Myths, Mines and Ground Clearance

Building on an article published in issue 2.3 of this Journal, the author discusses some of the prevailing myths that beset the humanitarian demining (HD) industry and which he believes restrict its progress. Intended as a discussion prompt, some of the points he makes may be contentious.

by Andy Smith, *AVS Mine Action Consultants*

In 1998, I wrote an article for this journal about common myths in mine clearance. Since that time, I have received many messages supporting what I wrote, and none taking the opposing view. The last of these messages was received just a couple of months ago— showing that the online back issues of this journal are still being used. It may be useful for you to read over that article before arguing strongly against anything in this article (see http://maic.jmu.edu/journal/2.3/features/myths.htm).

Looking over the original article, I would change a few lines and alter the stress here and there, but I believe that the list remains a relevant record of unhelpful myths.

A few have been partly addressed, then forgotten. For example, the development of the new International Mine Action Standards (IMAS) was based on an acceptance that it was not up to the West to dictate details of operation to National Authorities. This was largely responsible for the relative success of those standards, but may be being forgotten as more standards are added and the original User Focus Group is marginalised.

A few have become more complicated. For example, the use of modern munitions that act as mines but are not *designed* as mines complicates the question of whether mine use is really in decline in some areas.

"A self-replicating robot" in Bosnia Herzegovina.

One or two have become entrenched. For example, the idea that a Western-trained explosive ordnance disposal (EOD) man is somehow needed or is naturally superior to a locally experienced deminer is now "presumed." In fact, more trained EOD men serving with Western military groups have died in demining over the past three years than local deminers with a few weeks' training. In many cases, the highly trained victims were so arrogant that they took risks that the locals did not dream of doing. Their military training was not very appropriate.

What follows is a summary of the lies, myths and misconceptions addressed in my last article, with some new additions appended.

"If we can send men to the moon, we must be able to do better than a man with a prod!"

Critics often present the "man with a prod" as an unsophisticated caveman technology. In fact, it is more sophisticated than any artificial device yet available. No matter how many millions of dollars are thrown at robotics, it will be a very long time before machines equal the sophisticated array of data gathering and processing equipment that is a human being. When that is finally achieved, it will be even longer before that technology can be built into a low-cost, autonomous, self-repairing and self-replicating robot the size of a deminer.

"Mines are the greatest killers in post-conflict regions."

In some areas, this is true. In many areas, it is the other detritus of war that claims the most lives. The truth is that, after a conflict is over and internally displaced persons (IDPs) have returned to the home areas, the armaments left over after conflict are often the greatest killers of civilians. Since I wrote last, the term "explosive remnants of war (ERW)" has been coined to describe all these items, unused or unexploded, which often litter battle areas. Sadly, many of the civilian accidents occur as a result of deliberate interaction with the munitions—out of curiosity, bravado or (most commonly) a desire to earn a few pennies by recycling the materials in them.

"More mines are being laid than cleared today."

While still quoted by the general public, I hear this argument less often than in former years—which is ironic because there is more truth in it now than there was five years ago. In conflict areas (Chechnya and Iraq, for example), more mines have been placed than cleared in the last year. But in those post-conflict areas that have a mature mine action programme (Afghanistan, Angola, Cambodia, Croatia, Kosovo, Kurdish Iraq, Bosnia-Herzegovina, Mozambique, etc.), the claim is simply untrue. Sustained demining efforts have cleared vast areas of land without any significant replacement of mines and ordnance. The process has supported the establishment of stability in many ways and has been an essential part of internationally supported efforts to break cycles of violence.

"Mines have no place in modern warfare."

The truth is that as long as conflicts continue, victim-initiated devices (mines) of one kind or another will be used. When the chips are down, fighting "By All Available Means" (BAAM!) is normal. International efforts to alter the BAAM mindset seem to be the only way to change this. Genuine concern over the long-term effects of weapons will only become "fashionable" if led by the world's dominant military forces. At present, Russia, China and the United States have not banned the use of anti-personnel landmines—and all continue to develop other indiscriminate weapons that serve as victim-activated devices. The willingness to use mines in recent conflicts in Afghanistan, Iraq and Chechnya seems to have reversed the successes of the International Campaign to Ban Landmines (ICBL). So, at the start of the new millennium, numbers of anti-personnel landmines are falling. But the use of increasingly indiscriminate weapons is increasing.

"You can meet deminers and find out about demining at conferences."

I define a "humanitarian deminer" as someone whose principal day-to-day activity involves using his/her eyes, dogs, metal detectors, prodders or other means to physically clear areas believed to be mined. These are almost invariably local people. A deminer is not someone you will meet at a conference or someone who is paid a Western salary. Those people may be Demining Managers and Technical Advisers, but they do not actually clear mines themselves. I can think of only a handful of ex-pats who regularly demine among the many hundreds I have met in my travels, and these ex-pats do so out of an obsessive personal commitment, not because they are paid to do so. The ex-pat is far more economically occupied in training and management tasks (often, 20 local deminers can be employed for the same daily salary of one ex-pat, not to mention other costs).

"Demining is a specialist activity that takes a long time to learn."

In almost all countries with an active HD sector, most field deminers are relatively uneducated local men. They may have a military background, but this background will not have involved any in-depth training in mine detection and removal. Some organizations have new deminers working in a live area within 10 days of starting their training. These deminers will then work alongside a more experienced person for further "on-the-job" training. This system works, and from the available accident information, it looks as if the highest risk time among deminers is not their first weeks or even their first year of work. The truth is that while demining is a specialist activity, it does not take long to learn.

Training deminers.

"The rules of HD must be set by Western specialists."

When I wrote on this last time, the United Nations' published rules were widely ignored even in programmes under the control of the UN Mine Action Service (UNMAS). Companies and non-governmental organizations (NGOs) made up their own rules, often in competition with each other, so best practices were not shared. With the development of improved IMAS, this situation has changed for the better. Based on widespread consultation and flexibility, the current IMAS are far more useful than their predecessors. They are being widely adopted by individual groups and National Authorities around the world. Even military demining efforts are increasingly using the IMAS as a starting point, although a few of the oldest demining organisations hold out and insist on doing things as they have always done.

So the rules have changed under the leadership of Western specialists, people who took great pains to achieve widespread practicality. They led the process, and they allowed the real world to dictate the detail. This was a major achievement, and the inclusion of provisions to update the standards regularly was a real breakthrough. But the organisation that achieved this was new and dynamic at that time. Today it seems to be falling into the turgid bureaucracy of its predecessors and spending a great deal of effort justifying its own existence rather than serving the community. A lesson learned has been rapidly forgotten.

The truth is still that Western military training is not an adequate, appropriate or sufficient preparation for organizing HD. It is also true that there is little evidence of value in establishing a remote bureaucracy to "control" the industry unless that bureaucracy genuinely listens to it.

"The equipment issued to our military is the best in the world, so should be used in HD."

■ Casspir adapted to carry a high-tech sensor.

The reasons why military equipment is rarely the "best" for demining are varied, including high cost, inappropriate design for the purpose and unnecessary complexity. Military uses are not the same as those in HD. For example, a metal detector may be used once a year in the military, but will be used for long hours every day in demining. The cost of batteries or ergonomic comfort may not be issues for occasional use, but are in demining. Similarly, the military requirement for speed can compromise the humanitarian requirement for safety—so that an appropriate detector for military use may be one that—"misses" some metal targets.

The truth is that equipment designed for a military purpose is rarely ideal for use in HD.

"Locally made demining equipment is always of a low quality."

This is often a clear assumption behind the attitude of equipment purchasers. It is an attitude fostered by Western suppliers of equipment who prefer everyone to source through them. The demining supply industry is a sophisticated, hard-sell extension of the arms supply business, so no one should expect it to have honesty as one of its major aims. The main advantages of demining groups having their equipment supplied from local sources are low-cost, ready availability and easy maintenance or repair.

The truth is that adequate, locally made tools and equipment exist and are widely used. Sophisticated items such as blast visors, body armour and blast-resistant hand-tools are also made and supplied regionally in Asia and Africa.

"We need to spend millions of dollars and use our best brains and facilities to develop new equipment for demining."

Since 1994, I have still only seen a few areas of major change in the equipment used on the ground. These are in manual deminer tooling, protection, metal detectors and mechanical assistance.

None of the recent changes are the direct result of any new expenditure on Western research and development (R&D), although a few have capitalised on field-led breakthroughs. Reasons for this failure of R&D effort range from confused design criteria (mixing military needs with those of HD) to plain ignorance of the problems in the field. In many cases, the inappropriateness of the design has been made obvious early in its development, but after the funds have been granted, the work must go on.

Commercial equipment developers have struggled to understand field needs far more successfully. Examples include the new generation of ground-compensating metal detectors and the increased use of rebuilt mine-protected vehicles. Many field groups have adapted existing plant equipment to meet their mechanical-assistance needs. Ironically, when they have attracted R&D funding to do this, their output has been far less focussed and cost-effective.

The truth is that demining equipment has been developed in the field at a fraction of the costs being spent on developing unsuitable equipment in R&D programmes. If some of that cost were dedicated to clearing ground, the money could achieve far more in terms of ground cleared.

"A mine cleared is a limb saved."

It is often said that "every mine cleared is a life or limb saved," a statement linked to the notion that "demining is so slow that it makes sense to speed it up by reducing the quality of the clearance."

The truth is that incomplete clearance of an area can lead to local people believing the area is safe—and so starting to use it again. Their risk of injury actually increases because some of the devices were cleared. In this case, a mine cleared can be directly responsible for a limb lost.

It is frequently argued that "area reduction" need not be as thorough as clearance—so it should be acceptable to use methods that are known to be inefficient. Flails and one or other roller systems are favourites—many of which are known to be very inefficient at detonating pressure devices and all of which leave UXO intact. The advocates of these machines conveniently ignore the fact that UXO causes as many civilian injuries as mines in many countries. The local people watch the impressive machine work and believe that the "reduced" area is actually a "safe" area, so the distinction between "area reduction" and "area clearance" is lost on them. They enter an unsafe area with false confidence.

Part of the reason that people make these arguments is a desire to find a use for the machines—developed with millions of dollars of research money but never able to achieve the clearance levels of manual deminers. Another reason is the perceived need to increase the speed of clearance by using new technologies.

The truth is that it is better to mark a dangerous area clearly and leave it until later than to release a dangerous area for use.

"Demining is too slow."

It is frequently stated as an obvious fact that we are just not working fast enough—and that this justifies spending huge amounts of money trying to develop a faster way of clearing the ground than by using manual deminers.

But manual demining is not necessarily slow. It is in some areas—often due to lack of funding but sometimes due to inefficient management. In many areas, it is remarkably thorough and fast, using manual deminers assisted by machines and dogs.

Experience in Europe provides evidence that speed of clearance is not really the issue. More than 20 commercial EOD companies still operate in Germany, and thousands of tons of WWI ordnance are known to still litter old battle areas in Belgium and France. What is necessary is to establish a sustainable local demining capacity—because some clearance is likely to be needed for decades to come, no matter how fast people work today.

The truth is that manual demining is only too slow when the necessary funds and expertise are denied—and that spending clearance money on speculative R&D does not clear any ground at all.

"Never mind capacity building, clear the area and move on."

■ Deminer in Africa using locally made armour, visor and tools.

While it would be convenient if HD really did involve a known number of finite tasks that could be prioritised and finished with mechanical precision, past experience shows that this is just a pipe dream. If it is accepted that problems with ERW will remain for decades as they have in Europe, the need to develop a sustainable national capacity becomes paramount.

This imperative moves HD completely away from the mechanistic in-and-out mindset of a military operation and into the field of "sustainable development." Many people recognise this, but the industry is still dominated by ex-military officers at all levels. The reason for this dominance is not that demining requires any military training or skills—especially not those of senior officers. I believe that the main reason is that HD was seen as a job opportunity for the many ex-officers who came into the job market after the end of the Cold War. They saw themselves as being "the right people at the right time." They may have been partly right, but a jobs-for-the-boys approach has ensured that they appoint each other in a cycle of well meaning but relative incompetence that has been impossible to break to date.

There are a few notable exceptions—ex-military people who have set out to learn about the countries and cultures they find themselves in, and about HD as opposed to military minefield breaching. But the majority of those in high positions in this industry have no relevant training or preparation for a role that requires the intelligent promotion of "sustainable development." Even the exceptions tend to have short-term appointments that do not allow sensible long-term planning.

To be fair to them, it is not always obvious who should replace them. The "development" profession has had rather too many "failures" to inspire great confidence. So those with experience in development programmes are not necessarily any better qualified, and even when they are, they frequently believe that you need soldiers to deal with explosives.

The truth is that a new profession of HD is emerging—with people "trained" by on-the-job experience. Some of these are ex-soldiers and some ex-development workers. If the industry is to progress, the leaders of the old school must move aside to let those who do have the relevant experience to promote "sustainable demining" takeover. Many of these are ex-soldiers—but demining management should not be allowed to be a sinecure (or a retirement home) for old officers. ■

**Your comments and arguments would be appreciated (see contact information below).*

**All graphics courtesy of the author.*

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