

Test and Evaluation Protocol

09.10/01/2023

First edition

21 June 2023

Competency standards for deminer, battle area clearance (BAC) operator, team leader and supervisor

Director
United Nations Mine Action Service (UNMAS)
1 United Nations Plaza
New York, NY 10017
USA

E-mail: mineaction@un.org
Telephone: +1 (212) 963 0691

Website: www.mineactionstandards.org

Warning

This document is current with effect from the date shown on the cover page. As the International Mine Action Standards (IMAS) are subject to regular review and revision, users should consult the IMAS project website in order to verify its status at (<http://www.mineactionstandards.org/>, or through the UNMAS website at <http://www.mineaction.org>).

Copyright notice

The International Mine Action Standards (IMAS) are owned, controlled and copyrighted by the United Nations. None of the materials provided in IMAS may be used, reproduced or disseminated, in whole or in part, in any form or by any means, without prior written permission from the United Nations acting through the United Nations Mine Action Service (UNMAS), except as set out below. None of the materials in IMAS are to be sold.

The use, reproduction or re-dissemination of IMAS by third parties, in whole or in part, is permitted provided that the United Nations is appropriately attributed and provided also that such use, reproduction or re-dissemination is not for commercial purposes. The United Nations may be attributed by the placement of the following text: Used and reproduced with permission of the United Nations.

Director
United Nations Mine Action Service (UNMAS)
1 United Nations Plaza
New York, NY 10017
USA

E-mail: mineaction@un.org
Telephone: +1 (212) 963 0691

Website: www.mineactionstandards.org

Contents

1	Scope	1
2	Normative references.....	1
3	Terms and definitions	1
4	Conformance	3
5	Competency standards.....	3
5.1	Purpose of competency standards	3
5.2	Application	3
5.3	Use of competency standards	3
6	Competency categories and requirements	4
6.1	General	4
6.2	Pre-requisite qualifications	4
6.3	Requisite qualifications.....	4
6.4	Contextual analysis	5
7	Quality and audit process	5
8	Responsibilities	5
8.1	General	5
8.2	Adaptation of competency standards by NMAAs	5
8.3	Training organizations	5
	Annex A (informative) References.....	6
	Annex B (normative) Complete competency list for deminers, BAC operators, team leaders and supervisors.....	7
	Amendment record	18

Foreword

A European Centre for Standardization (CEN) Workshop agreement is a CEN document developed by a workshop, which reflects an agreement between identified individuals and organizations responsible for its contents. Test and Evaluation Protocols (T&EP) include former CEN workshop agreements for humanitarian mine action produced by CEN. They have been produced within the framework of International Mine Action Standards (IMAS) and approved by the IMAS Review Board. T&EP are included in IMAS as normative references, which gives them authority within the IMAS system.

Competency standards are intended to represent the minimum standard required for specialist practice. The IMAS Review Board has recommended that competency standards for deminers, battle area clearance (BAC) operators, team leaders and supervisors are identified, structured and agreed in a Test and Evaluation Protocol (T&EP). The GICHD has managed the process, including creating Technical Working Group. The TWG has represented the broader opinion of the IMAS Review Board.

This T&EP has been developed outside the framework of CEN standards but the principles of the CEN process have been applied, including a transparent, open and consensual development process.

Introduction

Until the approval of this document, the only measurement of technical competency within IMAS was the explosive ordnance disposal (EOD) competency standards in T&EP 09.30/01/2022 and, later, the improvised explosive device disposal (IEDD) competency standard in T&EP 09.31/01/2019. There was no listed set of competency standards for the positions of deminer, battle area clearance (BAC) operator, team leader or supervisor (or equivalent) which make up the bulk of personnel conducting mine action operations.

The aim of this document is to establish and maintain a level of competency standards for the positions of deminer, BAC operator team leader and supervisor in mine action, providing stakeholders with the guidance to establish minimum training standards that are globally recognized for those positions (or equivalent).

Competency standards for deminer, battle area clearance (BAC) operator, team leader and supervisor

1 Scope

This Test and Evaluation Protocol (T&EP) seeks to cover the minimum competencies required to conduct demining operations, including battle area clearance (BAC).

The use of this document allows mine action programmes and stakeholders to improve training processes to globally recognized common standards.

This document provides the minimum set of requirements associated with mine action staff working in land release operations. Organizations may require additional competencies for staff in certain positions, for which they need to be suitably trained and qualified. The category titles for staff working in land release activities are:

- deminer;
- battle area clearance (BAC) operator;
- team leader; and
- supervisor.

This document does not cover explosive ordnance disposal (EOD) and improvised explosive device disposal (IEDD) competencies, which are addressed by T&EP 09.30/01/2022 and T&EP 09.31/01/2019, respectively.

This document does not cover competencies for medical staff, such as basic care provider, intermediate care provider or extended care provider. All deminers are expected to be trained to basic care provider competencies listed in TNMA 10.40/01, Annex B.

2 Normative references

A list of normative references is given in Annex A. Normative references provide cross-referencing to other standards, and they form an integral part of the provisions of this T&EP. Informative references provide a list of documents that may be consulted for a clearer understanding of this T&EP.

3 Terms and definitions

A complete glossary of all the terms, definitions and abbreviations used in the International Mine Action Standards (IMAS) series is given in IMAS 04.10.

3.1

Test and Evaluation Protocol

agreed protocol to accompany or supplement an IMAS

Note to entry: It provides advice and information relevant to activities associations with the testing of competence and equipment.

3.2

national mine action authority

NMAA

government entity, often an inter-ministerial committee, in an EO-affected country charged with the responsibility for broad strategic, policy and regulatory decisions related to mine action

Note to entry: In the absence of a NMAA, it may be necessary and appropriate for the UN, or some other body, to assume some or all of the responsibilities, and fulfil some or all of the functions, of an NMAA.

3.3

mine action organisation

refers to any organisation (government, NGO or commercial entity) responsible for implementing mine action projects or tasks. The mine action organisation may be a prime contractor, subcontractor, consultant or agent.

3.4

explosive ordnance

EO

mine action's response to the following munitions:

- mines;
- cluster munitions;
- unexploded ordnance;
- abandoned ordnance;
- booby traps;
- other devices (as defined by CCW APII);
- improvised explosive devices

Note to entry: Improvised explosive devices (IEDs) meeting the definition of mines, booby traps or other devices fall under the scope of mine action when their clearance is undertaken for humanitarian purposes and in areas where active hostilities have ceased.

3.5

competency standards

competencies required to undertake a given task effectively and safely

3.6

competence

combination of knowledge, skills and attitudes necessary to perform a task

3.7

deminer

person qualified and employed to undertake demining activities on a demining worksite

3.8

battle area clearance

BAC

systematic and controlled clearance of hazardous areas where the hazards are known not to include mines

3.9

battle area clearance operator

BAC operator

person qualified and employed to undertake BAC activities on a BAC worksite

3.10

team leader

person qualified and employed to lead a team of deminers or BAC operators on a single demining or BAC worksite, or a team contributing to a larger demining or BAC worksite that is employing multiple teams and assets

3.11

supervisor

person qualified and employed to plan and supervise multiple demining or BAC teams on a single, or on multiple demining or BAC worksites

4 Conformance

In T&EP, the words “should” and “may” are used to convey the intended degree of compliance.

In IMAS, “shall” is used to indicate requirements, methods or specifications that are to be applied in order to conform with the standard. This term is not used in T&EP, as their contents are purely advisory.

“Should” is used to indicate the preferred requirements, methods or specifications. “May” is used to indicate a possible method or course of action.

5 Competency standards

5.1 Purpose of competency standards

The purpose of competency standard is to better define the minimum required competency for staff conducting technical survey and clearance activities. Individual competencies or modules of competencies can also be, or form part of, qualifications at different levels or for different roles within mine action, provided that an assessment of the competencies is conducted in accordance with IMAS 06.10.

5.2 Application

This document should be applied to improve the safety and effectiveness in mine action. It is designed to benefit a range of stakeholders, including:

- individuals working in mine action through the provision of internationally recognized mine action qualifications;
- EO-affected communities through the provision of a common level of competence for organizations and individuals conducting demining activities;
- mine action organizations through the development of internationally recognized standards. Additionally, this document aims to support organizations in recruiting and selecting staff by providing a tool for the assessment of an individual's competence;
- NMAAs by providing a recognized standard to measure the performance of an individual or an organization. Application of this document is meant to enhance the process of measuring national capacity development, assist in the development of national mine action training standards, or in their absence, be used to provide a common understanding of the competence of mine action staff;
- the mine action sector through the recording and evaluating of the competency possessed by personnel and organizations to ensure effective planning and evaluation, staff development and capacity building. Additionally, application of this document aims to improve the quality management process by enhancing the assessment of training and competency of staff; and
- donors and United Nations agencies who can be assured of the professional capacity of individuals and organizations either from a funding or international aid perspective.

5.3 Use of competency standards

Competency standards should be used to support NMAA and mine action organizations in defining the competency levels for mine action staff conducting land release activities. It can also provide a basis for defining policy, structures, training, operational processes and standard operating procedures (SOPs).

6 Competency categories and requirements

6.1 General

The competencies have been structured into the following 12 sub-categories:

- 1) context;
- 2) responsibilities;
- 3) safety;
- 4) explosive ordnance;
- 5) demining site requirements;
- 6) survey and mapping;
- 7) equipment;
- 8) demining assets;
- 9) reporting requirements;
- 10) land release procedures;
- 11) support to demining activities;
- 12) quality management.

6.2 Pre-requisite qualifications

The levels of competency that have been established represent progressive qualifications which indicate increasing levels of competence based on a combination of formal training and on-the-job experience.

In order to qualify for receiving training at a given level, a potential trainee needs to be able to demonstrate that they hold the specific pre-requisite qualifications. No pre-requisite qualification is needed to train as a deminer or BAC operator. Qualification as a deminer is a pre-requisite to be eligible to train as team leader. A team leader qualification is required to be eligible to train as supervisor.

Team leaders and supervisors are also required to have knowledge in the use of mobile devices, such as mobile phones and tablets, which are used to collect data and for reporting. This document does not cover these competencies but they should be a pre-requisite for these positions.

Additionally, supervisors may be required to work on basic information technology applications, such as Microsoft Excel and Microsoft Word. These competencies are not covered by this document and may be considered a pre-requisite to being successfully employed in the role of supervisor.

6.3 Requisite qualifications

A qualification as basic care provider (BCP) is a requirement for qualifying as a deminer, BAC operator, team leader or supervisor. This document does not include the competencies for medical training (see TNMA 10.40/01:2019, Annex B). All deminers, BAC operators, team leaders and supervisors should be trained in accordance with the TNMA 10.40/01 prior to being deemed qualified.

6.4 Contextual analysis

This document covers the minimum level of competence to be covered when training deminers, BAC operators, team leaders and supervisors. It also suggests the inclusion of competencies that may be applicable in a particular context. For example, the use of a trip wire procedure may be an additional competency requirement if a trip wire threat exists. These “where applicable” competencies are marked as such in the competency list in Annex B.

The land release process includes the removal of all explosive ordnance. This requires that all demining worksites maintain the ability to conduct EOD operations. It is recommended that team leaders hold an EOD level 1 certificate in accordance with IMAS 09.30. This can contribute to efficiency in the land release process and maintain a full competency set on a demining worksite.

7 Quality and audit process

Based on the selected performance criteria, appropriate assessment tools and procedures should be developed by the mine action organization. This can involve the development of written tests, practical exercises, assessed simulated tasks or procedures for assessment of actual performance during live operations.

8 Responsibilities

8.1 General

On deciding to use this document, the competency standards may be implemented taking into consideration the following process as guidance.

8.2 Adaptation of competency standards by NMAAs

The NMAA or organization acting on its behalf should:

- 1) incorporate this protocol at a national level as part of the national mine action standards;
- 2) apply this protocol to enable development of operational expectations; and
- 3) develop or approve a process that enables an assessment of competence and quality management.

Mine action organizations should develop a system of measuring the competency of their work force. This assessment should be based on the competency list in Annex B.

8.3 Training organizations

The relevant training authority (training school, non-governmental organization, commercial company, military unit, etc.) should:

- 1) compare the organizations procedures, training and current competency assessment processes with the national policy and standards;
- 2) develop or adjust training plans based on this comparison;
- 3) develop or adjust assessment procedures and materials, enable both assessment of trainees and personnel recruitment from external organizations; and
- 4) establish and maintain certification procedures so that training completion certificates explicitly list the disciplines on which the individual has been trained and has qualified as competent.
- 5) implement training in accordance with all other requirements listed in IMAS 06.10, Management of training.

Annex A (informative)

References

- [1] IMAS 04.10, Glossary of mine action terms, definitions and abbreviations
- [2] IMAS 06.10, Management of training
- [3] IMAS 07.12, Quality management in mine action
- [4] IMAS 07.14, Risk management in mine action
- [5] IMAS 07.11, Land release
- [6] IMAS 08.10, Non-technical survey
- [7] IMAS 08.20, Technical survey
- [8] IMAS 09.10, Clearance requirements
- [9] IMAS 10.10, Safety & occupational health – General requirements
- [10] IMAS 10.20, Demining worksite safety
- [11] IMAS 10.30, Personal Protective Equipment – PPE
- [12] TNMA 10.40/01, Medical support

Annex B (normative)

Complete competency list for deminers, BAC operators, team leaders and supervisors

List of acronyms used in Table B.1

ADS	animal detection system
CASEVAC/MEDIVAC	casualty evacuation / medical evacuation
EO	explosive ordnance
EOD	explosive ordnance disposal
GPS	global positioning system
KPI	key performance indicators
IMAS	international mine action standard
IMSMA	information management system for mine action
MAC	mine action center
NMAS	national mine action standard
NTS	non-technical survey
PPE	personal protective equipment
QA	quality assurance
QC	quality control
RF	radio frequency
S&OH	safety and occupational health
SOP	standard operating procedures
TL	team leader
TS	technical survey

Table B.1 – List of competencies

Competence		K/S/A	Description	Requirement				Comments
Number	Sub-category			Demining and BAC	Demining specific	Where applicable in demining	BAC specific	
Deminer and BAC operator								
1.1.1.	Context	Knowledge	Recognition and responsibilities of relevant stakeholders (NMAA, MAC, other implementing partners communities and donors) that the deminer will encounter in their role.	X				
1.1.2.		Knowledge	Outline the purpose of SOPs and their relationship with NMAS (IMAS).	X				
1.1.3.		Knowledge	List basic principles of land release, including NTS, TS, clearance, land classification principles and terminology.	X				
1.1.4.		Knowledge	Aware of TS and clearance assets other than manual demining (mechanical, ADS).			X		
1.2.1	Responsibilities	Knowledge	Understand the responsibilities of a deminer before, during and after deployment into a minefield.	X				
1.3.1	Safety	Knowledge	Understand the general S&OH requirements.	X				
1.3.2		Knowledge	List the general safety requirements of a demining worksite in accordance with SOP (or IMAS 10.20).	X				
1.3.3		Knowledge	Understand basics explosive safety (distances, RF, etc.) and effect when conducting land release activities.	X				
1.3.4		Knowledge	Know the component parts and rules on the use of PPE when demining.	X				
1.3.5		Skill	Use, store and maintain PPE correctly.			X		
1.3.6		Attitude	Consistently wear and maintain PPE correctly.			X		
1.3.7		Knowledge	Understand the roles and actions of different members in the team in response to an incident/accident.	X				
1.3.8		Skill	Be able to conduct the actions to be taken in response to an incident/accident.	X				

1.3.9		Skill	Perform the actions of a basic care provider in accordance with TNMA 10.40/01.	X				
1.4.1	Explosive ordnance	Knowledge	Understand the basics of how a mine functions and the hazards of the EO (in country), including explosive train.	X				
1.4.2		Knowledge	Be able to identify different ordnance categories and sub-categories (rocket, mortar, grenade, projectile, aircraft bomb, missile, etc.) as per various forms of categorization (for example, NATO, CORD, treaties, IMAS etc.)	X				Matching competency 1.318.945.1 in T&EP 09.30
1.4.3		Skill	Recognize EO in country by ordnance sub-category and for key items by model name.	X				Matching competency 3.29.30.1 in T&EP 09.30
1.5.1	Demining site requirements	Knowledge	Site layout and requirements needed to be in place before starting demining activities.	X				
1.5.2		Knowledge	Demining site operational and administrative areas and their safety distances.	X				
1.5.3		Knowledge	Hazardous area marking and marking of EO.	X				
1.5.4		Skill	Mark a demining lane, access lanes, administration area and EO.	X				
1.5.5		knowledge	Understand the importance of minefield marking and the consequences of inaccurate marking on safety.	X				
1.6.1	Equipment	Knowledge	List content of a manual demining tool bag (as per the SOP).	X				
1.6.2		Skill	Use of the tools within the manual demining tool bag.	X				
1.6.3		Attitude	Correctly selecting and safely using the appropriate tool for the task.	X				
1.6.4		Knowledge	The principles of detector functions, capabilities and limitations (detectors used by the organization, e.g. pulse induction, continuous wave, magnetometry, ground penetrating radar).	X				
1.6.5		Skill	Identify potential faults, assemble, turn on, turn off and disassemble the detector to be used.	X				
1.6.6		Knowledge	Describe calibration and ground compensation.	X				
1.6.7		Skill	Conduct calibration and ground compensation.	X				
1.6.8		Skill	Operate the detector.	X				

1.6.9		Skill	Pinpoint a signal indicated by the detector being used.	X				
1.6.10		Attitude	User level care and maintenance of equipment.	X				
1.6.11		Skill	User level maintenance of the detection equipment used.	X				
1.7.1	Land release procedure (demining)	Knowledge	Responsibilities of members and composition of a team.	X				
1.7.2		Skill	Be able to conduct the tripwire procedure.			X		
1.7.3		Skill	Be able to conduct vegetation removal including root systems.		X			
1.7.4		Knowledge	Understand when to call for the use of trimmers and chainsaws for vegetation reduction.			X	X	If conducting BAC, replace these competencies with those in the list for BAC operator
1.7.5		Skill	Be able to visually inspect the area to be cleared.		X			
1.7.6		Skill	Be able to conduct clearance procedures using hands (prodding, fingertip search, magnet use).		X			
1.7.7		Skill	Be able to conduct the detector sweep procedure, including pinpointing including marking of indications.	X				
1.7.8		Skill	Be able to conduct the excavation procedure (signal investigation).	X				
1.7.9		Skill	Be able to conduct the full excavation procedure.	X				
1.7.10		Skill	Be able to conduct the procedure on encountering obstacles (rocks, trees, stumps, termite/ant hills, sloped ground).	X				
1.7.11		Skill	Be able to conduct the action on finding EO.	X				
1.7.12		Skill	Be able to conduct the procedures for finishing the working day/closing the site safely at the end of the day.	X				
1.7.13		Attitude	Stop and report any obstacle, threat or circumstances to prevent the application of procedures that will breach safety and clearance requirements.	X				
1.8.1	Land release procedure (BAC)	Skill	Clearance lane/box set up.				X	
1.8.2		Skill	Be able to conduct vegetation removal in a BAC context.				X	

1.8.3		Skill	Be able to conduct visual surface search procedures.				X	
1.9.1	Support to demining activities	Knowledge	Understand the role, duties and procedures of a sentry.	X				
1.9.2		Attitude	Maintain a safe environment for members of the public.	X				
1.9.3		Knowledge	Understand the role of a deminer in support of demolitions.			X		If deminer is supporting demolitions, either conducted by the organization or a third party
1.9.4		Attitude	Be able to follow the directions of an EOD technician and respect safety when conducting demolitions.			X		
1.10.1	Quality Management	Knowledge	Purpose, principles and process of quality management in mine action.	X				
1.10.2		Knowledge	Understand the difference between QA and QC.	X				
1.10.3		Knowledge	Know how clearance will be quality controlled, both internally and externally, and the deminer's role during both.	X				
1.10.4		Attitude	Report to TL situations which they have reason to believe could present a hazard to them or their colleagues.	X				
Team leader								
2.1.1	Context	Knowledge	Understand that SOPs are designed to meet the requirements within NMAS and IMAS.	X				
2.1.2		Knowledge	Understand the principles of land release.	X				
2.2.1	Responsibilities	Knowledge	Understand the responsibilities of a TL before, during and after deployment into a minefield.	X				
2.3.1	Explosive ordnance	Knowledge	Know device categories, sub-categories model designations and likely disposition in operational area.	X				Matching competency 3.23.86.1 in T&EP 09.30
2.3.2		Knowledge	Identify ammunition with shaped charges and, if destroying by demolition, understand extra precautions required.	X				Matching competency 3.26.1001.2 in T&EP 09.30

2.3.3		Knowledge	Be aware of and identify possible secondary hazards before and during operations.	X				Matching competency 3.25.26.1 in T&EP 09.30
2.3.4		Knowledge	Be able to fully demonstrate and correctly identify EO in theatre, both by sub-category and for key EOD by model; and identify by other means of classification such as function, size and associated hazards.	X				Matching competency 3.29.30.2 in T&EP 09.30
2.4.1	Demining site requirements	Knowledge	Understand the documentation required within a task dossier that a team leader is responsible for maintaining.	X				
2.4.2		Skill	Demonstrate deploying planning and deploying deminers in their team while adhering to site requirements.	X				
2.4.3		Knowledge	Recognize direct and indirect evidence. (ground sign, mine parts, accident sites, etc.).	X				
2.4.4		Attitude	Understand the importance of concurrent activity to efficiency in team-based drills.	X				
2.4.5		Knowledge	Understand field communications procedures and use of communications equipment.	X				
2.4.6		Attitude	Understand the importance of functional and accurate communications to safety and efficiency.	X				
2.4.7		Skill	Be able to conduct checks to be made to PPE of team members.	X				
2.4.8		Skill	Be able to conduct checks to be made to tools and equipment of team members.	X				
2.4.9		Skill	Be able to correctly calculate areas cleared/reduced/cancelled.	X				
2.4.10		Skill	Be able to use of the organization's communications equipment.	X				
2.5.1	Equipment	Knowledge	Understanding geospatial data (bearings, distance, latitude and longitude).	X				
2.5.2		Knowledge	Understanding how to correct for magnetic influence and variation.	X				
2.5.3		Skill	Be able to use a compass for taking bearings.	X				
2.5.4		Knowledge	Understanding various forms of measuring distance.	X				

2.5.5		Skill	Be able to measure and record bearings and distances in a minefield.	X				
2.5.6		Attitude	Provide accurate records for increased quality and safety.	X				
2.5.7		Skill	Be able to inspect, set up and turn on the GPS.	X				
2.5.8		Knowledge	Understanding data and grid references used in the NMAS, and the results if the incorrect data or grid system is used.	X				
2.5.9		Skill	Be able to take a GPS coordinate.	X				
2.6.1	Survey and mapping	Knowledge	Understanding map information, scale and symbology.	X				
2.6.2		Skill	Be able to measure scale on a map.	X				
2.6.3		Skill	Be able to measure gradient.	X				
2.6.4		Skill	Be able to draw a site sketch map.	X				
2.7.1	Reporting	Knowledge	Understand the daily reporting requirements of the organization for a team leader.	X				
2.7.2		Skill	Be able to compile daily reports for which the team leader is responsible.	X				
2.7.3		Knowledge	Basic introduction to IMSMA and its reporting formats.	X				
2.7.4		Skill	Be able to use electronic reporting systems (Survey 123, Fulcrum, etc.).	X				
2.8.1	Support to demining activities	Knowledge	Understand the organization and human resource management procedures.	X				
2.8.2		Knowledge	Understand the safeguarding procedures of the organization and how to support and manage team members.	X				
2.8.3		Knowledge	Understanding organizational logistical procedures.	X				
2.8.4		Knowledge	Understand equipment management and maintenance procedures and schedules.	X				
2.8.5		Attitude	Maintain functional equipment to minimize downtime and ensure quality.	X				
2.8.6		Knowledge	Introduction to the principles of leadership.	X				
2.8.7		Skill	Be able to command and control deminers and assets in a demining worksite.	X				

2.8.8		Skill	Be able to command and control a team in response to demining accidents/incidents.	X				
2.8.9		Knowledge	Understand the team leader's requirement to provide information when subject to an accident/incident investigation.	X				
2.8.10		Attitude	Understanding how leadership and quality management interact with safety.	X				
2.9.1	Quality management	Knowledge	Understand the application of QC and meet minimum internal requirements.	X				
2.9.2		Skill	Be able to plan and conduct of internal QC at the team level.	X				
2.9.3		Knowledge	Understand the requirements to facilitate external monitoring inspection (QA).	X				
2.9.4		Knowledge	Understand the requirements to facilitate post clearance inspection (QC).	X				
2.9.5		Skill	Be able to take corrective action in response to non-conformities during demining.	X				
2.9.6		Attitude	Continuous improvement.	X				
Supervisor								
3.1.1	Context	Knowledge	Be able to apply land release through the planning of the deployment of demining assets.	X				
3.1.2		Knowledge	Understand safety, efficiency and effectiveness in mine action.	X				
3.1.3		Knowledge	Understand KPIs and how to achieve them.	X				
3.2.1	Responsibilities	Knowledge	Understand the responsibilities of a supervisor before, during and after deployment into a minefield.	X				
3.2.2		Knowledge	Understand risk and threat assessment applied to site management in accordance with the organization's procedures.	X				
3.2.3		Skill	Be able to apply risk and threat assessment to site management.	X				
3.3.1	Safety	Knowledge	Understand the procedures of the organization on S&OH, staff welfare etc.	X				
3.3.2		Knowledge	Understanding organizational logistical procedures.	X				

3.3.3		Knowledge	Understand equipment (including PPE) management and maintenance procedures and schedules.	X				
3.3.4		Attitude	Plan and monitor the maintenance of functional equipment to minimize downtime and ensure quality.	X				
3.3.5		Knowledge	Introduction to the principles of leadership.	X				
3.3.6		Skill	Be able to command and control deminers, team leaders and assets in a demining worksite.	X				
3.4.1	Demining site requirements	Skill	Be able to identify safe access to the task site through evaluation of evidence (as part of risk assessment).	X				
3.4.2		Attitude	Understand the importance of community liaison in accessing and gathering information to continuously reassess task implementation plan.	X				
3.4.3		Attitude	Understand the importance of information collected during physical operation for ongoing reassessment of task implementation plan.	X				
3.4.4		Knowledge	Understand the selection of different clearance methodologies based on assessed hazard.	X				
3.4.5		Knowledge	Understand and evaluate information from NTS (and other) reports related to their task.	X				
3.4.6		Knowledge	Understand the process of site reconnaissance and planning.	X				
3.4.7		Skill	Be able to conduct site reconnaissance and planning.	X				
3.4.8		Skill	Be able to plan and deploy multiple teams/assets while adhering to site requirements.	X				
3.4.9		Skill	Be able to draft task implementation plans that include deployment of assets, and S&OH in accordance with IMAS 10.20.	X				
3.4.10		Knowledge	Understand the contents of a site and safety brief.	X				
3.4.11		Skill	Be able to deliver a site and safety brief.	X				
3.4.12		Skill	Be able to use communications equipment and procedures between the worksite and base or other sites.	X				
3.4.13		Skill	Be able to plan and conduct a CASEVAC/MEDIVAC.	X				

3.4.14		Knowledge	Understand the reporting requirements in response to accidents/incidents.	X				
3.4.15		Skill	Be able to manage the response to a demining accident/incident.	X				
3.4.16		Knowledge	Introduction to accident investigation processes, including understanding the supervisor requirement to provide support and information to an accident/incident investigation.	X				
3.4.17		Knowledge	Understand the correct procedures for the management of visitors to the site.	X				
3.4.18		Knowledge	Understand the procedure to suspend operations on a site.	X				
3.4.19		Knowledge	Understand the site handover process and requirements specific to the country context.	X				
3.4.20		Knowledge	Know the principles to maintain risks related to the storage, transportation and handling of explosives as per NMAS or IMAS 10.50.	X				
3.5.1	Demining assets	Knowledge	Understand the role and responsibilities of deminers, team leaders and EOD staff.	X				
3.5.2		Skill	Be able to manage deminers, team leaders and EOD staff in the demining worksite.	X				
3.5.3		Knowledge	Introduction to the use of ADS.			X		
3.5.4		Knowledge	Know the ADS SOPs.			X		
3.5.5		Knowledge	Understand the application of ADS into the worksite.			X		
3.5.6		Knowledge	Understand the follow up requirements when using ADS.			X		
3.5.7		Skill	Be able to manage ADS assets in a demining worksite.			X		
3.5.8		Knowledge	Introduction to the use of mechanical assets.			X		
3.5.9		Knowledge	Know the mechanical asset SOPs.			X		
3.5.10		Skill	Be able to coordinate with mechanical assets in a demining worksite.			X		
3.5.11		Knowledge	Understanding the follow-up requirements when using mechanical assets.			X		
3.5.12		Skill	Be able to manage mechanical assets in a demining worksite.			X		

3.6.1	Reporting	Skill	Be able to contribute operational data into the reporting requirements of the information management system used by the NMAA.	X				
3.6.2		Knowledge	Understand the process to quality check daily reporting submitted by team leaders.	X				
3.6.3		Skill	Be able to conduct quality checks of daily reports.	X				
3.7.1	Quality Management	Knowledge	Understand the notions of conformity and non-conformity in relation with NMAS, the accreditation, the task dossier, or any other contractual arrangement, and the work on the site.	X				
3.7.2		Skill	Identify immediate causes and take corrective actions.	X				
3.7.3		Knowledge	Participate in the review of non-conformities to identify root causes and prepare corrective actions.	X				
3.7.4		Skill	Plan the post-clearance inspection.	X				
3.7.5		Skill	Be able to plan and conduct of internal QC at the supervisor level.	X				
3.7.6		Attitude	Understand the importance of near miss reporting and developing a safety culture.	X				

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 are given a number. The date and general details of the amendment shown in the table below. The amendment is also shown on the cover page of the IMAS by the inclusion under the edition date of the phrase "*incorporating amendment #.*"

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

The most recently amended IMAS are posted on the IMAS website at www.mineactionstandards.org.

Number	Date	Amendment details