards has been expanded to include the other components of mine action, in particular those of mine risk education, victim assistance and stockpile destruction.

The United Nations has a general responsibility for enabling and encouraging the effective management of mine action programmes, including the development and maintenance of standards. UNMAS is the office within the United Nations Secretariat responsible for the development and maintenance of international mine action standards (IMAS).

The work of preparing, reviewing and revising these standards is conducted by technical committees, with the support of international, governmental and non-governmental organisations. The latest version of each standard, together with information on the work of the technical committees, can be found at <http://www.mineactionstandards.org/>. IMAS will be reviewed at least every three years to reflect developing mine action norms and practices, and to incorporate changes to international regulations and requirements.

## Introduction

The target of humanitarian demining is the identification and removal or destruction of all mine and UXO hazards from a specified area to a specified depth. The objective is to promote a culture where the demining community seeks to achieve this target by developing and applying appropriate management procedures, by establishing and continuously improving the skills of managers and deminers, and by procuring safe, effective and efficient equipment.

The beneficiaries of humanitarian demining programmes must be confident that cleared land is safe for their use. This requires management systems and clearance procedures which are appropriate, effective, efficient and safe. The local community should also receive regular briefings and explanations during the clearance operation from the demining organisation; this acts as a very effective confidence building measure. Community liaison is an integral part of the demining process and can be achieved by the services of a Mine Risk Education (MRE) team, or by suitably trained members of the demining organisation.

This standard adopts a two-stage approach. Stage 1 (quality assurance) involves the accreditation and monitoring of the demining organisation before and during the clearance process. To achieve this, demining organisations must establish an effective management organisation, develop and maintain procedures, and apply these procedures in a safe, effective and efficient manner. Management procedures should be transparent and auditable. Community involvement in the demining process should be an area that is monitored as part of the QA process. Stage 2 (quality control) involves the process of an inspection of cleared land before it is formally released to the beneficiary for use.

This combined application of quality assurance (before and during the clearance process) with post-clearance quality control will contribute to achieving an acceptable level of confidence that the land is safe for its intended use. The quality of clearance must be acceptable to the both the national mine action authority/authorities and the local community that benefits, and it shall be measurable and verifiable.

## Clearance Requirements

### 1 Scope

This standard defines 'clearance', and specifies the quality system (i.e. the organisation, procedures and responsibilities) necessary to determine that land has been cleared by the demining organisation in accordance with its contractual obligations.

### 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 IMAS series of standards is given in IMAS 04.10.

In the IMAS 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 applied in order to conform to the standard.
- b) 'should' is used to indicate the preferred requirements, methods or specifications.
- c) 'may' is used to indicate a possible method or course of action.

the government department(s), organisation(s) or institution(s) in each mine-affected country charged with the regulation, management and coordination of mine action. In most cases the national mine action centre (MAC) or its equivalent will act as, or on behalf of, the 'national mine action authority'. In certain situations and at certain times it may be necessary and appropriate for the UN, or some other recognised international body, to assume some or all of the responsibilities, and fulfil some or all of the functions, of a national mine action authority.

The term 'demining organisation' refers to any organisation (government, NGO or commercial entity) responsible for implementing demining projects or tasks. Demining organisations include headquarters and support elements, and comprise one or more sub-units.

The term 'monitoring body' refers to any organisation which monitors the work of the demining organisation and its sub-units on behalf of the national mine action authority.

The term 'inspection body' refers to any organisation which conducts post-clearance quality control on behalf of the national mine action authority by applying random sampling procedures, or other appropriate and agreed methods of inspection.

### 4 Specification of clearance quality

Land shall be accepted as 'cleared' when the demining organisation has ensured the removal and/or destruction of all mine and UXO hazards from the specified area to the specified depth.

The specified area to be cleared shall be determined by a technical survey or from other reliable information which establishes the extent of the mine and UXO hazard area.

Note: The priorities for clearance shall be determined by the impact on the individual community balanced against national infrastructure priorities.

The specified depth of clearance shall be determined by a technical survey, or from other reliable information which establishes the depth of the mine and UXO hazards and an assessment of the intended land use. In the absence of reliable information on the depth of the local mine and UXO hazard, a default depth for clearance shall be established by the national mine action authority. It should be based on the technical threat from mines and UXO in the country and should also take into consideration the future use to which the land is to be put.

Note: For buried mines and UXO this depth should normally not be less than 130mm below the original surface level; this figure is based on the effective detection depth of the majority of metal detectors. It may be refined by the national mine action authority dependent on the type of metal detector that they currently use based on the results of the International Pilot Project for Technology Co-operation *Final Report on the Evaluation of Commercial Off The Shelf Metal Detectors* (EUR 19719 EN) (available from the EU JCR Ispra).

The removal and/or destruction of all mine and UXO hazards in the specified area to the specified depth shall be ensured by:

- a) using accredited demining organisation(s) with licensed capabilities, such as manual clearance, dog detection teams, mechanical systems and community liaison teams;
- b) using appropriate management practices, and applying safe and effective operational procedures;
- c) monitoring the demining organisation and its sub-units; and
- d) conducting a process of post-clearance inspection of cleared land.

The contractual arrangements should specify the area to be cleared, the clearance depth, and the requirements for monitoring and inspection. These should be specified by the national mine action authority, and agreed during the contractual arrangements.

Note: Specifying clearance depths will depend on the intended land use, the likely mine or UXO hazard in the area to be cleared and other environmental factors. For example:

- Mines and UXO may be on the surface of the ground. In this case, the specification may call for the removal and or destruction only of surface laid mine and UXO hazards.
- Clearance in urban areas may require the removal or many meters of rubble as part of the clearance process.
- In situations where large bombs and missiles have been used, the depth of clearance may be several metres.
- Shifting sands in desert areas or coastal areas may require clearance to a depth of 1.0m or 2.0m to locate and destroy mines which were originally laid at a depth of no more than 10cm.

Note: If the ground level has changed since the mines and UXO were originally emplaced, then the contractual arrangements shall be written in such a way as to ensure that there is no misunderstanding over the required clearance depth.

Note: The required clearance depth may be adjusted as clearance work progresses. Any amendment shall be agreed between with the national mine clearance authority and the demining organisation, and shall be formally recorded.

Note: The process should be repeated if there is a change to the land use.

Note: There may be circumstances where a demining organisation is funded to operate in an area with a mandate to identify its own clearance tasks based on general priorities provided by the donor and/or national mine action authority. In such circumstances, the demining organisation should, in advance of clearance, formally record the area and depth of the intended clearance.

Note: Community liaison is intended to ensure the mine action programmes are sensitive and respond to community needs and priorities. It should also ensure that the mine affected communities understand and support mine action.

## **5 Responsibilities and obligations**

### **5.1 National mine action authority's responsibilities**

The national mine action authority, or an organisation acting on its behalf, shall:

- a) specify the area to be cleared and depth of clearance in contracts and agreements;
- b) specify the standards and guidelines for quality assurance and quality control to be applied to clearance contracts and agreements;
- c) accredit demining organisations as fit to undertake clearance; and
- d) maintain a registry of cleared and uncleared land showing the clearance status for each mined area.

### **5.2 Demining organisation's responsibilities**

The organisation undertaking clearance shall:

- a) gain (from the national mine action authority) accreditation and the licences needed to operate as a clearance organisation;
- b) apply the national mine action authority clearance standard. In the absence of national standards, the clearance organisation shall apply the IMAS standards, or such standards as are specified in their contract or agreement;
- c) maintain and make available documentation of clearance as specified by the national mine action authority; and
- d) apply management practices and operational procedures which aim to clear land to the requirements specified in the contract and agreement(s).

In the absence of a national mine action authority or authorities, the demining organisation shall assume additional responsibilities. These include, but are not restricted to:

- e) for each mined area, and prior to any clearance, agree the requirement and formally document:
  - (1) the area of the intended clearance; and
  - (2) the depth of the intended clearance;
- f) establish and apply a system of monitoring the clearance activities, and post-clearance inspections of cleared land; and
- g) assist the host nation, during the establishment of a national mine action authority, in framing national standards for clearance quality.

### **5.3 Monitoring body's responsibilities**

The monitoring body shall:

- a) gain (from the national mine action authority) accreditation to operate as a monitoring body;
- b) monitor the demining organisation and its sub-units in accordance with IMAS 07.40 and the requirements of the national mine action authority; and
- c) maintain and make available documentation of monitoring inspections as specified by the national mine action authority.

### **5.4 Inspection body's responsibilities**

The inspection body shall:

- a) gain (from the national mine action authority) accreditation to operate as an inspection body;
- b) apply sampling procedures in accordance with IMAS 09.20 and the requirements of the national mine action authority; and
- c) maintain and make available documentation of inspections as specified by the national mine action authority.

## **Annex A (Normative) 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) IMAS 07.10 Management of demining operations;
- b) IMAS 09.20 Sampling procedures for the inspection of clearance tasks; and
- c) IMAS 07.30 Accreditation of demining organisations.

The latest version/edition of these references should be used. GICHD hold copies of all references used in this standard. A register of the latest version/edition of the IMAS standards, guides and references is maintained by GICHD, and can be read on the IMAS website (<http://www.mineactionstandards.org/>). National mine action authorities, employers and other interested bodies and organisations should obtain copies before commencing mine action programmes.

## Annex B (Informative) Terms and definitions

### **B.1.1**

#### **cleared area**

an area that has been physically and systematically processed by a demining organisation to ensure the removal and/or destruction of all mine and UXO hazards to a specified depth.

Note: Cleared area may include land cleared during the technical survey process. This may include boundary lanes or cleared lanes.

### **B.1.2**

#### **demining organisation**

any organisation (government, NGO or commercial entity) responsible for implementing demining projects or tasks. Demining organisations include headquarters and support elements, and comprise one or more sub-units.

### **B.1.3**

#### **hazard**

potential source of harm [ISO Guide 51:1999(E)]

### **B.1.4**

#### **inspection body**

an organisation which conducts post-clearance quality control on behalf of the national mine action authority by applying random sampling procedures, or other appropriate and agreed methods of inspection.

### **B.1.5**

#### **intended use (land)**

use of land following demining operations.

Note: intended use: use of a product, process or service in accordance with information provided [ISO Guide 51:1999(E)]

Note: intended land use should be included in the clearance task specification and clearance task handover documentation.

### **B.1.6**

#### **monitoring body**

an organisation which monitors the work of the demining organisation and its sub-units on behalf of the national mine action authority.

### **B.1.7**

#### **national mine action authority(s)**

the government department(s), organisation(s) or institution(s) in each mine-affected country charged with the regulation, management and coordination of mine action.

Note: In most cases the national mine action centre (MAC) or its equivalent will act as, or on behalf of, the 'national mine action authority'.

Note: In certain situations and at certain times it may be necessary and appropriate for the UN, or some other recognised international body, to assume some or all of the responsibilities, and fulfil some or all of the functions, of a national mine action authority.

### **B.1.8**

#### **reliable information**

information deemed acceptable and reliable by the national mine action authority for the conduct of demining operations.

**B.1.9**

**risk**

combination of the probability of occurrence of harm and the severity of that harm [ISO Guide 51:1999(E)]

**B.1.10**

**safe**

the absence of risk. Normally the term 'tolerable risk' is more appropriate and accurate.

**B.1.11**

**tolerable risk**

risk which is accepted in a given context based on current values of society [ISO Guide 51:1999(E)].