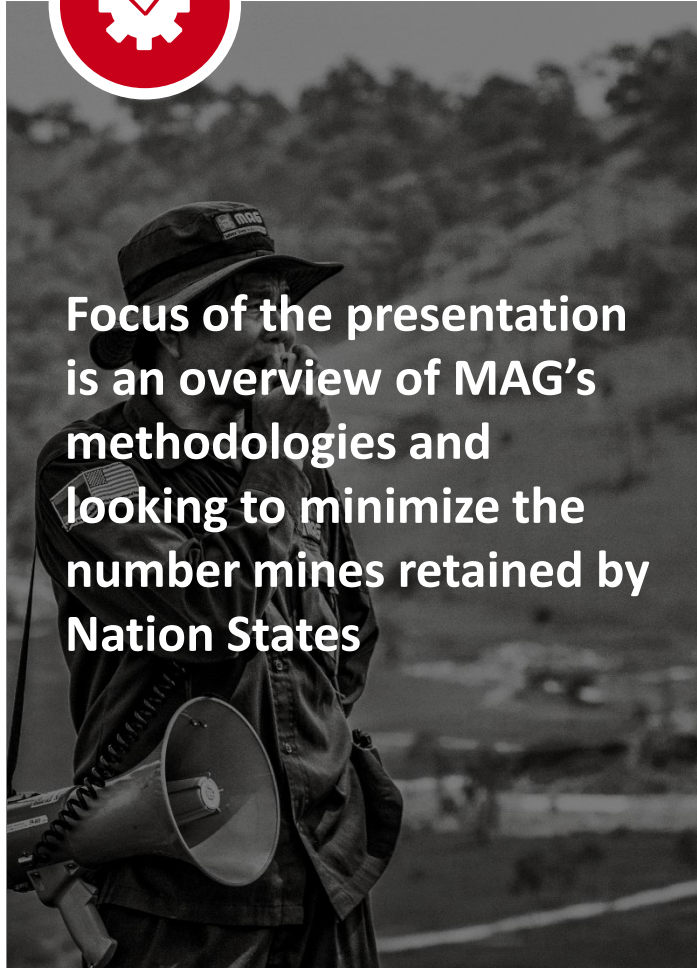


Anti-Personnel Mine Ban Convention – Article 3
Mines Advisory Group Presentation



Introduction and Scope

A brief overview of the contents and scope of the presentation.



Focus of the presentation is an overview of MAG's methodologies and looking to minimize the number mines retained by Nation States



MAG policies and process regarding use of mines in training and testing



Common practices within MAG to minimise the number of mines retained for demining purposes



Looking to the future with emerging technologies

MAG Polices in relation to use of mines

Common practices within MAG to minimise the number of mines retained for demining purposes

- MAG does not retain any “live” or neutralised mines ones that have their explosive content, are fused, can be armed or are ready to function as designed.
- MAG programmes holds limited numbers of disarmed mines – with fuse removed or explosives removed. These have been collected from demining activities, ammunitions storage areas or found abandoned. MAG uses them for:
 - Classroom Training
 - Detection and demolition Training
 - Trials of new equipment
 - Detector Test Pieces
 - Demonstration



Destruction and Free From Explosives

- **Anti-Tank Mines remain an excellent bulk demolition donor charge, but should be destroyed as soon as reasonably practicable – not the case for AP mines**
- **Primary need is the requirement for high-fidelity substitute targets for test pieces – alternatives for training generally available but have limitations**
- **MAG specialists have successfully FFE'd or disarmed thousands of mines across the world under tightly controlled conditions**
- **However, certifying mines FFE or disarming at scale carries inherent risks and generates extensive management needs:**
 - **Robust Standard Operating Procedures for “FFEing” or disarming for each type of munition.**
 - **Additional procedures - detailed risk assessments, enhanced tools and facilities, dedicated logistics, quality management and control, certification, inspection, storage etc.**
 - **Highest standard of training IMAS EOD 3+ Competencies.**

MAG Examples of FFE and disarmed Test Pieces

Looking at safety, efficiency, logistics and costs



MAG Iraq VS-50



MAG Iraq V69



MAG Sri Lanka P2 Test Piece



Schonstedt, Schieble, CEIA Mil D1, Guartel MD-4, MineLab F4

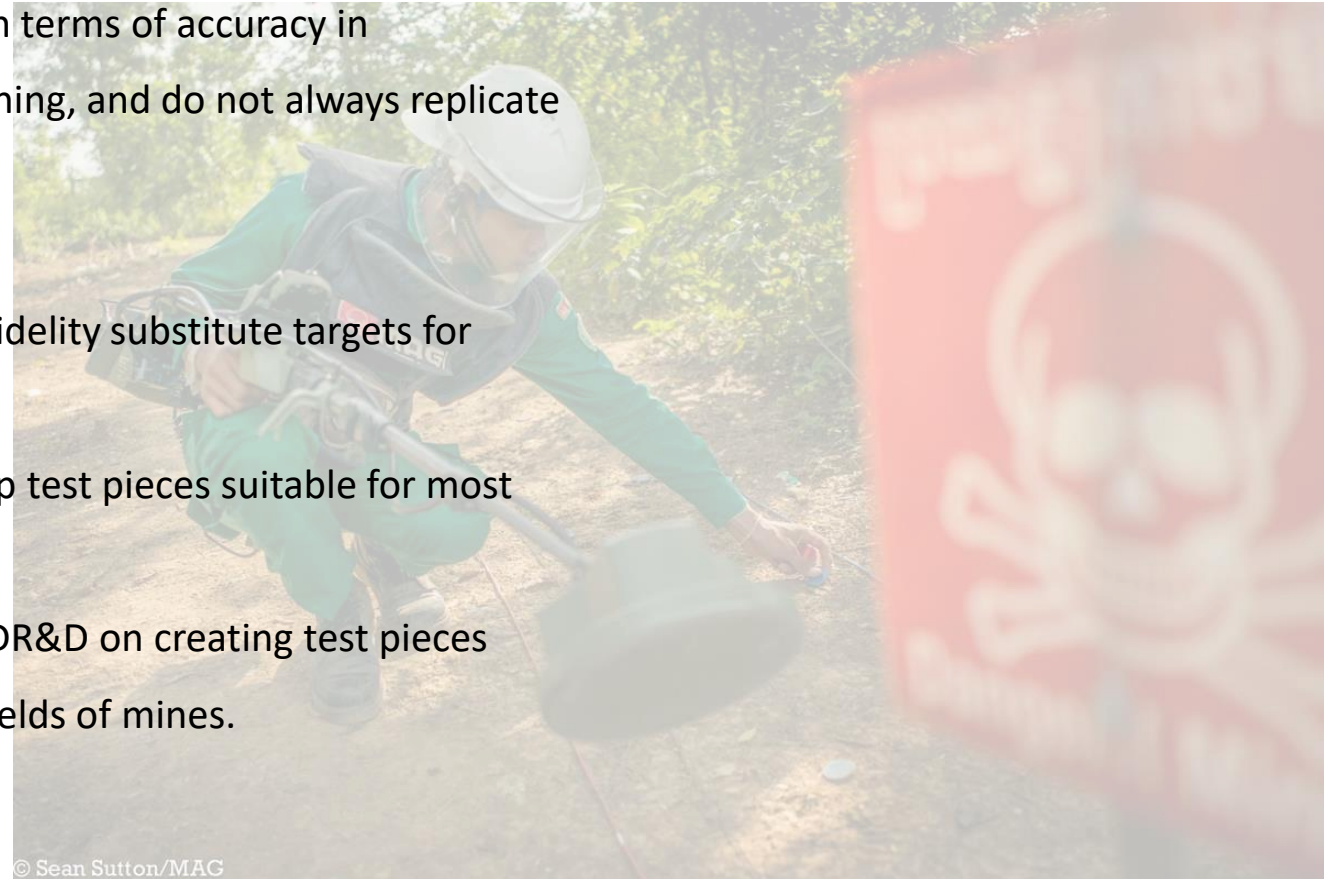


CEIA Minium Metal Test Pieces for - DM-11/L1-11, Type 72, PMA-2, PMA-3

Looking to the future

Future projects across mine action entities to create FFE facsimiles

- Manufacturing and 3D Printing represents an easily implemented option for the production of training materials for classroom and practical training. However, manufactures can be expensive, of poor quality in terms of accuracy in weight/size, not robust enough for sustained training, and do not always replicate weathered munitions sufficiently.
- The main constraint is the requirement for high-fidelity substitute targets for detector test pieces
 - Detector manufacturers continue to develop test pieces suitable for most known targets
 - Significant work by organisations such as HDR&D on creating test pieces trying to precisely match electromagnetic fields of mines.



© Sean Sutton/MAC