

Demining research and development



The Canadian Centre for Mine Action Technologies

Since World War II, most research into demining technology has been aimed at expanding the speed and effectiveness of military mine clearance. Military forces aim to clear safe passage for the transport of troops and heavy military equipment through minefields. However military demining technology has not always been effective in humanitarian demining because the latter requires clearance of much larger areas and clearance rates approaching 100%.

To expand research and development of humanitarian demining technology, in 1998 Canada created the Canadian Centre for Mine Action Technologies (CCMAT), now located at the Defence Research Establishment Suffield (DRES) in Alberta. This initiative pairs the military expertise and facilities of the Department of National Defence (DND) with Industry Canada's (IC) ability to engage Canadian industry's entrepreneurship and innovation.

The Centre's proximity to DRES provides access to sophisticated test-and-evaluation facilities on the Experimental Proving Ground at Suffield and capitalizes on the research establishment's internationally recognized program in military countermine research and development.

Industry Canada has the lead in commercializing and marketing existing Canadian technologies. Through the involvement of IC's Technology Partnerships Canada Program, companies with promising new technologies for humanitarian demining may obtain assistance to bring their products to market.

CCMAT's mandate is to help make humanitarian mine clearance technology faster, cheaper and more effective. To implement this mandate, the Centre will focus on the following core activities:

- Conducting research and development (R & D)
- Adapting military equipment
- Acquiring and disseminating technical information
- Performing tests and evaluations
- Investigating alternatives to anti-personnel landmine capabilities
- Commercializing appropriate technologies

Total spending for CCMAT start-up and operation in the first year of the Landmine Fund was \$1.1 million with the following work being carried out in the areas outlined above:

Research and development

A scoping study was undertaken this year to provide a blueprint for the Centre's research and development program. The report reviewed the spectrum of applicable technologies and recommended that research focus on finding more effective methods for detecting and neutralizing mines and providing protection for deminers. Projects include:

- acquisition of technology for the study of