

IMSMA: Mine clearance in Kosovo is coming to an end



There are millions of landmines in more than 70 countries worldwide – approximately every 20 minutes a person is killed or maimed by a landmine. Given the scope of the problem and the number of actors involved in mine clearance activities, there is a vital need for effective information management. The Information Management System for Mine Action (IMSMA) Field Module has become the international standard in support of humanitarian demining activities undertaken by the United Nations and the entire international humanitarian demining community. The successful clearance of mines from Kosovo shows dramatically that modern information technology can support the demining process efficiently.

Information technology can reduce mine victims by providing better information on the location of mines and by allowing for more efficient use of demining capacities on the ground. The IMSMA Field Module is a computer based information system that supports the entire mine action process (humanitarian demining). It improves capabilities for decision-making, coordination and prioritization and aids in making up-to-date information on the location of hazardous areas available to the local population. The IMSMA system, developed by the Center for Security

Studies and Conflict Research on behalf of the Geneva International Centre for Humanitarian Demining (GICHD), is provided free of charge to the international mine action community as a Swiss contribution to humanitarian demining.

“Information is a vital component of mine action. During the successful clearance operation in Kosovo, IMSMA enabled us to rapidly collate and analyze an enormous amount of data. This in turn helped us to plan and prioritize clearance efforts, and assisted with the integration of other activities such as mine awareness education. Throughout the entire mine action program in Kosovo, IMSMA was constantly used to manage the ongoing operational activities, and without it, our task would have been much more difficult.”

John Flanagan, Program Manager United Nations Mission in Kosovo Mine Action Coordination Center.

In Kosovo the IMSMA Field Module was used successfully by the United Nations Mine Action Coordination Center (UN MACC) to coordinate all humanitarian demining activities and other mine action efforts by numerous organizations. Using the IMSMA system, the MACC was able to

plan and execute mine action activities more efficiently. By possessing up-to-date information on the location of hazardous areas, the MACC was able to task the clearance of mined areas more rapidly and to reduce casualties associated with mined areas by providing information to the public. The demining activities were completed by mid-December 2001, and Kosovo is now clear of all known minefields. Upon achieving the demining of Kosovo, the MACC was shut down. The IMSMA Field Module, including all demining data, has been handed over to the UNMIK (United Nations Mission in Kosovo) department of civil security and the Kosovo cadastral agency. As a result of this handover, information on the location of former minefields and cluster bomb strikes remains in Kosovo, and the department for civil security has the capability to react to possible remaining threats from mines and unexploded ordnance if such are reported. Once such new threats are removed, the cadastral agency will update the IMSMA system with that information.

Although the Kosovo program has ended successfully, the worldwide landmine threat is far from eliminated, and the Field Module user community is growing rapidly. As of December 2001 the system has been established in a total of 20 countries, and the UN has identified numerous additional countries as future recipients of the Field Module. The dissemination of the IMSMA system in mine-affected countries will be facilitated as a result of recent software donations made by Microsoft and ESRI. Afghanistan, one of the most heavily mined countries in the world, was recently equipped with the IMSMA system. Afghanistan has millions of mines in place, many of which are scattered randomly in inhabited areas. Recently, the IMSMA deployment team transferred information on known minefields and other hazardous areas from the existing Afghan MAC (Mine Action Center) database to the IMSMA system. This allows the MAC and the UN Humanitarian Information Coordination

Landmine Situation in Kosovo • 1999–2001

August 1999

August 2000

December 2001



Threat from mines to the population

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The IMSMA development team: Olivier Muff, Martin Hochstrasser, Nicole Allet, Thomas Schürpf, Reto Schöning, Prof. Andreas Wenger, Prof. Kurt R. Spillmann, Reto Haeni (back, from left). Nicolas Jene, Christian Schlupe, Maria Schabel, Beat Schoch and Ralf Hug (front, from left). Missing on the photo: Armin Fessler and Mark Yarmoshuk.

Center to print maps and to distribute up-to-date electronic mapping products identifying hazardous areas, thereby enabling humanitarian aid activities to operate inside Afghanistan with a reduced risk to the life and safety of humanitarian aid workers.

The further development of the IMSMA system continues, and currently the use of new technologies is being tested. The IMSMA team at the Center for Security Studies and Conflict Research is developing cutting edge technology that allows data originating from the IMSMA Field Module to be published over the Internet. This technology will allow the Mine Action Centers to incorporate maps and statistics

on their websites. By providing users with dynamic mapping and statistical tools for exploratory research on country specific data, MACs can better demonstrate the size of the humanitarian problem in a country and display the progress of mine action activities. Once the MAC has released the data to make it available on the Internet, the information is processed and aggregated. Maps and statistics are then provided by servers at the Swiss Federal Institute of Technology, making minimal demands on the local systems of the MACs. The use of this technology was tested successfully at the occasion of the Third Meeting of State Parties to the Ottawa Convention that took place in Nicaragua in September 2001. It is planned to make these tools available to a wider audience in 2002. ■

Geneva International Centre for Humanitarian Demining (GICHD)

The Geneva International Centre for Humanitarian Demining supports humanitarian mine action through research, operational assistance and contributions to the implementation of the Mine Ban Treaty. It is an independent foundation supported by 18 governments.

<http://www.gichd.ch>

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Calendar

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- **Die Bekämpfung der internationalen Kriminalität – international, flexibel, vernetzt**

Bundesrätin Ruth Metzler.
 Public lecture, 24 January 2002,
 University of Zurich.

- **Ethik in der Unternehmensführung**

Dr. jur. Henning Schulte-Noelle.
 Public lecture,
 30 January 2002,
 University of Zurich.

- **Re-Thinking Terrorism and Counter-Terrorism After 11 September**

Dr. Bruce Hoffman.
 Public lecture, 7 February 2002,
 ETH Zurich.

- **Djihad-Terrorismus: eine Gefahr für den Weltfrieden?**

Prof. Bassam Tibi.
 Public lecture,
 3 April 2002,
 ETH Zurich.

- **Pakistan: Land zwischen Indien und Afghanistan**

Urs W. Schöttli.
 Public lecture,
 10 April 2002,
 ETH Zurich.

- **New Faces Conference: European Security and Defense Policy – Concepts, Prospects and Pitfalls**

International Conference,
 14–17 March 2002,
 Hamburg, Germany.

- **Vom Konflikt zur Kooperation – weltweite Perspektiven**

Prof. Hans Küng
 Public lecture, 26 June 2002,
 ETH Zurich.

- **Von Krieg und Frieden**

Prof. Kurt R. Spillmann
 Public lecture,
 3 July 2002,
 ETH Zurich.

- **5th International Security Forum**

International Conference,
 14–16 October 2002,
 Kongresshaus Zurich.