


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 
Click on the left hand side under products: Public events
Click BAM-ITEP 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 Dieter.Guelle@bam.de

Registration-Deadline via web-shop: January, 21, 2007
If you apply later: see http://home.arcor.de/bam-berlin/2007_BAM-ITEP-Workshop/

The authors are kindly requested to bring their conference presentation and the paper for the proceedings with them on a CD
Updated Flyer: http://www.bam.de/de/aktuell/veranstaltungen/veranstaltungen_medien/demining_rtfd_flyer2007.pdf

Conference venue:
Bundesanstalt für Materialforschung und –prüfung (BAM), Berlin,
Unter den Eichen 44-46, 12203 Berlin, Germany, House 89, 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 were devoted and are aimed to be extended to dual-sensor systems.

The workshop

...stands meanwhile for an open discussion forum about the ways to test most efficient mine searching equipment between scientists, device manufacturers and the end users in the field. On the one hand it is very specifically aimed to reveal and evaluate the results of the latest ITEP field trials with metal detectors carried out by the organizers based on statistical rules and adapted from traditions in NDT (Performance Demonstration). This year – especially hot – the performance of the 12 best detector brands will be presented in competition to reveal the state of the art of metal detectors and to show the future potential e.g. distinguishing metal types and creating 3D images. 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 together an update 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 organizers got insight in an adequate treatment of the Human Factor and added psychological expertise to its evaluation and improvement.

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 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 propose a contribution and to bring your devices/experiences/opinions to this breakout sessions and a mini exhibition. The summary of the break out sessions will serve us as a red line to formulate update of the CWA 14747:2003.

It is a special pleasure of the organizers to hold the workshop in connection with the Multi Sensor Working Group to ensure this way the discussed results will be transferred to "hands on" activities in the demining community with the focus on the upcoming dual-sensor tests.

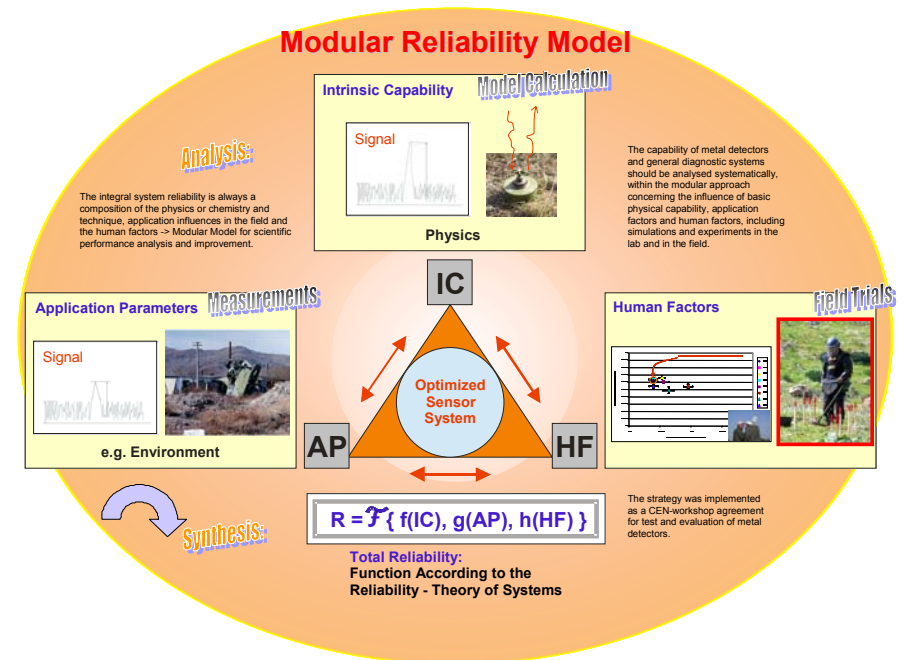
For paper application send e-mail to Dieter.Guelle@bam.de and Christina.Mueller@bam.de

Workshop Program

BAM-ITEP-Workshop in connection with ITEP- Multi Sensor Working group meeting

Reliability Tests for Demining

January 30 – 31, 2007 at the
Federal Institute for Materials Research and Testing (BAM)
Unter den Eichen 44-46, 12203 Berlin, Germany



Aim:

- Presentation of the state of the art in metal detector performance,
- Final Design and Rules for Testing of Metal Detectors for CWA 07 and extensions to dual-sensor testing
- On the basis of results from the workshops 2002, 2003 and 2005,
- Results of brand new ITEP trials
- new insight to human factor influence, psychological assessment
- possibility to use the modular model for the design of minimum tests



Tuesday, JANUARY 30, 2007

from 8:00 Registration

Opening

- 9:30 Ch. Müller (BAM)
"Aim of the Workshop"
T. Böllinghaus (Vice President of BAM)
"Welcome to BAM"
- 10:00 Technology development in HD – "An Inconvenient Truth"
N. Mulliner (UNMAS)
- 10:20 Criteria for clearance effectiveness – "Faster, safer and more cost effective"
E. Tollefsen (GICHD)

10:30 Break

Detector Test Results

- 11:00 "Lab test results of Ispra (STEMD)"
A. M. Lewis (JRC)
- 11:30 "Metal detectors state of art (results STEM)"
D. Guelle (BAM)

12:00 Lunch

- 13:00 "Laser-optical prodder"
W. Schade (TU Clausthal)
- 13:20 "ALIS test result of Cambodia"
M. Sato (CNEAS)

Development & future

- 13:40 "Overview, results HuMin/MD - a German research project"
H. Eigenbrod (Fraunhofer Institut)
- 14:00 "Practical results of HuMin/MD"
H. Ewald (Uni Rostock)
- 14:20 "Reliability Enhancement, Facilitating the Pin-Pointing With Mine-Detectors"
Dr. Braunstein (Vallon)

14:40 Break

Soil Characterisation

- 15:00 "CWA Part 2, Soil characterisation"
Y. Yvenic (RMA)
- 15:20 "The magnetic susceptibility of tropical soils - an approach for a classification system"
H. Preetz (GGA)
- 15:40 "Soil physics and their influence on sensor performance"
Canada
- 16:15 "Classification of soil for standardisation"
J. Hannam (Cranfield Uni)
- 16:35 "True effects of ground on a detector and the way to test it in lab experiments"
P. Beck (Minelab)

Social Event

20:00 „Il Mulino“, Adolf Martens Str. 2, 12205 Berlin

Wednesday, January 31, 2007

CWA 14747 Metal Detectors

- 8:30 "Statistics, Design, Improvement proposals CWA 14747"
M. Gaal (BAM)
- 8:50 "Introduction & administration to come to an update of CWA MD"
D. Guelle (BAM)

Discussion CWA 14747

- 9:15
N. Mulliner (UNMAS)

10:30 Break

Dual sensor test results & Tests 2007

- 11:00 "Status and test results of the MineHound"
P. Curtis (ERA)
- 11:20 "Namibia trial HSTAMIDS"
A. Scholderman (TNO)
- 11:40 "Reliability trial dual sensors" & "Test of dual sensors' efficiency"
D. Guelle (BAM)

12:00 Lunch

Meeting of the Multisensor Group

- 13:00 Test procedures for dual sensors
A. Scholderman (TNO)

17:00 END