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Chair

Mr. Michael Levitt

Standing Committee on Foreign Affairs and International Development

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• (1535)

[English]

The Chair (Mr. Michael Levitt (York Centre, Lib.)): I am going to call this meeting to order.

We have several witnesses, but only one currently accounted for.

I'd like to welcome and thank David Barber for joining us today. David Barber is the Canada research chair in Arctic system science and the associate dean of research in the faculty of environment, earth and resources at the University of Manitoba. We have already established that he is contacting us here from Winnipeg. Dr. Barber is also the director of the centre for earth observation science at the university.

Mr. Barber, you can take about eight to 10 minutes to provide some testimony, and then I am sure my colleagues are going to have lots of interesting and insightful questions for you.

Dr. David Barber (Professor and Canada Research Chair, University of Manitoba, As an Individual): Great, thanks.

First of all, thanks to the committee for inviting me to present here.

I am an old Arctic hand, I guess you would call it. I started my research career in the Arctic in 1981 so I am now in my fourth decade of doing research in the Arctic. I've seen a lot of changes over that time and I'd like to talk with you about some of those changes.

I get involved with a variety of research in the Arctic. All of it has to do with sea ice and how climate change is affecting sea ice in the Arctic. I've been very interested and engaged with various sovereignty-related issues in the north as well. I work with very large, integrated programs in the north. We work quite closely with circum-Arctic nations through the Arctic Council. We operate a lot of our research work from icebreakers. We also have field camps pretty much all over the Arctic as well.

Basically over the course of my career I've seen some very dramatic changes happen in the north. In the first decade of my research career there was really not much in the way of change going on in the Arctic. We had thought at the time we would see the first and strongest signs or evidence of a warming global climate system on the Arctic, but in those first 10 years of my career I was a skeptic about whether climate change was really happening in the north and what it was doing.

The next 10 years of my career we started to see some very distinct signals that were showing a change in the Arctic, so that next 10 years saw quite a lot of change. The next 10 years were very dramatic. That was through the period of the late nineties into the 2000s and there were very rapid changes in both extent of sea ice and thickness of sea ice. Then in this most recent decade that trend has been speeding up and it's been increasing quite dramatically and really causing a lot of changes both inside the Arctic and also outside the Arctic, through things that we refer to as teleconnections.

A lot of the changes that are going on today are not just staying in the Arctic, but rather they're spilling over, if you will, into more southern latitudes of the planet. A lot of them are very counter-intuitive. We have had many experiences over the last couple of decades where we have been surprised as to what has been happening with Arctic sea ice and the accessibility of the Arctic Ocean to people who are interested in seeing development occur there, so I think there is lots to talk about in terms of sovereignty.

I have also been around the system long enough that I know it's very challenging, as a country, to manage something like the Arctic, with the longest coastline in the Arctic being under the proud ownership of Canada. It's very difficult to manage that kind of change not only in the Arctic but, as I said before, with teleconnections to lower latitudes of the planet.

I think there are a lot of both challenges and opportunities in the sense of climate change in the Arctic. The challenges come in the form of how we, as a nation, respond to what's actually going on in the north. We have a lot of problems with icebreakers. Our icebreaking fleet is aging. It spends a lot of its time being repaired nowadays. You can imagine if you were driving a car that was 40 years old, what that car would be like. We're driving icebreakers that are over 40 years old and they spend most of their time in the garage getting fixed. This is an ongoing problem.

There are also a lot of opportunities with changing climate in the north. Here in Manitoba we've just had the sale of the rail line and the port. This is the only rail-linked deepwater port we have in the Arctic, and not just us but also the Americans, so it's the only one in North America. Russia has eight rail-linked ports and they are using all of them to develop their economy with a northern focus.

When I'm talking to the public I quite often use the fact that Russia gets about 23% of its GDP from the Arctic and we get a fraction of 1% of our GDP from our Arctic. It's the same Arctic and it has the same minerals and resources and fisheries potential, but we are not organized around how to develop it. We don't have the infrastructure to support Arctic development the way Russia has been able to.

There are lots of concerns there, I think, about how we move forward, as a nation, with both these challenges and opportunities.

I am here mostly to answer questions as opposed to giving you more of a statement, so I think I'll just stop my brief introduction at this point. I look forward to getting into a dialogue with what some of your interests and concerns are regarding the Arctic and climate change.

● (1540)

The Chair: Thank you very much.

I think we'll go straight into questions.

We'll begin with MP Alleslev, please.

Ms. Leona Alleslev (Aurora—Oak Ridges—Richmond Hill, CPC): Thank you very much.

You made some incredibly important points, and I'm wondering if you could expand on them just a bit. Obviously, sometimes it's difficult to explain to people what I would call the “so what” questions, as in, “So what? Why should we be concerned about Arctic sovereignty? Why does it matter to Canada?”

From your experience, what would you recommend we focus on as a first step?

Dr. David Barber: The idea is that the Arctic and Canada are inseparable, in my mind. Our history is steeped in the Arctic. A lot of the immigration that went on actually came through Hudson Bay. York Factory was a big part of that here in northern Manitoba. The connections with the fur trade between the North West Company and the Hudson's Bay Company are part of the rich history we have. The indigenous peoples we have in the country, those who live in the northern parts of the provinces as well as those who live in the territories, have a long, rich history of living and working in these environments.

When you take it into the modern context, you also have to think about the economic opportunities associated with the north. It's very clear to me, as a guy who's been in the Arctic for almost 40 years now, that the Arctic is really the next big area for us to develop. I've often thought of Canada as having two oceans. We have the Atlantic and the Pacific for development. We've done that development. We've had a lot of development across our land mass. We've had almost no development in the north, terrestrially based development or marine-based development.

Those opportunities are significant. There is a lot of economic opportunity in the north. We're coming out of a time as a society when we had blinders on. We always thought about the two coasts, east and west, and the land mass that was in the southern margin that was right up against the U.S. We need to think more about our entire country, and a big chunk of that is in the north.

I think there's the whole shepherding side of things, where we have to be good stewards of what that land is, but there's also the building of necessary infrastructure to take advantage of these new opportunities that are being unlocked because of climate change.

Ms. Leona Alleslev: In your opinion, if we don't exercise our sovereignty up there, are we at risk of perhaps losing it?

Dr. David Barber: I think the adage “if you don't use it, you lose it” is a very good one. I think it's very appropriate in this context. Lots of people would like to take over the Canadian Arctic. I think the UNCLOS process that's under way right now, using the United Nations as a way to settle some of these disagreements, is a very important part of the process. Think about the Americans' perspective of what the Northwest Passage is, that it should be an international waterway. It's very important to us that it's a national waterway if we're going to maintain and manage that corridor through our northern territories.

Yes, I think it's very important. We need to put our stamp as a nation on the north and make sure we're actually there and engaged and using it. This is a very big part of the whole United Nations process and procedures for sovereignty.

Ms. Leona Alleslev: Outstanding.

Would you say we have every opportunity to achieve a significant percentage of our GDP, as Russia has, or is our Arctic different from theirs? In your opinion, is there the same potential in our Arctic to leverage economic growth to that extent?

Dr. David Barber: The Arctic is the same. It's the same Arctic both sides of the pole. The resources and the resource base are very similar between the two. The difference is that the Russians have had their eye on the north and have been doing economic development in the north for decades, and we have not. We have been slow to get going on it. We need to catch up. I think there is a very significant opportunity to grow our GDP through resources that are associated with the Arctic and of course to fund transportation corridors that go through the Arctic. Think about intercontinental shipping and what goes on with that.

Yes, there are tremendous opportunities there. I think as a nation we need to pay serious attention to this and put the resources into it to catch up on the development cycle so that we can start to compete with the Russians in the Arctic.

● (1545)

Ms. Leona Alleslev: In many respects, we are starting from scratch. It's sort of an overwhelming project. We as parliamentarians want to be able to make a recommendation to government and to citizens on where to start. If you had to give us one piece of advice on which piece of that puzzle to start with, what would that be?

Dr. David Barber: I'm a marine person. My research is in the marine area, so I understand it a lot better than I do the terrestrial environment.

To me, the big areas on the marine side have to do with transportation and development of marine-based resources: fisheries resources, non-renewable resources such as mining, and then the big one, which is transportation. One of the key things we can do as a country is to build our marine transportation infrastructure better.

We've had many examples, when we're going through the Arctic in our research icebreaker, of finding a ship full of tourists that's grounded on an underwater atoll that hasn't been mapped properly, and they're stuck there. If we hadn't just happened to be there, it would have been a major disaster for the tourists on board the ship. But because we happened to be there, we could take them off and everything worked itself out. Quite often, we're doing these things by the seat of our pants rather than by good planning.

Our Arctic isn't even mapped properly. We don't even know what the bathymetries of our various waterways are. There's a move afoot right now to create transportation corridors so we can really understand the bathymetry in those areas and what those ecosystems look like. I think these are all valuable investments by the country.

I also think deepwater ports are important. What the feds are doing in terms of the Iqaluit port is very important. The investments that have been made in the Churchill port are very important. We need to build this infrastructure so that we can take advantage of this opening of a third ocean in our country.

Ms. Leona Alleslev: Thank you very much.

The Chair: Thank you, Dr. Barber.

We'll now move to MP Sidhu, please.

Mr. Jati Sidhu (Mission—Matsqui—Fraser Canyon, Lib.): Thank you, Mr. Chair.

Thank you, Mr. Barber, for your testimony today.

As I see, you have done extensive research in Arctic climatology and marine systems. Can you speak about the threat of climate change to indigenous culture in the Arctic?

Dr. David Barber: Sure. They're on the front lines of things. The indigenous culture lives with the Arctic environment.

When I first started my career in the north 40 years ago, the traditional knowledge of the Inuit who we worked with was very precise and very usable, because it had come from generations of having a stable climate system, and things were predictable. The elders now have a really hard time trying to understand and predict how the climate interfaces with the other parts of their system, and as a consequence they're put at a lot of risk.

Just to give you an idea of this, this past summer we took our research icebreaker into Hudson Bay. For the first time ever, we conducted a study that looked at what happens when the fresh water is coming off the land into the basin in Hudson Bay when the ice cover is still there. Over the course of a six-week experiment, we had to go on five different search and rescue calls. Those search and rescue calls were all associated with indigenous hunters who were out on the land trying to harvest resources. They were caught off guard, because the conditions were different from anything that had happened before. The traditional knowledge that they used to help them adapt to the realities of working in these extreme environments just doesn't work the way it used to, because the climate is creating such unusual conditions for them. It's outside the realm of what would be considered normal.

The Inuit are having to adapt to these conditions. They also have the strength of being a highly adaptable people. To be able to settle in these areas initially, you had to be very resilient and adaptable.

They are adapting to it, but not without significant struggle because it just creates such unusual conditions that—

Mr. Jati Sidhu: Going forward, will they be able to hunt marine animals in the future?

• (1550)

Dr. David Barber: That's a really big question. The marine ecosystem is all changing in the Arctic. When we find that climate change affects things in the marine biota, we mean everything from the very smallest organisms right through to the seals and polar bears and things.

A lot of species from the Atlantic and Pacific are replacing species that were historically in the Arctic. Of course, some of these species are of tremendous interest to the Inuit, because they are commercially harvestable species. In some situations, the Inuit are looking forward to being able to get more species that are different and can reproduce more quickly. In some areas there may be a positive boost to this, and in other areas there might be a negative decline to it. It's quite variable, depending on where and when you talk about that in the Arctic.

Mr. Jati Sidhu: Dr. Barber, recently the Government of Canada released a co-management plan with the Haida Nation and my home province of British Columbia. Would you support a similar plan with Inuit to protect and manage Canada's Arctic waters going forward?

Dr. David Barber: There already is a lot of co-management going on in the Arctic. There are a lot of co-management boards already, where both indigenous people and people from the ministries have a co-management responsibility for harvestable species.

I think in particular about the Inuvialuit Joint Secretariat in the western Arctic. They have a co-management group there that sets the priorities for how harvesting occurs. They come to agreement on harvestable levels, and they have responsibility and co-management for it.

Mr. Jati Sidhu: You talked about icebreakers, Dr. Barber.

I need a little more knowledge on that. To my knowledge, we don't have what is called an icebreaker yet. We have a couple of them under construction, with one going into the waters hopefully in 2019. That's more likely a monitoring ship.

The icebreaker will not be in the waters, to my knowledge, until 2021, 2022. What kinds of icebreakers do we have in the waters there?

Dr. David Barber: We have an entire fleet of icebreakers. We have about 12 or 13 of them, which are all 1200-class icebreakers and they're very capable. We've overwintered on our icebreaker twice now in the High Arctic.

The problem is that the entire icebreaking fleet, which is run by the Coast Guard, is very old. These are all ships that were built in the seventies.

The *Amundsen*, which is the Canadian research icebreaker that we run, was built in 1979, and it's one of the newer icebreakers that we have. I think you're probably referring to the *Diefenbaker*, which is an icebreaker that has been funded to be developed, but the delays on it are significant. It's not going to be out in 2019. It will be maybe 2025 or 2030, if it ever gets built. There are some significant issues there.

There have been some stopgap measures by the federal government to try to get some additional icebreakers. They just purchased three used ones this year to take some of the pressure off the fleet. However, we're still sorely under.... We don't have enough icebreakers to manage our country. That's the problem. You need these icebreakers to do it.

With regard to having frigates that are being built for the military, these frigates are not ice capable like an icebreaker is. They can't even go right into the sea ice. They have to be around the periphery.

Mr. Jati Sidhu: The frigates....

Dr. David Barber: It's the frigates that are like that, yes.

The Chair: Thank you very much.

Now we move to MP Blaikie, please.

Mr. Daniel Blaikie (Elmwood—Transcona, NDP): Thank you very much.

Thank you, Professor Barber, for your testimony.

I'm an MP hailing from Manitoba myself. You mentioned Churchill in some of your remarks. One of the things that has been of interest to me throughout this study has been trying to figure out where Churchill figures in an updated Canadian Arctic strategy.

I am wondering if you have some thoughts on the matter that you would like to share with us for the purpose of the study.

Dr. David Barber: Yes, sure.

I think there are two parts to that question. First, I think it's really important that the government develop an Arctic strategy and that we have some harmonization across the different federal departments and link organizations like mine that are university-based to that kind of structure. Right now things are done in an ad-hoc fashion across the different players in the Arctic.

As far as the way Manitoba fits into this, it will come as a surprise to some of you in the room that Manitoba has the only deepwater Arctic port in North America, and we're a marine-based province. You don't normally think of Manitoba that way, but we are. My group at the University of Manitoba is the largest sea ice research group in the world, 150 people who all work on sea ice.

We're here because Churchill is such an ideal location for that kind of research. It gives you access to the entire Arctic. It's relatively inexpensive to get to because we have a rail line and we have aircraft to get us there, and we put the CHARS base in Cambridge Bay, as an example. We're just building a major research facility in Churchill called the Churchill marine observatory, or CMO as it's called.

It was delayed when the rail line was delayed, but we looked to move it to Cambridge Bay when all of this was happening and looked at the feasibility of having a major marine research base in

Cambridge Bay instead of in Churchill. The cost became exorbitant because you have to fly all the time to get all the research staff and students and everybody else into CHARS.

The other really nice thing about Churchill is that it gives you inexpensive access to the Arctic in terms of transportation to get you in and out.

The Arctic marine system is just like the rest of the Arctic. You're above the treeline and all the processes that go on are truly Arctic in nature. It also has this interesting additional parallel in that you receive a lot of fresh water into Hudson Bay, which is analogous to what's going on in the High Arctic. If you look down at the North Pole and you see that big Arctic Ocean, it's also receiving a lot of fresh water from the continents, both on the North American side and the Russian side.

We use Hudson Bay almost like a model system of what the High Arctic is doing. It's giving us advance notice because it's at a little lower latitude so climate change is affecting it a little more slowly and it allows us to understand how things work there. From my perspective, Manitoba and Hudson Bay and Churchill are critical to our understanding of what's going on in the High Arctic and in the Arctic in a circumpolar sense. To me, it should play a very central role in any future strategy for the Arctic that we do as a country.

The other benefit is that the central and Arctic region of Fisheries and Oceans is now separating into two departments. One will be the Arctic and the other will be the central. The Arctic region of DFO will be situated in Winnipeg, so it's another good reason for Manitoba to play a central role in what's going on federally with the Arctic.

● (1555)

Mr. Daniel Blaikie: Thank you very much for all of that.

Obviously in part of this study there has been a lot of talk about the need for infrastructure investment in particular. But I have found that the conversation has been most productive when we talk about specific needs as opposed to the general overwhelming need for a lot of infrastructure in the Arctic.

With respect to Churchill, obviously there has been investment recently in the rail line. It took a long time to get it back up, but we got there eventually. I'm wondering, beyond simply repairing the rail line, what other kinds of projects would be useful to advance Churchill either as a place for Arctic research or other aspects that you would want to see in an Arctic strategy.

Dr. David Barber: I think that I'd like to talk about this as two different scales.

Churchill is fine. It's kind of a local connection with both you and I, both being Manitobans, and it's an important part of the Arctic puzzle, but I think investments in that area are very important. I think that one of the key things is getting that rail line and port fully functional.

The next natural step for this is the marine transportation in that corridor, which comes into and out of the port of Churchill. We expect to be able to ship year-round through that mechanism within the next 20 to 30 years. There will be a period of time there where you'll need icebreaker support. Right now we use icebreaker support down the St. Lawrence Seaway. That's what our research icebreaker does in the winter time. It provides support for commercial traffic along the shipping route through the St. Lawrence.

We should develop a similar situation in the Arctic, in Hudson Bay in particular. We should have icebreaker support for ships to extend the shipping season into and out of the port. That is an important sovereignty issue because then we have a Canadian ship and we extend the Canadian shipping seasons in the Arctic.

It would also have a direct component that would address search and rescue requirements in the north. Right now, we suffer from a lot of involvement in the north, both a lot more Inuit activity and a lot of search and rescue that's associated with the indigenous people who live there. Also, the tourist trade is just exploding in the north. We're getting a lot of tour ships coming in, everything from small schooners to people doing crazy things like trying to go to the North Pole on a dirt bike—all kinds of weird things that people do. Search and rescue becomes a very important thing.

We always struggle with search and rescue because we don't have enough capacity built into the north. The Coast Guard, for the last year and a half or so, has been developing local bases around the north to support and stimulate search and rescue capacity, but of course, we also need more ships to be able to do this. So that we can properly manage the Arctic, we need more icebreakers that are under the purview of the Canadian Coast Guard so that it can properly service search and rescue with regard to big ships that get stuck in ice, for instance, or that have oil spills or those kinds of things.

From a marine perspective, I think we need resources that are invested in new icebreakers that will do a stopgap against some of this increasing pressure and increasing availability. We need some short-term solutions and some long-term solutions. They have to do with improving search and rescue capacity, improving baselines of scientific knowledge about what is where, what the bathymetry looks like and how we can have safe shipping lanes, and then investing in some plans to get some new icebreaker support into the country to take the pressure off of this aging fleet that we have.

• (1600)

Mr. Daniel Blaikie: Thank you very much.

The Chair: Thank you very much.

MP Baylis, please.

Mr. Frank Baylis (Pierrefonds—Dollard, Lib.): Thank you, Mr. Chair.

Professor Barber, you talked about those 40 years that you were in the Arctic. You said that for the first 10 years you were kind of skeptical about climate change. Then you said that in the next 10 years you started to see some distinct signals. Then you said that in the following 10 years it got very dramatic and that in these last 10 years it's actually accelerating.

You are someone who was maybe skeptical of climate change, and by seeing it in the north, your world view on that has been changed. Is that correct?

Dr. David Barber: Yes. That's very true. That's fair to say.

During my first 10 years, the models that we were using at the time suggested that we should see the first and strongest signs of climate change in the Arctic. However, in the first 10 years that we were there, we didn't see it, so as any good scientist would do, I became skeptical. I thought, "No, this is not happening. We're not seeing these kinds of relationships."

Then, as I went forward in my career, I started to see these things speeding up to a point where it's very dramatic. We overwintered our research icebreaker in the southern Beaufort Sea, north of Tuktoyaktuk, during the International Polar Year in 2007, and we kept the ship mobile all winter.

I went to the Coast Guard and said that we would be able to do this because of the change in climate, and they thought I was crazy. They said, "There's no way. We're going to be stuck in that ice, and we're going to circulate around, and the Russians are going to have to come and take us off of their side of the Beaufort Sea."

I said that, no, we were going to be able to stay mobile throughout that year, and we did. We kept the ship mobile all the way through. That should not have been possible. Historically, that ice should have been much more consolidated than it was, and it's because there just isn't as much ice, even in the wintertime.

Mr. Frank Baylis: I understand that.

Given your perspective as a scientist, you were someone who was maybe leaning on one side and not sure about climate change, and now you've seen the dramatic effects and you're saying that it's even accelerating.

If we come further south, people are just starting to see the effects in the southern climates, such as the forest fires, the floods, the tornadoes where they shouldn't be—just the beginning of it. Is there some way that you could be messaging more strongly or helping through a scientific way to dramatize the changes that you've seen to accelerate people here in learning the same path that you've had to go through? Do you follow me?

Dr. David Barber: Yes, I hear what you're saying. It's a question I get all the time. It kind of asks what science can do to help educate the public about what's going on with climate change, and then people have to pay attention to it. The problem is that I spent a fair bit of time, maybe five or seven years ago, doing that. I do a lot of public speaking with what I do with my research, and I've kind of come to a conclusion. That conclusion is that if people want to get educated, they will. They can learn about these things. You can find it everywhere. It's all over the place.

The problem is that people don't really want to know about it. They don't want to hear about these things. They want to go on with their—

•(1605)

Mr. Frank Baylis: The problem is that a problem's not a problem until it's a problem for you, and it's not a problem yet for us down here, but you see it being a problem up there.

Let me ask you another question. Regarding the Inuit, you said the Russians are exploiting.... We use that term. We "exploit" minerals but we also exploit people. I'm just curious. You have an argument that there's more to be done for us to "exploit" our resources and that. Do the Inuit people want us up there exploiting? Is that really the approach we should be taking, or should we be maybe rethinking climate change and maybe instead of saying it is going to happen, maybe try to stop it? Would the average Inuit be excited about this or against us coming up to exploit the situation?

Dr. David Barber: The situation with our Arctic in particular is unique because we've settled land claims there, and ownership of a lot of these resources lies with the Inuit who live there, so they're responsible for these things. I was at one of the COP meetings in Germany last year—COP21 I guess it was—and I was approached by a fellow who wanted to turn the entire Arctic into a park because they wanted to preserve everything and not have any development go on whatsoever. He was wondering if I would sign on to support such an idea. I explained to him that, well, the Inuit actually need to develop their economies, they want to develop their economies, they want to use resources to do that and these are their resources. Who am I to say that, because we created climate change as a problem in the north, we want to turn the whole thing into a park. It seems a bit self-serving from my perspective when the Inuit are not averse to development. They want development.

Economic development, for instance at the community level, is happening all over the Arctic. Everybody's creating economic organizations that will help them, doing chambers of commerce types of processes. When you talk to the Inuit leadership, they're all about how they can manage those resources to make sure they can develop an economy that they can then use to forward their ambitions and goals as a people, without having the reliance on funds from the south. I think this is a very important part of the development process. When I talk about development in the north, it's development in the north by northerners for northerners. It's not about development from the south. We'll have to stimulate it by helping with infrastructure and putting some of the partnerships in place.

Mr. Frank Baylis: What you're saying is that the average Inuit and the average Inuit leadership would be open for themselves to develop it in a certain way.

Dr. David Barber: Yes, absolutely. They're very much for that. They all have economic arms of their land title and land agreement processes, so they're very interested in economic development because they have to look to the future. How are they going to raise their kids? How are they going to have a stable society?

Mr. Frank Baylis: Thank you.

The Chair: Thank you very much.

We will now move to MP Wrzesnewskyj, please.

Mr. Borys Wrzesnewskyj (Etobicoke Centre, Lib.): Thank you.

I'm just curious, following up on something that Mr. Baylis said. Are there any climate change skeptics left in the Arctic?

Dr. David Barber: I've never met one.

Mr. Borys Wrzesnewskyj: Okay, thank you.

When you were talking about the icebreakers, you said the current fleet is 40 years old, etc. We're starting to build some new ones. If you project out 30 or 40 years, that's perhaps stretching the lifespan of these icebreakers, but from what you've seen how do you imagine the ice conditions will be 20, 30 or 40 years hence?

Dr. David Barber: It's a really good question.

This is something I get quite a lot, in that the thought on such a thing is that the ice is disappearing and we're not going to have that thick ice and it's not going to be really hard and difficult to navigate through, so why are we going to need icebreakers? In fact, in the short term over the next 10 to 20 years we will still have a lot of ice hazards, and even beyond that, as we start to form new ice.

Let's say we get rid of the multi-year sea ice. Here's a little background. When the sea ice survives a summer and starts to regrow the next year, we call that multi-year sea ice. This stuff has an average thickness of six metres or so. It's very hard and very difficult to navigate through with a ship. When you get annual ice—when you remove that multi-year sea ice and you just have annual ice that year—it only grows to a maximum of two metres thick. In the wintertime, we will form that kind of ice well into the future. The next 100 years or so will form this kind of ice.

What happens, and what is really critical to understand, is that the ice becomes more mobile. Because it's more mobile and moves around a lot, it bumps into other ice, and it will form ridges and rubble areas that can still be quite thick. We've seen this starting to happen in different parts of the Arctic, and there are periods of time when you would need an icebreaker to be able to manage that kind of ice. There will be other times when you won't need that kind of icebreaker.

Over the next 30 to 40 years you will still require icebreakers at certain times of year in certain locations if you want to be able to navigate in an unimpinged fashion. Right now, the only group on the planet that can do this are the Russians. They're the only ones who can go wherever they want in the Arctic, whenever they want. We can't, the Europeans can't and the Americans can't.

•(1610)

Mr. Borys Wrzesnewskyj: You led right into my follow-up question. I understand that they have the thickest hulls, which are able to go through much thicker ice than our icebreakers. Do you think we need at least one of those types of ships or is that overkill?

Dr. David Barber: No. We need to have a proper polar-class icebreaker and we've been trying to get one for decades. The *Diefenbaker* is currently the incarnation of that. It's been provisionally funded and supposedly it's going to be developed, but we're kind of trapped in this situation of building our icebreakers inside our own Canadian system. To be honest, it's taking a long time to do this, because with the shipyards we have we're getting a lot of pressure on them to build these things, and the timelines are getting extended and extended.

I'll give you an example of the practicalities of this. This year, my group is going to do a circumnavigation of Greenland in an icebreaker. The north end of Greenland has some of the thickest and heaviest ice that we have left on the planet and to get around that north end of Greenland is very difficult. We have a Russian nuclear-powered icebreaker doing an escort of our icebreaker around the north end of Greenland so that we can get through that condition.

We were just told about a month ago or so that our research icebreaker, which is the *Amundsen*, will be unavailable for that cruise because it has to go into dry dock. It has more problems. This has been a typical problem with the *Amundsen*. It's basically falling apart because it's over 40 years old. Instead, we're taking a second Russian icebreaker on this thing. We're taking a Russian nuclear-powered icebreaker and a Russian electric icebreaker to do this circumnavigation of Greenland.

Here's an international science project going on in the Arctic and all supported by Russian infrastructure. That's a really bad sign when we can't even get our Canadian infrastructure to collaborate with the Russians on a circumnavigation of Greenland. We don't have enough stability in our icebreaker fleet to be able to do that. I think that's a real problem for us as a nation.

Mr. Borys Wrzesnewskyj: I'd like to pass this on to Mr. Falcon Ouellette.

Mr. Robert-Falcon Ouellette (Winnipeg Centre, Lib.): Thank you very much, Mr. Barber. I appreciate the opportunity of having you speak.

I'm going to toss out three questions that I'd like to have answered.

First, you've talked about sovereignty and you've talked about Churchill. I was wondering if you could discuss the idea of having a full-time military base in the Arctic, which I think would be quite important.

Also, you mentioned the idea of the lack of information in the mapping of the islands and how deep some of the waters are around there. Who should be tasked with doing the mapping? Should it be the Canadian military or should it be researchers? The old British Navy used to do this in Canadian waters. In the St. Lawrence, they used to drop the little rope and measure to see how deep it was in certain spots.

Finally, you mentioned tourism. What types of permits should we require from people who are going into the Arctic in order to control their movement? Should we be providing permits to ensure that people go up there safely and in such a way that if they do have a spill, for instance, or some disaster, we are able to monitor it? Obviously that's part of your research as well.

That's on base mapping of the Arctic Ocean sea and the permitting or monitoring of people who are going in and out of the Arctic, please.

The Chair: Dr. Barber, before you begin your answer let me throw a little water on this. We have about two and a half minutes for your answer, because our other witnesses have just arrived.

Sorry to my colleague. It's a good question.

Maybe it's something you can follow up with the committee in writing. Take a couple of minutes and then we're going to have to move on to the other witnesses.

Thank you, sir.

Dr. David Barber: Okay, the Reader's Digest version is that we need a military base in the north for sure. It's being developed right now in Resolute Bay. The polar continental shelf project is doubling up as a forward operating base for our Canadian Forces.

They do a lot of programs right now with training and stuff, and I think that needs to continue. We need to become much more experienced with our military in the north to be able to operate there efficiently and effectively, and we need to deal with indigenous people as part of that. They're the ones who have the expertise on the land. This whole deal of the rangers and how the rangers fit into our military is a very important one from my perspective.

The second one had to do with Churchill and what role Churchill could play in that. Of course, Churchill used to be a military base. That's how it was formed initially, so reinstating that as a forward operating base is also quite possible. I think, more likely, that would be a good place for a navy type of base to be, where the navy can operate out of Hudson Bay and the deepwater port that's there.

I can't remember the third question.

• (1615)

Mr. Robert-Falcon Ouellette: It's the mapping of the seas.

Dr. David Barber: Yes.

Right now, hydrographic services are a branch of the federal department that has responsibility for that. They simply lack the resources to be able to map properly. We have the technology to do it. The federal agencies need the money to be able to do proper mapping. That's a combination of Coast Guard and hydrographic services. We have the infrastructure in place. It just needs to be given the resources to do the mapping.

The Chair: Thank you very much, Dr. Barber. We really appreciate your testimony here today. We thank you for reaching us from Winnipeg.

Thank you, sir.

Dr. David Barber: Thank you, folks, and good luck with your deliberations.

The Chair: I'm now going to hastily welcome Dr. Pezard and Dr. Tingstad from RAND Corporation.

Ladies, would you take five or six minutes to give us a quick overview. I know there are some questions in the room.

We have until 4:30. Unfortunately we have a delegation coming in to testify before us, so we're going to have to cut it off fairly close to that.

Please proceed.

Dr. Stephanie Pezard (Senior Political Scientist, RAND Corporation): Chairman Levitt, other distinguished members of the committee, thank you very much for the opportunity to appear before you today. Our sincere apologies for the misunderstanding on the timing. We are sorry this has to be rushed.

My presentation will focus on two changes that have modified the geopolitics of the Arctic over the past five to 10 years. One is the increased assertiveness of Russia in the region, and the other is the rising presence of non-Arctic states, particularly China, in a part of the world that used to be almost exclusively of interest to Arctic states.

First, I will focus on Russia. Russia's military capabilities in the Arctic have steadily increased over the past 10 years, raising various concerns, including Russia's denying access to an area that might cover part of Norway, or disrupting sea lanes or undersea communications in the North Atlantic. In this context, I would like to raise three points.

First, tensions with Russia tend to focus on the European Arctic more than the North American Arctic. For Canada, then, the main sources of tension with Russia will be either a potential confrontation with NATO, or emerging issues pertaining to the extended continental shelf, as Russia's claim is likely to overlap with the claim that Canada is expected to submit.

Second, Russia is rebuilding its military capabilities on all of its territory, not just the Arctic, and these capabilities are still at a level below what used to exist during the Cold War.

Third, co-operation at the working level remains high. Most recently, we saw the U.S. and Russia submitting a proposal to the IMO to establish new shipping routes for safer shipping in the Bering Strait. Russia still has strong incentives to co-operate in the Arctic.

That being said, Russia's increasing assertiveness has already had some consequences in the region. One is that Arctic states are coming closer together. For instance, we see U.S. Marines deployed on a rotational basis in Norway, while Sweden and Finland are coming closer to NATO. We also see NATO's cautious move closer to the Arctic through its new strategic concept and through exercises.

I will now turn to China, which is also, like NATO, increasingly present in the Arctic. As an example, last year, 11 of the 27 vessels that transited through the northern sea route were either going to or coming from a Chinese port.

China issued its first Arctic policy in January, which made it clear that they think the Arctic is a global issue that cannot be left to Arctic states alone. China describes itself as a "near-Arctic state" and sees economic and investment potential in the region, with a polar silk road that would eventually be integrated with its larger belt and road initiative.

So far, China has remained within the boundaries of existing treaties governing the Arctic.

Chinese interests do present some opportunities for Arctic communities, but they also raise concerns about whether China would eventually try to impose its interpretation of maritime international law, or whether China's economic presence might lead to more political influence or even a military presence.

Like other Arctic nations, Russia has been showing a mix of interest and caution towards China. China is a key investor in the Yamal LNG project, and Russia is hoping that China will participate in developing infrastructure along the northern sea route. At the same time, Russia is intent on keeping control over that route and is wary of China's military power on its southern border.

To conclude, I would highlight what I see as perhaps the most significant change for Canada and other Arctic states, which is that the Arctic is turning from a periphery to a centre, an economic centre and a military choke point, and Canada and other Arctic states face the challenge of balancing their sovereign interests against the ever-growing presence of non-Arctic states in the region.

Thank you.

• (1620)

The Chair: Thank you.

Ms. Tingstad.

Dr. Abbie Tingstad (Senior Physical Scientist, RAND Corporation): Thank you very much, Chairman Levitt and distinguished members of the committee. Please accept my apologies, also, for the misunderstanding on the timing of this.

I'll add some insights on thinking about climate's impact on the future of geopolitics in the Arctic. In our research we have found it useful to consider the potential effects of climate change on Arctic geopolitics in the context of other factors that influence activity in the region in two ways.

First, forces other than climate can also play a fundamental role in promoting, restricting or otherwise spatially influencing access to the Arctic. These forces include technological advancements such as the ability to operate in icy waters, automate processes and connect to different networks; legal conventions and regulations; military postures and operations; and widely observed operational and cultural norms, including those related to risk-taking. Other forces shape activity in the Arctic by either motivating or discouraging it. Examples of these include economic opportunities as well as socio-cultural priorities such as support to indigenous communities and the symbolic importance of the North Pole.

Though scenarios may often prove to be wrong, we have found them useful in our exploration of focal issues that might challenge, or not, co-operation and security in the Arctic. My written testimony includes some of the topics we've explored.

Overall our research has found relatively few flashpoints that would plausibly undermine international co-operation in the Arctic in the 2020s and 2030s under the growing changes influenced by climate. However, there are a few wild cards that could, under rare circumstances, lead to increasing tensions and result in some form of breakdown in vision and communication between Arctic nations and stakeholders.

These include three wild cards: first, should maritime access and activity increase faster than countries anticipate and can manage with existing physical infrastructure, regulations and other supporting functions; second, if untapped Arctic offshore oil and gas suddenly become much more economically viable and countries perceive their seabed claims as contested; and the third and final one I'll mention, should nations perceive a security void in the region brought on by a series of maritime safety and security incidents that reflect negatively on co-operation, and in this context, if nations decide to take stances on longer-term security issues.

In conclusion, Arctic nations may increasingly contend with the need to find a forum or forums in which to appropriately discuss security-related matters. With barriers to physical access changing because of climate, it may be necessary to consider whether it's possible to open new dialogues to the mutual benefit of all stakeholders.

Thank you.

The Chair: Thank you very much.

We're going to do an abbreviated round of questions, just because the Finnish foreign affairs committee is going to come in. Let's do four minutes, because I want each party to get its four minutes, if that's okay.

Let's begin with MP Aboultaif, please.

Mr. Ziad Aboultaif (Edmonton Manning, CPC): Thank you both for coming today before the committee. I have two questions. I hope I can cover them in two minutes for each question.

I have a brief here, called "The Arctic Lies at the Intersection of Challenge and Opportunity". In that, you consider a number of areas where there are gaps in the United States' ability in the Arctic. How do these gaps measure in the Canadian context? Are we better off or worse off compared with our American allies?

That question is to Stephanie or Abbie.

• (1625)

Dr. Abbie Tingstad: I have not explicitly explored how U.S. gaps could impact Canada, but the U.S. faces gaps in domain awareness, in communications, in accessing the region and in some ways also communicating these challenges. Given that the Arctic is an area of such historic co-operation, where there are search and rescue needs, among others, that require international co-operation, I would imagine that gaps in any Arctic nation's ability to operate in the region would affect all.

Dr. Stephanie Pezard: I would also underline that the gaps that may exist on the U.S. and Canada sides can both be addressed by co-operation between the two countries, which has been ongoing for a long time. It can also allow each country to be most effective where it has the most capabilities. They've been co-operating also in terms

of maritime awareness and aerospace warning. These are common strengths that they have and that need to be pursued.

Mr. Ziad Aboultaif: In another brief here called "Maintaining an Arctic Cooperation with Russia", you said Russia had increased military presence in the high north, but not to Cold War levels. Can you speak a little about this increased presence, please? What types of increases have we seen? Have other Arctic states increased their military presence in the Arctic as a response?

Dr. Stephanie Pezard: We've seen a whole range of improved capabilities on the part of Russia. They have been refurbishing Soviet-era bases. They have been developing a number of search and rescue stations all around the northern sea route. Some of these military capabilities obviously also have some civilian uses. They have established two Arctic brigades. They now also have an Arctic command. They have deployed a number of air defences, again in various areas around the northern sea route. It's a modernization of existing capabilities, re-establishing some capabilities that existed and also some new structures.

Yes, other Arctic nations have also been doing more in this area. For instance, Norway now has deployment closer to its border. That didn't use to be the case. The U.S., again, has marines deployed in Norway on a rotational basis. There is also more activity in terms of submarine detection. It's not just Russia. There has been a response from other Arctic states.

Mr. Ziad Aboultaif: Thank you.

The Chair: Thank you very much.

We'll have MP Vandenbeld, please.

Ms. Anita Vandenbeld (Ottawa West—Nepean, Lib.): Thank you very much.

I was struck by one of the statistics you stated, which is that 11 out of 27 vessels are going to or from a Chinese port. I would like you to elaborate on the role of China in the Arctic, because we do think of the Arctic as the Arctic states, but you mentioned something about this now being a global issue.

To what extent does that change the dynamics, particularly the dynamics vis-à-vis Russia and also vis-à-vis NATO?

Dr. Stephanie Pezard: To some extent, this is not just China, which is why my presentation emphasized non-Arctic states. Pretty much all observers to the Arctic Council that are not Arctic states have developed an Arctic policy or Arctic strategy.

China, of course, is particularly prominent simply because of its military power and economic power. China has a number of objectives in the Arctic, mostly economically based. We have seen them being more involved with Russia simply because Russia has turned to them because of the sanctions. They have been looking for a different source of investment and funding, so that has opened some doors to China.

China is also investing in other Arctic states, but it's still at a low level. For instance, for mining, there are a few projects, but there's a lot of exploration.

It's still tentative, but this vision of the Arctic as a common for China is important because they see climate change happening in the Arctic as having huge implications for their country. At the same time, while they mention the Arctic as a common, they do not contest the general rules under which the Arctic is being governed right now, which is UNCLOS, which is the Ilulissat Declaration and the general perception that, so far, Arctic nations still have the lead in determining this governance.

● (1630)

Ms. Anita Vandenberg: Ms. Tingstad, do you want to comment on that as well?

Dr. Abbie Tingstad: I support what Dr. Pezard said, thank you.

Ms. Anita Vandenberg: Just simply in terms of looking at sovereignty, we were told in other testimony before this committee that, just because there's more commercial activity, it's not necessarily indicative of any threat to sovereignty. In fact, it can be reinforcing.

If we are looking at it from the perspective of sovereignty, what are the most important things Canada can be doing now, whether it has to do with economics, whether it's cultural or whether it's the Inuit? What are the things we need to be doing?

Dr. Abbie Tingstad: Perhaps I can start on that answer.

In our explorations of some scenarios for the future, one very important factor that came up, which I briefly mentioned, was this perception of a security void. If there were to be a number of maritime safety and security incidents happening over and over without an adequate response, it could create the perception of a security void. I say maritime just because that's the domain that allows the international community and stakeholders to most physically come together. If we think about China and other nations wanting to perhaps operate in the region, they might take that as an invitation to provide some of their own security. Depending on how you look at it, that could be for very good reason.

Anything that has to do with domain awareness is also very important. I can't speak about Canada specifically, but I do know that in our interactions with local communities in the United States—Alaskan communities, as well as in the Eurasian Arctic—there are incidents occurring where people who they don't know show up. They can see some of the changes happening, for example. Having a good awareness of what's going on and keeping track of not just what the local communities are seeing but also understanding some of the different activities that other stakeholders are doing in the Arctic, will be important.

To me, this is one reason why a security forum or dialogue is so important to have, so that there aren't misperceptions that could lead to conflicts or rising tensions.

Thank you.

The Chair: Thank you very much.

We will now move to MP Blaikie, please.

Mr. Daniel Blaikie: Thank you very much.

It came up during the opening remarks, but I just wonder if you could elaborate on the significance of an increasing potential NATO involvement in the Arctic. I'm trying to remember who brought it up. We talked about that question a little bit from the China side. Could you explain how other players may see an increased involvement of NATO in the Arctic?

Dr. Stephanie Pezard: An increased involvement of NATO has been happening, but at a very slow pace. There is a keen understanding from NATO members that it's not an area of the utmost importance for NATO. It is becoming increasingly important as NATO members realize that they may have lost the type of cold weather war-fighting knowledge that they had during the Cold War. They have turned to more expeditionary style of war-fighting and there are simply some capabilities that need to be rebuilt—sort of how Russia is rebuilding, frankly. For that specific reason, Norway has always pushed for stronger involvement of NATO, but other members have not seen it as urgent, simply because the threat has not been as close.

I would say that this closer involvement of NATO in the Arctic is not necessarily about the Arctic per se. It is very much focused on the North Atlantic. In a way, the Arctic is seen as a conduit to the North Atlantic.

There is also worry of keeping a good balance between deterrence and the risk of...not provoking Russia but creating a sense of threat in Russia. Since two-thirds of its strategic deterrent is in the Kola Peninsula, they are very keen on protecting the industry infrastructure they have around the northern sea route. They are very sensitive about the Arctic. It's an area of extreme importance to them. NATO needs to show its presence and its ability to come to Norway's rescue, as a member, if needed, without creating a false sense of alarm or any sense of alarm on the part of Russia. That's a tight balance.

● (1635)

Dr. Abbie Tingstad: It would also be important for NATO, in terms of crafting the message, signalling how the presence is distributed and how it's being used.

Thank you.

Mr. Daniel Blaikie: What should Canada be asking of NATO? How should Canada be helping to try to guide NATO to do that in the right way? What position can we adopt to help our NATO allies make sure we have the capabilities we need in the area, if it comes to that, without provoking Russia in the Arctic while we develop or rebuild those capabilities?

Dr. Stephanie Pezard: That's not a question that we've addressed directly in our research. It's an ongoing dialogue between Canada and its NATO allies, frankly.

The current state of an increased pace of exercises, especially cold weather exercises, deployments—again through exercises in Europe and the Arctic—seem to be something that has been satisfactory so far.

Are there additional needs or requests to Canada? I could not discuss that. That would come from NATO members.

Mr. Daniel Blaikie: In terms of recent events, like the capture by Russia of Ukrainian vessels, should we be reading anything into that? Is that really a product of the conflict between Russia and Ukraine, or should Canada see that as a kind of aggressive posturing by Russia in a way that should be of concern to us?

As we look to them, we're asking the question often in this study of what the risk of Russia is. It has been more or less following the rules within the Arctic, but is beginning to depart from that stance and becoming more aggressive. Should we be reading anything into that, or not?

Dr. Stephanie Pezard: To me, there's a considerable difference between any hostile action against a NATO member and a non-NATO member. With regard to Georgia in 2008 or Ukraine in 2014, they were non-NATO members. If Russia were to do something similar with the vessels of a NATO member, the consequence would be absolutely out of proportion with what's happening now.

To me, it's a completely different cost-benefit calculation on the part of Russia, and I would not necessarily extrapolate to what it means in terms of potential threat for NATO members or NATO as a whole.

The Chair: Thank you very much.

With that, I'm going to thank you both for your time, even though it was a little less than we had hoped. We covered a lot of ground and I know my colleagues are appreciative of your presence here.

We shall suspend and await the arrival of the Finnish delegation. We have to get the room set up for that.

Thank you.

• (1635) _____ (Pause) _____

• (1640)

The Chair: Good afternoon, everybody. We're going to reconvene.

We are very honoured to have with us this afternoon members from the Finnish foreign affairs committee and members from the Parliament of the Republic of Finland, as well as Finland's ambassador to Canada, Vesa Lehtonen. I've had the opportunity of meeting these ladies and gentlemen earlier today.

It really is our pleasure to welcome you before the foreign affairs committee.

The context of our study is arctic sovereignty. I know there's going to be lots of discussion on that, but I also know there are so many areas of collaboration and co-operation between our two countries, dating back 70 years now. I'm sure some of my colleagues are going to want to reflect on that.

I'm aware that MP Vanhanen, the chair of your foreign affairs committee, is unwell today. We wish him a return to good health. In his absence, it's my pleasure to recognize MP Salolainen, whom I will ask to deliver some remarks before our committee, after which we will open it up to members—all the colleagues—to ask questions.

Again, formally, welcome to Canada and to our Parliament.

• (1645)

Mr. Pertti Salolainen (Member, Parliament of the Republic of Finland): Thank you, Mr. Chairman.

Dear fellow parliamentarians, ladies and gentlemen, we are very happy to be here. Canada is becoming a much more important country to us than before because of certain developments that have taken place in America in recent years.

I have a strange feeling, because this speech was originally prepared for Mr. Vanhanen. I have the same feeling that a British parliamentarian had in London, when he was making a speech to Parliament. He had short, written notes, and looking at the notes he said, "Well, there are many important issues, and I am going to solve them all now in my speech." Then there was another note that somebody else, of course, had written, and he looked at it very carefully and said, "This is a rather weak argument but good enough for Parliament."

I have more or less the same feeling, because these notes were originally prepared for Mr. Vanhanen, our chair, who unfortunately could not travel due to illness.

Finland and Canada had a pivotal role in the early stages of Arctic co-operation. At Finland's initiative, the Arctic environmental protection strategy was launched in 1991 in Rovaniemi, Finland, and under Canadian leadership, the Arctic Council was founded five years later in Ottawa. Both our countries were very much present at its creation.

Now it is Finland's turn to chair the Arctic Council, until next spring, and I will briefly assess some of the developments in Arctic circumpolar co-operation from our point of view.

The most important thing is that the Arctic remains peaceful. That is, of course, fundamental. In spite of the generally negative trend in interstate relations, the Arctic Council has managed to strengthen regional stability and even expand the area of constructive co-operation. It is remarkable that the Arctic Council has secured a strong position in producing scientific reports and assessments, and making recommendations to decision-makers. It has negotiated three international agreements: on search and rescue, on marine oil spills preparedness and response, and most recently, on scientific co-operation.

Now there are organizations specialized in certain areas, such as the Arctic Economic Council, the Arctic Coast Guard Forum, and the University of the Arctic. Co-operating closely with them allows the Arctic Council to engage in economic, soft security and educational activities.

It is in Finland's interests to help the Arctic Council assume an even stronger role in regional co-operation. The rationale is clear: Common concerns require common efforts to address them. That's why we chose our chairmanship slogan, "Exploring common solutions".

Environmental concerns were the most compelling reason to start Arctic co-operation, and it is obvious that environmental and climate issues must remain the main focus of the Arctic Council. It is obvious that all Arctic states continue to have important common concerns to address in the region. The assessments and recommendations of the Arctic Council have spoken clear language about the need to co-operate in order to mitigate climate change, to adapt to emerging situations and to build resilience. Nowhere else than in the Arctic is climate change more evident, as the area is warming at twice the speed of all others. Think about it: twice the speed. The 1% goal has been stated. In the Arctic, that means 3%. It's dangerous.

The recent report of the Intergovernmental Panel on Climate Change is perhaps the starkest reminder of the need to drastically reduce emissions of greenhouse gases and start building a carbon-neutral future to save our planet. At the parliamentary level, Arctic co-operation is also gaining momentum. When we celebrated the Arctic parliamentary co-operation's 25th anniversary this September in Inari, Finland, we noticed this. We are glad our Canadian friends from both houses attended that occasion.

● (1650)

As a result of the 13th Arctic Parliamentary Conference, MPs of the region outlined their common goals on preventing climate change, the need to improve digital connections in the Arctic, social well-being and corporate social responsibility. Together, the parliamentarians of this region requested investments in digital connections so that our Arctic regions would not be left outside of the progress we can witness in our southern areas. MPs of the Arctic also called for the companies of this region to carry out their social responsibility and to take into account the vulnerable Arctic nature.

Ladies and gentlemen, Arctic co-operation attracts worldwide attention, and this development should be welcome. The Arctic Council has invited a large number of observers—both states and organizations. Taking into consideration the growing interdependence of the Arctic and other regions, such a broadening of horizons is now necessary.

One of the fundamental questions for the Arctic Council is the involvement of non-Arctic states with interest in the region. The recent Arctic policy document of the Republic of China points to the kinds of questions that need to be addressed when the Arctic becomes more accessible. It is the Arctic states that should demonstrate leadership in guiding developments in the Arctic. It is time to involve the highest level of decision-makers. Finland is making preparations for a summit meeting of the eight Arctic states to be held next spring. Also, the Arctic MPs supported the idea of the summit in the meeting in Inari.

Such a summit would speak clearly about the efforts to maintain peace, stability and constructive cooperation in the region. It could also tackle some of the most acute issues that our countries are facing. Finland proposes that our countries seek to make further efforts to curb emissions of black carbon and to increase maritime safety and security in the Arctic. I note with pleasure that Canada shares our sense of urgency to reduce black carbon emissions.

Ladies and gentlemen, Finland warmly welcomes the important role that indigenous peoples have in Arctic co-operation. The Sámi, the Inuit and other nations should continue to fully participate in the

development of the Arctic countries. Their contributions and cultural integrity should be taken into account in planning for that future.

In the Arctic Council, as well as among Arctic MPs, Canada is emphasizing the need to improve social well-being as well as the living conditions of Arctic inhabitants. Finland is pleased to co-operate with Canada and indigenous organizations in this very important work. Likewise, Finland has greatly benefited from co-operation with Canada in improving educational opportunities for all Arctic inhabitants.

We should be ready to tackle issues that are not yet on the agenda of the Arctic co-operation. Finland would like the Arctic Council to see how wildfires, which are becoming more and more commonplace in the northern areas, could be better prevented from destroying Arctic communities and threatening their inhabitants.

Finally, ladies and gentlemen, I very much appreciate Canada's vibrant discussion of Arctic issues nationally and internationally. You engage all the stakeholders in the process, of course, starting from the indigenous people and covering all aspects of the topics. I look forward to the discussion on Canada's sovereignty in the Arctic.

I would like to warmly thank Canada for your support of the Finnish Arctic Council chairmanship, and for your valuable contributions in all priority areas of protecting the environment, improving connectivity, engaging in meteorological expertise and enhancing opportunities for good-quality education.

● (1655)

After our discussions today, I would add how important we think it is that we could create bilateral consultations and discussions. In that way, we can complement all the developments we can do together in the Arctic Council.

Thank you very much, Mr. Chairman.

The Chair: Thank you very much.

As is our procedure on the committee, we're now going to go into six-minute questions from different members from different parties.

We're going to begin with MP Alleslev.

Ms. Leona Alleslev: Thank you very much.

What a pleasure and honour to have you guys travel all this way to be with us at our committee in person, particularly, so you can give us a perspective on such an important topic. Thank you very much for that.

In my first set of questions I'd like to focus on the economy. I wonder if you could give me an idea of how much of an impact Arctic and Arctic-related issues are in terms of your economic contribution and vibrancy.

Mr. Pertti Salolainen: I certainly can't quote any figures.

Ms. Leona Alleslev: In order of magnitude....

Mr. Pertti Salolainen: If the climate changes and it changes completely, for instance, Finland's nature, it would mean that in the southern and the northern parts the trees would be growing faster and that would increase forest production for us. That is one positive possibility. However, ecologically, it is also destroying a lot of our original nature. Biological diversity would be very much destroyed by this development. It's very difficult for me to quote any figures.

One thing, of course, is that if for instance the Northwest Passage were created, if the ships could go there without major icebreaker assistance, that would be an enormous help to trade between Japan, China, the Far East and Europe.

Ms. Leona Alleslev: Would that have a positive impact?

Mr. Pertti Salolainen: We are already discussing whether we should develop railway connections, so that ships could deliver their goods to be transported by rail, but it is only under discussion in Finland.

Ms. Leona Alleslev: I'd like to move into the sovereignty and security area. Are you finding an increased threat or jeopardy to Finland's sovereignty and security? If so, could you give us an idea of what perhaps you would want to see done about it, and how, if at all, the Arctic Council has a role in supporting that?

Mr. Pertti Salolainen: I think the security development certainly must be a result of other developments than this Arctic issue. Certainly that also will have some aspects. For instance, if there is more trade, more transport and so forth, there may also be complications. That might create some difficulties as far as security is concerned.

Honestly, directly I can't see any major difficulties about this, except that if people start using the raw materials from the sea bottom, for instance, or fisheries, which will be opened because the ice will melt in the north, more seabed will be ready to be explored and used. These kinds of problems would probably be there.

Ms. Leona Alleslev: Recognizing that we all are parliamentarians and it is delicate diplomacy, your physical location close to your neighbour... Of course in our Arctic we are seeing the increased military presence of Russia and China. I'm wondering if you can comment on any changes in that from a sovereignty, stability and security perspective.

• (1700)

Mr. Pertti Salolainen: It's not an accident that we have one of the strongest armies in western Europe, if that is enough of an answer.

Ms. Leona Alleslev: All right.

Would anybody else want to weigh in on that?

Mr. Pertti Salolainen: My colleagues will, certainly. There are more details about this.

Ms. Leona Alleslev: Go ahead.

Mr. Tom Packalén (Member, Parliament of the Republic of Finland): Yes, thank you. It's a good question. We have a 1,300 kilometre border with Russia.

Ms. Leona Alleslev: Yes.

Mr. Tom Packalén: We're a kind of hot spot, but at the same time, as our chair just said, we have one of the strongest armies in Europe.

Ms. Leona Alleslev: This is navy, though, maritime security.

Mr. Tom Packalén: The Baltic Sea is a different issue, but we don't see that kind of threat. We try to be more peace builders than anything else. I think we are in a pretty good position there, anyway.

Ms. Leona Alleslev: Right.

Go ahead.

Mr. Paavo Arhinmäki (Member, Parliament of the Republic of Finland): Thank you. If we take the history of Finland, during the 1980s, somebody in the States asked our foreign minister, "Is it difficult to have such a long border with the Soviet Union?" He answered, "We'd rather see the border than no border."

Since the Second World War, we have had a very close relationship economically and culturally, and the trust between the countries is most important for our security. From our perspective, Finland is a non-alliance country, as well as Sweden, in the Nordic area.

Mr. Ilkka Kanerva (Member, Parliament of the Republic of Finland): Military non-alliance....

Mr. Paavo Arhinmäki: Yes, I think we're talking about the military.

Ms. Leona Alleslev: Yes, NATO.

Mr. Paavo Arhinmäki: It means that when Russia can trust, can see Finland land and air not being used by any other states aggressively against them, that's our best way to secure our own security.

Ms. Leona Alleslev: Fair enough. If I could just close that part of the conversation, you're not feeling as though there's an increased pressure or activity as a result.

Mr. Tom Packalén: Yes—

Mr. Pertti Salolainen: I would like to add to this that these last two days' events in Ukraine, in the Azov sea, haven't made us more comfortable.

Ms. Leona Alleslev: Okay. Thank you very much for that.

The Chair: That's your time. Thank you.

We're now going to—

Mr. Pertti Salolainen: Just—

The Chair: Yes, sure. Finish off, please.

Mr. Simon Elo (Member, Parliament of the Republic of Finland): May I add this, because this is a highly political question as well? We represent different parties, so obviously we also have different views on this. Of course, the consensus is that when it comes to the Arctic area and discussing the Arctic Council, of course we don't accept the militarization of the Arctic area, whether it be Russia or whether it be China.

One instance we had was this military exercise in which we partnered with NATO, Trident Juncture. We had a case of GPS jamming done by Russia, and we all said we knew it was the Russians. They denied it, but we know they did it. It also came from Norwegian sources as well, so we do have these kinds of incidents. I do agree that we don't see any direct threat or that kind of situation, but these kinds of certain incidents happen occasionally, which we have to address.

Mr. Stefan Wallin (Member, Parliament of the Republic of Finland): Maybe I can just add one thing.

A voice: As a defence minister...

Mr. Stefan Wallin: Yes...well, maybe as an MP nowadays.

Because we have a good relationship with Russia, because we are good neighbours, we can have a frank discussion, a frank dialogue with each other. When Finnish airspace is violated—that's happened on several occasions—and we had this GPS disturbance a couple of weeks ago, we're able to publish what's happened and also to tell the Russians exactly what we think about it, because we are good friends. It would be a bigger problem if we could not have this kind of dialogue. That would be a problem.

When it comes to the Finnish relationship with NATO, of course we have the partnership agreement. Since 1994 we have had a partnership, with enhanced opportunity nowadays. We also, in our national strategies for foreign security policies, say clearly that we're not a member country, of course, but the possibility to apply for full membership remains in the Finnish tool box—as an option, so to speak.

• (1705)

Ms. Leona Alleslev: That's excellent.

The Chair: Are there any last thoughts on the matter?

Mr. Ilkka Kanerva: It's a hot topic.

Ms. Leona Alleslev: And an important one, a very important one....

Mr. Ilkka Kanerva: Just to add a few words to my what my colleagues have said, it's good to remember that we have three fundamental elements in our politics today that concern our military capabilities.

The first is absolutely huge investments. We are just now going through this period. Throughout our history, Finland has never made these kinds of huge investments, especially for the navy, and for fighters as well. It's around 10 billion euros. At the same time, we are making remarkable investments in our ground troops. It means that Finland will reach the level of 2% of GDP. You know what that means for us. These are huge investments.

Second, Finland is increasing very rapidly our international military networks, mainly with Sweden and Norway, as well as under NORDEFCO. The second element in this sector is that Finland's bilateral relations with the U.S. have been increasing also very rapidly, and on a tripartite level, there's co-operation with Finland, Sweden and the U.S. at the same time.

We are also co-operating with the U.K., within the framework of JEF activities, especially given the Brexit situation. Then there's

Germany, as well, and also France, with the idea of intervention troops being suggested by President Macron. We also have a lot of bilateral relationships with different European countries, especially around the Baltic Sea area.

The third basic element of the investments and international co-operation is, of course, our legislation reforms. We realized after 2014 that it is necessary to do these kinds of reforms, and it has made a huge difference in our military capacity in terms of our readiness to react to threats to Finland in various ways.

These three elements mean that we are also paying a lot of attention to these activities, and what is interesting is that in our case, almost all the political parties are on board, so our national consensus is very strong concerning our foreign security and military defence activities.

Thank you.

The Chair: Thank you very much.

We're now going to move to MP Saini.

Mr. Raj Saini (Kitchener Centre, Lib.): Good afternoon, and a very warm welcome to all of you.

I wanted to pick up on this point, because it is a hot topic and I think it's very important. I want you to give me an understanding of the region, especially with what has transpired over the last two days in terms of the Kerch Strait, the Azov sea and Ukraine.

I have observed over the last few years that there have been many more military exercises than in the past. The Russians have done a huge military exercise with operation ZAPAD in 2017. The Swedes did Exercise Aurora in 2017. You have indicated that you would like to do your own military exercise in conjunction with NATO, probably by 2020.

Given the Russian influence that's there, especially in Belarus and in the Kaliningrad oblast, the imposition of missiles there, what is the feeling in the Nordic countries in terms of their own security?

• (1710)

Mr. Pertti Salolainen: I think it's important that we also do exercises. We are having a lot of exercises with NATO troops. I can tell you that the number of exercises where we are participating—mainly NATO, Nordic and the Baltic Sea area exercises—is about 40 per year, if not more. It's more than some NATO countries have.

That shows that we are very active. We are willing in terms of preparedness to give and receive military help. This is the legislation that we changed just some time ago—that we must be ready to receive and give assistance. This is a fundamental change in the thinking.

I would also like to add that we are also fully following to the letter the sanctions of the west towards Russia. This is also a very important aspect that is not generally that well known.

Mr. Raj Saini: The reason I asked that question is that since the breakup of the Soviet Union in 1995 Finland joined the EU, and they have become an enhanced opportunity partner with NATO, but that does not include the protection of article 5 in NATO's charter.

Outside of that, leaving that aside for a second, right now we see disinformation and misinformation in a lot of the countries that border Russia. In terms of your long border with Russia, one of the things I've read is that Finland has done a better job than other countries have in preventing disinformation and misinformation from interceding or imposing itself in your daily life. What is your tactic or your approach to making sure that any type of disinformation or misinformation does not befall the population?

Mr. Pertti Salolainen: As you probably know, we have established in Helsinki the hybrid centre, in which Canada is also now participating. You are also participating, and the idea is to reveal all the methods that are being used against us, such as false information and efforts to influence our industry and that sort of thing. It's a very wide area of things.

We have been alerted to these kinds of changes in the world, and we are also preparing our society for those sorts of changes, but it's a very difficult area. I was just participating in a panel discussion where everybody agreed that it is not always easy to know who is doing this and that. It's a big problem, but I hope that this kind of centre that we have now established will give us more information. Also, as I said, you are also there.

Mr. Ilkka Kanerva: To add to my colleague's comments, it's good to mention that it has been established by the EU and NATO together.

Mr. Pertti Salolainen: Exactly, yes.

Mr. Paavo Arhinmäki: I have a very short answer to the question. It's education. With education, the people in Finland have been going through what news you can believe and how to be critical of all the information to better stop the spread of fake news. I suppose it is one of our strengths that we have very highly educated people in Finland. As well, we have the cultural background, because for decades we have been more or less used to critically looking through the information that we are getting from outside of our borders.

• (1715)

Mr. Tom Packalén: If I can continue on the question of the educational level, one of our biggest supports in this question is also language. The Finnish language is quite a difficult language, and for Russians, for example, it's not that easy to handle these massive information campaigns in the Finnish language.

On your first question about the security in the region, our problem in Finland is the military reform after 2010 in Russia. Before that, we were laughing a bit about it...well, not laughing, but they wouldn't have had too much of a chance with Finland with conventional weapons. After 2010, that changed. Their missiles are more accurate, especially in the Iskander and Kalibr missile systems, so they can strike strategic targets with very highly accurate weapons. Also, with the number of special forces they have nowadays, their army is not a joke anymore.

Mr. Raj Saini: I have one final question. I want to ask a pragmatic question, in a way.

In 2017 you celebrated your 100th anniversary of independence. You've had this amazing ability, over the course of 100 years, to maintain your strength and also your neutrality. Another time we can get into how you were able to do that, but seeing what recently happened in Ukraine, looking at the Russian militarization or the Russian advancement of its interests in the former republics, looking at its control of the Baltic Sea, especially with Kaliningrad right there, philosophically....

I know that in 1995 Finland tilted toward the west by joining the EU, but you have not fully joined NATO. The last country to join NATO was Montenegro. Outside of that, going forward for the next 100 years, when you see the geopolitical landscape changing in such a dramatic manner, do you think Finland is thinking differently, in terms of the next 100 years, on whether it should either join NATO as a full partner or maintain its element of neutrality, as it is now? And is that the right course of action for your country?

Mr. Pertti Salolainen: One point is this: We are not alone in this position. You know that Sweden is also in the same situation as we are. We think there is a kind of balance there now. If Sweden or Finland joined alone, that would break the balance there, the very delicate balance. We have many times thought that if we one day joined NATO, we would do it together with the Swedes—if that day came. It's not there yet.

I would like to tell you that this is not a big issue at the moment. We are not debating this issue every day. One could say that we are now as close to NATO as you can be without being a member.

Mr. Simon Elo: If I may, Chair, it's important to note that Finland is not neutral. We are members of the European Union. We are in an enhanced partnership with NATO. Russia doesn't see us as neutral. They certainly see us as part of the west. Of course, the difference with some other countries is the membership in NATO. We are not full members, as you said, so article 5 doesn't apply to us.

I also want to add that after 2014, the perception changed a bit. People feel that being a member of the EU is even more important than it used to be. When we joined in 1995, as you mentioned, security was a big reason why we joined. Now it's even more important. If you think about Ukraine, it's a neighbouring country to Russia, without EU or NATO membership. We don't necessarily ever want to be like Ukraine. It's a neighbouring country to Russia and it's not a member of the EU or NATO. Finns know pretty well what our geopolitical standpoint is right now.

Mr. Raj Saini: Just before you answer the question—

Mr. Pertti Salolainen: I have one point. The Lisbon treaty of the EU is even tougher than article 5 of NATO, because it says that if one is being attacked, we all must assist and defend with all possible means the one who has been attacked. Of course, we have no troops, but neither has NATO any troops. NATO has only national troops.

• (1720)

Ms. Maarit Feldt-Ranta (Member, Parliament of the Republic of Finland): Mr. Chair, may I perhaps balance it out a little bit?

The Chair: Please.

Ms. Maarit Feldt-Ranta: We have been talking quite a lot about military expressions, but I would say that diplomacy has been the best tool for Finland in creating this balance over those 100 years. I think Finns and also Swedes, our neighbours, think this will be our way over the next 100 years. Public opinion also supports that very strongly.

The Chair: Thank you very much.

We have one more question—

Mr. Paavo Arhinmäki: Sorry. I must add one thing.

The Chair: Please do.

Mr. Raj Saini: I have to add one thing too.

The Chair: He gets to add and you don't.

Voices: Oh, oh!

Mr. Paavo Arhinmäki: The issue is that when you ask us a question, you'll get from every party a different kind of answer.

The only thing I want to add is that a wide majority of Finnish people are against NATO membership. You could say that the strange thing is that even what happened in Ukraine didn't have any effect. The figures stay almost the same all the time, with 50% to 60% against it and 25% for it.

This is probably the idea, as well, that a better way to keep the peace in Finland, people think, is not through a military alliance. It's more through having a good relationship with their neighbour. People don't see the Finnish situation as being the same as Ukraine. Everybody can see there's such a different history behind it.

The Chair: Thank you.

We're going to do one question, because we want to make sure we leave time at the end to do a group photograph.

The last question is going to go to MP Blaikie, please.

Mr. Daniel Blaikie: Thank you very much.

On the question of diplomacy, I think it's fair to say one of the things that we've heard in our study on our Canadian Arctic sovereignty so far is that the diplomacy that happens within the Arctic Council and around Arctic states is running a parallel path. Notwithstanding what countries are doing in the rest of the world, there's been a pretty good sense of co-operation at the Arctic Council.

I'm wondering about two things. First, I know you mentioned in your opening remarks that you feel there's a role for the Arctic Council to expand its mandate—I don't want to put words in your mouth—to go beyond just the central, original issues of the environment. I'm wondering if you want to say a little bit more about what those opportunities are.

Secondly, in the kind of diplomacy that goes into that with Russia being an Arctic state, are there any means of co-operation that you think are diplomatically important to Finland in terms of managing that relationship with Russia? Understanding that we're not talking about any kind of militarization of the Arctic Council or its issues, what kind of issues do you think the Arctic Council can be a forum for to take up that would help you manage that relationship with Russia?

Mr. Pertti Salolainen: I think it's a value in itself that Russia is in the Arctic Council, because think about the Arctic Council if Russia wouldn't be there. Think about their huge area and coastline. We think that it's a good thing that they are there and we must try to make compromises and common projects and so forth so that things can go forward.

As I mentioned, it doesn't mean that we can't have bilateral contacts and bilateral developments, but it's a value itself that Russia is there. This is my main point.

Mr. Daniel Blaikie: In terms of some of the areas for expanding collaboration between Arctic states at the Arctic Council, what are some of those areas?

Mr. Pertti Salolainen: There are so many possibilities. If ever the northeast passage comes into effect, then that creates a lot of problems. We have to have all kinds of ports on the way from China and so forth, so that there are ports all around in Russian territory, Russian ports, for instance, for servicing and other things.

There are so many things that can be developed such as railway connections, roads, many things.

• (1725)

Mr. Daniel Blaikie: Is there anybody else who would like to weigh in?

If not, we can proceed to the picture.

The Chair: I want to thank you again. This is the second opportunity I've had to sit with you today.

It's not that we can ever relate to members of Parliament from different parties disagreeing with each other. When we sit around a table it's always unanimous.

Some hon. members: Oh, oh!

The Chair: There we go, I was waiting for the laugh. It's wonderful to have such a spirited and vibrant engagement with you. It's very meaningful to the study that we're doing and I think generally the importance of the parliamentary-to-parliamentary relationship is on full display around this table this afternoon. From all of my colleagues, from all of us here in the Canadian Parliament, thank you so much for coming and testifying on this important study. We look forward to many more opportunities to have discussions together. Thank you.

With that, I shall adjourn.

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