

## **EXECUTIVE SUMMARY**

### **North American Technology and Industrial Base Organization (NATIBO)**

On May 30, 2001, the Department of Defense of the USA and the Department of National Defence for Canada entered into an agreement whereby the Defense Departments can more efficiently continue their efforts to improve the defense posture of the North American technology and industrial base. The North American Technology and Industrial Base Organization (NATIBO) Memorandum of Understanding is an umbrella document that covers research, development, technical demonstration and technology insertion activity in the two Defense Departments and “grandfathers” activity performed by NATIBO under the charter. The MOU allows three basic activities: Information Exchange, the creation of Working Groups, and formal Project Arrangements (PAs). The MOU provides a modern legal framework for which funds can be transferred between the participants in support of NATIBO studies and projects.

The objectives of the MOU are to:

- Effectively leverage dollars/resources and reduce redundant efforts through bilateral cooperation on studies and projects relating to the defense technology and industrial base of the USA and Canada,
- Achieve rapid technology insertion and commercialization of emerging technologies that can be used in the manufacture and repair of military weapon systems, and
- Permit a wide variety of work to be accomplished on a single project from paper studies and initial research to technology insertion efforts.

These objectives are met through the identification and analysis of key technologies and industrial sectors critical to defense; the assessment of the viability of these sectors; the identification of issues and barriers related to the sectors’ viability; and the development of strategies to enhance and sustain the health of these sectors and their marketplaces.

The NATIBO spearheaded an effort to address the challenges of advancing and maintaining technological superiority in light of reduced government research and development funding. The criteria used for selecting technologies to study through this program are:

- The technology is an area of high interest,
- The technology has potential for broad military and commercial applications,
- Development and/or production exists in both the US and Canada, and
- There is a good window of opportunity for investment and application in the candidate technology.

## **Military Materiel Support for Civilian First Responders**

In both Canada and the United States, each country's national strategy for homeland defense and homeland security has placed a new emphasis on Civil Support from the military. This new emphasis has been manifested in the creation of new operational commands, USNORTHCOM and Canada COM for each country and extends to the creation of new operational units, such as the USNORTHCOM Joint Task Force for Civil Support and the US National Guard Weapons of Mass Destruction-Civil Support Teams. The missions of these new operational units include the consequence management of natural and man-made disasters in support of and close cooperation with civilian First Responders (FRs). Bilateral strategic and operational planning are also ongoing under the auspices of the Bi-National Planning Group which has placed a definite emphasis on the coordination and cooperation between military first defenders and civilian first responders on each side of and across the CANUS border.

This study was undertaken for the benefit of those civilian FRs, by identifying processes to give them access to the best equipment, technologies, training and exercise resources available to Canadian and US military forces. The study concentrated on the Top 20 needs of US and Canadian FRs, especially on those six needs common to both countries. Attention was given to identifying military units with civil support roles and the pertinent equipment those units use. Study findings concluded with the identification of barriers to and issues concerning the delivery of military equipment in times of emergencies and to the acquisition and use of military equipment in the FR planning and preparation for operations.

Significant barriers to the use of military equipment by FRs were identified including training requirements, security issues, labor regulations, export controls, process limitations, cost requirements, and interoperability shortcomings. In addition, the study found that even if the civilian FRs had unlimited access to pertinent military equipment, there still exist significant technology gaps between FR needs and the current state-of-the-art of equipment in both the military and civilian sectors.

The study concluded with recommendations for follow-on studies by a NATIBO Working Group dedicated to overcoming many of the barriers and issues identified in the study. Candidate study areas are detailed in the report and include:

- Overcoming some of the barriers/issues associated with delivering military equipment to FRs on an emergency basis, either just before or just after a man-made or natural disaster, with a special emphasis on cross border delivery,
- The adaptation (by the Government of Canada) of the US programs designed to transfer US military equipment and materiel to US FRs, and
- The linking of processes owned by the defense establishments of both countries in their similar mission of Civil Support. This study area would include the feasibility of pre-positioning military equipment for FRs in locations conducive to timely responses to disasters that transcend national borders.

Additional topics recommended for further study include creating joint depots and adopting common delivery practices, such as containerization techniques.