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Chair

Mr. Dean Allison

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● (1100)

[*English*]

The Chair (Mr. Dean Allison (Niagara West—Glanbrook, CPC)): Good morning, everyone. Pursuant to Standing Order 108 (2), our study on Canada's Arctic foreign policy will continue.

I just want to welcome all our guests here today. Thank you very much for participating and giving us a briefing on what is going on.

I just want to start over on my left. We have Sylvain Lachance, executive director, regulatory services and quality assurance, marine safety and security, from the Department of Transport. Welcome, sir. Thank you for being here.

Then we have Laureen Kinney, who is the associate assistant deputy minister, safety and security group, from the Department of Transport. Welcome as well.

Next to them is Jody Thomas, who is the deputy commissioner, operations, of the Canadian Coast Guard, with the Department of Fisheries and Oceans. Welcome, Jody.

And then next to Jody is Jacqueline Gonçalves, who is director general, maritime service directorate, Canadian Coast Guard.

Last but not least, we have Renée Sauvé, who is the director of global marine and northern affairs, international affairs directorate, with the Department of Fisheries and Oceans.

So welcome to all of you.

I believe we're going to start with you, Ms. Kinney, for your opening statement, and then we'll go to Ms. Thomas for your opening statement. Then we will go around the room for the next hour or so to ask some questions.

Ms. Kinney, welcome. Thank you for being here. We'll turn the floor over to you. You have 10 minutes.

Ms. Laureen Kinney (Associate Assistant Deputy Minister, Safety and Security Group, Department of Transport): Thank you for your introduction, Mr. Chairman, and for inviting me to address the committee today about some elements of Canada's Arctic foreign policy relating to marine transportation.

As you know, the north is undergoing rapid change and a warming climate is providing unprecedented access to the region's resources. This presents significant opportunities for northerners to benefit from the growing global demand for natural resources. However, the increased development of the north will also bring about economic, social, and environmental change, as you all are well aware, of course.

Development is expected to result in increased economic activity and a new demand for construction of infrastructure, particularly maritime infrastructure.

[*Translation*]

With so much potential change, we must look at ways to continue to enable safe, secure, efficient and environmentally responsible marine transportation.

In this way, we can realistically hope to balance the effects of development with maintaining a robust level of environmental protection. One of the ways Transport Canada can do this is providing regulatory stability in order for industry operating in or near Canadian Arctic waters to make decisions with a degree of confidence.

[*English*]

In particular, we will continue to enforce the Arctic Waters Pollution Prevention Act, as well as the regulatory requirements under the Canada Shipping Act, 2001. To that end we will monitor vessels for compliance with our regulations and confirm that they are fit to operate safely in our waters. In addition, under the new Navigation Protection Act, harbours and bays in the Arctic will remain under Transport Canada oversight.

As shipping technology and practices change over time and international conventions are adopted, we compare them to our regulatory regime to identify opportunities, gaps, or conflicts. If any are found, the appropriate measures will be taken, potentially including seeking authority to amend legislation.

Another step we can take is identifying potential strategic marine transportation corridors in the north. Transport Canada is currently examining this concept with the Department of Fisheries and Oceans.

[*Translation*]

This approach would tactically direct some federal resources to help provide sufficient and sustainable levels of marine services in the North. In the longer term, it would also focus strategic planning and prioritize future investment.

Our upcoming chairmanship of the Arctic Council offers another opportunity to protect the North. In recent years, the Council’s role has shifted from information sharing and research to policy making and coordination of Arctic State activities.

[*English*]

This new focus provides an excellent opportunity for Canada to promote measures such as an effective international regulatory regime for vessels operating in the Arctic. Through our chairmanship we propose to encourage our Arctic Council partners to speak at the International Maritime Organization with a unified voice and to build consensus about the need for a strong international regime.

[*Translation*]

At the same time, we are continuing our efforts at the IMO to develop a mandatory polar code. A mandatory code would help protect the fragile Arctic environment by setting more stringent international standards for safety and pollution prevention in polar waters.

We are proposing to incorporate into the code many elements of our own regime for Arctic shipping that has been so successful for over 40 years. We will also cooperate with other federal departments, as well as the territorial governments, northern communities and our international partners, especially the United States, about appropriate standards for shipping in this unique area.

[*English*]

Mr. Chairman, climate change and global demand for resources are changing the lives of northerners. This requires marine shipping that is efficient, safe, and environmentally sound. Our existing regulatory regime is robust and we are now taking steps that we expect will improve standards for Arctic shipping internationally.

● (1105)

Thank you.

The Chair: Thank you very much.

We will now turn it over to Ms. Thomas.

Ms. Jody Thomas (Deputy Commissioner, Operations, Canadian Coast Guard, Department of Fisheries and Oceans): Thank you. Good morning. My name is Jody Thomas and I am the deputy commissioner of operations at the Canadian Coast Guard. I'm here today with Jacqueline Gonçalves, who is the director general of program requirements.

We are here to provide a brief overview of the coast guard's role in the Arctic and answer any questions the committee may have. Together with our colleagues from Transport Canada we will provide the committee with a picture of the regulatory framework, services, and activities that define our role in Canada's Arctic.

I've used a deck today for you because I think it's very important that you have a visual idea of some of the locations we are at and the things we do, so I hope you'll bear with me.

Warming temperatures are impacting traffic patterns in the Arctic. To date, maritime traffic in the circumpolar Arctic is already considerable and is expected to increase as access to these waterways increases. Commercial shipping and tourism in the form of cruise ships is also increasing. This slide illustrates some of the challenges transcending the Arctic and responding to incidents in Arctic waters.

In the summer of 2010 two vessels grounded in the Canadian Arctic, the motor vessel *Clipper Adventurer* and the motor transport *Nanny*. In particular, this slide shows the location of the *Clipper Adventurer*, an English cruise ship, which grounded in only three metres of water on August 28, 2010. The Canadian Coast Guard ship *Amundsen* was the closest available coast guard vessel to respond. It was 511 nautical miles away doing scientific experiments and at the time of the grounding it was 42 hours of transit to reach the site. Fortunately, there were no serious injuries nor any serious marine pollution from this grounding, but we were lucky.

Northern resource development is a growth industry with increasing opportunities for offshore oil and gas exploration and development as well as mining. As exploration increases we can and should expect larger ships and more traffic in an area where marine charting and surveying is less developed than in the south. This will increase the potential for oil pollution incidents.

Our mandate in the coast guard is to provide services to ensure the economical and efficient movement of ships in Canadian waters. The Canadian Coast Guard operates Canada's only national civilian fleet with a staff of approximately 4,500 individuals and 116 vessels of various shapes and sizes. Our services include search and rescue, environmental response, maritime communications and traffic services, aids to navigation services, waterways management services, and icebreaking services.

Our operations serve all parts of the country through the wide reach of the maritime communications and traffic services centres and approximately 17,000 aids to navigation. Coast guard vessels are also relied on to support other government departments and agencies in the delivery of their mandated responsibilities. For example, coast guard icebreakers are critical to delivering federal programs in exercising sovereignty in Canadian waters.

The Canadian Coast Guard has also moved forward on the following key initiatives: NAV areas, the polar icebreaker, environmental response, marine services fees, and international collaboration.

The world's areas are divided into navigational areas called NAV areas for the purpose of allocating responsibility to disseminate navigational warnings. The International Maritime Organization created five new NAV areas covering Arctic waters and in June 2011 Canada assumed responsibility as a NAV area coordinator and issuing authority for the dissemination of meteorological information and navigational warnings in the Arctic.

In support of providing continued safety and required services to the north, the Canadian government over the next 11 years will be renewing the Canadian Coast Guard fleet, including the addition of Canada's first polar icebreaker, the Canadian Coast Guard ship *John G. Diefenbaker*. The *Diefenbaker* will replace Canada's largest and most capable, most well-known heavy icebreaker the Canadian Coast Guard ship *Louis S. St-Laurent* as the new flagship of Canada's Arctic fleet.

The great news about the polar icebreaker is it will provide the coast guard with greater range capability and accessibility over the entire year in the Arctic, which is important as the shipping season extends and the breakup of ice is found in non-traditional areas.

● (1110)

The remoteness, length of coastline, and lack of infrastructure present important logistical response challenges for environmental response. This map shows the distribution of oil response equipment across Canada, including coast guard and private sector resources.

The coast guard has over 80 caches of response equipment, strategically located across the country. Over 20 of these caches are found in the Arctic. Through a federal government initiative, 19 Arctic communities were provided with Arctic community packs, or first response units, to address what is currently the greatest risk of spills in the Arctic: operational spills associated with fuel resupply.

In addition, there are three depots located in the north, which contain packages of rapid air transportable equipment ready for deployment across the Arctic. It is important to note that there are four Transport Canada certified response organizations in Canada located south of 60 degrees north. These response organizations have a number of equipment depots and trained personnel located across Canada. All ships of a certain class and oil handling facilities located south of 60 degrees north are required to have an arrangement with one of these response organizations. However, north of 60 degrees there are no Transport Canada certified response organizations pursuant to the Canada Shipping Act, 2001. It is the Canadian Coast Guard, industry, and Arctic community volunteers who comprise the primary response capacity to pollution from ships or unknown sources in Arctic waters.

Marine services fees are another aspect of our business that have implications in the Arctic. Since 2008, a moratorium on the Canadian Coast Guard marine navigation services fee has been in place for ships conducting community resupply for north of 60 locations. In 2012, the government established a permanent exemption on the marine navigation services fee for commercial ships undertaking community resupply activities while making transits in Canadian waters, between locations situated south of 60 and locations north of 60. This fee exemption does not apply to commercial ships devoted primarily to activities unrelated to resupply, including, for example, natural resource extraction, tourism, and refuelling of other vessels. This exemption took effect May 26, 2012.

We have a strong bilateral relationship with the U.S. Coast Guard, and we have jointly developed a Canada-U.S. joint marine pollution contingency plan. We also play an active role in international organizations, such as the International Maritime Organization and the Arctic Council, where important issues such as the international instrument on Arctic marine oil pollution preparedness and response are developed.

As head of the Canadian delegation—Jacqueline was the head of the Canadian delegation—the coast guard was an active member in negotiating a new international instrument on Arctic marine oil pollution preparedness and response with other Arctic states. The overall objective of the proposed agreement is to strengthen emergency cooperation and coordination among Arctic states in the event of an Arctic marine oil spill that exceeds one nation's capacity to respond. The proposed agreement will be presented to the Arctic Council foreign ministers for signature at their ministerial meeting on May 15, 2013, in Kiruna, Sweden, where Canada will take over the chairmanship.

Moving forward, as use and demands for services in our Arctic waterways evolve, the coast guard needs to position itself to respond appropriately.

Slide 12 indicates the shipping routes in the Arctic that have evolved based on the navigability of water. This slide gives you a sense of the most frequently used shipping routes as of last summer.

Slide 13 shows a picture of the Northwest Passage. For mariners, the routes run along the north coast, along waterways through the Canadian Arctic archipelago, connecting the Atlantic Ocean and the Pacific Ocean. Vessel traffic in the Northwest Passage is increasing. In 2012, there were 31 transits of the Northwest Passage, a 29.2% increase over the 24 transits in 2011. It is mainly pleasure craft that transit the passage—23 in 2012—with cruise ships, government vessels, tugs, and barges falling next, at two transits, and tankers and research vessels transiting once in 2012.

There is a romanticism about the Northwest Passage. It promises quicker transit from east to west. The reality is it remains treacherous and dangerous as the ice continues to break away and float south. As the coast guard explores how it plans to deliver services in the Arctic, the Northwest Passage will be a priority for our consideration.

● (1115)

The challenges in the Arctic are unique, and thus the Arctic requires innovative thinking. Replicating a transportation system similar to that found in southern Canadian waterways is not feasible, nor is it desirable. A strategic approach is required to focus marine transportation activities in the Arctic. A solid navigational support system—charts, buoys, icebreakers—and sufficient response capabilities for search and rescue and environmental response are critical for marine navigation in the north.

We need to be cost effective. From focusing services along key marine transportation corridors, the benefits are many: we enable economic development by better positioning ourselves to provide a level of safe, secure, and accessible navigation; we align with the objectives of the northern strategy and signature initiatives under the Arctic Council; and we provide a predictable level of service and presence. The Canadian Coast Guard and Transport Canada are exploring northern marine transportation corridor concepts with the aim of providing a strategic and focused approach to serving the north.

We thank you for your attention. We would be happy to answer any questions you may have.

The Chair: Thank you very much, Ms. Thomas.

We're going to start with the opposition.

Mr. Dewar, please proceed; you have seven minutes.

Mr. Paul Dewar (Ottawa Centre, NDP): Thank you, Chair, and thank you to our witnesses today for their overview and concise presentations.

I'll start with Ms. Kinney and then go to Ms. Thomas.

We've heard from witnesses time and time again about the issue of climate change as absolutely critical, as being the primary focus, and certainly we've heard this from other members of the Arctic Council.

Can you tell us, do you have an actual strategic plan for climate change adaptation?

Ms. Laureen Kinney: Transport Canada is carrying out a considerable amount of work, under our policy group, on adaptation requirements. We have some funding that is being expended on research on permafrost changes and what kinds of impacts they would have on transportation, roads, etc.

We have a strategic approach. I'm not sure I would characterize it as a strategic policy per se, but it is certainly very much embedded in our work and is part of the activities we carry on.

Mr. Paul Dewar: Thank you.

Ms. Thomas.

Ms. Jody Thomas: In the coast guard, we tend to respond to what our client needs are based on the changes in the environmental conditions in the Arctic. As to the Fisheries and Oceans position on climate change, Renée would be best placed to answer that.

● (1120)

Mrs. Renée Sauvé (Director, Global Marine and Northern Affairs, International Affairs Directorate, Department of Fisheries and Oceans): I can comment a little bit. DFO was also a recipient of part of the funding noted by Transport Canada. For our portion, our science sector has a plan over the next few years for its sunsetting money. There is a plan to develop the knowledge base of what climate change trends are happening that affect our business and what our department is responsible for. The second half of it is to identify the tools we need so that we can adapt to those changes.

That program is ongoing.

Mr. Paul Dewar: So it's ongoing. I'm curious, because as we take over the chair in May, it's obviously important that we have our position, from our country, on what we believe is important. We also have heard from witnesses and when we engage with other countries that they not only see this as an important issue but have strategic plans in place.

I look forward to hearing from different departments what the comprehensive approach will be. I'm glad to hear that this is being looked at.

I also want to delve a bit deeper into our approach to working with our partner countries.

Ms. Thomas, you mentioned that on May 5, I think you said, in Sweden they're looking at a sign-off among countries about working together in partnership. Is that a done deal in terms of the participation of all countries? Is there a document we can see, or is this something that has yet to be finalized?

Ms. Jody Thomas: On May 15 the document will be signed. Jacqueline was the leader of the delegation for Canada, so perhaps she can give you the details.

Mr. Paul Dewar: There's just one thing first; I'm sorry to interrupt.

Is it something that has already been negotiated, and are we able to have details of it for our committee? Obviously it would be important for our committee and our recommendations.

Ms. Jacqueline Gonçalves (Director General, Maritime Services Directorate, Canadian Coast Guard, Department of Fisheries and Oceans): Yes, the negotiations have concluded, and the treaty was really very narrowly focused on responding to marine oil spills in the Arctic. It's an agreement of cooperation among the eight nations of the Arctic Council to establish protocols, should there be an incident, for how we go about cooperating with each other to resolve the incident.

It's very specific in nature and is really operational.

Mr. Paul Dewar: Is it an agreement, then, agreeing upon its facets, while hammering out the details has yet to be determined?

Ms. Jacqueline Gonçalves: There are specific elements in the treaty that cover off essentially the life cycle of an incident. For example, if one country detected that an oil spill has occurred, how would we go about notifying each other; what kind of participation would we undertake; how would we call on others to work with us to resolve the recovery of the oil; how do we share best practices; how do we exercise and train? Those are really elements establishing protocols amongst ourselves so that we're not trying to figure them out in the midst of an incident.

Mr. Paul Dewar: Thank you. I guess we'll have that information shared with our analysts. This is a good segue in terms of our capacity.

Ms. Thomas, you mentioned what assets we have to cover. The map you showed us was interesting; it gives us a good visual. You enumerated all the assets we have, but when it comes to the north, can you give us an idea of how many of the assets we have could be used and dedicated to the north?

Ms. Jody Thomas: We have 20 caches of equipment dedicated to the north, and then we have three rapidly transportable large packs for a major spill.

The concept of marine pollution, no matter where it occurs in Canada, is that you cascade assets. Should there be a major spill anywhere in the country, including the Arctic, we would cascade all the assets up to the Arctic from anywhere in the country to respond. We also have the bilateral agreement with the United States, and we would rely on them and the assets they have to help us respond.

So we have 20 caches dedicated for the Arctic and then access to everything else that is located across Canada.

Mr. Paul Dewar: Help me, then, as someone who is not involved as much as you are in this. When you say “20 caches” and “assets”, what are we talking about?

Ms. Jody Thomas: We're talking skimmers, booms—all that kind of equipment that you use to respond to an oil spill.

Mr. Paul Dewar: Again, if we could have a breakdown of it for our analysts, it would be helpful for us.

One last question, hopefully concise enough to get a concise answer, is, in all of these areas that you're talking about—transportation, emergency response—are we meeting and engaging with all of our partners on the Arctic Council? In other words, is there a constant communication and a working with all of our partners in the Arctic Council on these issues?

● (1125)

Ms. Jody Thomas: In terms of the coast guard there is, absolutely. We belong to two other forums, the North Atlantic Coast Guard Forum and the North Pacific Coast Guard Forum, both of which have as members Arctic Council countries. We meet regularly and exercise regularly with them to ensure readiness and cooperation, for mutual understanding of what each country can do.

Mr. Paul Dewar: Great. Thank you.

Thank you, Chair.

The Chair: Thank you.

Mr. Dechert, you have seven minutes, please.

Mr. Bob Dechert (Mississauga—Erindale, CPC): Thank you, Mr. Chair.

Thanks, too, to our guests for being here today and sharing this interesting information with us.

I'd like to start with some questions for the coast guard.

I was very interested to see the map that you provided us of the Northwest Passage. First, could you tell me whether you see a significant expansion in commercial shipping in the Northwest Passage in the near to medium term? Can you give us some thoughts on how many ships per year in each category you think there would be over, say, the next five to ten years?

Secondly, as a pleasure boater myself I look at this and see that it's a circuitous route and that there are lots of islands. I wonder about the charting and navigational aids in the Northwest Passage. Maybe you could tell us a bit about how much of it is charted, what kinds of navigational aids there are, if any, and what you foresee as necessary in the next ten years to support the presumably increased number of transits that you're going to tell us about.

Ms. Jody Thomas: There are multiple parts to that question. I'll start, and Transport Canada will jump in.

We see a gradual increase in traffic, although we're not responsible for monitoring those kinds of trends. But as natural resource extraction increases and as eco-adventure tourism increases, there will be an increase of traffic. We've seen it with the number of cruise ships in the Arctic over the last few years.

Mr. Bob Dechert: Do you think it'll be on a scale of 5% or 10% a year? Can you give us any guidance in that regard?

Ms. Jody Thomas: I wouldn't want to speculate.

Mr. Bob Dechert: Okay. But I think you said that last year 23 pleasure craft transited—

Ms. Jody Thomas: Yes.

Mr. Bob Dechert: —and two cruise ships—

Ms. Jody Thomas: Yes.

Mr. Bob Dechert: —and I've forgotten how many commercial cargo vessels.

Ms. Jody Thomas: There were two.

Mr. Bob Dechert: Okay, so it's a relatively small number.

Ms. Jody Thomas: Yes.

Mr. Bob Dechert: In your view, is the Northwest Passage more likely to see an increase in commercial shipping in the near term, or is that more likely on the other side of the Arctic Ocean, along the Russian coast? Is there a difference between the two?

Ms. Jody Thomas: There is a difference because of where the ice is and how the ice moves. The discussion about the Arctic being ice free...there is a breakup of ice earlier, there's no doubt, in the Arctic, but it is all moving south, which has made the Northwest Passage inherently more dangerous.

Mr. Bob Dechert: So, in fact, there's more ice in the Northwest Passage today?

Ms. Jody Thomas: There is more ice. Last summer, for example, there was significantly more ice in the Northwest Passage and in Frobisher Bay it was iced in for quite some time due to the winds and the breakup of the ice. Therefore, the need for icebreakers is actually increasing as the Arctic ice breaks up. It is not less dangerous.

Mr. Bob Dechert: That's to service the communities in that area and also any potential resource extraction issues that need to be developed in the—

Ms. Jody Thomas: Right, or any vessel that goes into some area of the Northwest Passage, if the weather changes, the ice changes, then they need an icebreaker.

About 10% of the Arctic is charted to modern standards. It needs a significant amount of work, but, as I said, we don't think it is reasonable or feasible to think that we can chart it to the same standards as the south throughout, which is why we are pursuing a corridors approach, where we will have safe, predictable, transitable passages that are charted and the information is available to mariners so that they can safely transit, weather notwithstanding.

In terms of aids to navigation, they're mostly in Pangnirtung and Mackenzie River. The aids system that you see throughout southern Canada and the Great Lakes, as an example, doesn't exist in the Arctic.

Mr. Bob Dechert: I assumed it did. Thank you very much for that.

I'd like to ask a question of Transport Canada. You mentioned the Arctic Waters Pollution Prevention Act and its aim to protect Canadian Arctic waters. Can you give us a little more detail about exactly what that act says and how effective you think it is in protecting the region from any pollution?

Ms. Laureen Kinney: I'll start with a bit of a generality and then drill down a little bit more in detail. Sylvain may have something to add to that as well.

The act applies to Canadian territorial waters and also out to 200 nautical miles. The act itself was developed in 1970. It was extremely robust. It was much ahead of its time and probably still may be, to a large degree, the most comprehensive and rigorous set of requirements in the world for the Arctic.

The associated regulations with that speak to areas such as the equipment required and the requirement for ships operating particularly in areas of pollution and other areas. It requires in the act zero discharge, for example. There are a number of areas along those lines. It's quite rigorous. It's applied by our inspectors in the north and we do make that fairly onerous within the normal level of inspection processes.

● (1130)

Mr. Bob Dechert: Excuse me for interrupting. Does it include standards for the construction of the ships or the design of the ships?

Ms. Laureen Kinney: I don't think so, no.

Then there are specific areas such as our NORDREG reporting and the vessel reporting that we made much more rigorous and mandatory. They previously were voluntary. We made them mandatory a couple of years ago and they allow us to know who's operating where and what they're doing, which is part of the regime of understanding what your risks are and what your response is.

It's quite rigorous, but it is getting out of date. Technology has changed considerably. It was done in a time when a certain pattern of traffic and living was anticipated. Obviously, that's dramatically changed. It also was established before the United Nations Convention on the Law of the Sea had established the kinds of provisions that states could establish outside their territorial waters and out to 200 nautical miles. We put those provisions in place ahead of the international convention, which normally you link to, so we need to look at the requirements and how they should perhaps be updated to look at that.

Mr. Bob Dechert: Are you planning to do that update?

Ms. Laureen Kinney: We're looking at what's required and we're having those discussions. We're also looking at areas like the risk assessment that was published recently to guide us in some of the areas that we should look at.

Mr. Bob Dechert: I guess I'm almost out of time. I have one short question; I hope it's short.

You talked about the proposal for a mandatory polar code, which I think you said would entail more stringent environmental standards for shipping. How would that differ from the act that you just described?

Ms. Laureen Kinney: The point that I was making was that our act and regulations apply out to different ways, out to 200 nautical miles. The polar code would be for the high seas, outside our territory and area.

Mr. Bob Dechert: Similar standards or...?

Ms. Laureen Kinney: That's the debate. Obviously this is an international code, so the level at which you can get agreement of all parties is debatable, but we're certainly pushing for the same level of stringent standards. That's what our expectation would be because the impact of something that happens outside your waters, obviously that oil or whatever—the rescue requirements are beyond our 200 nautical miles.

The Chair: Thank you very much, Mr. Dechert.

We're going to move over to Mr. Eyking, sir, seven minutes.

Hon. Mark Eyking (Sydney—Victoria, Lib.): Thank you, Chair.

And thank you folks for coming.

I have three or four questions. I think the first ones are more for DFO. Number one is, you mentioned the challenges of search and rescue, getting there and trying to...as the traffic increases. We've heard over the last while that some of the fixed-wing aircraft for search and rescue, I think they're called Buffalo fixed-wing aircraft, are 50 years old and it's hard to get parts for them. Are we using those same aircraft in that area? If we are, what is the long-term replacement of new aircraft for dealing with the rescue in the north?

Ms. Jody Thomas: The aircraft you're referring to and all aircraft for search and rescue are DND assets. The coast guard does maritime search and rescue. We work obviously very closely with National Defence, but the responsibility for those assets is not ours. So I couldn't speak to....

Hon. Mark Eyking: What assets...? Because you guys are in the rescue business, what's your long-range prediction of new assets that are going to be coming? Do you have a sense of what you're going to be using in 10 years as the activity increases?

Ms. Jody Thomas: I can speak to the maritime assets in that we have recently received money to renew our fleet. Having the *John G. Diefenbaker*, the polar icebreaker in the Arctic, for longer periods of time will help us predict where incidents will be depending on where the ice moves in, etc. As fishing, etc. continues through into October, November, and December, we'll be able to ensure that we in the Canadian Coast Guard have an asset available to assist. But it's a vast space, so we can't be everywhere.

As for the air assets, I know that DND is going through a process to renew their aircraft for search and rescue.

● (1135)

Hon. Mark Eyking: So what you're going to be doing is strategically putting your icebreakers out where...

Ms. Jody Thomas: —where the activity is.

Hon. Mark Eyking: On the assessment process for environment —and I know it's probably a Department of the Environment question, but Fisheries and Oceans would have a part to play—is there a different process if somebody wants to drill somewhere up in the Arctic and retrieve oil or gas? Is there a different process than other parts of Canada?

Ms. Jody Thomas: The National Energy Board is responsible for the drilling in the Arctic and I believe they are the same environmental standards and expectations. We're not involved in that sort of assessment. We respond as required.

Hon. Mark Eyking: One of the big questions is what if something happens up there? We know what happened in the Gulf of Mexico with that oil spill and how hard it was to contain that even with no ice there. The breakdown of the oil particles happened better because of the temperature of the water. If you have a major spill up there—we're looking down the road, you can see more tankers coming through here, maybe loading up in Alaska and going to Europe or whatever with Chinese vessels, who knows— when those spills happen, does it cost twice as much? Is the challenge twice as hard as you would have in southern climates?

Ms. Jody Thomas: It's a very broad question. It would depend on the type of spill, the size of the spill, and where it occurred.

The ship-source pollution regime within Canada makes the polluter responsible. The polluter ultimately is the first line of defence against the spill and then coast guard and local volunteers would come in afterwards. There are too many variables. If it were a spill in ice versus a spill in open water, the size of the spill, and the type of substance spilled would all affect the response and the complexity.

Hon. Mark Eyking: Just on that, if you have a spill with ice, chunks of ice, it's hard to put those whatever you call them around to get at the oil. Is there a different technology?

Ms. Jody Thomas: There are different techniques. We have an environmental response group that focuses on response in the Arctic in our central and Arctic region and they train to respond to that kind of oil spill.

Hon. Mark Eyking: My next question would be to Transport.

I have a map here and it shows the different routes. You have the Northwest Passage, the northern sea route, and then I think there's one that's the trans-polar sea route. It seems like the route takes you right behind Iceland and almost takes you right close to the North Pole and then down to the Bering Strait. Is that a route that they're using now or is it a submarine route because how would you get through all that ice very close to the North Pole? So you have no knowledge about this trans-polar sea route?

Ms. Laureen Kinney: That's not the other name for the northern sea route. I have another name for the northern sea route.

Hon. Mark Eyking: There are four sea routes, shipping routes, Arctic shipping routes here. One almost goes right over the top. I'm just wondering why that's ....

Ms. Jody Thomas: In the chart we've provided, we resupply that far up, in Eureka. That chart shows one of the routes that one of our heavy icebreakers would take in the middle of summer to do community resupply.

Hon. Mark Eyking: Oh, they go that far up north?

Ms. Jody Thomas: They do go that far up north.

Hon. Mark Eyking: My second question, to Transport, is what are your projections of activity for the next 10 or 20 years, assuming that climate change is going to continue and that the route is going to open? Where do you see the main activity? Would there be vessels coming out of Europort, out of Europe and going through to Japan that way? Would there be mostly American vessels? Or is it going to be everybody coming through here?

We're looking 20 years down the road, and if climate change happens as it is happening, what kind of activity do you foresee? Right now you're only stating 30 or 40 ships, but let's assume that you have a seaway similar to our seaway or the Panama Canal; what are your projections, and how are you going to deal with it?

Ms. Laureen Kinney: That's a very good question. Projections are always very difficult to do, and in this particular case they're even more difficult. The variability on the tourist and the eco-cruise and pocket cruiser side is increasing slowly, and I expect it would continue to increase, but the specifics of this would relate very much to the economics, etc.

Concerning the resource development side, the number of larger ships that would start to be seen on a more regular basis is so dependent on those projects moving ahead on certain schedules. And we work on those schedules; we look at the layout. This is part of what I referred to at the beginning about looking at some of the corridors. Where do we see development as most likely to happen, and in what timeframe?

The potential is huge, but the actuality is quite slow.

I think it's important to also reinforce the point that was made earlier. The risk is so substantial in terms of unpredictability, with these more open areas and with climate change impacts. The risk is actually more undefined, so there is a significant impact on insurance and the capability of the vessels that want to operate in these areas to do so with sufficient liability insurance, etc.

● (1140)

The Chair: That's all the time we have, Mark; I'm sorry.

We're going to start a second round.

Mr. Schellenberger, you have five minutes, please.

Mr. Gary Schellenberger (Perth—Wellington, CPC): Thank you.

It's a pleasure to have you folks here today.

A number of years ago I had the opportunity to tour the coast guard facilities in Quebec City. I had quite a thorough tour. I was there probably for two hours. At that particular time I was told that I was the first member of Parliament to tour that facility in quite some time. That was about nine years ago now. I got a very intensive look at what the coast guard does, at some of their assets, and at the way they are set up. I was quite impressed with what was there and I understood at that time some of the shortfalls that existed.

I have one thing to ask concerning the north that may be a direct question for the coast guard. Does the coast guard have its own helicopters, or do they work through DND or something else?

Ms. Jody Thomas: Every one of our icebreakers except one, the *Terry Fox,* carries helicopters in the Arctic. They are coast guard-owned and are operated by Transport Canada pilots who become part of our crew.

Mr. Gary Schellenberger: We had people from the Northwest Territories and Nunavut and Yukon here the other day, and they were talking about our deepwater port facilities. Are there any natural deepwater ports that you feel should be developed and which might help, going forward? Are there any specific ones that we should be looking at which might help not only in the opening up of the area but also might be beneficial in the case of an accident?

Ms. Laureen Kinney: I'll answer that.

Transport Canada has done some work through our Prairie and Northern Region in looking at where development is likely to happen going forward and where there are other transportation routes that you could look at, beyond a project-by-project basis.

Typically, a project looks at how to build a road from a mine to a particular port area, where there may be no port—that type of thing. We have done some studies and we're doing some work looking at where some of those areas are in which there may be an opportunity to look at what might be developed. These are studies, and we've put some of the information on our website.

So there are some studies out there about what kinds of things would logically happen and would make sense in terms of support more broadly. There are a few of these areas. In Coronation Gulf, I believe, there's a very good opportunity, potentially, but to take a decision to do such a development is another big step.

Mr. Gary Schellenberger: The representative from the Northwest Territories we talked to suggested that there are plans for a northern road to be built to the Arctic. I would hope that the road would be done in conjunction with a deepwater port or something like that, rather than go to some place that has a big sandbar.

When it comes to land travel and sea travel and those types of things, are the various groups working together?

● (1145)

Ms. Laureen Kinney: Yes. In fact, the studies that I mentioned were carried out in conjunction with the territorial governments and the communities. We look at the potential development and the timeframes—those would come in. But you also have to look at the community needs: at the existing communities and where they are located, how resource development opportunities that are coming could support community resupply—just what you are pointing out.

We do take this into account; it is collaborative work, done on our policy side.

Mr. Gary Schellenberger: Mines may not occasion the biggest chance of pollution; it's probably an oil spill or an oil and gas project. What is the projection for oil and gas exploration? Are those wells going to take place? I know that it took quite a while in Newfoundland and Labrador for those offshore projects, so are we looking 10, 20, or 30 years down the road?

Ms. Laureen Kinney: On that side of things, I think it would be better for Natural Resources Canada to speak to the question. We don't have that kind of analysis. We know of a number of mining projects that are likely to come to fruition over the next 10 years. Those are things we're looking at very closely. We are also looking at the longer term, but we don't really have that kind of analysis.

Mr. Gary Schellenberger: If there were a problem there, it would probably be with the ship that was taking it out. If there were an oil spill, it would be the fuel that is on the ship, etc.

Ms. Laureen Kinney: Exactly.

The Chair: That's all the time we have. We're going to have to move over to Mr. Bevington for five minutes.

Mr. Dennis Bevington (Western Arctic, NDP): Thank you, Mr. Chair, and thank you to the witnesses here today. We appreciate your presentations.

Some of these things are very important. I was listening with great interest to what you said about oil spill recovery in ice-filled waters. Has there been some amazing technological development in the last three or four years that allows us to recover oil that has spilled in water with greater than 35% ice?

Ms. Jody Thomas: There are skimmers. It's that kind of hands-on —

Mr. Dennis Bevington: The technology wasn't good enough three or four years ago to do that kind of work. Is it now good enough, or is it simply the same thing?

Ms. Jody Thomas: I'm not sure what you mean by not good enough.

Mr. Dennis Bevington: We couldn't recover oil successfully in water with more than 35% ice in it. That was the figure given to us a number of years ago. Have you improved that capacity?

Ms. Jody Thomas: There is always research ongoing, worldwide. We draw on both Canadian research and international best practices. I wouldn't want to give you a percentage, but it's not something that's static. As new developments in technology or approaches are tested —

Mr. Dennis Bevington: Nonetheless, it's a very difficult—

Ms. Jody Thomas: Yes, it's very complex. It's not the same as—

Mr. Dennis Bevington: It's not proven, and it has not been successful. Can you give me an instance in which a large oil spill has been collected in ice-filled waters successfully?

Ms. Jody Thomas: No. I can't give you an instance of a large oil spill in ice-filled waters.

Mr. Dennis Bevington: So there is no existing practice.

Ms. Jody Thomas: Right, and that is a positive thing, in that there haven't been large spills.

Mr. Dennis Bevington: Well, good.

Turning to shipping, there has been some concern about the development of an Arctic shipping code whereby we would look at specific types of ships, double-hulled and with certain types of practices associated. That would be a requirement for a fairly large international agreement, wouldn't it? If we were to go in that direction, we'd have to put a lot of effort in internationally to accomplish it.

Ms. Laureen Kinney: Yes. Canada is working now with the International Maritime Organization on a mandatory polar code. There was agreement to do that work and to prepare a package of proposed requirements.

This is based to some large degree on a voluntary set of guidelines already in existence. They cover a broad number of areas, including construction, what kind of rescue equipment to carry, and what kinds of personnel requirements should be established. We are proposing to look, in addition to what is being done at the International Maritime Organization, at some voluntary guidelines with our colleagues at the Arctic Council, under the chairmanship of Canada.

Yes, this needs a considerable amount of work.

Mr. Dennis Bevington: Do you have some refits planned in the next couple of years for the icebreakers in the existing fleet?

● (1150)

Ms. Jody Thomas: Yes, we do. The *Amundsen* is in refit right now. We have a continual cycle of pulling a vessel out and putting it through refit.

Mr. Dennis Bevington: How many icebreakers will you have available for service over the next number of years?

Ms. Jody Thomas: Generally we have seven icebreakers available for work in the Arctic in the summer. The *Amundsen* is dedicated to science, not to regular coast guard business. So with one in refit, we would have six in total, five doing coast guard work.

Mr. Dennis Bevington: Last summer we had actually two incidents of ice blockages on supply passages for the north. Is that correct?

Ms. Jody Thomas: Yes.

Mr. Dennis Bevington: Maybe you could talk a little bit about those incidents, because I think they're very important to us.

Ms. Jody Thomas: There was significant ice blockage in Frobisher Bay. It was quite unusual. It hadn't been seen in many years, with vessels having a hard time getting in and out of Frobisher Bay due to the ice. We had two icebreakers there for most of the month of July, breaking vessels in and out, in order to provide resupply into Iqaluit. It took a significant amount of time.

That's what we do. We're an operational organization. We look at where the vessels are needed and readjust the programs of every other vessel.

Mr. Dennis Bevington: On the west coast, was there another blockage in maybe U.S. waters?

Ms. Jody Thomas: Two years ago, yes, there was a problem with getting fuel into the community of Barrow, I believe, in Alaska. Their heavy icebreaker *Healy* was not available. *Sir Wilfrid Laurier*, our medium icebreaker on the west coast, was already down south, and it wasn't suitable for the kind of work needed. I believe a Russian icebreaker had to be contracted.

The Chair: Thank you very much.

We'll finish up with Mr. Williamson.

You have five minutes, sir.

Mr. John Williamson (New Brunswick Southwest, CPC): Thank you, Chair.

I can't imagine what it would be like planning for the Arctic. My riding is New Brunswick Southwest. It includes Passamaquoddy Bay in the mouth of the Bay of Fundy. Many of these overlap. We have a dispute with the Americans over the right of innocent passage through Head Harbour. We have a territorial dispute at Machias Seal Island with the Americans. We have small icebergs...or actually, they're not really icebergs, but we have ice, water hazards, tides, and even there it's a challenge. Last summer a boat was marooned due to low tide. I believe it was DFO that had to send in experts to make sure there was no hazardous contamination on the surface...which was used for clamming. And that's just one small area, which is relatively heavily populated compared with anything in the north, so it's a huge, huge task.

I want to follow up, since this was opened up and it's something that's increasingly talked about, on the transportation of what I suspect would be oil through the north. I'm approaching this with not a lot of background, so I might ask some very basic questions. Is that something that's currently happening? Do tankers run closer to Russia, or on our side, or...? What is the route?

Ms. Jody Thomas: Tankers go through the Arctic to do community resupply of fuel all summer.

Mr. John Williamson: Are they the size of the *Exxon Valdez*, for example, or are they smaller?

Ms. Jody Thomas: Well, they range in size.

Mr. John Williamson: No, I recognize that.

Ms. Jody Thomas: In terms of risks, the *Exxon Valdez*, of course, was well known, and that was captain error. The risks of oil tankers at this time in the Arctic are, when they do the resupply, spills at that point.

Mr. John Williamson: Yes. That's obviously a concern. In through Canadian ports, there's more oversight.

Are we seeing tankers going through, just using the waterways, to get from point A to point B?

Ms. Jody Thomas: No.

Mr. John Williamson: Do we expect that's going to happen, or is...?

Ms. Laureen Kinney: Not imminently, I don't think.

Mr. John Williamson: Okay.

Ms. Jody Thomas: As we said, the Northwest Passage and the waters in the Arctic, the other routes available, are inherently still dangerous. The shippers know that, especially tankers. They don't take risks.

Mr. John Williamson: Right. So when we talk about oil tankers, it's not so much what the public generally thinks of as tankers, but it's helping communities fill their oil tanks in the winter so they can have heat like Canadians, which I think is altogether a different equation.

Ms. Jody Thomas: Yes.

Mr. John Williamson: I'm wondering if your departments have given any thought to this. We hear, with the challenges of the northern gateway, the talk about trucking oil somehow north—pipeline, rail—and then taking it out by ship.

Have you had any discussions on that internally yet, or any thoughts on what that might mean to challenges from northern ports?

● (1155)

Ms. Laureen Kinney: I think we are looking at some of the options industry is putting forward, looking at probably what could be seen as rather speculative approaches. Some oil is being transshipped by train now to the east coast, but not a lot. In terms of going to the north, you're talking a lot of infrastructure and a lot of questions around that. So, yes, we are looking at it and we work with various agencies. We get information from the Transportation Safety Board, etc., as well as our own information from the coast guard, but it's probably not imminent.

Mr. John Williamson: I even have that in my riding, a little boom in McAdam with the trains going through bringing in crude from the north to the Irving plant.

Are protocols being updated to deal with these oil shipments? I don't want to use the word “tanker,” because when I say tanker, I think big, I think huge. How are protocols being improved to ensure that if a spill were to happen, it would be adequately dealt with?

Ms. Laureen Kinney: There are a number of areas there. Of course prevention is a key concern, and the regulatory regime is where we focus that, so I have two points.

One of the major things we're doing right now is a major risk assessment across Canadian waters to look at a better way of evaluating those risks on a more even basis and to be able to understand the comparative risks and some of the factors in terms of effective mitigation.

We've done a fair bit of work in terms of what we call “term POLE assessments”, where we look at a specific proposal for a terminal, etc. Those represent a broad consensus of work across departments to look at the whole picture. But in terms of the north and the activities up there, we get involved in supporting the Nunavut Impact Review Board, looking at particular projects up there, looking at a lot of specific details like overwintering of oil in tankers to support the development of a site. Also, in our regulatory regime our people are very active in these areas, and they work very closely with the communities and the suppliers, etc. There's a fair amount of flexibility in terms of how you can apply the regulatory regime, and wherever we see a need to increase that, we have various policy requirements we can add, or we can look at regulatory changes.

Mr. John Williamson: Is bringing in oil by ship currently the best and/or the safest way to do so in the north?

A witness: Yes.

Mr. John Williamson: Thank you.

The Chair: Thank you, and to our witnesses, thank you very much for being here today. We appreciate all the input.

We're going to suspend for a couple of minutes to get set up for a video conference with our next witness, so I'd ask all the members to stay close by.

Thank you once again.

●

(Pause)

●

● (1205)

The Chair: All right. I think we have most of the members back to the table now. I want to welcome by video conference from Whitehorse, Yukon, from PROLOG Canada Inc. Kells Boland, who is the project manager.

Welcome, sir.

I know you have a presentation for us, so I will turn it over to you to start your presentation, and after you've finished we can go around the room and ask some questions. How does that sound?

Mr. Kells Boland (Project Manager, PROLOG Canada Inc.): Thank you and good morning. It's a lovely morning here in Whitehorse. I think I saw some of you shovelling slush last night on the news, but we have a nice day here.

This morning I would like to go through about 10 slides or pages with you. I want to give you a sense of what is actually happening in the Arctic in terms of Canadian transportation to and within the Arctic. That's in two major areas. One is inbound resupply, and that's actually the only commercial transportation activity taking place in the Canadian north right now. Second, I want to give you a sense of the impending resource development international export traffic that will be taking place in the near to mid-future within the next 10 years or so. Finally, I want to give you a bit of a look at the transportation changes that are taking place to facilitate that resource development and the transportation it will entail.

Before I do that, I'll just give you a little bit of a background on PROLOG. PROLOG was established over 30 years ago in Calgary initially to look at logistics planning for large pipeline projects in the north. Since that time we've branched out a bit. Half our businesses is private sector projects and half is government policy and planning studies in the north. In fact, in 1985 we did our first Arctic transportation study, and we've done a similar study to update that about every 13 years, the most recent one, a northern transportations system assessment, being completed about a year and a half ago.

In 2005, I was asked, on behalf of the State of Alaska and the Government of Yukon, to manage the feasibility study for an Alaska-Canada rail link project. To do that, I was told to set up an office in Whitehorse, and that's the office I still manage today, although we completed that specific project about two years ago.

The next 10 pages I'm going to go through are based on what we're currently doing and have done recently in transportation-related projects in the north. It will give you some sense, from the practical perspective of what we've done, of what transportation is like in the north.

The next page shows you what Canadian Arctic resupply and infrastructure that supports it look like today. You'll see there are six ports. I hesitate to call them ports, because they're very rudimentary. Three of them are deepwater docks and three of them are barge terminals. You will notice two of those are actually in Alaska.

I'll start with Skagway, Alaska, which is Yukon's port for exporting Yukon minerals to a tidewater export position. It is all of 18 miles from the Canadian border, but that is the port for exporting minerals from Yukon. Next is Prudhoe Bay in Alaska. That's a former and future receiving port for barge resupply, again through Canada into Alaska. Then of course there's the Alaska Highway, which is Alaska's highway through Canada.

So that gives you a little sense of how this moves quickly, at least in a bilateral sense for international transportation. In my neck of the woods, there is a close relationship between infrastructure and transportation across the border.

I'll move down from the west here through the highway system that is in place. The Dempster Highway connects the port at Skagway all the way up to the western Arctic at Inuvik, with a winter ice road and summer barge service into Tuk on the Arctic coast.

Further south is the Mackenzie Highway, which provides a resupply link to the Hay River barge terminal for the Mackenzie River barge operations, again to Tuk and into the western Arctic. Then basically the rest of Arctic resupply in Canada is a sealift deep draft ship operation and the ports are sealift beaches. Cargo is lightered from a ship to a sealift beach in the case of dry cargo, and in the case of bulk fuel, using floater hoses from tankers.

● (1210)

The other dots shown on this map are docks that really aren't related to Arctic resupply. One is Churchill. In terms of resupply, it does provide a barge service into the Kivalliq region of Nunavut, but it doesn't get into the Arctic. The other one is Nanisivik, which previously was a lead-zinc mine with a deep draft dock that's now a fuelling facility for coast guard and navy ships.

It's skinny infrastructure, but we have a resupply system that works. What does it move? The sealift system itself moves about 400,000 tonnes a year. The highway system, which is relatively limited in the Northwest Territories, moves 500,000 tonnes a year. In Yukon, there's a fairly extensive highway system for a northern territory, and it moves 600,000 tonnes a year.

That's the traffic taking place in the north right now. I exclude aviation. I'm just talking about surface transportation, basically truck and marine. I want to give you a sense of how resource export development may change the scale of both the Arctic transportation and the infrastructure that is going to support it over the near future, within the next 10 years.

In the Western Arctic, it's iron ore. If you look at both the Baffinland Mary River iron mine prospect and Roche Bay, you'll see that 24 million tonnes a year would be exported from those two mines. If you look at the central Arctic, you'll see that it's base metal mines, and that totals in the range of a million tonnes of lead-zinc that would be exported from the Coronation Gulf region. Over in the far western Arctic are Beaufort Sea oil and gas and Mackenzie Delta oil and gas. Those are the sorts of resource developments that will require and will have to develop primarily port infrastructure, but also some roads, in order for the resource development exports to take place.

For the rest of this presentation, I want to give you a sense of how those resource-development-driven changes in Arctic transportation will be taking place. This next page shows it in the broadest circumpolar context. We've all heard about the warming in the north and what that means in terms of an extended navigation system in the Arctic. The shortcut between north Asia and northern Europe, which everybody talks about, is ultimately the polar passage, but between now and when that happens, it's the Russian northern sea route or the Northeast Passage, not the Canadian Northwest Passage. The Canadian Northwest Passage between north Asia and northern Europe is about 1,000 kilometres longer, so it just isn't in play as a shortcut between north Asia and Europe.

What it is in play for, as I talked about previously, is as an origin-destination, both for the origination of large-scale mineral exports to foreign countries—international trade—and a destination port for the resupply of those very resource developments that will be generating those exports.

That gives you a context for how the Canadian Arctic transportation system fits into the circumpolar transportation system, and for what we have to be concerned with and, quite frankly, what we don't, in terms of many container ships going back and forth between north Asia and northern Europe. It's going to happen ultimately across the pole but between now and then on the northeastern sea route, the Russian sea route.

I'll get to some of the specifics of infrastructure development that should happen with respect to those projects. The 800-pound gorilla in the room, or the $700-million port, is the Baffinland Mary River mine. It's obviously a very large mine. It already has a 100-kilometre road to Milne Inlet at the north end of Baffin Island, and it envisions a 143-kilometre railway to Steensby Inlet, which will be a large $700-million port south of the mine site.

What I've tried to show is a comparison of where we were about 15 years ago with the Nanisivik mine. That's the port that's now a naval port but was a mine and a deep draft export port. It exported about 110,000 tonnes of lead-zinc every year. Then we have the Mary River mine, as shown in the graph at the bottom of the page, at 18 million tonnes a year.

● (1215)

You can appreciate the difference taking place there, or that will take place there, just in terms of the marine activity. The ship that's in the inset there; that's about a 50,000-tonne vessel. It will actually be a capesize vessel, which is about 100,000 to 125,000 tonnes. These icebreaking ore carriers have not been built yet, and there will about two or three a week. You can appreciate the huge change in the scale of Arctic transportation, marine transportation, activity year-round that will be taking place as a result of that project.

The next slide gives you a little sense, moving further west, of how the warming north and extending the Arctic shipping season is already changing the shipping service provided for resupply in the north and also for the export that will be taking place. I will explain how the changes are taking place in the Coronation Gulf region.

Ships coming in from Montreal that normally serve the eastern sealift are now entering the western sealift market, which is the Coronation Gulf—the exclusive realm of Mackenzie River barges out of Hay River for as long as we've been providing resupply services to the north. This is a recent phenomenon, a result of both the warming north and the extended navigation system, allowing eastern sealift ships to enter the western Arctic, but stimulated by resource development—in this case, the Newmont mining project, which is currently in abeyance. That opportunity to support that mine gave those ships the ability to come in and provide an alternative service to the Mackenzie River service. At the same time, that Mackenzie River barging operation has been supplemented by west coast sealift deep draft barges coming in from Vancouver. So all of a sudden, we've moved from a single-supply source, which is Edmonton, the Mackenzie River into the western Arctic to sealift ships from Montreal and sealift barges from Vancouver, as well as Mackenzie River barging.

That gives you a sense of fairly dramatic changes taking place in this area. So in that Coronation Gulf area—just to give you a feeling for the resource development projects—three relatively large-scaled projects are all taking place in the same general area, each with its own port and road. Roberts Bay is the port for Newmont mining projects, and Bathurst Inlet is the port for Xstrata Zinc's Hackett River project and Grays Bay is the port and the road extension south for China Minmetals Izok Lake project, and those are lead zinc.

In turn, they're all getting into the same neighbourhood as the Northwest Territories' diamond mines. So you can see there's a convergence of transportation capabilities, and maybe better opportunities to cooperate and not build three ports when you could probably do the same thing with one—I'll speak to that at the end here—in the area of Tuktoyaktuk, supporting oil and gas activity into the future.

I'll give you a sense of what's taking place in the Mackenzie Valley. It is in transition, with a proposal for the Mackenzie Valley Highway to replace the current two-season operation, which is summer barges and the winter ice road connection, right up to Tuktoyaktuk. That gives you a sense of the sort of transition taking place in the Mackenzie Valley corridor.

On the Yukon, I mentioned the Alaska port of Skagway, the Yukon port to tidewater export position for Yukon mines. That is expanding now, as we speak, from about less than 100,000 tonnes a year to, probably within the next three years, up to half a million tonnes a year. The Ore dock at Skagway, that's being built out, about a $75 million expansion of that is going to take place courtesy of the State of Alaska to support Canadian exports through that Alaskan port.

● (1220)

Moving into an entirely different area that is equally important in terms of northern resource development, the two problems in the north are the lack of infrastructure in terms of resource development and the lack of transportation infrastructure and energy. We're currently working with a number of clients on the introduction of LNG as a low-cost substitute for diesel-fired generation in the north. The trade-off is it costs a lot more because it takes a lot more trucks to move LNG. It's about 60% of the density of diesel. Even though it costs a lot less to get the natural gas than it does to get the diesel, it's a trick to figure out how to move it. The length of time you can store it is somewhat limited.

This is a picture of the trucking operation; basically two large thermos bottles. It'll be moving LNG for Yukon Energy hopefully within a year from right now. That'll be about five trucks a day for the Casino mine in the next 10 years. They're off the grid, so they need their own source of energy. They can't afford diesel, so LNG is a solution. Inuvik is out of gas at the Ikhil gas field there; the two wells are out of production right now. They would have to go to diesel if they cannot get LNG.

That gives you a sense of some of the changes that are taking place. Some final wild cards may still come into play. These are things we've been working on from time to time: oil sands modules to the Athabasca oil sands, literally over the top of Alaska and the western Arctic and then north, up the Mackenzie River ultimately to the Athabasca oil sands. The Mackenzie Valley pipeline and the Alaska gas pipeline—in abeyance—may well come back into play.

In airships, we're doing some work for Northrop Grumman looking at what the airship market may be for resource development projects in the Canadian north. As I mentioned, the Alaska-Canada rail link seems to be regaining some political traction now in Alberta as a way to move Athabasca oil sands bitumen to a Pacific port.

Finally, building Arctic transportation infrastructure is often prohibitively expensive. Some of the suggestions that came out of our last northern transportation systems assessment with respect to how you can afford infrastructure in the north: Consider all options for cost-sharing partnerships, for multiple private and public sector needs can be met with a single multi-use facility. You may have gotten the sense in my presentation that there are several places where we've got multiple facilities that could all be providing the same service without being replicated expensively over and over.

Resource development projects increase the prospects for Arctic infrastructure investment. Private sector infrastructure investment viability increases with shared use solutions that lower costs. Piggybacking public sector needs onto private sector solutions may warrant public-private partnerships.

That's my presentation to you.

Thank you.

● (1225)

The Chair: Thank you, Mr. Boland.

We're going to start with the opposition. Mr. Bevington has the floor for seven minutes.

Mr. Dennis Bevington: Thank you, Mr. Chair. I want to thank you, Mr. Boland, for your presentation.

We both come from areas of the country where these subjects are being talked about. I appreciate your presentation.

A few months ago, I went through a northern development report at Natural Resources. Much of this information would have been very valuable there. This is a foreign affairs committee, and the subject is our Arctic policy. It gets a little more difficult because it's foreign affairs. We need to focus on what that means, and that means the relationship with other countries.

I was interested in your very good slide on Arctic transportation in transition. That really does speak to something that we've had to put a rest to, the Northwest Passage as a likely shipping route. You've laid that out pretty clearly for us. We've only had one other witness go into that much detail. Could you expand on that idea here? We saw the Chinese icebreaker go through the polar passage this summer or last. How would you anticipate this moving ahead, this particular multinational route through the Arctic?

Mr. Kells Boland: First off, I deal in commercial cargo transportation, so that's what I'm speaking of when I say that our Northwest Passage will not come into play for commercial cargo transportation or serving the market between north Asia and northern Europe. From that perspective, I'm suggesting we won't see a lot of activity in the Canadian Northwest Passage.

There will be other things that take place, and I'm not the one to speak to that, but I can tell you what they are. They're recreational vessels, cruise ships, a lot of research and development vessels. That sort of activity will take place, as well as the major thing I mentioned, which is that from the resource and development point of view we are an origin and destination market.

Mr. Dennis Bevington: Those would be ships that would be licensed in Canada. They mostly would be in Canadian waters, so we would be dealing with them mostly domestically, wouldn't you say? Or would we need some kind of international agreement about ships that are moving through our waters, say, to take iron ore from Mary River?

● (1230)

Mr. Kells Boland: Definitely when we're talking about bulk carriers, they're going to offshore markets. There's no legal requirement for them to be registered in Canada. They're in international trade. It's not a coastal Canadian operation that requires Canadian-crewed vessels, so you could very well be dealing with foreign vessels.

I didn't get down into the weeds about the difference between the Northwest Passage and the Northeast Passage, the northern sea route, but I see a lot of people suggesting that the northern sea route is shorter and therefore it would logically seem more attractive. But it's much more expensive because it's run like the Panama Canal. There's a tariff for using it. And with that tariff come navigation aids, and potential icebreaker support when you require it. On the Canadian side, we don't have that kind of a cost of using a sea route like that. I'd suggest that at some point we'd better have a user fee of some sort or everybody will maybe try to come and use the Northwest Passage for free.

There's an aspect there that I don't think has been played out completely in terms of addressing the trade-off. The fact that there's a tariff on the Russian side and we don't have one here plays to potential issues you're talking about that could happen with a number of vessels, especially recreational vessels and vessels that could slip under the radar in terms of search and rescue and potential spills and that sort of thing.

At some point I would think we would have to have the same sort of user pay, or some approach towards the users helping to finance a system that is just now coming into play in the Arctic. The Russians are way ahead of us in terms of figuring out how to manage that and how to pay for it.

Mr. Dennis Bevington: The Chinese are building a very large icebreaker fleet. They put their icebreaker through the polar ice cap last year.

Now, we know the polar ice cap is rapidly depleting, especially in thickness, so if they're building these icebreakers, what are they building them for? Are they going to build them for commercial use to establish this polar passage that basically stays out of anyone else's water?

Mr. Kells Boland: I'm really not the expert. That gets into the UN Convention on the Law of the Sea and right of innocent passage, and a lot of things that I'm not an expert on, so I had better not touch that. Sorry.

Mr. Dennis Bevington: Well, you put it in here as a potential route. It is something that could change both those perspectives, of the Northeast Passage, and potentially in the future, the Northwest Passage.

If you go straight over the pole, it's the shortest route.

Mr. Kells Boland: No question.

I don't think the Chinese icebreakers were built to open up that passage for commercial cargo or transportation. I would guess it's more for resource development and maybe some scientific work, but in international waters, as opposed to either the Northeast Passage or the Northwest Passage.

Mr. Dennis Bevington: Wouldn't you think it would be a very good idea for us to watch very closely the condition of this ice moving forward so we know when this whole thing is going to open up? We've had projections that could be even as quickly as 2020.

Mr. Kells Boland: Well, to your point with those icebreakers, the Chinese will be in a very good position to do exactly that, and we should be figuring out how to do it ourselves. Yes.

Mr. Dennis Bevington: Thank you.

The Chair: Thank you very much. That's all the time we have.

We're going to move to the government side, and Ms. Grewal.

Mrs. Nina Grewal (Fleetwood—Port Kells, CPC): Thank you, Chair.

Thank you, Mr. Boland, for your presentation.

Mr. Boland, in the future it is expected that the far north will be more open to shipping and transport through the Northwest Passage.

Where these challenges are presented by the expansion of travel in the north, could you tell us how well Canada's coast guard is equipped to address the possible influx of the ships?

Mr. Kells Boland: NORDREG certainly has a marine tracking service right now. It will certainly have to be expanded with the level of activity that's going to be seen in the Arctic, even with just the origin and destination traffic I talked about. You can see, for example, when the Mary River mine project gets going, there will be two to three ships a week year-round operating in and out of the western Arctic. It's just an order of magnitude beyond what the coast guard has been handling with just a summer sealift, basically, until right now. There's going to have to be a large magnitude of change to be able to regulate, monitor, and control the marine traffic in the Canadian Northwest Passage.

● (1235)

Mrs. Nina Grewal: With the north being an important part of our government's defence and development strategy, how well equipped is land transportation infrastructure to handle a higher volume of transport on northern highways and roadways? How is the transport situation improving to remote communities in that area? Could you tell us?

Mr. Kells Boland: What I can tell you is we have very skinny infrastructure, basically two deepwater ports: Churchill, which really isn't in the Arctic, and at Nanisivik. Beyond that, we don't have any deepwater ports. At some point we will require more.

My message to your committee is that for both private sector community resupply, and government—including military—requirements, take a close look at where they can be met in common so that we're not planning in silos here.

I showed you that in the central Arctic and the Coronation Gulf area there are three mining companies, each one with their own ports and roads, each one having to deal with the cost of that. You say, why don't they build just one to serve all three, and perhaps the diamond mines in the Northwest Territories as well? The answer is very simply that when they go with their bankable feasibility study to get financing for their particular project, the banks want to know, what can you do without being reliant on someone else? How can you assure us, as the financiers, that you can completely control the logistics supply chain for your project? They have to go out and do it as an independent, stand-alone project.

You look at that slide I showed you. To me it looks ridiculous. There you have three ports within the same general area and any one of those could serve all three resource development projects.

Then you have the requirement for deepwater ports, say, in the central or western Arctic, from a government perspective for the coast guard or navy. Why couldn't that be one of those ports instead of looking at developing separate deepwater ports for different purposes, all of which are too expensive for us to afford under the current financial regime?

The message I hope I concluded with was take a close look at where we can have common user facilities from a financial feasibility perspective.

Mrs. Nina Grewal: With greater use of Canada's north and the potential use of the Northwest Passage, Canada faces new defence considerations. In what ways will the opening of the northern transportation routes affect our defence strategies?

Mr. Kells Boland: Again, I think there are some opportunities to piggyback defence requirements, in terms of shore-based infrastructure, on resource development projects. Resource development projects provide the financing that government currently has a hard time doing in the north. Witness the fact that we have no deepwater ports there. If some or all of these projects go ahead, we will have deepwater ports, which could well become shared facilities for defence, for the military.

Mrs. Nina Grewal: The isolation of much of the north really makes it a very difficult place to do business and to travel. What kinds of challenges do firms building infrastructure and expanding operations face when working in the north? What measures does the government take to make this easier in the north? What steps could our government take?

Mr. Kells Boland: The challenge is coming up with the money to develop the infrastructure to provide the resource exports that are beneficial to this country.

My answer to your question is, impose a sense of coordination as part of the terms and conditions of some of these projects when they're being approved. It's not just doing business in the north, it's living in the north, which is very expensive.

Take for example the Mary River mine project. Those large ships that I showed going back and forth to Europe are empty coming in this direction. They will be carrying resupply for the mines year-round. They will be carrying fuel for the mines year-round. Should they not also be carrying community resupply year-round? They could provide a load centre of some sort right in the north, as opposed to having to wait until summer, and most of these communities get a single sealift delivery once a year.

There are ways that the governments could come in—not just the federal government, but the territorial governments as well—to take a broader look at what some of these infrastructure projects that are going to be privately financed might do to improve exactly what you're talking about, the cost of doing business and living in the north, on a broader perspective than just the resource development project itself.

● (1240)

The Chair: Thank you very much. There are some good suggestions there.

Mr. Eyking, you have seven minutes, sir.

Hon. Mark Eyking: Thank you, Chair.

Thank you, Mr. Boland, for coming. It was a very informative presentation. We appreciate that.

I have a couple of questions. In your slide, you mentioned the Alaska-Canada rail link. When you look at the map on the following page, when you look at Fort McMurray and take a straight line across, you go north of Prince Rupert and Prince George and end in U.S. territory.

Is that where you're talking about the potential of a railroad that would go right straight across and kind of land at the U.S. destination? Is that what you're thinking? Is that what you're talking about with the Alaska-Canada rail link?

Mr. Kells Boland: The project that I managed, the Alaska-Canada rail link project for the State of Alaska and the Government of Yukon, was to look at linking the Alaska railroad, which will shortly terminate at Delta Junction in Alaska, near Fairbanks, and to tie that all the way into the continental rail system. Over the course of our study, we decided that the best place to tie in with the Canadian National Railway was at Hazelton in northern British Columbia.

The impetus at that time for that railway was to move resources to ports. That's to say mineral resources, not oil and gas resources. The issue of how you get Athabasca oil bitumen to market, not just to U. S. markets but to offshore markets, has recently shone the light back on the Alaska-Canada rail link project.

I had the sad duty of telling the Governor of Alaska and the Premier of Yukon that they could not afford to build the Alaska-Canada rail link with the revenues that the mining resource industry would provide. The oil and gas industry has enough revenue to support that.

To answer your question specifically, the route is from Fort McMurray through Canada to that same Delta Junction, but not to tie in with the Alaska railroad, to tie in with the Alyeska pipeline to go to the port of Valdez, where there's an existing oil terminal.

That's the concept, to take advantage of an existing Pacific coast oil terminal that's already there and tie it in with a rail link to the Athabasca oil sands. It would basically be along the same route that we looked at for mineral resources, but now with oil resources.

Hon. Mark Eyking: You talked about icebreaking capacity and potential container ship traffic in the Arctic. Would your comment be that probably the head office of Maersk in Copenhagen is looking at their future ships having icebreaking capacity more so than a lot of them now? Would it be a bigger percentage of their ships?

If we don't have the capacity as a country to keep the lanes open all the time, an icebreaking container ship could just go through it. What's your sense on what these companies are thinking of doing? Are they going to be building more container ships with icebreaking capacity?

Mr. Kells Boland: There are two things. First, if you talk to any container ship operator right now, shipowners will tell you that we're not going to use any Arctic route for our container ships as long as it's a seasonal operation; we have scheduled services set up, with time-specific departures and arrivals, and we're not going to change that system as long as it's a seasonal access to the Arctic.

The other point of view is that maybe it makes sense to have transfer points: for example, conventional container ships would operate to Iceland, transfer to an icebreaking container ship that would go across the pole, and then transfer again at, say, Dutch Harbor, Alaska, to a conventional container ship.

So there are two different points of view as to how container ships might react to this opportunity, but the conventional wisdom right now is that it will not happen with the container ship operators that are operating right now.

● (1245)

Hon. Mark Eyking: [*Inaudible—Editor*]....a bit about the U.S. and the defence system. As you're well aware, the U.S. is our number one trading partner, and we have very close ties with them on defence issues.

Should we be looking at a special navigational arrangement with the U.S. on this whole Northwest Passage dealing with defence, dealing with container ships, similar to the St. Lawrence Seaway and some of our free trade agreements?

Mr. Kells Boland: I'd like to pick up on your point. Just as I said that we should be looking at common user capability, at private sector resource development with Canadian governments, territorial and federal, we should also be looking internationally with the U.S. for the same opportunities.

The U.S. has a mandate right now for a deepwater port off the north coast of Alaska. The north coast of Alaska is very shallow. We actually have several deepwater locations on the Canadian side of the Beaufort. One of them is King Point. Another one is McKinley Bay. Actually, Tuktoyaktuk Harbour is a decent harbour, it's just a very shallow channel to get into it.

The point is that there are some opportunities there—even with the icebreaking requirements, because those are very expensive ships to build—for joint cooperation. Now, as to whether that can actually happen from a sovereignty point of view and those sorts of things, who knows? But when we're talking about limited capabilities to do exactly what you're talking about, to protect the U.S. and Canadian Arctic, it seems to me there are some real opportunities for cooperation there in terms of port infrastructure and maybe in terms of icebreaker ship construction as well.

Hon. Mark Eyking: That's it for me, Chair. Thank you very much.

Thanks, Mr. Boland.

The Chair: Thank you very much.

We'll start our second round.

Mr. Van Kesteren, five minutes, please.

Mr. Dave Van Kesteren (Chatham-Kent—Essex, CPC): Thank you, Chair.

Thank you for being here, Mr. Boland. The things you're talking about are most interesting.

I don't have the exact historical...but I had a conversation with somebody yesterday about the British and their position in Quebec after 1763 and subsequent years, when they really wanted to trade the whole thing for Trinidad and Tobago, I think it was. You know, when we think about that today, we think they were crazy, but back then, rum was more important than all this land. There were lots of trees there, I suppose, for ships, but....

I guess I know the answer to this question, but if I look at the map, more of Canada lies north of 60 than it does the south. If we had thought about the north even 25 years ago, for sure 50 years ago, we kind of looked at it as a wasteland. What are we going to with that? But today I think it's becoming more and more apparent that there is huge potential, and for the 21st century this is where Canada should be putting its energy.

I would like your comment on this. You mentioned natural gas and liquefied natural gas. If we are going to do things in cooperation, I don't think government should determine...and I think you've reflected these views as well. I think industry will show us where we need to set up, and government needs to work alongside industry.

If we did that, wouldn't it make sense for industry and government to start laying down some gas pipelines to supply those? We're now talking about natural gas in trucks. It's becoming a reality in the States. Some of the communities in the Yukon, I know, and most of the northern communities are using diesel. We all know the challenges with diesel and the pollution issues.

Wouldn't it make good sense to start to cooperate with industry and government to start laying down some natural gas pipelines to different areas? That's aside from the fact that we need to start shipping this stuff to the...or the opportunity we have to ship it to Asia. What about just for our own infrastructure?

● (1250)

Mr. Kells Boland: Your point is well taken. Specifically in the Mackenzie Delta, there's an awful lot of gas, and the community of Inuvik is out of gas, which is kind of ironic because they're sitting right there next to a huge gas field. The problem, of course, is it's a very small rate base, a very small community, and to build pipelines and to drill the wells to supply those pipelines is a pricey proposition for a very small population. However, again, the gas is there. The two wells that they did build are watered out. They have a distribution system already in place. Those LNG trucks I showed you are going to be feeding the same gas distribution system with LNG, even though you don't normally think of trucks as being cheaper than pipeline transportation, at least in the short run, because of the prohibitive cost of that pipeline transportation.

It's a chicken-or-egg thing. We have a north with a very small population, highly dependent at this point, as you point out, on diesel-fired generation and the opportunity to use natural gas, but the link there is expensive. Yes, government and private sector cooperation...but who's actually going to pay for it? The answer to that, again, could well be the mining industry in Yukon. Most of the rest of the mines will be off the grid in Yukon. They will have to provide their own power generation. It may be that a pipeline south from the delta to Yukon could make sense once enough of a requirement was in place. I wouldn't see gas pipelines going to every mine or every community, but they could be going to a central LNG facility, for example, where you could liquefy the natural gas and then truck it out to the smaller requirements, be they resource developments or communities.

The Chair: Thank you very much.

We're going to finish up with Madame Laverdière. You have five minutes, please.

Ms. Hélène Laverdière (Laurier—Sainte-Marie, NDP): Thank you, Mr. Chair.

Thank you very much for your very interesting presentations and for all this discussion about breaking the silos and piggybacking on what the private sector is doing. In fact, in your last response you talked about what was about to be my first question, which is, who is going to pay for that?

I have maybe two questions with respect to this.

How can we proceed? How can we establish some sort of mechanism to oversee that, to create partnerships with the government and the private sector, ensuring, of course, that the private sector pays its full share?

Right now, also, maybe just give us a better picture of the situation. I understand from your presentation that it's the private sector, basically, that is building ports right now, and roads and rail are all governments' or territories' projects.

I may be oversimplifying, but could you expand on those two issues?

Mr. Kells Boland: I think you're exactly right. That's a positive. We are getting infrastructure in the north, courtesy of the private sector, where they see a return on investment in mineral extraction that requires them to develop transportation infrastructure that can be used for the public as well as the private. That gets into some problems sometimes because there are issues about access. First nations are concerned about increased access to areas that didn't have public access before. The fact of the matter is, we are getting privately financed northern infrastructure that we otherwise could not afford.

How do we coordinate that? Every territory has a permitting process for resource developments and in those there are impact and benefit agreements. That's the first avenue to take a look, at least at where there are some legacy opportunities from resource development infrastructure for the rest of the public. I'm not convinced this gets the right review in that whole permitting process. It's usually in terms of how we actually remove all this infrastructure so it's never there after the mine is done. Sometimes that can backfire on us a bit. For example, the Nanisivik mine is now our only deepwater port in the north. If that had been removed in accordance with the original permitting procedures or requirements, it wouldn't be there.

● (1255)

Ms. Hélène Laverdière: Thank you very much.

It raised the whole issue of environmental assessment and things like that. I won't get into too much detail about that, but I still have a question about building infrastructure. I'm sorry, my question is probably quite naive, but right now with the effect of climate change, with potentially sea level rising, with the permafrost disappearing, it seems to be a very quickly evolving situation. What kinds of challenges does that present for infrastructure development?

Mr. Kells Boland: Again, you hit the nail on the head there. We have opportunities and problems that are created by a warming north.

I think I'd probably hit more on the positive side in terms of an extended marine season, a marine transportation season that has extended way beyond what we were used to having even a few years ago, and looks like it's going to be extended even further. At the same time, the highway system in the north is typically extended by winter roads, whose season is being shortened. So we have this: on the one hand, the marine season is extended, but the truck transportation system, to the extent it relies on winter roads, is going to be reduced. How you deal with that raises the requirement, or at least the desire, to see more all-weather roads extended further north. That is the interim solution: you build out the southern portions of winter roads so that the northern portions would still have a reasonable season length and can be accessed during that season with an all-weather road extension from the existing highway network.

I think it's a combination of those two things. It's going to require more all-weather road construction, not all at once, but incrementally as we actually see the results of the warming north, and at the same time, from a positive point of view, we're getting an ability to increase it maybe ultimately into—who knows—a year-round basis, even.

Then what that tells you is that we might want the roads we build to be more from northern ports going south, whether they're all-weather roads or even winter roads, which will still have a decent season in the wintertime further north, rather than pushing them from the south. So it's a combination of those two things: increasing the access with the highway system where we don't have winter roads anymore, but also taking advantage of the extended marine transportation system in the Arctic.

The Chair: Thank you.

Mr. Boland, thank you very much for your interventions. You've provided a unique perspective for us and we appreciate you taking the time to do that for us.

Mr. Kells Boland: Thank you very much.

The Chair: To the committee, I just want to mention that the UN Under-Secretary-General Helen Clark has invited us to lunch on Monday, March 4, and so could you just RSVP whether you would like to attend or not, and either way is fine. If you could just let Miriam know that would be fantastic. That's for Monday at noon in the parliamentary restaurant. Her name is Helen Clark, the UN Under-Secretary-General, administrator for the UN Development Programme. Everyone has received an invitation, so could we just get that back?

Thank you very much.

The meeting is adjourned.