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Monitoring of demining organisations

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Foreword

International standards for humanitarian demining programmes were first proposed by working groups at an international technical conference in Denmark, in July 1996. Criteria were prescribed for all aspects of demining, 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 and the International Standards for Humanitarian Mine Clearance Operations were developed. A first edition was issued by the UN Mine Action Service (UNMAS) in March 1997.

The scope of these original standards has since been expanded to include the other components of mine action and to reflect changes to operational procedures, practices and norms. The standards were re-developed and renamed as International Mine Action Standards (IMAS) with the first edition produced in October 2001.

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, therefore, is the office within the United Nations responsible for the development and maintenance of IMAS. IMAS are produced with the assistance of the Geneva International Centre for Humanitarian Demining.

The work of preparing, reviewing and revising IMAS 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/>. Individual IMAS are reviewed at least every three years to reflect developing mine action norms and practices and to incorporate changes to international regulations and requirements.

Introduction

Control of the demining process is achieved through the accreditation and monitoring of demining organisations before and during the clearance process, and by the inspection of released and cleared land prior to its formal handover.

Most National Mine Action Authorities (NMAA) already apply some form of external monitoring. The form and extent of such monitoring varies from country to country, but the aim is similar – to confirm that demining organisations are applying their approved management processes and operational procedures in a manner that will result in the safe, effective and efficient clearance of land. Monitoring is, essentially, an activity conducted by or on behalf of the NMAA. It involves observation, recording and reporting. Monitoring should be seen as being for the best interests of the demining organization being monitored as it can provide an official record of success that can be used for future reference. Monitoring should not be seen as a police type activity.

The aim of this standard is to provide an internationally consistent framework for the implementation of a monitoring system as part of the demining process. The goal is to promote a common and consistent approach to the external monitoring of demining organisations.

There are obvious operational, logistic and administrative advantages to combining the national monitoring, accreditation and post clearance inspection bodies into one overall 'Quality Assurance and Control' body. This should be considered by the NMAA.

Monitoring of demining organisations

1. Scope

This standard provides guidelines for the implementation of a system for the monitoring of demining organisations.

Although this standard focuses on demining, the concept of monitoring can be applied to other components of mine action including impact surveys, non-technical and technical surveys, Mine Risk Education (MRE) projects and stockpile destruction.

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, definitions and abbreviations

A complete glossary of all the terms, definitions and abbreviations 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; and
- c) 'may' is used to indicate a possible method or course of action.

The term 'National Mine Action Authority (NMAA)' refers to the government entity, often an inter-ministerial committee, in a mine-affected country charged with the responsibility for the regulation, management and coordination of mine action.

Note: In the absence of a **NMAA**, 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 the functions, of a MAC or, less frequently, an NMAA.

The term 'demining organisation' refers to any organisation (government, NGO or commercial entity) responsible for implementing demining projects or tasks. The demining organisation may be a prime contractor, subcontractor, consultant or agent. The term 'demining sub-unit' refers to an element of a demining organisation, however named, which is operationally accredited to conduct one or more prescribed demining activities, such as technical surveys, manual clearance, Explosive Ordnance Disposal (EOD) or the use of MDD teams.

The term 'monitoring body' refers to an organisation, normally an element of the NMAA, responsible for the management and implementation of a national monitoring system.

4. Demining Quality Management

The aim of demining Quality Management (QM) is to provide confidence (to the beneficiary, the demining organisation and the NMAA) that clearance and quality requirements have been met and that released/cleared land is indeed safe for use. QM for demining comprises three complementary components.

4.1. Accreditation

Accreditation is the procedure by which a demining organisation is formally recognised as competent and able to plan, manage and operationally conduct demining safely, effectively and efficiently.

Accreditation is fundamental to the whole demining QM process. Having thorough and comprehensive accreditation procedures from the outset ensures that a demining organisation is established, staffed, equipped, and has the required systems, procedures and support structures in place prior to any work commencing. Furthermore, the accreditation process checks that the demining organisation is working in accordance with its documented systems and procedures and capable of achieving required standards. As a result of the accreditation process an accreditation agreement is reached with the demining organisation on the standards to which demining is to be carried out. This agreement then forms the basis for all follow-on monitoring activities. IMAS 07.30 provides guidance on accreditation of demining organizations.

4.2. Monitoring

Monitoring is the observation, inspection or assessment of worksites, facilities, equipment, activities, processes, procedures and documentation by suitability qualified personnel to confirm that a demining organisation is working in accordance with its accreditation agreement.

Monitoring is essentially an activity, however it may be acceptable to incorporate post clearance inspection into monitoring as a means of progressively checking the quality of clearance work.

4.3. Post-clearance inspection

Post-clearance inspection is the process of measuring, examining, testing or otherwise comparing a sample of cleared land with the clearance requirements. Post clearance inspections supplement accreditation and monitoring and provide additional confidence that clearance requirements have been met. IMAS 09.20 provides guidance on post-clearance inspection.

4.4. Achieving confidence

It may not be necessary for all the components of demining QM to be carried out to achieve the required level of confidence. If for example, thorough and comprehensive accreditation and monitoring [Quality Assurance (QA)] is carried out, it may not be necessary to carry out post clearance inspections [Quality Control (QC)] to ensure confidence in the quality of cleared land.

This emphasises the importance of monitoring in the demining QM process.

5. Monitoring general principles

Monitoring is an essential part of the demining process. Together with accreditation and post-clearance inspections, it provides the NMAA with the necessary confidence that the demining organisation has released the land in accordance with its contractual obligations, and that the land is safe for its intended use.

To achieve this, monitoring shall examine the demining organisation's capability (people, equipment and procedures) and observe how this capability is being applied. External monitoring complements the demining organisation's own internal QM system. It verifies that the demining organisation's QA procedures and internal QC inspections are appropriate and are being applied – but it does not replace the demining organisation's responsibility for ensuring the application of safe, effective and efficient operational procedures.

Monitoring will also be used, particularly at the beginning of a demining project as on-site verification, which is part of the accreditation of a demining organisation.

6. General requirements

6.1. Planning and preparation

The role and responsibilities of the monitoring body, including the frequency and form of site visits, should be defined in the clearance contract or other formal agreement.

Site visits should be well prepared. Prior to any visits the monitoring body should have read:

- a) all relevant documentation including the clearance contract and accreditation agreements;
- b) documented management practices and operational procedures;
- c) reports from previous visits by the monitoring body;
- d) the results of post-clearance inspections, incident and investigation reports; and
- e) all other information which will assist the monitoring body develop a plan and programme for its site visit.

Prior to the visit, the monitoring body should inform the demining organisation of the objectives and programme, and any preparation required (such as ensuring the availability of certain documents or key staff). The actual date and timings of site visits may be given in advance or visits may be unannounced. Both have advantages and disadvantages. Unannounced visits tend to observe demining organisations in their normal working mode, but such visits may be disruptive and key members of staff may be absent. Announced visits tend to be more productive and less disruptive, but some problems may be hidden from the monitoring body. A combination of both may be appropriate.

6.2. Monitoring

6.2.1. General

The NMAA shall monitor the demining organisation and its sub-units to confirm that the management systems and operational procedures are consistent with the terms of accreditation. Such monitoring should be random, non-intrusive and should not interfere with the conduct of planned demining activities. The frequency of monitoring should be dependent on the task and the previous performance of the demining organisation; it should be agreed between the NMAA and the demining organisation.

On-site monitoring should include:

- a) visits to management, logistic and administrative offices or facilities including explosive storage areas, medical facilities and equipment maintenance areas;
- b) visits to sub-unit locations including worksites and supporting workplaces;
- c) observing demining activities, including internal QA and QC procedures, and the destruction of mines and Explosive Remnants of War (ERW), including unexploded sub-munitions. This is particularly important if the mines and ERW are being destroyed in bulk away from the worksite;
- d) observe the level of community involvement within the community liaison function and its applicability to the demining activities in process; and
- e) if appropriate, observing the field testing and evaluation of equipment.

6.2.2. Management practices and documentation

Monitoring should include the inspection of demining management documentation, for example: qualifications, training records, insurance cover, and general occupational health practices and records. The monitoring should also pay particular attention to compliance with the demining organisation's Quality Plan. Routine administrative documents and confidential personal information on employees should not normally be inspected.

Samples of all documentation and records referred to above should be selected randomly. Samples should be representative of all relevant documentation.

6.2.3. Worksite safety

The provision of a safe working environment includes the design and layout of a demining worksite by marking hazardous areas, controlling the movement of deminers, visitors and the local population, enforcing safety distances, and providing effective medical cover and casualty evacuation procedures. The worksite procedures shall be consistent with national policy and conducted in accordance with the demining organisation's own SOPs. The monitoring body should assess the suitability of the worksite layout and safety procedures, and should assess how effectively the procedures are being applied. IMAS 10.20 provides guidance on demining worksite safety. IMAS 10.30 provides guidance on the minimum requirements of Personal Protective Equipment (PPE) for use in mine action.

An individual monitor shall have the responsibility to stop operations at a demining worksite if individual safety or the safety of the demining team or other individuals has been placed at risk. The monitor shall record the reasons for doing so, compile any evidence and immediately inform the monitoring body and the demining organisation headquarters. Operations may only then recommence once all the safety faults have been rectified.

6.2.4. Medical support

Developing an appropriate medical support capacity requires good planning, well trained staff and the availability of medical services able to provide effective emergency treatment. The monitoring body should assess the medical support available on site including the qualifications of the medical staff, medical equipment, stores, supplies and drugs provided to the medical staff, and vehicles for casualty evacuation. Documented procedures for treatment and casualty evacuation should be examined. The monitoring body should invite the demining organisation to demonstrate its treatment and casualty evacuation procedures at least once every three months, or as required by the NMAA. IMAS 10.40 provides guidance on the minimum requirements for medical support to demining operations.

6.2.5. Community liaison

This function forms an important part of the demining process and as such should be assessed by the monitoring body. The community liaison function ensures that the mine affected communities are a part of the whole demining process, including before, during and after each task or activity.

The community liaison role may be filled by a separately accredited MRE team on behalf of the demining organisation, or by a specialist deminer trained for the task.

6.2.6. Storage, transportation and handling of explosives

The provision of a safe working environment includes the safe storage, transportation and handling of explosives and explosive materials. This requires appropriate storage facilities, equipment and vehicles to be made available, and for demining organisations to develop and maintain appropriate procedures. The monitoring body should assess the suitability of the demining organisation's procedures for the safe storage, transportation and handling of explosives, and should assess how effectively the procedures are being applied. The monitoring body should also confirm the availability of documented procedures for the accountability and transfer of explosive items and accessories, and should confirm that these procedures are being applied. IMAS 10.50 provides guidance on the safe storage, transportation and handling of explosives.

6.2.7. Investigations of incidents

The monitoring body should assess the suitability of the demining organisation's procedures for reporting incidents and conducting post-incident investigations. Reports of recent incidents should receive special attention. IMAS 10.60 provides guidance on the minimum requirements for reporting incidents and conducting post-incident investigations.

6.2.8. Equipment

The monitoring body should assess the effectiveness and suitability of equipment for both men and women. This should include the inspection of a sample of critical equipment (such as mine detectors), and examining records of equipment maintenance, repairs, upgrades and modifications. Repair facilities and tools should be inspected.

6.2.9. Demining activities

The monitoring body should observe demining activities to ensure that they are consistent with the demining organisation's SOPs. Where specialist demining methods are being used, such as the use of MDD or mechanical systems, the monitoring body shall include staff with the necessary specialist knowledge.

6.3. Reporting

Wherever possible, the head of the monitoring body should debrief the head of the organisation or sub-unit being monitored on site prior to departure, drawing attention to any major concerns, particularly those involving safety.

The monitoring body shall prepare and submit a written report within 5 working days in accordance with procedures established by the NMAA, and other reports required by the clearance contract. Reports shall be copied to the monitored demining organisation. Reports should normally be 'in-confidence' at this stage, especially if they criticise the management and/or operational activities of the demining organisation.

6.4. Corrective action

Any problems identified by the monitoring body should be addressed by the demining organisation. If the problems are sufficiently serious, the demining organisation should be invited to present its corrected management or operational procedures to the NMAA, and demonstrate that it is in full compliance with the stated requirements.

7. Monitoring body - general obligations

7.1. General

The NMAA may accredit and appoint a body to carry out the monitoring on its behalf. Any monitoring body appointed by the NMAA shall be adequately staffed, equipped and trained to monitor the demining organisation and its sub-units in an effective and appropriate manner.

The monitoring body, however named, shall have the necessary documentation that describes its responsibilities, the methods to be used in the monitoring process, and the technical scope of its activities.

Where the monitoring body also acts as a national accreditation body and/or an inspection body, the relationship between its functions shall be clearly defined.

7.2. Organisation

The monitoring body shall have an organisation that enables it to maintain the capability to perform its technical functions quickly and satisfactorily. The body shall have a technical manager, however named, who is qualified and experienced in the operation of the monitoring process and who has overall responsibility for ensuring that the monitoring activities are carried out in accordance with IMAS and other relevant standards. The technical manager should if possible be a permanent employee, but in the early stages of a mine action programme may be a suitably qualified consultant.

The monitoring body shall have a sufficient number of permanent qualified personnel, with the range of expertise required to carry out its normal functions. These individuals should have the necessary operational experience and appropriate qualifications necessary to ensure a high standard of non-intrusive monitoring.

In some cases, the NMAA may appoint the same staff to act as the monitoring body and the inspection body, but the two activities are separate.

7.3. Management system

The monitoring body shall define and document its management system and procedures including its internal QM systems and shall ensure that its management policy is understood and its procedures are implemented and maintained at all levels in the organisation. Where its systems and procedures affect the conduct of the mine action programme, the working relationship between the body and the demining organisation should be agreed, and form part of the contractual arrangements.

The monitoring body shall establish and maintain procedures for site visits.

The monitoring body shall prepare and maintain records of all site visits, and any information needed to understand and interpret them. All records shall be safely stored for a period of at least five years, held secure and in confidence to the applicant, unless otherwise required by law.

7.4. Independence, impartiality and integrity

The personnel of the monitoring body shall be free from any political, commercial, financial and other pressures that might affect their judgement. Policies and procedures shall be implemented to ensure that persons or organisations external to the monitoring body, cannot influence the results of observations, inspections and evaluations carried out by the monitoring body.

The monitoring body and its staff shall not engage in any activities that may conflict with their independence of judgement and integrity in relation to their observations, inspections, and evaluations. In particular they shall not become directly involved in organisations that design, manufacture, supply, install, use or maintain services or equipment for demining organisations operating in the mine action sector, or similar fields.

All interested parties shall have access to the services of the monitoring body. The procedures under which the body operates shall be administered in a non-discriminatory manner.

The monitoring body shall ensure confidentiality of information obtained in the course of its activities. Proprietary rights shall be protected.

7.5. Appeals

The NMAA shall establish a fair and impartial system to enable demining organisations to appeal against decisions of the monitoring body that it feels are unfair, or when new evidence comes to light.

The appeals system shall include the use of independent arbitration from the international community present in a mine-affected country; for example a representative from UN system.

8. Responsibilities

8.1. National Mine Action Authority (NMAA)

The NMAA, or an organisation acting on its behalf, shall:

- a) establish a system for the monitoring of demining organisations which complements the procedures for accreditation and post-clearance inspections;
- b) specify the national standards and provide guidelines for the monitoring of demining organisations;
- c) monitor the work of the monitoring body, ensure that the monitoring system is being applied in a fair and equitable manner, and that monitoring does not interrupt or delay demining projects; and
- d) ensure appropriate follow-up action is taken on the monitoring body's recommendations.

The NMAA, or an organisation acting on its behalf, should:

- e) accredit and appoint a monitoring body; and
- f) conduct periodic external QA audits on the monitoring body.

8.2. Demining organisation

The organisation undertaking demining shall:

- a) apply management practices and operational procedures which aim to clear land to the requirements specified in the clearance contract or other formal agreement;
- b) maintain and make available documentation, reports, records and other data on demining activities to the monitoring body; and
- c) provide the monitoring body with access to all sites, buildings and other facilities that need to be visited as part of the monitoring requirement.

In the absence of a NMAA or authorities, the demining organisation should assume additional responsibilities. These include, but are not restricted to:

- d) agree with the donor a system of monitoring the clearance activities; and
- e) assist the host nation, during the establishment of a NMAA, in framing national standards for monitoring.

8.3. Monitoring body

The monitoring body shall:

- a) gain (from the NMAA) accreditation to operate as a monitoring body;
- b) monitor the demining organisation and its sub-units;
- c) monitor and make available documentation on site visits and inspections as required by the NMAA; and
- d) ensure compliance by sub-units with the 'safe systems of work' laid down by the NMAA or parent demining organisation.

8.4. Donors

When the contract or other formal agreement has been framed by the donor organisation, it shall be responsible for including details of the monitoring requirements, or in the absence of a NMAA, requirements established by the UN or other appropriate international body.

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 07.30 Accreditation of demining organisations and operations;
- b) IMAS 07.40 Monitoring of demining organizations;
- c) IMAS 09.20 S&OH inspection of cleared land;
- d) IMAS 09.40 Guide for the use of mine detection dogs;
- e) IMAS 10.20 S&OH - Demining worksite safety;
- f) IMAS 10.30 S&OH - Personal protective equipment;
- g) IMAS 10.40 S&OH - Medical support to demining operations;
- h) IMAS 10.50 S&OH - Storage, transportation and handling of explosives; and
- i) IMAS 10.60 S&OH - Reporting and investigation of demining incidents.

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 (www.mineactionstandards.org). NMAA, employers and other interested bodies and organisations should obtain copies before commencing mine action programmes.

Amendment record

Management of IMAS amendments

The IMAS series of standards are subject to formal review on a three-yearly basis, however this does not preclude amendments being made within these three-year periods for reasons of operational safety and efficiency or for editorial purposes.

As amendments are made to this IMAS they will be given a number, and the date and general details of the amendment shown in the table below. The amendment will also be shown on the cover page of the IMAS by the inclusion under the edition date of the phrase *'incorporating amendment number(s) 1 etc.'*

As the formal reviews of each IMAS are completed new editions may be issued. Amendments up to the date of the new edition will be incorporated into the new edition and the amendment record table cleared. Recording of amendments will then start again until a further review is carried out.

The most recently amended IMAS will be the versions that are posted on the IMAS website at www.mineactionstandards.org.

Number	Date	Amendment Details
1	01 Dec 2004	<ol style="list-style-type: none"> 1. Formatting changes. 2. Minor text editing changes. 3. Changes to terms, definitions and abbreviations where necessary to ensure that this IMAS is consistent with IMAS 04.10. 4. Substantive changes: <ol style="list-style-type: none"> a) Clause 6.3. Text change in first sentence. b) Clause 7.1. Text change to sub clause 'd', and a new sub clause 'e'.
2	23 Jul 2005	<ol style="list-style-type: none"> 1. Clause 5.2.2, first paragraph, changes to the wording of the last sentence. 2. Clause 5.3, second paragraph, second sentence, change of a 'should' to a 'shall'. 3. Clause 7.1, inclusion of a new second paragraph that changes two of the responsibilities of a NMAA previously indicated as 'shall', to 'should'.
3	24 Jan 2007	<ol style="list-style-type: none"> 1. Minor changes/additions to the first and second paragraph of the foreword. 2. Addition to the second paragraph of introduction. 3. Inclusion on new clause 4 concerning 'Demining QM'. 4. Inclusion of the term 'mines and ERW'.
4	01 Mar 2010	<ol style="list-style-type: none"> 1. Updated NMAA definition 2. UNMAS address updated. 3. Updating normative references in the IMAS and in Annex A. 4. Minimal changes throughout to ensure land release, cluster munitions and gender issues. 5. Removal of Annex B from the IMAS series.
5	01 Aug 2012	<ol style="list-style-type: none"> 1. Reviewed for impact of IATG development. 2. Minor typographical amendments.
6	01 Jun 2013	<ol style="list-style-type: none"> 1. Reviewed for the impact of new land release IMAS 2. Amendment no included in the title and header.