

Canadian NATO
Parliamentary Association



Association parlementaire
canadienne de l'OTAN

**Report of the Canadian Parliamentary Delegation
to the Visit of the Science and Technology Committee
Canadian NATO Parliamentary Association (NATO PA)
Ottawa & Montreal, Canada
July 7-10, 2008**

Report

On July 7-10, 2008, the NATO PA Science and Technology Committee's Sub-Committee on Energy and Environmental Security visited Ottawa and Montreal. The delegation was composed of fifteen members of parliament from various countries and the visit was hosted by the Committee's Rapporteur, Canadian Senator Pierre Claude Nolin. The delegation examined such issues as nuclear disarmament and non-proliferation, energy security and the Arctic.

Non-Proliferation and Disarmament

Mr. Craig Weichel, Deputy Director, Non-Proliferation and Disarmament (Nuclear) Division, addressed the issue of nuclear non-proliferation. He described Canada's goals in the field of nuclear non-proliferation and disarmament as follows:

- ensuring the success of the 2010 NPT Review Conference;
- strengthening international safeguard system;
- reducing stockpiles of nuclear weapons and material using multilateral instruments;
- promoting entry into force of the CTBT and the Fissile Material Cut-off Treaty (FMCT);
- encouraging the United States and Russia to further reduce their nuclear arsenal; specifically by ensuring that START is replaced by a new agreement when it expires in 2009;
- developing new international nuclear material supply arrangements that would reduce associated proliferation risks.

Senator Nolin noted that NATO PA and Canada were instrumental in launching an initiative that eventually developed into the Ottawa treaty banning anti-personnel landmines. He suggested applying the same model to strengthen the global nuclear non-proliferation regime.

Mr. Bob Derouin, Director General, Stabilization and Reconstruction Task Force (START) Secretariat, discussed Canada's contribution to international efforts to ban cluster munitions. Canada considers the ban to be an important humanitarian issue as approximately 90% of victims of cluster munitions are civilians. Initially, the international community attempted to tackle this problem within the framework of the United Nations, launching the negotiations on the UN Convention on Certain Conventional Weapons (CCW). Unfortunately, the negotiations failed to achieve its goals. Frustrated by the lack of progress, some nations - most notably the Norwegians - launched a new initiative, known as the Oslo Process designed to draft a cluster munitions ban treaty outside of the UN framework. As a result of this endeavour, representatives of 111 nations gathered in Dublin in May 2008 and signed an agreement that defines cluster munitions,

bans their use and sets the deadlines to eliminate existing arsenals. Canada is among the most active participants of the Oslo Process.

The Assembly delegation had an opportunity to discuss the issues of nuclear non-proliferation and disarmament with one of the most prominent experts in the field, Dr. Trevor Findlay, Director of the Canadian Centre for Treaty Compliance. With his team of experts, Dr. Findlay is working on a comprehensive study on the impact of the “nuclear revival” on nuclear proliferation, safety and security (to be released by September 2009).

National Defence

Brigadier-General Gerry Champagne, Director General Operations (J3) of the Canadian Armed Forces, provided an overview of the transformation processes of the Canadian army. The intent of the transformation is to establish an operational command structure optimised for the Command and Control of Canadian Forces elements engaged in high-risk, complex and time-compressed missions at home and abroad. The new structure will be mission-centric and focused on rapid decision-making.

According to Brig. Gen. Champagne, Canada itself is “blessed with security”, but its expeditionary forces contribute to 16 different missions. By far the most important one is Canada’s involvement in Afghanistan. Approximately 2,500 troops are deployed there (mostly in the difficult region of Kandahar), and their mandate has been recently extended to 2011. Whereas the original task of the Canadian forces in Afghanistan was providing security, the focus has now shifted towards capacity building, including enabling the Afghan National Security Forces in Kandahar to sustain a more secure environment and promote law and order; promoting economic growth; providing humanitarian assistance for extremely vulnerable people; enhancing border security; and facilitating Afghan-led efforts toward political reconciliation.

Dr. Walker, Assistant Deputy Minister of National Defence and Chief Executive Officer of Defence Research and Development Canada (DRDC), discussed the progress achieved by the science and technology (S&T) branch of the Canadian army. He described several examples of cutting-edge military technology that his agency is developing. The most innovative technologies expected to influence Canadian Forces over the next 10 years include: autonomous intelligent systems and platforms, wide-band mobile wireless networking, micro-satellites, hyper-spectral sensing and broad spectrum gene-based therapies. DRDC is also taking into account environmental concerns by seeking to cut the emissions of greenhouse gases by the Canadian armed forces. Dr. Walker also emphasized the broader societal benefits of Canada’s defence R&D, stressing that his agency seeks to contribute to the nation’s innovation capacity in general.

The NATO PA delegation also met with Ms. Anne Burgess, Deputy Director, Euro-Atlantic Security, Defence and Security Relations Division, Department of Foreign Affairs and International Trade, who discussed Canada’s views on missile defence proposals.

Energy Security

The potential of Canada as one of the world's leading energy powers was discussed during the meeting with Ms. Carmen Dybwad, President of the Energy Council of Canada. The most recent production figures demonstrate the remarkable diversity and quantity of Canada's energy endowment. NATO parliamentarians were impressed by the information on Canada's energy potential. Its vast reserves of oil sands make Canada the oil superpower second only to Saudi Arabia. Canada already accounts for a bigger share of the US oil imports than the Gulf countries.

Ms. Dybwad also discussed in more detail the promise and challenges associated with Canada's unconventional oil and gas sector. These challenges can be categorised as: environmental, social, input costs, land access and infrastructure constraints. The production of bitumen (petroleum that exists in a semi-solid or solid phase in deposits such as oil sands) results in environmental impacts that must be mitigated. These impacts include surface disturbances, disposition of waste products, significant water consumption, and the release of greenhouse gases. Much of the advancements in mitigation effectiveness are due to technological advancements, particularly in water management techniques. Another significant challenge is the fact that oil sand projects are capital- and labour-intensive. The competition for these scarce resources is fierce and presents an ongoing challenge to the industry in terms of how to best manage the development.

In terms of liquid fuels, there is no national strategy aside from that for biofuels. In Canada, all gasoline sold by 2010 is to have a 5% ethanol content. However, it is an open question whether there are any greenhouse gas savings to be had in going this route and whether biofuels will have negative effects on the food supply. What may be the winning strategy in Canada is the development of cellulose ethanol rather than conventional or grain-based ethanol.

One of the most uniquely Canadian challenges to the development of a national energy strategy is in the division of federal and provincial powers and areas of responsibility. Mainly because of that complexity, there is no national strategy guiding the incorporation of renewable energy into various power grids – such policies are developed at the provincial level and are more prone to public reactions and pressure than as part of an overall scheme.

Arctic Issues and Climate

The Assembly delegation was also briefed by the representatives of the Canadian Polar Commission on the problems of the Arctic region. Mr. Tom Hutchinson, Chairperson of the Commission, said the Commission is a purely scientific body and is not involved in politics. It regularly produces scientific reports on the issues related to both poles. Over the last several years, interest in the Arctic has boomed. The Commission is actively engaged in the scientific activities within the framework of the International Polar Year (2007-08). Other important programmes that the Commission is engaged in include:

- Northern Contaminants Program, designed to address various contaminants in the North, including persistent organic pollutants and heavy metals. Most of the contaminants are not used in the North but still end-up in the Arctic via air and water currents. These then accumulate in the food chain, causing serious health problems for humans and fauna living in the North.

- The scientific mission of the Canadian icebreaker Amundsen allows Canada to assume due leadership in the international study of its own Arctic regions and to become a major player in the building international effort to study the changing Arctic Ocean.
- ArcticNet, a network of centres of excellence of Canada that brings together scientists and managers in the natural, human health and social sciences with their partners in Inuit organizations, northern communities, federal and provincial agencies and the private sector to study the impacts of climate change in the coastal Canadian Arctic.
- A study on the rational distribution of scientific field stations to reinvigorate the existing network as well as to introduce new stations across the Canadian North.

Mr. Ron Macnab, Member of the Commission, briefed NATO parliamentarians on the most outstanding Arctic issues that could have an impact on international relations. In the context of the increasing interest in the Arctic oil and gas potential, major problems lie in the vague language of the United Nations Convention on the Law of the Sea (UNCLOS) which governs sovereign rights of coastal nations over the ocean space.

The question of the sovereign rights over the Northwest Passage is equally ambiguous. Under the international law, Canada's sovereign rights over the passage are quite firm as long as the area is covered by ice. Once it melts, it will be difficult for Canada to prevent the internationalisation of the Passage. The speaker also emphasised the economic importance of the Passage as the Panama Canal cannot accommodate larger vessels. He also stressed that due to the remoteness of the region, environmental as well as search and rescue issues are causing serious concerns. Further retreat of ice in the Arctic Ocean could lead to an opening of a trans-Polar route, which would divert some pressure from the Northwest Passage.

CANADIAN METEOROLOGICAL CENTRE

The programme in Montreal started with the visit to the Canadian Meteorological Centre (CMC). According to Ms. Angèle Simard, Director General of the Meteorological and Environmental Operations, Environment Canada, the Centre is a unique institution in Canada and is one of the very few of its kind in the world. It receives data from around the world and provides forecast guidance to national and regional prediction centres. The Centre provides services to the ministries of national defence, fisheries and oceans, health and other governmental institutions. CMC is identified by the Canadian government as a critical infrastructure.

Nanotechnology

The Sub-Committee delegation visited the headquarters of the Reymor Industries, one of Canada's leading nanotechnology companies. In his presentation, Mr. Stéphane Robert, President, CEO Raymor Industries, said that his company is famous for its single-walled carbon nanotubes (C-SWNT), nanomaterials and other advanced materials for high value-added applications. Mr. Robert asserted that nanotechnology presents a fundamental revolution which will dramatically change our economy and

many other aspects of life. NATO parliamentarians were able to see a variety of products of the company.

Aerospace Industry

Canadian aerospace companies are among the world leaders. The Sub-Committee delegation had an opportunity to visit the David Florida Laboratory (world-class centre testing spacecraft's thermal, structural and radio frequency resilience); Pratt & Whitney (aircraft engine manufacturer which focuses on "greener" and noise reduction technologies) and Bombardier.

Respectfully submitted,

Mr. Leon Benoit, M.P.
Chair
Canadian NATO Parliamentary Association (NATO PA)

Travel Costs

ASSOCIATION	Canadian NATO Parliamentary Association (NATO PA)
ACTIVITY	Visit of the Science and Technology Committee
DESTINATION	Ottawa & Montreal, Canada
DATES	July 7-10, 2008
DELEGATION	
SENATE	Senator Pierre Claude Nolin
HOUSE OF COMMONS	
STAFF	Ms. Julie Lalande Prud'homme, Ms. Manon Champagne, Ms. Fiona Bladon, Mr. Wolfgang Koerner, Mr. Hubert Pichet and Mrs. Micheline Georges
TRANSPORTATION	\$5,788.98
ACCOMMODATION	\$6,568.42
HOSPITALITY	\$8,255.13
PER DIEMS	\$1,093.15
OFFICIAL GIFTS	\$707.94
MISCELLANEOUS / REGISTRATION FEES	\$1,211.50
TOTAL	\$23,625.12