

THE ARCTIC AND  
NORTHERN DIMENSIONS  
OF WORLD ISSUES



**Ed Struzik**

2010 Canada-UK Colloquium  
Rapporteur's Report

# The Arctic and Northern Dimensions of World Issues

## Rapporteur's Report

*Ed Struzik*

*Canada-UK Colloquium, 5–6 November 2010  
Iqaluit, Nunavut*

School of Policy Studies, Queen's University  
British Committee, Canada-UK Colloquia



# The Canada-UK Colloquia

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The Canada-UK Colloquia are annual events that aim to increase knowledge and to educate the public about the advantages of a close and dynamic relationship between Canada and the United Kingdom. These conferences bring together British and Canadian parliamentarians, public officials, academics, private sector representatives, graduate students, and others. The organizers focus on issues of immediate relevance to both countries. One of the main endeavours of the colloquia is to address these issues of mutual concern through engaging British and Canadian experts in dialogue.

The colloquia are supported by the Department of Foreign Affairs and International Trade in Canada and by the Foreign and Commonwealth Office in the United Kingdom. The conferences are organized by the School of Policy Studies at Queen's University, on the Canadian side, as well as by the Canada-UK Colloquia Committee on the British side, from which an executive board, the Council of Management, is elected annually.

The first colloquium was held at Cumberland Lodge in Windsor Great Park in 1971 to examine the bilateral relationship. A British steering committee, later to become the Canada-UK Colloquia Committee, was launched in 1986. The Queen's School of Policy Studies assumed responsibility for the Canadian side in 1996, succeeding the Institute for Research on Public Policy. Previous reports can be found at [www.canada-uk.net](http://www.canada-uk.net).



## About the Author

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Ed Struzik is an award-winning writer/photographer whose work has appeared in various journals, magazines, and newspapers such as *Canadian Geographic*, *Equinox*, *Yale 360 Environment*, *Foreign Policy Review*, *Geo*, *Report on Business*, and newspapers like the *Toronto Star*, *Edmonton Journal*, and *Globe and Mail*. He is author of the book *Northwest Passage*, published by Key Porter Books and the Canadian Geographic Society, *Ten Rivers*, published by CanWest Books, and *The Big Thaw*, published in April 2009 by John Wiley and Sons.

Ed is the recipient of more than 35 national and international awards and fellowships. In addition to the \$100,000 Atkinson Fellowship in Public Policy, he was the recipient of the Knight Science Fellowship at Harvard and MIT, the Southam Fellowship at the University of Toronto and, most recently, the \$35,000 Michener-Deacon Fellowship, which is handed out each year by Canada's Governor General. A nine-time winner of the Canadian Science Writers' Association Science in Society journalism award and a finalist for the \$75,000 Grantham Prize, he is also the recipient of the Sir Sandford Fleming Medal, which goes to one Canadian each year who has made an outstanding contribution to the understanding of science in Canada.

Since 2009, he has also been a fellow at the School of Policy Studies, Institute for Energy and Environmental Policy, Queen's University.



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# Preface

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This Rapporteur's Report summarizes the November 2010 Canada-United Kingdom Colloquium on "The Arctic and Northern Dimensions of World Issues" held in Iqaluit, Nunavut, a fascinating and highly appropriate location for our discussions.

We would like to express our admiration and thanks to the author of this report, Ed Struzik, for marshalling the complex and wide-ranging issues that were discussed, and for reporting them in such an erudite and readable style. His task was made easier by the thoughtful presentations made by our speakers at the Colloquium, to whom we are enormously grateful for stimulating such interesting debates among a distinguished group of participants. It is also a pleasure to record our appreciation to Tony Penikett for his incisive chairing of the proceedings.

The remarkable success of this year's Colloquium is due to a small group of people. The special advisers to the Colloquium, Peter Harrison in Canada, and Robert Culshaw and Klaus Dodds in the UK, assembled an exceptional group of presenters and participants. We are as always very appreciative of the counsel provided by Andrew Burns as honorary president of the UK committee and Mel Cappe as chair of the Canadian advisory body. That the event proceeded so smoothly at multiple sites in Ottawa and Iqaluit was a tribute to the detailed planning of Chris Cornish. The UK team was ably coordinated, as always, by George Edmonds-Brown.

Special thanks are due to our sponsors in 2010. The ambitious program for this year's event was possible only because of support from TD Bank Financial Group, First Air, the Department of Indian and Northern Affairs, the Department of Natural Resources, the Canadian Northern Economic Development Agency, the Government of Nunavut, and WWF-Canada. We are deeply appreciative of their help. We would not have been able to go to Iqaluit without them. We also thank the Foreign & Commonwealth Office and the Department of Foreign Affairs and International Trade for their continuing support of the Colloquium.

A particular feature this year that effectively turned the Colloquium into a four-day event was the pre-colloquium briefing sessions. We were privileged to learn about the challenges of life in the north from Larry Bagnell, MP (Yukon), Dennis Bevington, MP (Western Arctic), and Senator Daniel Lang (Yukon). Victor Rabinovitch, President and CEO, Canadian Museum of Civilization Corporation and his colleagues David Morrison, Director, Archaeology and History, and Moira McCaffrey, Vice President of Research and Collections, helped us to understand the place of the north in Canadian identity, and how people have lived in the Arctic for millenia. Finally, helpful briefings on Canadian policy were provided by Patrick Borbey, Assistant Deputy Minister, Treaties and Aboriginal Government, Department of Indian and Northern Affairs, and Stephen Lucas, Assistant Deputy Minister, Science and Policy Integration, Department of Natural Resources. All participants especially enjoyed the hospitality of Anthony Cary, the former UK High Commissioner, who hosted a welcome dinner at his residence, Earnscliffe, in Ottawa.

When we arrived in Iqaluit we were warmly welcomed by Bruce Rigby, the Premier's Principal Secretary and Robert Carson, Assistant Deputy Minister of Intergovernmental Affairs. Natan Obed of Nunavut Tunngavik Incorporated helped us understand the social and cultural challenges for Inuit people. Letia Obed of the Government of Nunavut coordinated the welcome program. Officials of the Department of Indian and Northern Affairs provided generous logistical support that ensured the success of our visit.

This year's Colloquium demonstrated the value of collaboration between our two countries on polar issues. We look forward to the fruits of this work in the years ahead.

Philip J. Peacock  
Chair  
British Committee

Robert Wolfe  
School of Policy Studies  
Queen's University



# The Arctic and Northern Dimensions of World Issues

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*Ed Struzik*

## OVERVIEW: WHY THE ARCTIC MATTERS

*One Arctic, many Arctics—the Arctic is a homeland, a resource frontier, northern Mediterranean, strategic zone, wilderness, empty space, global common, testing ground, waste space, mythical place. Defining it is inherently politicizing.*

On November 3, 2010, a delegation of British and Canadian politicians, parliamentarians, public officials, academics, business leaders, graduates, and other opinion formers descended on Iqaluit, the capital of the new territory of Nunavut in northern Canada for the annual Canada-UK Colloquium. Compared to London, England, the venue of last year's meeting, the choice of this remote northern town of 7,000 mostly Inuit people might have seemed an odd venue for discussions on an issue of geopolitical, economic, cultural, and environmental importance. But this year's subject—"The Arctic and Northern Dimensions of World Issues"—lent itself to the setting, as did the weather, which was snowy but unusually warm for this time of year, perhaps indicative of the climatic warming that has been accelerating in this part of the world. For the presenters and participants who attended, Iqaluit and its people, who spoke with passion and urgency about the climate and the many different challenges it brings, served to remind everyone why the Arctic matters so much to the rest of the world.

This, of course, was not always the case. For centuries, the Arctic was frequently dismissed as a no man's land of interest only to missionaries, military strategists, scientists, outdoor adventurers, and the aboriginal people who live there. Granted, oil and gas and mining companies have staked claims at various points of time, as did the whalers who began exploiting the Arctic in the sixteenth century. But whatever interest there has been in this region has often been episodic and largely fruitless, especially for the people who live there. As one participant who once lived in the Yukon Territory noted, northerners have good reason to be cynical about the interest that comes from the south. When southerners open a mine, he noted by way of example, the jobs go to southern Canadians, the profits go to head offices in faraway places like London, the taxes go to Ottawa, and all that northerners are left with is a hole in the ground.

The world's indifference to the Arctic began to change in a significant way in 2001 when the five Arctic Ocean coastal states initiated the long, expensive, and complicated process of defining the vast region around the North Pole/Central Arctic Ocean that currently belongs to no one state, although parts of the region are subject to national claims. As several presenters at this Colloquium noted, this and other recent geopolitical and environmental developments represent a fundamental reconsideration of the relationship that Canada, Russia, the United States, Norway, Denmark, and other closely involved countries such as the United Kingdom have with the Arctic.

Several things account for this interest in a polar world that has, with the exception of whaling and sealing, not readily yielded its treasures in the past. First is the Arctic sea ice that has been melting at a rate that may make it possible for ships to pass safely through the Northern Sea Route, the Transpolar Route, and the more challenging Northwest Passage that connects Eurasia to North America. This is not unimportant because these Arctic routes are, on the face of it, more than 5,000 nautical miles shorter than a journey that passes through the Panama or Suez Canals.<sup>1</sup>

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<sup>1</sup> But most of the attention is focused on the Northern Sea Route (arctic Russia) and the effect this could have on Europe-Asia traffic—and the opening

Second, the world is running out of energy and mineral reserves that can be economically exploited and safely transported to markets. Until recently, most of the energy reserves in the Arctic region have been too expensive, too risky, or too inaccessible to exploit. The rising price of oil is beginning to take care of the high costs, science and new drilling technologies are making Arctic oil and minerals more accessible, and the melting sea ice is now, in the minds of some—not all—taking care of some of the risks.

Unquestionably, the development of the Arctic's vast oil, gas, and mineral resources, and potentially its unexploited fisheries, would be a boon to a world economy increasingly interested in new sources of fossil fuels, metals, and fish. The development and exploitation of these resources could also solve some of the formidable economic and social problems that are impoverishing the Arctic's many indigenous communities. As everyone attending this Colloquium heard, many northern indigenous peoples "truly want to participate in and benefit from Arctic development," even if some of those very resources are implicated in anthropogenic climate change itself.

Yet, as several presenters stated in many different ways (following Chatham House rules, unattributed quotations in this report all come from Colloquium participants), a warmer Arctic also presents formidable challenges that are beyond the ability of just one state to resolve.

Some North American commentators, for example, have suggested that melting sea ice and increasing shipping in the Arctic could open North America's back door to undesirables such as drug and diamond smugglers, illegal aliens, and terrorists. There is also the risk of an environmental disaster similar to that of the *Exxon Valdez*, which ran aground along Alaska's Prince William Sound in 1989, spilling oil in waters rich with halibut, salmon, sea otters, and other forms of marine

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up of the Russian Arctic. The Northern Sea Route has greater potential than the Northwest Passage. There are also savings compared to using the Suez Canal to the Far East. The Northern Sea Route is more likely to become a major Eurasian trans-shipment route because the distance between Murmansk, Russia, and Yokohama, Japan, is just 5,770 nautical miles. The longer route via the Suez Canal, in contrast, is 12,840 nautical miles.

life.<sup>2</sup> The more recent oil well blowout and spill in the Gulf of Mexico served to remind everyone that this could happen in the Arctic where there are no ports to stage a cleanup and where evaporation would not help reduce the environmental damage as it did in the Gulf of Mexico.

Various other impacts on fish and wildlife and the indigenous northerners who inhabit the Arctic could be just as serious. With sea ice melting, glaciers receding, and storms picking up steam in a warming polar world, many coastal communities in Alaska, the Yukon and Northwest Territories of Canada, and northern Russia are becoming increasingly vulnerable to flooding and erosion. At worst, this may result in relocations similar to, albeit less brutal than, those that occurred in the 1950s when indigenous northerners were moved to strengthen sovereignty, military, and security initiatives in the Arctic. At best, it will result in costly engineering challenges required to stabilize roads, runways, pipelines, buildings, and oil and gas platforms when they become structurally compromised by thawing permafrost.

A warmer and shorter ice season also means less time for polar bears to hunt seals and more time for disease and biting flies to take their toll on caribou, muskoxen, and tens of millions of migrating birds that nest in the Arctic, some of which fly to the UK. Beluga whales and narwhal—Arctic whales that feed on Arctic cod along ice edges—could also be threatened. Commercial fishing resources may eventually shift northward and exacerbate remaining maritime boundary disputes.

In spite of what is often said in the media, melting sea ice poses no threat to Canada's ownership of the lands, islands, and water in the Arctic per se. It does, however, raise the prospect of more shipping in the future, which will bring into sharp focus lingering disputes over the international legal status of the Northwest Passage as well as Canada's ability to deal with an oil spill or search and rescue activities. Although there are many good reasons to believe that division of Arctic territory around the North Pole will be resolved amicably under rules set out by the United Nations Convention on the Law of the Sea, there is no legal

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<sup>2</sup>The oil eventually covered 2,100 kilometres of coastline and 28,000 kilometres of ocean. It was the largest ever spill in US waters until the 2010 Deepwater Horizon oil spill in the Gulf of Mexico.

mechanism that compels Arctic states to accept the recommendations issued by the Commission on the Limits of the Continental Shelf.

It would be no exaggeration to suggest that the world is watching these developments unfold with great interest. Apart from the shortcuts that new northern shipping routes may offer, there are many historic, geographical, and economic links that will continue to make the Arctic a region of international interest. Four of the European Union's member states—Denmark (Greenland), Sweden, Iceland, and Finland—have territory there. The European Union also has strategic partnerships with Norway, Russia, Canada, and the United States that cannot be ignored. South Korea is a major Arctic shipbuilder, and China, with a growing number of companies with energy and mining expertise, a scientific polar program and development capital, has an interest in the energy and metals that will eventually be exploited.

The United Kingdom may have more at stake than any other non-Arctic country in what happens in the future. London is the centre of the international banking, maritime shipping, insurance, engineering, and environmental consulting industries. These and other forms of expertise will play an important role in any future developments in the polar world. British energy companies such as BP, Royal Dutch Shell, and Cairn Energy are also drilling in Arctic waters.

The United Kingdom's historical links with the Arctic, as well as with Antarctica, are significant and explain in part a willingness on the part of British observers to think about the Polar Regions comparatively. Several UK participants stressed the relevance of the Antarctic in terms of logistics, engineering, and data. In the five-century search for the Northwest Passage to the Orient, it was British explorers who led most of the expeditions (at the same time they also journeyed south toward the Southern Ocean). Not only did these efforts result in the mapping of a substantial portion of the Canadian Arctic, they left a legacy—both tragic and heroic—that has inspired the writing of Canadian and British novels, poems, and songs and the naming of many Arctic places.

In this sense, there is a strong cultural link between Canada and the United Kingdom that might be used to strengthen economic and scientific cooperation on many different fronts.

Central to many of the discussions at this Colloquium was the role that collaborative science and long-term monitoring can play in resolving many of these issues, especially in the light of the International Polar Year (2007–March 2009). Expertise will be needed to help decision makers find ways of adapting to and mitigating the impacts of climate change. Clearly what happens in the Arctic matters to both Canada and the United Kingdom as well as to the rest of the world.

The Circumpolar North is a vast region with common attributes such as sea ice, permafrost, pingos,<sup>3</sup> polynyas,<sup>4</sup> tundra, unique fauna, and a sparse human population. Those lands and waters north of the Arctic Circle contain

- 8 percent of the Earth's surface
- 15 percent of the Earth's land area
- 5 percent of the Earth's oceans

The Arctic, however, is a flexible word. Places like Churchill, Manitoba, which is located south of the 60<sup>th</sup> parallel and is home to polar bears, Arctic wolves, caribou, and beluga whales, is arguably more Arctic than Dawson, Yukon, which is several hundred kilometres farther north yet is sometimes one of the hottest places in all of Canada. The latitude of the treeline also varies enormously both north and south of the Arctic Circle.

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<sup>3</sup> A *pingo*, also called a *hydrolaccolith*, is a mound of earth-covered ice found in the Arctic and subarctic that can be as high as 70 metres.

<sup>4</sup> Open bodies of water surrounded by ice that rarely freeze over.

## ECONOMIC DEVELOPMENT AND FUTURE OPPORTUNITIES

*Development can only take place if uncertainties about the environmental, political, fiscal, and technological challenges of the Polar Regions can be bounded.*

There is no doubt that the Arctic holds a treasure trove of resources. In 2008, the US Geological Survey produced an exhaustive report that estimated there are 90 billion barrels of undiscovered, technically recoverable oil, 1,670 trillion cubic feet of technically recoverable natural gas, and 44 billion barrels of technically recoverable natural gas liquids in 25 geologically defined areas thought to have potential for petroleum.<sup>5</sup>

That would account for about 22 percent of the undiscovered, technically recoverable resources in the world. Put another way, the Arctic could hold about 13 percent of the undiscovered oil, 30 percent of the undiscovered natural gas, and 20 percent of the undiscovered natural gas liquids in the world. About 84 percent of the estimated resources are expected to occur offshore, with the vast majority located within the exclusive economic zones of the coastal states.

The US Geological Survey report does not take into account gas hydrates, which are frozen in ice throughout the Arctic region. As one presenter pointed out, recent technological developments have allowed scientists and engineers to extract this resource, but not in a way that is currently economic. If this could be done, however, the energy reserves contained in gas hydrates would exceed those of any major gas field in the world.

Gas prices, of course, now sit at decadal lows, thanks to the development of shale gas reserves in North America and elsewhere. There is no sign that this will change any time soon. Supply will continue to exceed demand for some time to come and this will likely delay the building of Arctic gas pipelines and other major natural gas develop-

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<sup>5</sup> US Geological Survey, 2008 Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle.

ments. The oil blowout in the Gulf of Mexico has also put a temporary chill on, but not a stop to, the search for oil.

However, as one presenter pointed out at this Colloquium, major investments in energy projects are not dependent on the price of oil and gas this year or the next, but on what is likely to be the price in the medium to long term. An event in the Middle East could change the geopolitical landscape and escalate the need for Arctic oil and gas.

Lessons of the past could be helpful in appraising the future of Arctic energy projects. In the wake of the energy crisis of the 1970s, for example, the Canadian government sent a chill through the international investment community by spending \$1.5 billion to create Petro Canada, a Crown Corporation, which was also given the government's 45 percent stake in Panarctic Oil Ltd. and its 12 percent stake in Syncrude. Following that was the setting up of the National Energy Program, which was designed to make Canada energy self-sufficient. The subsidies and taxation schemes that followed resulted in an uneconomic rush for Arctic oil, a growing national debt, high inflation, and a number of oil spills and gas well blowouts that left their mark on the environment.

Some participants suggested that it would be prudent to consider the range of risks—political, economic, and environmental—especially now that the Canadian government has sent mixed signals to foreign investors with its recent decision not to allow BHP Billiton to purchase the Potash Corporation in Saskatchewan. Others believed that there is still time to sort these issues out through existing governance mechanisms such as the Arctic Council (of which Canada assumes the chair in 2012), the International Maritime Organization, and the United Nations Convention on the Law of the Sea.

Finding a balance between development and the environment, however, may prove to be problematic. Unlike Alaska or the Gulf of Mexico, the Arctic does not have the infrastructure in place to deal with an oil spill or a gas well blowout. Nor are any of the routes through the Northwest Passage or the Northern Sea Route sufficiently mapped (and dynamic patterns of sea-ice distribution unsettle the mappings that do exist) to make shipping as safe as insurance companies would desire. If maritime insurance companies are *not* satisfied, they will not insure and so there will be no shipping. One UK presenter suggested

that UK hydrographic expertise developed in the Antarctic could be helpful here. Many of the challenges also transcend boundaries, making it difficult to come up with solutions that satisfy competing states.

The stakes in this case are just as high for industry as they are for the environment. As one presenter reminded participants at this Colloquium, the spill resulting from the *Exxon Valdez* in 1989 proved that “the licence to operate can be lost by one event. One mistake and you’re out,” if not forever, likely for a significant period of time. BP, in the wake of the Gulf of Mexico disaster, has been forced to learn this lesson.

### OIL DEMAND & SUPPLY

- Fifty-five percent of oil demand and 61 percent of projected growth are from transport. Not easy to substitute transport fuel.
- Asia Pacific, North America (less Canada), and Europe are the top regions when it comes to disparity between supply and demand.
- The gas market has been fundamentally changed by the emergence and abundance of shale gas supply.

### SOCIAL CHALLENGES

*My people have been watching your people pass through in waves of “discovery” for the past four centuries. These waves have included many different Qallunaat (our word for outsiders): explorers looking for China, whalers depleting our whales, Hudson’s Bay men trading furs, arms stationed for fighting a war in Europe or possible conflict across the Pole with Russia. I do not think I am exaggerating to say that often, when one of these waves passed through, we, the Inuit of the North, have been ignored when you have made choices on our behalf.*

Indigenous northerners have come a long way since the 1950s and 1960s when many of them were systematically relocated for sovereignty and security purposes, and forced to change their names to qualify for economic and social assistance. Most of the land claims in the Canadian

Arctic, for example, have largely been resolved, making the Inuit and many other northern indigenous organizations in Nunavut, Yukon, Northwest Territories, and Alaska some of the biggest landowners on the continent as well as owners of airlines, transportation companies, on-site remediation services, real estate, and deep sea fisheries. With the division of the Northwest Territories in 1999, the Inuit got a homeland in the new territory of Nunavut and some political and resource-related control over the region.

The Inuit and other indigenous northerners in Russia, Greenland, Scandinavia, and Alaska, however, still lag on almost every social and economic indicator. Rates of unemployment, suicide, and diseases such as diabetes are the highest in the northern hemisphere. The Inuit, by way of example, hold less than half of the jobs in the Nunavut government, largely because the education system has so far failed them. Only 25 percent of the children who enter high school in Nunavut succeed in graduating. The poor housing system has only exacerbated the situation. As one presenter noted, more than 4,000 houses are needed now to provide many of the 37,000 people in Nunavut with proper homes.

Participating in the growing economy, as many indigenous northerners aspire to do, is also difficult. Although, for example, the Qikiqtaaluk Corporation, the business arm of the Nunavut land claims organization, does \$50 million in business each year, it is unable to raise capital for bigger projects such as mining, hydro, and oil and gas developments. The lack of infrastructure in the Arctic is also an impediment to community participation in future developments. None of the 24 Inuit communities located on the Arctic Ocean are served by a seaport. There are no roads, except one in the western Arctic, connecting any of the Arctic communities.

In 2009, the Canadian government advanced a Northern Strategy that is designed to strengthen Canada's sovereignty, protect the environment, advance social and economic initiatives, and improve Northern governance. Presenters at the Colloquium, however, suggested that business leaders need to be engaged as well if progress on economic and social fronts is going to be made. There may be lessons to be learnt from dealings with other remote communities such as the Hebrides, Falklands, and Shetlands.

If there was one overriding message that came from the discussions on social challenges, it was that northern indigenous culture, language, and dignity are intact. The Inuit and other peoples of the Arctic, however, face many serious challenges, many of which will be exacerbated by the changes that are occurring as result of climate change, energy and mining development, and a rapidly growing population.<sup>6</sup>

- The Inuit live in four countries: Canada, Greenland, Russia, and the United States. In Canada, the Inuit have negotiated land claims settlements (modern treaties) in Quebec, Labrador, Northwest Territories, and Nunavut. Internationally, the Inuit are represented by the Inuit Circumpolar Council.
- The Sami also dwell in four countries: Finland, Norway, Russia, and Sweden.
- The Aleuts' homelands are in Russia and the United States (Alaska). RAIPON, the Russian Indigenous Peoples of the North, represents the many indigenous peoples of Russia.
- The Dene (Athabascans) are the northernmost First Nations. Their territories abut the Inuit regions in Alaska, Yukon, BC (Tahltan, Carrier), Alberta, Saskatchewan, and Manitoba (Chipeywan/Denesuine).
- All six of the Arctic indigenous groupings have the status of Permanent Participants (voice but no vote) in the Arctic Council. (Although the Gwich'in are Dene, they have somehow secured a separate seat in the Arctic Council.)

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<sup>6</sup>In northern Canada, for example, French mining giant Areva is proposing a \$1.5 billion uranium mine near the calving grounds of the Beverly caribou herd, which is in serious decline. In the central region of the Russian Arctic, the reindeer-herding Evenks have been struggling to stop a \$13 billion hydroelectric development that will flood an area ten times the size of New York City. And in Greenland, there is some concern about ALCOA's plan to build an aluminum smelter, along with several hydro dams to power it, in an environmentally sensitive region.

## THE ARCTIC AND THE WORLD

*By virtue of their sovereignty, sovereign rights and jurisdiction in large areas of the Arctic Ocean, the five coastal states are in a unique position to address these possibilities and challenges. In this regard, we recall that an extensive international legal framework applies to the Arctic Ocean ... the law of the sea provides for important rights and obligations concerning the delineation of the outer limits of the continental shelf, the protection of the marine environment, including ice-covered areas, freedom of navigation, marine scientific research, and other uses of the sea.*

— Ilulissat Declaration, May 2008

In the summer of 2007, the Russian government sent two icebreakers to the North Pole on a mission that was supposed to be mainly scientific. Only when the ships got to the top of the world did another purpose of the venture become apparent to the rest of the world. Veteran Arctic explorer Artur Chilingarov, a member of the Russian State Duma (the lower house of parliament), descended 14,000 feet (over 4,000 metres) in a deep-sea submersible and deposited a Russian flag, cast in rust-free titanium, on the sea floor.

The entire event was choreographed and filmed in a way that was evidently intended to announce to the world, and to the Russian people, that the seabed under the Pole, the 1,800-kilometre-long Lomonosov Ridge, was an extension of Russia's continental shelf. Expedition members were treated like heroes when they came home.

Audacious as it seemed given the rules and legal regime (UNCLOS, the United Nations Convention on the Law of the Sea) in place for resolving boundary issues in the Arctic, the theatrics reflected in some measure what the Russians were thinking about their sovereign interests and rights. A few days after the flag planting, strategic bombers were dispatched over the Arctic Ocean for the first time since the Cold War ended. "The division of the Arctic," *Rossiiskaya Gazetam*, the Russian daily newspaper declared some time later, "is the start of a new redistribution of the world."

Is there a "Race for Resources" and for new Arctic territory, as *The Times* of London, *The New York Times* of the United States, the *Globe*

*and Mail* of Canada and *Rossiiskaya Gazetam* of Russia have suggested in various articles and editorials? Will this result in the Arctic being turned into a new theatre for arms deployment?

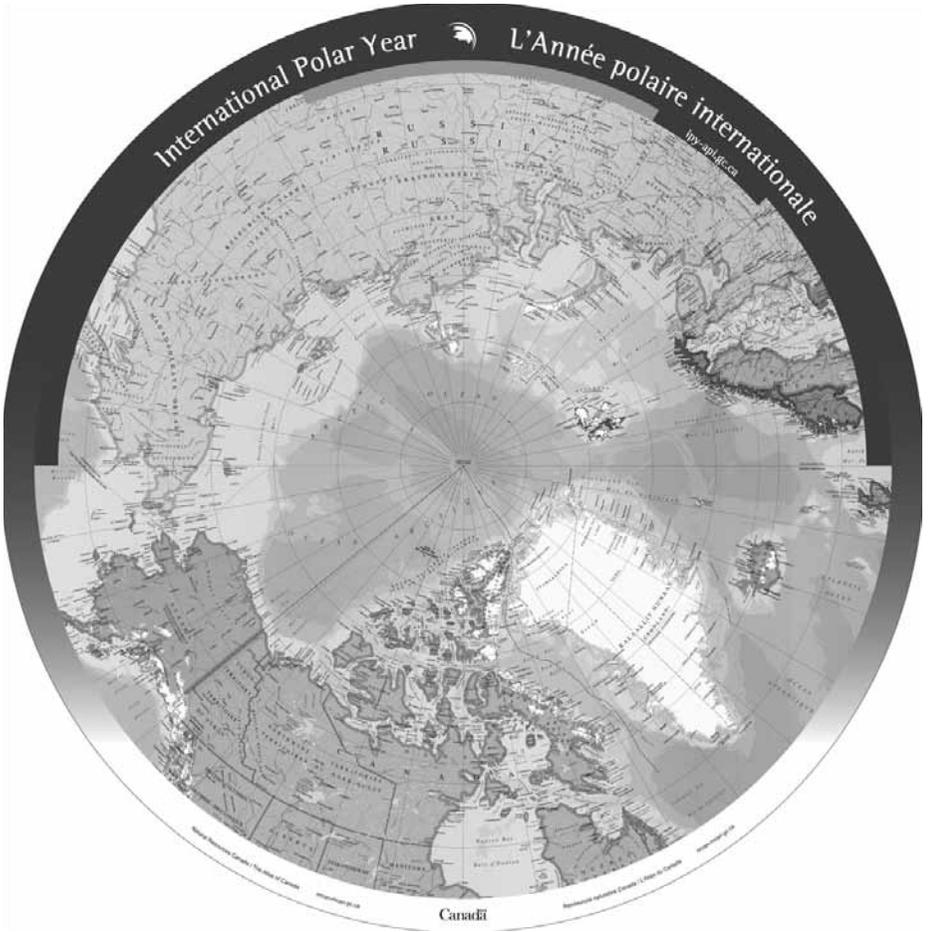
There is no disputing that the Arctic region is on the threshold of major change that will have an impact on culture, shipping, wildlife, fisheries, energy and mining developments as well as international boundary lines. The five Arctic coastal states are currently in a peaceful process of determining who has exclusive sovereignty rights to those resources in the vast area around the North Pole that no one currently owns. There is no reason to believe that this will fail. While the Ilulissat Declaration of 2008 reinforced that, there are other interested parties whose interests need to be factored into this equation.

The stakes are extremely high. If Canada wins its case for sovereignty over new territory (its outer continental shelf), for example, it would gain control over a region of approximately 360,000 square kilometres—about equal in size to the three Prairie Provinces—that is, 150 percent of the size of the UK. If Russia loses, it would be a serious blow to its sense of national prestige but would not undermine its capacity to exploit hydrocarbon resources within its exclusive economic zone.<sup>7</sup>

The future, however, may not be as crisis-ridden as some pundits in the media predict. One certainty that is often overlooked or misunderstood is that Canada's sovereignty over the islands and waters in the Arctic is indisputable; the exceptions are Hans Island off the coast of Ellesmere Island, two small maritime zones in the Lincoln Sea, and a more substantial resource-rich region in the Beaufort Sea—all of which are identified in the accompanying map (see page 14). Neither does anyone question Canada's sovereignty over the Northwest Passage. The issue there is whether the passage is internal waters, as Canada maintains, or an international strait.

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<sup>7</sup>“Russia will be able to increase its continental shelf by 1.2 million square kilometres [460,000 square miles] with potential hydrocarbon reserves of not less than 9,000 to 10,000 billion tonnes of conventional hydrocarbons beyond the 200-mile [322 kilometre] economic zone in the Arctic Ocean,” Viktor Posyolov, an official with Russia's Agency for Management of Mineral Resources, told the Russian news agency Tass in 2007.



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As participants heard at the Colloquium, there is good reason to expect that the two disputes with Denmark over Hans Island and the Lincoln Sea can be resolved through normal diplomatic channels. By doing this, Canada would set a good example for the whole Arctic. While progress is being made with the USA over the Beaufort Sea boundary dispute, it could prove to be a bigger challenge because of the oil and gas that is thought to lie within the disputed region.

In spite of what is being suggested in the media, resolving the legal status of the Northwest Passage may not be so urgent. As one presenter pointed out, only 17 ships made a full transit of the Passage in 2008. Ice conditions, charting issues, and insurance limitations will likely deter shipping companies from using it for decades to come. It must also be noted, as the same presenter pointed out, that Canada allows ships passage through the Arctic so long as they agree to follow Canadian rules and regulations, many of which have been strengthened in recent years (e.g., Arctic Waters Pollution Prevention Act amended in 2008).

Some participants, however, noted that events might well overtake Canada's ability to exercise its sovereignty over the region effectively. This was brought into sharp focus in the summer of 2010 when three vessels, including one tourist ship, grounded in the Northwest Passage. Fortunately, no one was injured and very little environmental damage occurred. But these events served to underline that the challenges posed by oil and gas development, increasing shipping, and an expanding fishing industry will be formidable once the charting, insurance, and ice issues are resolved.

Inevitably, sea ice will continue to be a problem, even if it thins to levels that make navigation through the Passage safer. Accidents happen, as the *Exxon Valdez* proved. Oversights fail, as BP's oil spill in the Gulf of Mexico and many earlier accidents demonstrated. Currently, cleanup crews cannot separate oil from ice. Nor is there any infrastructure in place from which to stage a cleanup. Both presenters and participants expressed concern that some of these challenges exceed the ability of one state to resolve, especially when pollution incidents cross boundary lines. The overriding message was that cooperation in various forms is necessary.

## THE CHANGING PHYSICAL CONTEXT

*The future of the Arctic is uncertain and unless we can deliver certainty, the future for the north Atlantic mid-latitudes is also uncertain ...*

It was suggested in many different ways by both presenters and participants that adjustment to the new geopolitical situation in the Arctic is being made more difficult by the rapid and transformational nature of climate change. With sea ice receding, glaciers melting, permafrost thawing, treelines advancing, and Arctic storms picking up steam, virtually everything from polar bears to polynyas (open bodies of water in the Arctic surrounded by ice that rarely freeze over) and from river flow to snow cover is being affected in profound ways. Changes in the Arctic climate–ocean system will also have direct and indirect effects on the United Kingdom, as well as the rest of the world, from weather-dependent risks to biodiversity.

One presenter was emphatic in pointing out that “it is increasingly imperative that environmental uncertainties in the Arctic be resolved if commercial developments are to take place in a sustainable way.” Examples of good environmental management (such as assessment techniques and cleanup provisions) from the Antarctic could be instructive. Another commented that the Arctic might end up with more polar bear carvings than real polar bears if nothing meaningful is done about climate change. Flippant as that remark might seem, it was, as the ensuing discussions demonstrated, an important point. Rightly or wrongly, the polar bear is an icon of Arctic interest all around the world. The extinction of the polar bear in the Arctic would signal that the situation in the Arctic is spiralling out of control.

All agreed that research conducted during International Polar Year, which ended in March 2009, went a long way in helping decision makers come up with answers to many of the pressing issues facing the Arctic world. Canada’s ArcticNet Network of Centres of Excellence, for example, was a beneficiary of this unprecedented investment in Arctic science. ArcticNet is the world’s largest Arctic research network. It brings together scientists and managers in the natural, human health and social sciences with their partners from Inuit organizations,

northern communities, federal and provincial agencies, and the private sector to study the impacts of climate change in the coastal Canadian Arctic. Over 145 ArcticNet researchers from 30 Canadian universities, 8 federal and 11 provincial agencies and departments collaborate with research teams in Denmark, Finland, France, Greenland, Japan, Norway, Poland, Russia, Spain, Sweden, the United Kingdom, and the United States. In the UK, new research funds of over £15 million are now available for the Arctic.

Presenters, however, pointed out that there continues to be a disconnect between science and policy. Much work needs to be done if ways are to be found to mitigate and adapt to the changes that are occurring in the context of ongoing uncertainty.

#### CANADA-UK COOPERATION ON ARCTIC ISSUES: CURRENT ARRANGEMENTS AND FUTURE OPPORTUNITIES

*If there is to be a gold rush, it will be within existing sovereign jurisdictions and it is to be hoped that all of them, like Canada, will implement sound regulations governing eventual resource development. Given many countries' desire to be involved, what really is the challenge and how can they contribute?*

Spirited as many of the discussions were about the role that Canada and the United Kingdom could play in the future of the Arctic, there was a strong appreciation that both countries share similar values. This cultural kinship, memorialized in Northwest Passage place names such as Lancaster Sound, Barrow Strait, Viscount Melville Sound, and McClure Strait, could be used in many different ways. It was suggested, for example, that the United Kingdom could help Canada explain Arctic issues to and within the European Union, which has sometimes not seen eye to eye with Canada on matters such as sealing. In return, Canada could support Great Britain's continued desire to be allowed a more active observer role at the Arctic Council, since this would be beneficial to the Council's work.

Indeed, progress on cooperation has already been made on different fronts. In February 2009, for example, Canada and Great Britain

signed a Memorandum of Understanding, enabling both countries to increase scientific cooperation in all aspects of polar research, including scientific exchanges and the sharing of polar infrastructure and logistical support. Some presenters felt that this MOU, which is in its infancy, needs to be developed in more imaginative and meaningful ways, including—an annex to the agreement perhaps—encouraging the Inuit to be involved in all projects occurring within the Canadian North.

Long left out of the decision-making process in the Arctic, the Inuit need to have a role to play in these and other areas. It was suggested, for example, that it be left to the Inuit communities of Canada and Greenland to resolve the boundary dispute over Hans Island.

Irrespective of whether it is the Inuit or the Canadian government that does the negotiating, participants believed that resolving territorial disputes in the Arctic quickly would set an example and demonstrate to the world that cooperation in the Arctic is attainable (as Norway and Russia recently achieved over the Barents Sea). Cooperation, of course, can be achieved in many different ways as the Ilulissat Declaration of May 2008 demonstrated. Words and declarations, however, are meaningless unless they are followed up with action. Here both Canada and the United Kingdom have experience and assets that could be mutually beneficial in promoting action.

The British Antarctic Survey has a 60-year record in Antarctica; the UK also has a research presence in the Arctic at the NERC facility in Svalbard; Canada's Polar Continental Shelf Program has just celebrated 50 years in the Arctic. The UK has the *James Clark Ross*; Canada has the *Amundsen*, the *Louis St. Laurent* and the *Sir Wilfrid Laurier*. The UK has specially equipped aircraft, based in Calgary, which can be used for Arctic science. Canada has learned much from the new UK Antarctic research station Halley VI and could learn a great deal more from the UK's experience in Antarctica before it builds its own research station in Cambridge Bay. As one presenter pointed out, "What happens in the south can effect the north. There is great value in both countries studying both poles and comparing data," something that the International Polar Year explicitly recognized. Finally, Polarview, monitoring sea ice from space, is a valuable free service operated by

Canada in the north and the UK in the south, with the exchange of technical information and expertise.

Research, of course, will go a long way in helping decision makers to address the many uncertainties that climate change is presenting. This is especially important in light of the fact that environmental uncertainty is not good for trade or business. That is why a number of participants believed that ways need to be found to get industry engaged creatively, not just in policy decisions, but also in economic and social justice developments that include the Inuit as partners.

While there was some discussion about learning lessons from aspects of the Antarctic Treaty, it was noted that while there are similarities between the two Polar Regions, Arctic governance presents a different challenge both because it has indigenous peoples and because there are indisputable national sovereignties. Almost everyone felt that the current Arctic governance framework is sufficient to deal with the challenges so long as there is cooperation and sufficient resources to do all that needs to be done. Canada and the United Kingdom could, in the meantime, cooperate with organizations such as the International Maritime Organization to develop better rules on pollution and in other areas, and engage other interested parties in dialogue, especially China and the European Union.

Research that was conducted during the International Polar Year went a long way toward demonstrating what needs to be done to adapt to, mitigate, and exploit the changes that are coming to the Arctic. Now that the International Polar Year has ended, it was agreed that ways need to be found to maintain the momentum. There will continue to be a disconnect between science and policy so long as decision makers and the public have difficulty comprehending what is happening in the Arctic. Something tangible—websites, literature, and so on—should be promoted to engage wider public interest, as was recognized during the International Geophysical Year when a series of films was commissioned about the work of global science. Almost everyone felt that the wrap-up International Polar Year Conference in Montreal in 2012 could be the vehicle that drives initiatives such as these. It was also noted that reputable conservation organizations such as the World Wildlife Fund, which encourages discussion between industry,

government, indigenous peoples, and the public, could have a role to play in explaining many of the complex issues.

If there was one overriding lesson to be learned from this Colloquium, it is that the Arctic matters not just to Canada (and especially the indigenous peoples who live there) and the United Kingdom: it matters to the rest of the world. If we ignore the transformational changes that are happening now, we will do so at our peril. As a consequence of this widening interest, it behoves us all to think creatively about how we manage a place that is both inhabited by indigenous peoples and also tied intimately into regional and global networks.

## SUMMARY

*It fortun'd, a gentlewoman, one of ye adventure[r]s wives, to have a peece thereof, which by chance she threw and burned in the fire, so lo[n]g, that at length being taken forth, and quenched in a little vinegre, it glistered with a bright marquesset of golde.*

— George Best, second in command to Martin Frobisher, excerpt from his account on how gold had been found on Baffin Island in 1578

Shortly before noon on the last day of the Colloquium, the snow that been falling steadily since the delegates arrived gave way to clear skies and a spectacular view of the mountains that Martin Frobisher saw more than 400 years ago when he and his crew landed on the shores of Baffin Island. By this point, presenters and participants had identified several ways that Canada and the UK could work together to address the many challenges in the Arctic.

It was clear that there are mechanisms in place to do so. The Memorandum of Understanding signed in 2009, for example, is one of them. What is needed now are more imaginative proposals, including those that include Antarctica where the UK experience could prove to be invaluable. Certainly there are infrastructure and tools to accommodate this. Both Canada and the UK have icebreakers, planes, research stations, and satellite observation networks that could be shared. ArcticNet could perhaps move this forward in Canada. The British Antarctic Survey could do so in the UK. Funding agencies like NSERC, the Natural Science and Engineering Research Council of

Canada, and NERC, the Natural Environment Research Council in the UK, should get involved, as would the Inuit who have a stake in the outcomes of collaborative efforts.

There is, of course, no shortage of challenges that need to be addressed. With sea ice melting, glaciers receding, and storms picking up steam in a warming polar world, many coastal communities in Alaska, the Yukon and Northwest Territories of Canada, and northern Russia are becoming increasingly vulnerable to flooding and erosion.

Warmer and shorter ice seasons, which delegates witnessed first hand in Iqaluit, also mean less time for polar bears to hunt seals and more time for disease and biting flies to take their toll on caribou, muskoxen, and tens of millions of migrating birds that nest in the Arctic, some of which fly to the UK. Beluga whales and narwhal—Arctic whales that feed on Arctic cod along ice edges—could also be threatened. Commercial fishing resources may eventually shift northward and exacerbate remaining maritime boundary disputes.

The future, however, promises to offer enormous opportunities. The climatic warming that is thinning the sea ice is at the same time revealing energy and mineral resources and shipping lanes that were once inaccessible or impenetrable. It may also provide new opportunities for sustainable tourism. Indigenous northerners, many of whom suffer from high unemployment and limited economic opportunities, want to participate in the extraction of these oil, gas, and metal resources. Limited borrowing powers, however, are making that difficult. So is the absence of telecommunications and higher Internet connectivity in the Arctic, which could greatly aid the scattered communities of the Arctic to link up more effectively, both with each other and with Canada and the world as a whole.

Here, business leaders and the banking community from both sides of the Atlantic could help. So perhaps could the UK experience with the Hebrideans, Shetlanders, and Falkland Islanders. A forum bringing the two sides—business leaders and indigenous northerners—together to discuss possibilities could be useful.

The quest to extract oil, gas, and metals in the Arctic will inevitably come with risks, even when the insurance industry finally gives energy and shipping companies the green light to advance some of

these projects. The ice will thin, but it will not go away. Environment assessment and management techniques practised by both countries at both poles could help decision makers come up with ways of reducing the risks of pollution. But given the circumpolar nature of the Arctic Ocean, it is also clear that it is going to be difficult, if not impossible, for one state to deal with the challenges.

The UK could help Canada explain the complexities of the Arctic to the European Union, especially the European Parliament. In return, Canada could support a more active role for the UK as an observer in the Arctic Council. The important thing is that Canada be seen as taking the lead on Arctic issues that are rapidly unfolding in many different ways.

Settling the dispute over Hans Island might be a good place to start. Here, as well in the disputes over two areas in the Lincoln Sea, there is not an awful lot at stake. But a settlement could capture the attention of the public, just as the planting of Danish and Canadian flags on Hans Island did in the past. And would there be any harm in getting the Inuit of Greenland and Canada to help negotiate such a settlement? That would, at least, send a signal to indigenous northerners that their involvement is desired.

It would be difficult to overemphasize the need to get the public interested in what is happening in the Arctic. Decision makers are, by nature, unlikely to advance dramatic proposals unless they are certain that the public will be supportive. That is not likely to happen unless the public understands the complexities of the challenges that governments face in dealing with all issues Arctic. Whichever way one looks at it, this is a problem. Recent polls in Canada and the United Kingdom, for example, show that a growing number of people are climate-change skeptics. That likely means they are unaware of or indifferent to the fact that the Arctic regions are warming up faster than any other part of the northern hemisphere.

The only way of turning this around is through education. Presenters and participants discussed the need for websites, literature, and other public outreach media to accomplish this. How this can be done, however, was not made clear. This is where the International Polar Year Conference in 2012 could play a role. The Conference will bring

decision makers, scientists, business and northern indigenous leaders together for several days. This will be a unique opportunity for everyone to come up with ways to remind the world that the Arctic not only matters to indigenous northerners, it matters to the rest of the world.

### **POLAR COMPARISONS**

- International Polar Year covered each pole, and “both,” unlike the earlier International Geophysical Year.
- There is great value in studying both poles, and comparing data generated from scientific and other sources (e.g., indigenous knowledge).
- Influences (good and bad) come from both poles. What happens in the South Pole can affect the Arctic and its inhabitants, for example, scientific (including medical) research and polar technologies.
- That is why the new British Antarctic Survey program is Polar Science for Planet Earth (PSPE).
- To get world-class results, we must follow the science in both countries wherever it leads.
- Techniques and experience can transfer from Pole to Pole. Examples of this include
  - Halley VI and Cambridge Bay, site of Canada’s proposed new research station along the Northwest Passage in the western Arctic;
  - renewables in extreme conditions (wind turbines, low temperature lubricants);
  - hydrographic survey (HMS Scott, North West Passage);
  - BAS aircraft (specially equipped) for Arctic survey work
  - Polarview (Canada in North, UK in South); and
  - *James Clark Ross* for the Arctic, *Amundsen* for the Antarctic.
- The Memorandum of Understanding is a two-way street benefiting both sides.
- The 2012 Conference in Canada can help ensure that the momentum of International Polar Year is not lost.



# APPENDIX

# PROGRAM

**November 5**

**Chair:** Tony Penikett, former Premier, Yukon

**Rapporteur:** Ed Struzik, author and journalist, Edmonton

**8:30 AM Introduction**

Robert Wolfe, Canadian Coordinator of the Canada-UK Colloquia, and  
Philip Peacock, Chairman Canada-UK Colloquia

**8:35 AM Chairman's Opening Remarks** – Tony Penikett

**8:40 – 10:10 AM Overview of Canadian and UK Experience**

Canada: Peter Harrison, Director School of Policy Studies, Queen's University;  
Chairman IPY 2012

UK: Klaus Dodds, Royal Holloway

**10:10 – 10:30 AM Break**

**10:30 AM – 12:00 PM Economic Development and Future Opportunities**

Canada: Okalik Eegeesiak, President, Qikiqtani Inuit Association

UK: Dougal Goodman, CE Foundation for Science & Technology

**12:00 – 1:15 PM Lunch**

**1:15 – 2:45 PM Social Challenge**

Canada: James Raffan, Cultural Geographer and Writer

UK: Richard Powell, University of Oxford

**2:45 – 3:00 PM Break**

**3:00 – 4:30 PM The Arctic and the World**

Canada: Alan Kessel, Legal Advisor, Department of Foreign Affairs and  
International Trade

UK: Nicolas Maclean CMG, Chief Executive, MWM (Strategy)

**5:45 PM** – Participants gather in Frobisher Inn Lobby for transportation to  
Discovery Lodge Hotel.

**Reception and Dinner**, hosted by the World Wildlife Fund (WWF)  
**Welcome Remarks:** Arlin Hackman, Vice President, Conservation and Chief Conservation (WWF)

**Keynote Speaker:** Charles Emmerson, Independent Adviser and Author:  
“The Future History of the Arctic”

**9:00 PM** – Depart for Frobisher Inn

## **November 6**

**7:00 AM Buffet Breakfast – Baffin Room**

**7:45 AM – Please check out before the morning session and bring your baggage to the meeting room.**

**8:00 – 9:30 AM The Changing Physical Context**

Canada: Martin Fortier, Executive Director of ArcticNet, Inc.

UK: Professor Geoff Petts, Vice Chancellor University of Westminster

**9:30 – 9:45 AM Break**

**9:45 – 11:15 AM Canada-UK Cooperation on Arctic Issues:  
Current Arrangements and Future Opportunities**

Canada: Danielle Labonté, Acting Assistant Deputy Minister, Department of Indian and Northern Affairs

UK: Robert Culshaw, Deputy Director British Antarctic Survey

**11:15 – 11:30 AM Break**

**11:30 AM** Rapporteur’s Report.

**12:15 AM** Transportation to airport.

**1:45 PM** Plane departs for Ottawa. Lunch en route.

**6:00 PM** Ottawa – Organizers meeting for the 2011 Colloquium

# LIST OF PARTICIPANTS

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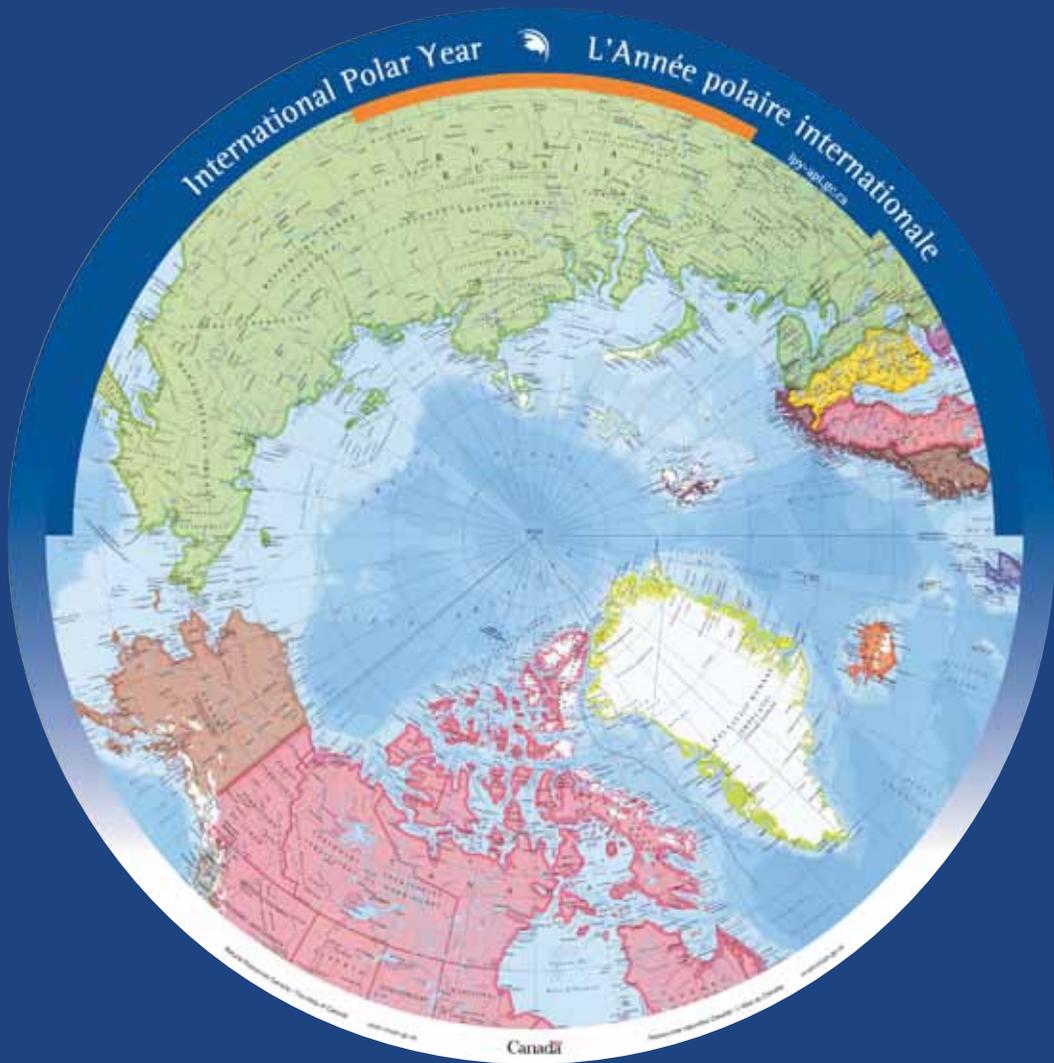
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