

acquired by the CCMAT. The Frangible Surrogate Leg is a precise reproduction of the human leg, composed of materials that react to blast in a manner similar to human tissue. It is being used to evaluate and improve new designs for protective equipment. As a result of this work the CCMAT is participating in the development of international standards for protective equipment.

## International collaboration

The CCMAT has been a key player in international collaboration, in the International Test and Evaluation Program (ITEP) and the Demining Technology Information Forum. The mandate of the ITEP is to

Preparing the new explosive FIXOR for a demonstration in Kosovo.

develop universally accepted standards for test and evaluation, to use these to establish performance criteria for demining equipment and to conduct international testing of equipment. The program's participating countries are currently involved in an exhaustive trial of all available metal detectors. The Demining Technology Information Forum will serve as a vehicle for the exchange and publication of technical information, such as that produced by the ITEP. The Memorandum of Understanding for ITEP was signed in July

2000 and the first product of this international collaboration, a "consumer report" on metal detectors, is now available to the demining community.

## Test and evaluation

As part of the ITEP, CCMAT has carried out in-theatre trials of metal detectors in Cambodia, Bosnia and Herzegovina, Afghanistan and Croatia. These trials supplement and extend the information gained from in-house trials. Equally important, they expose Canadian technology to the demining community and provide feedback from users so that the developer can make product improvements.

## Technical support to Canadian companies

The CCMAT provides technical support to Canadian companies developing products for demining. This support, which includes access to R&D information and field trials, decreases development time and helps with marketing. Examples are the development by Kingston, Ontario's MREL Specialty Explosive Products of a new explosive - FIXOR - to neutralize landmines and unexploded ordnance. Trials of FIXOR at the CCMAT were followed by a successful demonstration of the product to an international group of deminers in Kosovo in October 1999. FIXOR has proven to be a safe, inexpensive alternative to C-4 and TNT explosives for humanitarian demining and clearance of unexploded ordnance. It can be transported worldwide by road and on passenger or cargo aircraft. Through funding provided by DFAIT, the Thailand Mine Action Centre will receive a supply of the new explosive and training for its use.

As a result of substantial protective equipment research in CCMAT and DRES a new foot protection system, called the Spider Boot, and a Humanitarian Demining Ensemble were developed by Med-Eng Systems of Ottawa. Since Canada and the US have a common requirement for a Humanitarian Demining Ensemble, they have worked together to develop a test