

Focus on Machine Assisted Demining

International Pilot Project for Technology Cooperation

By Colonel George Zahaczewsky
Assistant Director for Demining R&D,
EOD and SOF Munitions and Weapons Systems;
Office of the Assistant Secretary of Defense for
Special Operations and Low-Intensity Conflict

Issue 3.2 | June 1999

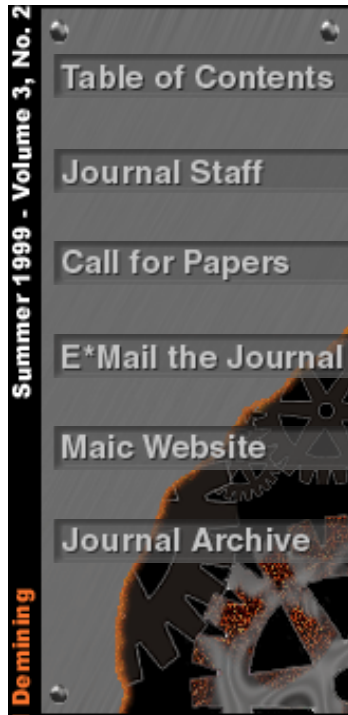
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After a year of preparation and soliciting international support, the United States entered into agreement with Canada, the Netherlands, the United Kingdom, and the European Commission to conduct a project to test metal detectors suitable for humanitarian demining applications. This effort is seen as a pilot project for future international cooperation in demining technology development, and is a critical first step in formally establishing a functional, broadly based international program to test and evaluate humanitarian demining technology.



The purpose of this particular cooperative effort is to evaluate all existing, commercial-off-the-shelf metal detectors that are currently available for mine detection and that may be suitable for humanitarian demining. No research and development prototypes will be included in the test. The intent of this evaluation is to identify which detectors are best suited for a particular geographical set of conditions or operational environment. This will enable demining organizations, or their donors, to narrow down the number of detectors that must be procured for further evaluation within their own unique operational requirements or parameters. Factors that will be considered in the evaluation include: detection ability in highly mineralized soil and in areas of high humidity; ergonomic factors such as weight and ease of use; reliability, maintainability and sustainability; and other factors including cost and ruggedness.

International agencies and activities participating in the project, which is being coordinated by the United States, include the Defense Research Establishment Suffield in Canada, the TNO Physics Laboratory in the Netherlands, the Defence Engineering and Research Agency in the United Kingdom, the European Commission's Joint Research Center in Ispra, Italy and the Night Vision and Electronic Sensors Directorate in the United States. The project was open to voluntary participation by all governments



with humanitarian demining research and development programs.

Actual equipment evaluation will be conducted in the Netherlands and Canada, with field validation testing of the laboratory results tentatively planned for Bosnia-Herzegovina, Cambodia and Mozambique. The detectors will be tested against the following target antipersonnel mines: Chinese Type 72, Yugoslavian PMA-2 and PMA-3, Russian PMN, PMN-2 and PMD-6, and a surrogate of the South African R2M2. A final evaluation report is planned for release to all interested parties in September 2000.

Based upon recommendations from the manufacturers, the following detectors have been purchased and will be evaluated beginning in July 1999 in the Netherlands:

- Adams AD2500 and AD26000S
- Ebinger EBEX 535 and EBEX 420 GC
- Fisher Research Labs Impulse, 1235X and 1266XB
- Foerster MINEX 2FD
- Giat Model F1 (DHPM-1A)
- Guartel MD4, MD8 and MD2000
- LG Precision PRS-17K
- Minelab F1A4 and F1A4-MIM
- Pro Scan Mark 2 VLF
- RDI Midas PIMD
- Schiebel AN-19/2, MIMID and ATMID
- Vallon ML 1620C and VMH2
- White's (US) Spectrum XLT and DI-PRO 5900 CB
- White's (UK) NATO MD AF-108

Manufacturers were also invited to provide their standard new equipment training packages for their detectors. Although, the final report will not certify the detectors tested, it will tabulate each detector's performance against a specific list of criteria under a range of defined conditions, thereby highlighting those that should be considered for use under those specified conditions. The report will be presented in a manner to assist the consumers, or users, of humanitarian demining mine detectors – governments, mine action centers, non-governmental organizations and donors – in identifying the detectors that best suit their needs.

All questions or requests for additional information regarding this project should be directed to the project coordinator, Colonel George Zahaczewsky, at (1) 703-693-5222, by facsimile at (1) 703-693-3039, or via email to colgz@ibm.net.