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An Interview with Colonel Lawrence Machabee, USMC: A Retrospective View of Humanitarian Demining at the Department of State

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Despite the growing attention that humanitarian demining receives now worldwide, in 1994, when Col. Lawrence Machabee began his three-year stint as a Department of Defense (DoD)/Department of State Exchange Officer within the Department of State, humanitarian demining was "on no one's radar screen, at least politically" in the U.S. In FY 93, the U.S. government started demining programs in six countries and had allocated a total of \$9 million to its demining efforts around the world. All this changed in January 1994 with the Department of State publication *Hidden Killers*. Col. Machabee was a central figure in the development of that document, which was, in effect, a follow-on report to one solicited from the Department of State by the U.S. Congress the year before. *Hidden Killers* served as "an authoritative document that people could reference in terms of demining problems" worldwide and sparked national and international interest in scope of the demining problem. In 1997 the U.S. government is involved in demining programs in 15 countries and is allocating more than \$44 million to those projects.

At the time of the publication of *Hidden Killers*, the world community addressed the issue of demining by focusing its attention on the escalation of mining in Afghanistan, Angola, Bosnia, and Cambodia, the landmine hot spots of that time period. Based on his research of 1993-94 statistics collected from the International Committee of the Red Cross, U.S. and foreign government agencies, and non-government organizations, Col. Machabee and his Department of State colleagues estimated the global mine problem at 100 million mines in place in 67 countries, with 2 million new mines being laid yearly and 26,000 casualties resulting from landmine accidents, mostly involving women and children.

Hidden Killers significantly increased the global awareness of the proliferation of landmines, specifically anti-personnel landmines. Moreover, says Col. Machabee, the report announced the "seriousness of the U.S. government in addressing the problem and in getting the rest of the world engaged in solving it." The report was also used by the United Nations (UN) in helping to promote the first International Meeting on Mine Clearance which was held in Geneva July 1995. Col. Machabee served as the Action Officer for the Department of State to manage and coordinate U.S. government participation and formulation of demining policies and the pledging that the U.S. government provided at the conference.

The success of the *Hidden Killers* report, however, also ironically resulted in an unexpected drawback: it provided some members of the humanitarian demining community with a false sense of having "hard numbers" on the size and scope of the global landmine problem. Col. Machabee emphasizes that the report was based on 1993 data and that based on the past four years of effort by the U.S. and the international community to educate affected populations and remove landmines, the figures have changed considerably. From his current research and ongoing visits to many countries with landmine problems, he estimates that, while landmines are still being installed, mainly for legitimate maintenance of existing barriers for border protection, the figure of 2 million

mines is no longer reliable. A more accurate estimate, in his opinion, would be approximately 100,000 new anti-personnel landmines, which, if those landmines were to be used as a random terrorist weapon, is still an unacceptable number. Additionally, recent landmine casualty reports from governments and other organizations around the world indicate a significant reduction of annual landmine casualties to about half of the 1993 level of 26,000.

This apparent reduction in the landmine problem is the result of serious international efforts to educate affected populations on landmine hazards and to locate, mark, and avoid mined areas. It is worth noting that the U.S. government has spent more than \$195 million in landmine education programs and in landmine removal efforts over the past four years. "And we are now beginning to see the positive impact of this contribution," contends Col. Machabee. "Of note, based on better reporting, we are now seeing the need to consider the problem of reporting casualties blamed on anti-personnel mines but are actually from unexploded ordnance (UXO)," he adds. In most battlefields, there may be 100 pieces of UXO to every landmine, which further complicates attempts to compare findings of the 1994 report with the status of the landmine problem (and demining efforts) in 1997.

Despite this improvement in the landmine status, however, some members of the demining community continue to use the dated and inaccurate statistics as a way to justify their ongoing work in the field, says Col. Machabee. "Some organizations have ulterior motives beyond the humanitarian aim of saving lives," he suggests. "Some NGOs and PVOs get funding based on these inaccurate figures to sustain their organizations and to keep people employed." Other demining organizations use the figures to pressure organizations into giving them money for not well-defined demining-related activities. Moreover, countries with notably high unemployment rates might be tempted to use the numbers reported earlier in *Hidden Killers* to argue for maintaining a large and expensive force of human deminers in the field in lieu of available landmine-detection technologies that could reduce dependence on human resources.

This reluctance to stop spreading inaccurate landmine and casualty figures by some in the demining community may well prove counterproductive to those intending to use the numbers to further their self-interests, says Co. Machabee. "We have to remember that one day some reporter is going to ask the question: 'What has the U.S. government and the international demining community accomplished with the millions spent on the landmine problem since 1994?' The world humanitarian demining effort has made, and continues to make, a truly significant difference to the well-being and safety of millions of people," adds Col. Machabee. "We need to advertise this better. The state of landmine problem is considerably improved since 1994. We need to tell the world about the good news."

Highlights While at the State Department

Col. Machabee attributes the realized progress toward reducing the landmine problem primarily to the efforts of the growing humanitarian demining community. Increased funding as well as more and enhanced demining programs account for much of this improvement. Over the past four years, the U.S. government has significantly increased its funding of demining programs and now supports demining programs in 15 countries around the world and plans to soon initiate demining efforts in 10 more countries.

In addition to their greater numbers, demining programs simply do a better job than they once did. Col. Machabee notes that the U.S. government humanitarian demining efforts now integrate all government demining activities and requirements with the focus on developing indigenous demining programs with standardized procedures and long-term sustainment funding. In providing this demining assistance, an organization needs special recognition: the contribution by the DoD.

"DoD efforts form the core of the U.S. government's commitment to humanitarian demining and this fact is not well publicized nor understood by the international community," says Col. Machabee. "The DoD effort is focused on providing the world's finest training in operational

demining and organizational management, and its program is well managed under the auspices of the Special Operations and Low-Intensity Conflict Directorate with well-trained Special Forces soldiers and Marines provided from regional Commander-in-Chief (CINC) resources."

As well as providing the "Train -the-Trainer" programs, the DoD has made a significant contribution in demining technology research and development and has significantly assisted increasing U.S. government demining program accessibility through the development of a government "Center of Excellence for Demining" at James Madison University.

The expansion and enhancement of the worldwide demining program and the development of the working relationship between the Department of State and DoD in the execution of the program were highlights for Col. Machabee during his stint with the Department of State. Through the "train-the-trainer" programs, the U.S. government provided indigenous trainers with mine awareness training, training in humanitarian demining (which is notably different from other forms of counter-mine operations), demining operations, and medical training. The mine awareness program in itself has appreciably lowered the casualty rate because of its common-sense approach toward assisting residents of mined countries to identify mine locations, to recognize types of mines, and to avoid them. Col. Machabee notes that innovative demining technologies and techniques (such as mini-flails and dogs that sniff for explosive vapors) have already played a major part in improving the speed and efficiency with which landmines are found and eventually destroyed.

Col. Machabee is also pleased with the success of the Inter-Agency Working Group (IWG) on Humanitarian Demining, a policy group co-chaired with the Department of State and the DoD that develops and coordinates demining policies and efforts among U.S. government agencies and organizations. For the first time, the U.S. government, through the IWG, has a clear strategic plan defining the relationships between U.S. governmental agencies and departments as well as "a formal process for recognizing, managing, and solving humanitarian demining problems," says Col. Machabee. The international community should also be made aware that the success of the IWG is in no small measure the result of proactive leadership and personal concern of the senior leadership both at the Department of State and within DoD. "Without this kind of direct senior-level concern, support, and guidance the U.S. government humanitarian demining program simply would not exist," says Col. Machabee.

Among its other functions, the IWG evaluates requests for assistance from countries with landmine problems and addresses funding issues associated with demining assistance, the scheduling of U.S. demining effort, and the infrastructure problems associated with each country. The U.S. government's FY 97 funding for humanitarian demining programs is about \$30 million, which is roughly split between sustaining existing demining programs and funding new programs. The IWG on Humanitarian Demining oversees this program which is unique in the government, says Col. Machabee. "In the IWG, we actually manage a government program that is designed to end," he says. The U.S. government's policy is to help create an indigenous program that may require the government's support in a decreasing manner for 3 to 20 years.

The level of U.S. government assistance depends on a variety of country variables, including the political stability of the country in question, condition of the demining infrastructure in a particular country, the terrain of the mine-affected area, and the scale of the landmine problem. Col. Machabee notes that the new Non-Proliferation, Anti-Terrorism, Demining and Related Program (NADR) bill of the Foreign Operations Act passed by Congress in 1996 increases national awareness of the demining problem and gives the IWG more flexibility to channel humanitarian demining assistance through NGO's and other organization, to countries in greatest need. This channeling of resources will be in the areas of support for Mine Awareness Training, Demining Training, Demining Operations and Medical Training and Assistance.

Machabee adds to his highlights at the State Department the IWG's focus on the development and use of demining R&D and the ability of the IWG to recommend sending equipment developed by

the DoD at Fort Belvoir, VA, overseas for field-testing in mined countries.

Future Challenges

Col. Machabee notes that future challenges to members of the humanitarian demining community include a revision to guidelines that determine whether an area is clear of landmines. Current standards of clearance and verification require that an area be 99.6 percent clear of metal to a depth of 20 cm. Col. Machabee contends that too much time is wasted by the existing standard of specifically identifying any kind of metal, much of it having nothing to do with landmines, in any type of area, whether it be densely populated cities or rural fields. He argues for more reasonable standards that are balanced against effective technologies available to deminers and the prioritization of needs of a particular country. "The current 99.6-percent standard is an arbitrary one," notes Col. Machabee. He calls for a standard requiring 100 percent clearance of explosives versus 99.6 percent of all metal cleared. "We further need to consider an acceptance level of clearance based on land usage and detailed clearance of high-use areas (roads, paths, school yards) versus farmland and low use rural areas," he adds. The high-usage area standard would require all available technology, including the use of dogs, to verify every inch of soil as being free from explosives, while the low-usage area standard would only use battle area analysis and area clearance methods, such as dogs.

Whatever the standard, however, clearance is only good at the moment when it is registered and accepted by the government. No one can certify an area as being "cleared" after that point in time, notes Col. Machabee. Mines can be re-laid overnight; mines can migrate in heavy rains; mines can sprout through the surface of the ground after decades of being buried. As an example, "French and German farmers are still finding World War I and II explosives with their plows," says Col. Machabee. "We all have to recognize that battlefield pollution is very similar to industrial pollution and as a result it carries with it associated risks that the affected population must learn to live with."

Additionally, says Col. Machabee, the international demining community needs to recognize the advantage of employing a mix of demining techniques, such as spectral analysis, ground-penetrating radar, dogs, flails, tillers, and people to achieve greater efficiency and speed. Different types of terrain and desired levels of clearance call for different mixes of demining technologies and techniques. For example, while some demining techniques work well in achieving a high-level of clearance around wells, voting areas, and playgrounds as well as along paths and roads, other technologies and techniques would be more effective in demining farmlands and parking lots. However, demining efforts must be tied to countries committed to work with demining assistance organizations and to maintaining demining efforts with their own indigenous program, notes Col. Machabee. "Governments have to accept responsibility for clearing mined areas and for keeping cleared areas cleared."

Although Col. Machabee urges the Department of State to research, write, and publish an update of *Hidden Killers*, he doubts that this is in the offing because of that department's limited resources. He hopes, however, that the Humanitarian Demining Information Center (HDIC) at James Madison University might consider shouldering that responsibility in the future as part of HDIC's expanding role as a clearinghouse of humanitarian demining information.

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