The Kosovo MACC: “The Most Successful Mine Action Program Ever”

JJ Scott

Center for International Stabilization and Recovery at JMU (CISR)

Follow this and additional works at: https://commons.lib.jmu.edu/cisr-journal

Part of the Defense and Security Studies Commons, Emergency and Disaster Management Commons, Other Public Affairs, Public Policy and Public Administration Commons, and the Peace and Conflict Studies Commons

Recommended Citation
Available at: https://commons.lib.jmu.edu/cisr-journal/vol6/iss1/7

This Article is brought to you for free and open access by the Center for International Stabilization and Recovery at JMU Scholarly Commons. It has been accepted for inclusion in Journal of Conventional Weapons Destruction by an authorized editor of JMU Scholarly Commons. For more information, please contact dc_admin@jmu.edu.
The Kosovo MACC:  
"The Most Successful Mine Action Program Ever"  

Using groundbreaking new ideas and ingenious combinations of favorite demining methods, the Kosovo Mine Action Coordination Center (MACC) has succeeded in clearing the province of landmines in less than three years.

Mr. John Flanagan, MACC Program Manager, offers insights on the MACC's accomplishments and a vision for the future of mine action.

by JJ Scott, MACC

Introduction

June 10, 1999: The NATO Secretary General announced the suspension of NATO air strikes in Kosovo. After seven days of relentless bombing, Yugoslav and Serbian forces had agreed to withdraw from Kosovo territory, clearing the way for deployment of United Nations (UN) peacekeepers, the Kosovo Stabilization Force (KFOR). Simultaneously, the UN declared the establishment of the UN Internally Displaced Persons Administration for Kosovo (UNMIK), mandating that this body "promote an atmosphere of security and safety that will enable all refugees and internally displaced persons (IDPs) to enjoy the right to return freely to their homes and to live in conditions in which the highest standards of human rights and fundamental freedoms are respected." The UN Mine Action Service (UNMAS) recognized the threat that landmines and UXO posed to the success of this goal and set about developing a program to deal with these hazards.

One week later, with KFOR entrenched and the Serbians extracted, the Kosovo Mine Action Coordination Center (MACC) opened for business with John Flanagan serving as the MACC's Program Manager. Under his leadership, the Kosovo demining program swept the country clean of threatening landmines and UXO in just over two years, an unprecedented achievement. In December 2001, Mr. Flanagan declared Kosovo UXO threat to be comparable to that of any other European country, thus accomplishing the MACC's primary mission.

Although Kosovo's initial landmine and UXO situation was unique in some respects, several lessons learned there can be applied to future mine action programs (MAPs). Mr. Flanagan believes that if every MAP used demining methods appropriate to their unique situations, the worldwide landmine problem could be solved in a relatively short time—much sooner than most in the demining community consider possible. Some of his insights are introduced below as I outline the Kosovo MACC from top to bottom, hopefully illuminating all of the imaginative answers this program used to solve mine action's toughest questions.

The Kosovo MACC

Organization

With only seven days elapsing between conception and implementation of the program, it is amazing how many acronyms stand between the UN and the Kosovo MACC. The UN established UNMIK and gave the administration a mandate that included providing for the safe return of thousands of IDPs. Because landmines and UXO presented such a hazard to returning civilians, UNMAS became involved. Officials at UNMAS chose the UN Office for Program Services (UNOPS) to design an UNMIK Mine Action Program (MAP), which they

Mission Statement

The MACC's stated goals were deceptively simple and straightforward: "Replicate the situation that exists in virtually all European countries that have experienced conflict during the 20th Century," and do it within three years. In this condition, citizens may periodically find scattered mines and UXO remaining after clearance, but they have been trained to safely handle the situation. Landmines and UXO pose only the smallest threat to civilians as they go about rebuilding their economic and social lives. The goal in Kosovo was not 100 percent clearance. The MACC estimated that completely clearing the entire country would have taken 30 to 50 years using standard manual demining methods. Obviously, that time frame would not allow Kosovo to rebuild in a timely manner. So the MACC adopted a different tactic, trading a 100 percent safety guarantee (after five decades) for the immediate improvement of most Kosovars' lives and a small amount of residual risk. The MACC attempted to minimize civilian impact as quickly and efficiently as possible, thus helping the most people in the least amount of time. Realizing this goal required some innovative methodology by the MACC, as no previous MAP had ever laid out such ambitious goals within such a limited timeframe.

The MACC's Five Principles

The Kosovo MACC quickly established five principles to form the foundation upon which to build the rest of the program. Stressing efficiency, speed and safety, the MACC focused on:

• Integrated Mine Action
• Information Management
• Threat Assessment
• Risk Management
• Quality Management

Using new strategies and proven techniques, the Kosovo MACC delivered on its promises by following these principles faithfully. Examples of the novel combinations used by the MACC are outlined below.

Integration

The MACC needed to address each of the four pillars of mine action—clearance, mine awareness, victim assistance and advocacy—and they needed to do it quickly and efficiently. They soon determined that they needed to integrate mine action activities on an unprecedented scale. Effective integration involves the concurrent execution of various aspects of mine action to eliminate redundancy and wasted effort. For example, groups might conduct mine awareness simultaneously with clearing operations in a village, as explained above. Effectively integrating all four pillars allowed the MACC to accomplish their lofty goals with unsurpassed efficiency.
Information Management
Integration on the scale that the Kosovo MACC dealt with required a new system for information management. To coordinate the survey teams and mine awareness efforts, the multiple NGOs carrying out the actual demining, the MACC had to process vast amounts of raw data and then distribute useful information to people in the field in a timely manner. This would be a daunting task anywhere, but in the decimated country of Kosovo, it could have been a nightmare. Luckily, the Geneva International Center for Humanitarian Demining (GICHD) stepped in with their newly developed Information Management System for Mine Action (IMMSA). IMMSA provides the entire mine action community with a standardized repository for data. Everyone participating in a mine action project—survey teams, deminers, and those involved with mine awareness and victim assistance—gathers the same statistics from every area within the work zone and submits them to the IMMSA database. Using this standardized data, IMMSA allows coordinators to dramatically increase their efficiency. Managers can analyze data, view graphs and charts of all data, plot geographic maps of mine fields, keep track of all mine action activities, and view compilations of any statistics they wish, all within the same system. It enabled us to collate and analyze a massive amount of data in a very short period of time and allowed the hands-on management of clearance and mine awareness activities. Mr. Flanagan explained:

In Kosovo, the MACC had to take care not to repeat activities already completed by KFOR during their own military de-mining activities. KFOR conducted surveys to locate mined areas and to determine the accuracy of other reports; both activities that the MACC, itself might otherwise have needed to do. Fortunately, KFOR agreed to use the IMMSA database, thus allowing all of their mine action-related data to be compiled along with the MACC's. To ensure rapid distribution of this processed information within Kosovo, the MACC established regularly updated satellite feeds throughout the country. Some NGOs also set up information centers for local populations, allowing civilians to access landmine and UXO data about their own community without traveling long distances.

Though invaluable, the IMMSA system was not flawless. Working with the GICHD, the MACC Information Technology Branch assisted in the development of a new version of the system. According to Mr. Flanagan, "version 2.2 is significantly better than the version 1.0 model initially deployed in Kosovo. Most UN de-mining programs now use this easily improved version of IMMSA.

Risk Management
"Our mantra within the MACC was 'We're not going to prod our way across Kosovo,'" announced Mr. Flanagan. This slogan is another example of the MACC's efforts to get things done in the most efficient way possible, even if they had to abandon some standard practices. Many demining practitioners feel that manual demining is the safest, fastest and most dependable method of clearance. Was that only a random piece of UXO that exploded in the field, dangerous but not requiring the commitment of a full-scale demining contingent? Previously, it didn't matter in humanitarian demining, because every reported mine field got the same attention at all, leaving deminers to discover that sometimes the mines they'd been hunting never actually existed. Ghost mine fields drained resources just as fast as the real thing. At first, ghost mine fields posed a real problem to the MACC's goals. The MACC needed a way to quickly confirm or discredit reported mine fields to help them distribute assets in the most efficient manner possible. Instead of a cookie-cutter mentality (using the same solution for every problem), they customized their approach depending on the situation. Surveys have always been a necessary component of any demining program, and the Kosovo program was no different. Level One surveys helped the MACC's Quality Assurance Officer answer questions and develop a benchmark to measure success for later surveys. A Quality Assurance Officer had to approve every deviation from SOP, and would not do so if there was any question about the safety or applicability of the action.

Quality Management
Considering the wide range of decided priorities made for the sake of speed and efficiency, the Kosovo MACC put special emphasis on their quality assurance programs. The MACC designed the program to ensure that all areas declared safe were in fact cleared to the appropriate standards. Only through such a program could the MACC guarantee that victim assistance efforts were both safe and balanced between speed and safety.

Five Quality Assurance (QA) teams rotated through and of the clearance areas on a regular schedule, focusing on specific, well-defined areas during each visit. QA teams had two goals: make sure demining teams operated safely to prevent their own injuries, and make sure they operated thoroughly to prevent civilian injuries after clearance was completed. The QA teams achieved both goals by ensuring that each clearance phase met quality assurance requirements. They evaluated all aspects of each activity, from how the MACC's method was implemented, to safety training, and tried to identify problems and the organizations carried out all actual operations. Once again, the MACC's management methods sometimes strayed from the accepted standards, but their imaginative initiatives proved effective and successful.

Mine Clearance
Clearance operations are the heart of any Mine Action operation. Removal of a landmine from the ground is the only way to make it safe, to prevent it from killing or injuring a victim. In Kosovo, the MACC had to contend with mines laid by three different factions: the Kosovo Liberation Army (KLA), the Serbian Special Police (MUP), and the Vojska Jugoslavci (VJ). The VJ provided the MACC with 620 mine field records of varying accuracy and comprehensiveness. Says Mr. Flanagan, "the maps provided by the VJ proved invaluable as a guide for determining the scope and accuracy of each mine clearance task.

When used in conjunction with all other information sources, the maps allowed the MACC to get a fairly accurate idea of where mines might lie in wait. Discernible patterns in VJ mine fields also greatly assisted demining operations, since the VJ had planted the vast majority of the mines found by the MACC.

The MUP specialized in layered small numbers of unmarked mines throughout villages and around essential infrastructure elements. These stray mines proved particularly troublesome as their dangerous positioning but low density made their removal both necessary and the Kosovo Yugoslavci (VJ). The VJ provided the MACC with 620 mine field records of varying accuracy and comprehensiveness. Says Mr. Flanagan, "the maps provided by the VJ proved invaluable as a guide for determining the scope and accuracy of each mine clearance task.

When used in conjunction with all other information sources, the maps allowed the MACC to get a fairly accurate idea of where mines might lie in wait. Discernible patterns in VJ mine fields also greatly assisted demining operations, since the VJ had planted the vast majority of the mines found by the MACC.

The MUP specialized in layered small numbers of unmarked mines throughout villages and around essential infrastructure elements. These stray mines proved particularly troublesome as their dangerous positioning but low density made their removal both necessary and...
and inefficient. Again, experienced deminers could sometimes detect patterns even without any records. This demonstrates the remarkable level of experience and competence displayed by some of the demining organizations. These guys were good.

The KLA reported clearing all mines they had laid during the war, and deminers in the field generally confirmed this claim. Only a few mine fields discovered in Kosovo could be attributed to KLA activities. Though all data provided by combatants helped, the maps and in

and inefficient. Again, experienced deminers could sometimes detect patterns even without any records. This demonstrates the remarkable level of experience and competence displayed by some of the demining organizations. These guys were good.

The KLA reported clearing all mines they had laid during the war, and deminers in the field generally confirmed this claim. Only a few mine fields discovered in Kosovo could be attributed to KLA activities. Though all data provided by combatants helped, the maps and in

formation given to the MACC mentioned only 624 of the nearly 2,500 mine-suspected areas reported by civilians. This fact shows the importance of the MACC's own surveys in determining the severity of each district's landmine problem. Sometimes soldiers have better things to do than mark mine field maps as accurately as possible.

Without maps with mines provided by each faction, the demining groups working under the MACC neutralized thousands of landmines in Kosovo. By the summer of 1999, 70 percent of the total number of mines and of demining activities completed, these groups had prevented 25,359 landmines from injuring any living creature. In the process, the MACC declared 30.5 million CBUs containing a total of 1.9 million landmines cleared.

throughout the duration of the operation. Manual deminers, MDDs, and volunteers played a significant role in the minefield clearing operations. Manual deminers cleared over 2 million mines, while MDDs and volunteers focused on clearing the remaining areas.

A Chinese deminer and his team cleared the minefield during the war. (Photo courtesy of United Nations High Commissioner for Refugees)

and inefficient. Again, experienced deminers could sometimes detect patterns even without any records. This demonstrates the remarkable level of experience and competence displayed by some of the demining organizations. These guys were good.

The KLA reported clearing all mines they had laid during the war, and deminers in the field generally confirmed this claim. Only a few mine fields discovered in Kosovo could be attributed to KLA activities. Though all data provided by combatants helped, the maps and in

formation given to the MACC mentioned only 624 of the nearly 2,500 mine-suspected areas reported by civilians. This fact shows the importance of the MACC's own surveys in determining the severity of each district's landmine problem. Sometimes soldiers have better things to do than mark mine field maps as accurately as possible.

Without maps with mines provided by each faction, the demining groups working under the MACC neutralized thousands of landmines in Kosovo. By the summer of 1999, 70 percent of the total number of mines and of demining activities completed, these groups had prevented 25,359 landmines from injuring any living creature. In the process, the MACC declared 30.5 million CBUs containing a total of 1.9 million landmines cleared.

throughout the duration of the operation. Manual deminers, MDDs, and volunteers played a significant role in the minefield clearing operations. Manual deminers cleared over 2 million mines, while MDDs and volunteers focused on clearing the remaining areas.

A Chinese deminer and his team cleared the minefield during the war. (Photo courtesy of United Nations High Commissioner for Refugees)

and inefficient. Again, experienced deminers could sometimes detect patterns even without any records. This demonstrates the remarkable level of experience and competence displayed by some of the demining organizations. These guys were good.

The KLA reported clearing all mines they had laid during the war, and deminers in the field generally confirmed this claim. Only a few mine fields discovered in Kosovo could be attributed to KLA activities. Though all data provided by combatants helped, the maps and in

formation given to the MACC mentioned only 624 of the nearly 2,500 mine-suspected areas reported by civilians. This fact shows the importance of the MACC's own surveys in determining the severity of each district's landmine problem. Sometimes soldiers have better things to do than mark mine field maps as accurately as possible.

Without maps with mines provided by each faction, the demining groups working under the MACC neutralized thousands of landmines in Kosovo. By the summer of 1999, 70 percent of the total number of mines and of demining activities completed, these groups had prevented 25,359 landmines from injuring any living creature. In the process, the MACC declared 30.5 million CBUs containing a total of 1.9 million landmines cleared.

throughout the duration of the operation. Manual deminers, MDDs, and volunteers played a significant role in the minefield clearing operations. Manual deminers cleared over 2 million mines, while MDDs and volunteers focused on clearing the remaining areas.

A Chinese deminer and his team cleared the minefield during the war. (Photo courtesy of United Nations High Commissioner for Refugees)
The Mine Action Program in Afghanistan

The United Nations' Mine Action Program for Afghanistan (MAPA) combines the efforts of numerous Mine Action Centers (MACs) and local NGOs in order to form one of the most comprehensive mine action programs in the world. Operating under the direction of the United Nations Office for the Coordination of Humanitarian Assistance (UNOCHA), MAPA has successfully located and destroyed 1,629,605 landmines/UXO and cleared 230,440,706 square meters of mined area and 339,579,010 square meters of battlefield area.

Introduction

Years of controversy have left Afghanistan as the country most severely affected by landmines, with an estimated 150 to 300 landmine/UXO-related fatalities each month. The governments and the UN have added an unnecessary burden to the lives of many who already suffer on a daily basis from numerous other hardships. As a result, Afghanistan has developed some of the strongest Mine Action Programs in the world. The Mine Action Program for Afghanistan (MAPA) was developed in 1989 and has been working under supervision of the United Nations Office for the Coordination of Humanitarian Assistance (UNOCHA) ever since.

This program combines the efforts of six Mine Action Centers (MACs)—the UN Mine Action Center for Afghanistan (MACA) and four Regional Mine Action Centers (MACs) designed in the central, southern, eastern and western regions of Afghanistan—as well as 15 local NGOs in order to provide extensive coverage of all areas of mine action (for more information on partner NGOs, see Table 1 below). UNOCHA, United Nations Development Program (UNDOD) and United Nations Mine Action Service (UNMAS) are responsible for developing the structure of MAPA, and they have designated specific responsibilities to each of the bodies involved.

Coordination of Mine Action Activities

Designated Responsibilities

UNOCHA, UNDP and UNMAS have requested that all mine action activities be planned and coordinated by MACA and the Mine Clearance and Planning Agency (MCPA). Specifically, these bodies are responsible for the following operations:

- Planning all mine action strategies and operations.
- Developing a set of mine action standards and policies.
- Overseeing MAPA activities and ensuring quality.
- Implementing necessary programs and support for field operations.
- Securing and distributing required resources for all mine action programs.
- Organizing mine action technology.
- Managing and distributing mine-related information.

Goals for 2002

As outlined in their 2002 Project Plan (available at www.mineaction.org), the United Nations has established the following goals for coordination activities:...

References


Contact Information

JL Scott, MAC
E-mail: scottjj@jmu.edu

An Afghan landmine detection and disposal worker from HALO Trust clears hazards from the shoulder of a road. (c)AP

Did not have to worry about much resistance or interference from local leaders. Finally, though mines and UXO saturated Kosovo, the province itself is relatively small, leaving less area to occur than in many other operations. The landmine problem was also fairly recent in Kosovo, so no 50-year-old mines were around to discover in long-forgotten areas. People generally had a good idea of which areas were mined and which were clear, and combatants provided maps to complement people's memories. When all available information was collected and analyzed using the IMSMA system, the MACC found it fairly easy to determine which areas required clearance and which resources to use.

Lessons Learned and the Future of Mine Action

Though the circumstances surrounding the MACC's implementation were rather unique, some of the lessons learned in Kosovo are applicable to future MAPs. Mr. Flanagan informed me that the overall structure of the Kosovo MACC is being imitated in Lebanon and Eritrea, since "there are certain principles that should be applied wherever possible." However, he stressed that the most important lesson from Kosovo is that there is no template solution in mine action.

The most effective tactic used by the MACC was the design and implementation of a "Kosovo solution to the Kosovan problem." Integration and effective information management allowed the complete customization of the MACC-led programs, the flexibility of which led in turn to unimpeded speed, efficiency, safety and success throughout the operation.

Mine action is often presented as an impossible problem. We've all heard that there are billions of landmines covering entire continents, completely eliminating populations, and that their removal may very well take till the end of time. Yes, I'm exaggerating, but my hyperbole is only slightly inflated when compared to the numbers frequently reported by advocacy groups, numbers that get frequent exposure in the press, accuracy being dairned. Mr. Flanagan chooses to look at the land mine problems from a much different, much more optimistic and practical outlook. "I firmly believe that the problem of mine contamination can be rapidly brought under control in the vast majority of affected countries using existing technologies and techniques if each program is properly managed and implemented. An integrated approach is critical," he declared. Obviously, he bases this statement on the recent success of the Kosovo MACC, but the wisdom to that approach cannot be denied.

Mr. Flanagan is not an overly optimistic dreamer when it comes to mine action though, either. He sees a very small window of opportunity open to the demining world right now, a window that may slum that the UN committed a mistake in implementing a seven-year plan for mine clearance, that they have designated specific responsibilities to each of the bodies involved.

Cooperation of Mine Action Activities

Designated Responsibilities

UNOCHA, UNDP and UNMAS have requested that all mine action activities be planned and coordinated by MACA and the Mine Clearance and Planning Agency (MCPA). Specifically, these bodies are responsible for the following operations:

- Planning all mine action strategies and operations.
- Developing a set of mine action standards and policies.
- Overseeing MAPA activities and ensuring quality.
- Implementing necessary programs and support for field operations.
- Securing and distributing required resources for all mine action programs.
- Organizing mine action technology.
- Managing and distributing mine-related information.

Goals for 2002

As outlined in their 2002 Project Plan (available at www.mineaction.org), the United Nations has established the following goals for coordination activities:...