Conference Fee: free for participants from mine affected countries
200 € for other participants
10 € for Students

Register under: http://www.webshop.bam.de/

Instruction how to register to the Workshop:
Go to http://www.webshop.bam.de/
Click on the left hand side under products: Public events
Click GICHDBAM Workshop "Reliability Tests for Demining"
And make your choice
Click ‘Add to Cart’
Register as “New Customer” (middle head line)
Click on the right hand side "shopping Cart" and review your choices
Click checkout and select mode of payment!
Confirm the final set up

This registration is only for paying participants.
Participants with free participation send please an e-mail to Christina.Mueller@bam.de

Registration-Deadline: December, 6, 2005

The authors are kindly requested to bring their conference presentation and the paper for the proceedings with them on a CD

Conference venue:
Bundesanstalt für Materialforschung und –prüfung (BAM), Berlin,
Unter den Eichen 44-46, 12203 Berlin, Germany, House B9, Room 120
For hotels see the list at http://www.bam.de/hotels.htm.
How to find BAM see at http://www.bam.de/english/about_bam/how_to_find_bam/fabeckstrasse.htm

The Landmine Threat
There are more than 100 landmine and/or unexploded ordnance (UXO) affected countries in the world. Approximately 20 of these are heavily-affected, including Angola, Afghanistan, Croatia, Egypt, and Cambodia.
The land mine clearing process must be faster and at the same time safer for the operators, reliable enough for the end user who might be farmers or even playing children. The false alarm rate needs to be decreased to make it more efficient. Science can help to overcome the mine threat faster and safer.

There exist already twenty different methods for land mine detection but only four of them are actually used in the field: the metal detector, the prodder, the dog and the mechanical clearance machines. And even for these no international valid reliability / test & evaluation standard exist yet. The pioneer document is the CEN BT 126 CWA 14747:2003 for test and evaluation of metal detectors for which final design these ITEP trials are devoted.

The workshop
... is on the one hand very specifically aimed to reveal and evaluate the results of 4 big ITEP field trials with metal detectors we made based on statistical rules and adapted from traditions in NDT (Performance Demonstration). On the other hand we thought our experiences and new knowledge we gained could be generalized and should be offered to the demining community. Anyway we will propose an addendum to the CEN BT 126 CWA 14747:2003 document “Test & Evaluation of Metal Detectors” which will be transferred to IMAS later on.
Especially: After observing the work in real mine fields the organizes got insight in an adequate treatment of the Human factor.
Also we encountered some basic problems about metal detector performance, soil influence, ground compensation and experiments for MDD (Maximum detection distance) measurement for which conclusion for research and practical activities would be a natural consequence. That is why we like to discuss the problems in a proper environment of responsible persons.
The workshop is composed of oral sessions where the strategies of contributing organizations will be presented and the conception and results of the trials as well as all the mentioned conclusions. In addition - the most important part - will be the "hands on" break out sessions where we will present/discuss the practical procedures with all parties involved and interested in - especially the metal detector manufacturers. You are kindly asked to bring your devices/experiences/opinions to this break out sessions and a exhibition. The summary of the break out sessions will serve as a red line to formulate the addendum to the CWA 14747:2003.

The program is still open for further ideas and contributions!

Workshop Committee
Christina Müller, Uwe Ewert, BAM Berlin, Germany,
Al Carruthers, GICHD, Switzerland
Nicola Pavkovic., CROMAC-CTRO, Croatia
E-mail to: christina.mueller@bam.de for technical content

Round Table Discussion
-discussing ITEP-projects -

Reliability Tests for Demining

December, 15-16, 2005 at the
Federal Institute for Materials Research and Testing (BAM)
Unter den Eichen 44-46, 12203 Berlin, Germany

Aim:

- Final Design and Rules for Testing of Metal Detectors for CWA 07 and possible extensions to
  - dual - sensor testing,
  - dogs,
  - UXO-clearing
- On the basis of discussions on the workshop 2003,
- new trials from JRC, GICHD and BAM and other organizations,
- new insight to human factor influence,
- possibility to use the modular model for the design of minimum tests

Modular Reliability Model

- Interactive Capability
- IC
- Physics
- Application Programs
- Electronic System
- AP
- Optimised Diagnostic System
- ODS
- Human Factors
- HF
- e.g. Environment
- Q
- R = Σ()
Thursday, DECEMBER 15, 2005

from 8:30 Registration
!!! Without registration you are not admitted to participate in the Workshop !!!

9:30 Opening and Introduction to BAM
Thomas Böllinghaus, BAM-vice-president

> 10:00 Overview to current GICHD/UNMAS strategy and activities
Phil Bean., GICHD, Switzerland & Noel Mulliner UNMAS, US

> 10:30 Capacity and Permits for Testing and Accreditation
Nicola Pavković., CROMAC-CTDT, Croatia

11:00 Coffee-Break

> 11:15 Overview of BAM Experiences especially to Human factor Treatment
Christina Müller, BAM Berlin, Germany

> 11:45 Overview about the STEMD trial activity and lessons learnt
Adam Lewis, JRC Ispra, Italy

> 12:15 Critical Review of Trial Results from the Field Point of View
Dieter Guelle, JRC Ispra, Italy

> 12:45 Statistical Model for Trial Result Evaluation
Peter Witrich, FU Berlin, Germany

> 13:15 Design of Experiments for Maximum Detection Distance Measurements and Reliability Trials
Mate Gaal, BAM Berlin, Germany

13:45 Lunch

> 14:45 Signal Measurements of Metal Detectors within the Modular Model
Mato Pavlovic, BAM Berlin, Germany

> 15:15 R&R investigation of pin-pointing capability of metal detectors
Damir Markovic, University of Zagreb, Croatia

> 15:45 Expectation and proposal for an Annual “Minimum Effort test”
Al Carruthers, GICHD, Switzerland

16:15 Coffee-Break

16:30 Breakout Session I:
- Human Factor
  Chairpersons: Christina Müller, Dieter Guelle, Mato Pavlovic

17:00 Breakout Session II:
- Design of Experiments for MDD
  - Design for Parameter Measurements General
  Chairpersons: Mate Gaal, Adam Lewis

18:00 Breakout Session III:
- “Minimum Effort” Test
  Chairperson: Al Carruthers

18:30 End

Social Event (Typical „Berliner Kneipe“)

Friday, DECEMBER 16, 2005

9:30 Beginning

> 9:30 Experiences with hand held dual sensor trials
Dave Daniels,

> 10:00 Overview of recent ITEP collaborative hand/held GPR/MD trials
Ian Dibsdall, QinetiQ, UK

10:30 Coffee-Break

> 10:45 Experiences and plans of test and evaluation for vehicle-mounted dual sensor systems
Jun Ishikawa, JST, Japan

> 11:15 Scientific Measurement of Metal Detector Parameters
Hartmut Ewald., Universität Rostock, Germany

> 11:15 Need for dog tests, UXO-equipment and proposal for personal qualification
- the practical point of view
Adrian van Riel, REASeuro, NL

12:15 Lunch

13:15 Final Discussion
- Summaries of breakout sessions
- Amendment to CWA 07
- Plans for Dual Sensors
  Chairpersons: Mate Gaal, Dieter Guelle

15:00 Closure
Uwe Ewert, Head of BAM/subdepartment VIII.3 - Radiology