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Meeting of Experts  
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### **Canadian Federal Response to a BW Incident<sup>1</sup>**

Submitted by Canada

1. Of all the scenarios for which emergency planners must prepare, a deliberate biological attack against a state's citizens, within the bounds of the country or abroad, is one of the worst. No matter how meticulous the biosafety and biosecurity measures in place, no matter how strict the legislation or how secure the border, prevention is never 100% effective. To confront the worst-case scenario of a successful attack, adequate measures must be in place to deal with the occurrence, to investigate the nature of the incident, and if possible to discover those responsible. Canada has developed a comprehensive system that can be put in motion should the need arise. This paper will describe several elements of this system, looking briefly at the role of health workers and other civilian first responders, military support measures and some of the investigative tools that Canada can bring to bear in an emergency.

#### **Public Health Response**

2. While specific aspects of this system have been examined in other Canadian working papers, such as those describing the CRTI Lab Clusters and Canadian Public Health Laboratory Network, the basic principles are worth reiterating here. The initial response would be the same in the event of either a natural or a suspected deliberate occurrence. In the event of a domestic outbreak, local health officials are the first line both of response and of investigation into causes. If, upon further investigation, suspicions are raised that the outbreak may have been deliberately started, local law enforcement are called in and the Royal Canadian Mounted Police (RCMP) would likely be notified. Should a deliberate occurrence be announced by the perpetrators, law enforcement (local and/or

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<sup>1</sup> Prepared by Health Canada/National Defence Canada/Public Safety and Emergency Preparedness Canada.

RCMP) would be involved from the very outset. Should there be a requirement for transport of samples to national reference laboratories, emergency response equipment, personnel, or medical countermeasures, transportation would be coordinated under the National Emergency Transportation Service of Public Safety and Emergency Preparedness Canada (*PSEPC*).

3. Internationally, Health Canada's International Health Bureau (*IHB*) manages a public service health program for employees of the Federal Government and their families who are on international postings. *IHB* also develops comprehensive emergency medical response plans for special high security meetings of Heads of State or Government. Health Canada does not manage the health program of the Department of National Defence. If an international outbreak affecting Canadian targets was suspected, *IHB* would be directly involved in medical management, support and consequence management relating to victims. *IHB* would be in contact with local health officials and law enforcement agencies concerning the cause of the outbreak. Should *IHB*, local law enforcement and/or health officials suspect the deliberate release of an infectious agent, the RCMP would be notified.

#### **National Counter-Terrorism Plan**

4. The National Counter-Terrorism Plan (*NCTP*) has been in place since 1988. It provides for the management of either a threat to Canada or an actual terrorist incident. Depending on the situation, it can be engaged in whole or in part (as occurred for example in the immediate aftermath of the 9/11 incident). The *NCTP* establishes procedures for interaction between federal departments and agencies in order to respond to a crisis, and is updated on a regular basis. It delineates the roles of the various Ministers concerned, such as the Minister of Foreign Affairs with respect to liaison with other governments and the Minister of National Defence with respect to use of military resources. The *NCTP* also sets out the legal framework upon which the plan is based, and provides links to other federal and provincial plans.

5. The principle of the *NCTP* is to provide a framework within which the federal government can respond to any type of terrorist situation. It outlines the flexible coordination of all pertinent federal resources and decision-making processes. The *NCTP* gives the RCMP the lead role in investigation and crisis management of a terrorist incident. This is however generally interpreted by the RCMP as mandating a shared lead with first responders. The *NCTP* brings into play all of the federal resources that can be accessed in an emergency, including environmental, agricultural, transportation and detection mechanisms. It also provides for the coordination of public communication and for detailed threat assessment.

#### **National Defence**

6. The 9/11 attacks focused international attention on the lengths to which international terrorist organizations like *al Qaeda* are prepared to go. The subsequent anthrax attacks against government and media targets in the United States demonstrated the ease with which sophisticated biological warfare agents can be developed and deployed. As a result of these events, the Government of

Canada undertook a number of public safety and anti-terrorism measures. These included improvements to the Department of National Defence and the Canadian Forces (DND/CF) ability to respond to CBRN terrorism events.

7. At the time of the 9/11 attacks, DND/CF capacity to respond to a domestic incident involving chemical, biological, radiological or nuclear (CBRN) materials was limited to a Nuclear-Chemical-Biological (NBC) Response Team on eight hours' notice to move, generated by the staff of the CF NBC School at the Canadian Forces Base (CFB) at Borden in Ontario. Any deployment of this team for training or operational purposes would have necessitated closing the School, and the team itself suffered from the fact that it was not specifically staffed, equipped, trained or tasked to serve as an immediate response unit. In the wake of 9/11, the Government of Canada directed DND/CF to create a dedicated capability with enhanced readiness that would be capable of responding to more than one domestic or international CBRN incident. In late autumn 2001, the Defence Management Committee directed that a "Joint NBC Defence Company" be developed. Federal funding to support development of this capability was approved in December 2001.

8. The Joint NBC Defence (JNBCD) Company is being developed as a phased project. In December 2002, with about 40 personnel, it achieved initial operational capability, enabling it to respond to a single domestic incident and maintain 12 hours of continuous operations. It is expected to have achieved final operational capability by January 2005 at a strength of about 100 personnel, and to be able to respond to two simultaneous CBRN incidents, maintaining 24-hour continuous operations, seven days per week.

9. The primary mission of the JNBCD Company is to provide a dedicated military capability to respond to CBRN terrorist activities, in support of the RCMP and as part of the National CBRN Response Team, in support of first responders or civil authorities responding to an incident. It is important to underline that the Company is the CF component of the federal response to an incident but that the CF is *not* a first responder, rather operating in support of the first responder community by providing capabilities that it lacks. In essence, the Company provides two elements to the Incident Response Commander: a detection and identification element (capable of reconnaissance, survey, monitoring and sample collection); and a rescue element (capable of casualty extraction, decontamination and medical treatment). The Company is also tasked to provide these capabilities in support of CF units deployed on operations abroad.

10. The response capability has three elements: an immediate reinforcing component (IRC), a reinforcing response component (RRC) and a sustaining response component (SRC). The IRC is the first component to deploy into the affected area, provides advice to the Incident Commander, determines whether CBRN contamination has occurred, predicts potential downwind hazards, defines actual downwind hazards and acts as a reconnaissance element enabling the JNBCD Company to refine its response to the incident. The IRC is equipped with decontamination and medical countermeasure capabilities only for its own use and protection.

11. The RRC coordinates response to the incident. It is trained and equipped to detect and identify chemical and biological warfare agents, toxic industrial chemicals and sources of ionizing radiation, and to collect CBRN samples for analysis or forensic evidence. It includes explosive

ordnance disposal and casualty extraction capabilities, and may be augmented over time by scientific personnel from the Chemical and Biological Defence Section at Canada's Defence R&D facility at Suffield, Alberta who are equipped with more sophisticated, and in some cases experimental, biological detection and assessment equipment.

12. Finally, the SRC represents the augmentation of the JNBCD Company by other military personnel to enable it to operate on a 24-hour basis, 7 days per week. In this context, it should be noted that first responders will not necessarily operate on a 24/7 basis and that immediate response to a CBRN incident will not necessarily be a long-term affair. Only the clean-up and restoration activities following an incident are liable to be conducted over the long term.

13. The Company's decontamination capabilities are limited to supporting its own operational requirements for personnel and equipment and a limited decontamination capability for first responders. It does not provide a mass casualty decontamination capability to local responders and is not able to provide medical countermeasures to persons outside of the Company due to Health Canada regulations.

14. In terms of readiness and response time, the IRC is on four hours' notice to move; the RRC, eight. The SRC is currently on 24 hours' notice to move, although in the future this will be shortened to twelve. The readiness level of the JNBCD Company is limited by virtue of the fact that it is a single entity permanently stationed at CFB Trenton in Ontario. Trenton was selected as it is the strategic airhead for the Canadian Forces and is centrally located in a triangle linking Ottawa, the national capital, with Montreal and Toronto, Canada's two largest population centres. Using road travel only, the IRC can respond to an incident within 6 hours for Toronto, 7.5 hours for Ottawa, and 9 hours for Montreal. Response times for the RRC are, respectively, 10 hours for Toronto, 11.5 hours for Ottawa and 13 hours for Montreal. Response time for an incident at Halifax could range from 9-12 hours for the IRC and 13-16 hours for the RRC, depending upon whether military or civilian airlift was used. For Vancouver, the response times range from 12-13 hours for the IRC to 16-17 hours for the RRC. The Company does not have dedicated cargo/transport aircraft for the CBRN response.

15. Command and control are vital elements of any operation. In the event of a domestic bioterror incident, requests for DND/CF support will follow an established chain of command. PSEPC is the national authority for incident response. PSEPC liaises with provincial authorities, who liaise with municipal authorities, who in turn would be the primary point of contact for the Incident Commander. DND/CF would maintain close liaison with authorities at all levels: Land Force Area Headquarters (in Halifax, Quebec, Toronto and Edmonton) would coordinate with municipal and provincial authorities; the JNBCD Company would tie its operations into the local RCMP headquarters; the RCMP National Operations Center would link to the National Defence Command Centre; and the Chief of the Defence Staff would communicate directly with the Commissioner of the RCMP. Within DND, the Chief of the Defence Staff is responsible for ordering the deployment of the JNBCD Company, but only the Minister of National Defence may authorize its employment in response to a CBRN incident.

16. Upon receiving notification of a bioterror incident anywhere in Canada (a “no-notice incident”), the National Defence Command Center would issue a tasking under the signature of the Deputy Chief of the Defence Staff (the officer responsible for all CF operations) directly to the JNBCD Company, with the CF Joint Operations Group Headquarters (CF JOG HQ) as an information addressee. CF JOG HQ would thereafter handle all follow-on tasks and issues. This chain of command would continue in place until the involvement of the JNBCD Company in the operation ended and the Company redeployed to Trenton.

17. The Company is supported by other DND resources with respect to knowledge, expertise and laboratory analysis. For biological events, the Defence Research and Development Canada (DRDC) laboratories in Suffield, Alberta provide the immediate support. DRDC Suffield operates a world-class defensive research program on biological warfare agents and other pathogens. The facilities include a forensic biological reference laboratory, a bio-aerosol facility to examine the characteristics of aerosolized pathogens and evaluate experimental bio-detection and bio-assay equipment, and a Level 3 biocontainment facility for viral and bacterial studies. Experimental bio-detection equipment was deployed with CF units during the 1990-91 Persian Gulf War and aboard CF warships in the Persian Gulf. Defence scientists have also been deployed to conduct biological assays using cutting-edge, experimental equipment developed at Suffield, most recently in response to the anthrax letters incident in the United States, and to assist Toronto-area hospitals following the 2003 SARS outbreak. These experts would be in high demand in the event of a domestic bioterror attack in Canada.

18. Training for a CBRN incident is also important. In response to the 9/11 attacks, DND established the Counter-Terrorism Technology Center (CTTC) at Suffield. The CTTC focuses on providing realistic, scenario-based training to Canadian and foreign military personnel and first responders, designed to teach them to cope with a terrorist CBRN incident. Personnel are trained in the detection, identification, handling and analysis of live chemical warfare agents, ionizing radiation sources and biological simulants. Scenarios include vehicle and aircraft decontamination sites, a mock subway station, a mock-up of a cave complex, a rubble pile and a terrorist laboratory. Hundreds of Canadian and foreign students pass through the CTTC every year, and demand for the training offered at this facility continues to increase. Co-location of the CTTC at DRDC Suffield ensures that some of the most knowledgeable scientific and technical experts in the world are on hand to teach students and assist with training.

19. The JNBCD Company would be DND/CF's primary response unit in the event of a bioterrorism attack. However, the response to any incident that resulted in mass casualties or civil disorder, or that required a significant remediation operation, could be augmented by the CF through a request for military assistance by municipal or provincial authorities under the National Defence Act. Military personnel would operate in an Aid of the Civil Power / Assistance to Civil Authority role. All CF personnel receive basic NBC defensive training enabling them to operate in a contaminated environment (although not all units are routinely issued NBC defensive equipment) and formed CF units could assist in controlling access to stricken areas, crowd control, peace officer duties, casualty extraction and handling, provision of logistic support (including engineering capabilities, limited power restoration and the production of potable water) and limited medical support. Such assistance would normally only be provided if required as part of a large-scale federal

response to an incident of catastrophic proportions; normally, municipal-level first responders would be able to generate and concentrate the necessary incident response more rapidly than the CF, due to the heavy operational commitments and geographic isolation of large CF units.

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