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Chair

The Honourable Maxime Bernier

Standing Committee on National Defence

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● (1535)

[*Translation*]

The Chair (Hon. Maxime Bernier (Beauce, CPC)): Greetings to everyone.

We will begin the seventh meeting of the Standing Committee on National Defence. According to the orders of the day,

[*English*]

pursuant to Standing Order 108(2) and the motion adopted on Monday February 23, 2009, we will commence our briefing on the effect of climate change in the mandate of the Department of National Defence in the Canadian Arctic.

[*Translation*]

Our witnesses today are: from DND, Mr. Gardam, Director General, Plans, Strategic Joint Staff, and Mr. Hébert, Director, Policy Development, Assistant Deputy Minister, Policy.

Gentlemen, go ahead.

Mr. Philippe Hébert (Director, Policy Development, Assistant Deputy Minister - Policy, Department of National Defence): Thank you very much, Mr. Chair, for having invited us to share our viewpoints and our knowledge on the Canadian Arctic.

My name is Philippe Hébert, and I am Director of Policy Development. As such, I am responsible for everything related to defence policy as regards the Canadian Arctic. My directorate liaises with Foreign Affairs and International Trade Canada, as well as with Indian and Northern Affairs Canada concerning strategy for the Canadian north. I therefore collaborate a great deal on a policy level with colleagues from other departments. I am very pleased to have the opportunity to discuss these topics with you.

I have a brief statement to make, touching on the security environment in the Arctic, the role and mandate of the Canadian Forces and some of our initiatives related to the north that are currently underway within the Canadian Forces. Commodore Gardam will then talk about the current military resources in the Arctic and the Canadian Forces' operations in the north.

It is certainly very timely for the committee to take a look at these issues now. As you undoubtedly know, the Department of National Defence and the Canadian Forces have been focusing more and more attention on the Arctic. This region—40% of Canada's territory, with a population of about 100,000 people—is undergoing significant changes, especially climate change. Retreating ice cover is opening the way for increased shipping, tourism, resource exploration, and new Arctic shipping routes are being considered.

[*English*]

From a defence perspective, we feel there is no longer a conventional military threat in the north like we had during the Cold War, but obviously sovereignty security challenges could become more pressing as the impact of climate change leads to increased activity throughout the region. While growing activity could lead to substantial economic benefits for Canada, an increasingly accessible north could also result in heightened illegal activity, such as organized crime or illegal immigration.

In addition, inappropriately designed ships could damage the fragile environment of the Arctic. There's also been a significant rise in the number of commercial flights that are passing over Canada's north, so there is greater risk of an air disaster in the region.

Finally, as economic and shipping activity increases in the north, the Canadian Forces may be called upon more often to provide support to ground and maritime-based search and rescue incidents.

[*Translation*]

The Government of Canada is responding to these changes by developing an integrated Northern Strategy, which was announced in the 2007 Speech from the Throne. This strategy is based on four pillars: exercising sovereignty in the Canadian north, promoting social and economic development; strengthening and devolving governance and protecting the environment.

National Defence contributes to the Northern Strategy by meeting the expectations of the Canada First Defence Strategy. This strategy states that the Canadian Forces will play an increasingly important role in the Arctic in coming years.

Specifically, the Canadian Forces will contribute to strengthening security and demonstrating Canada's sovereignty in the region through surveillance and control operations and a more visible presence. The military must also mount timely and effective responses to emergencies with other government departments. We are training for such eventualities.

[*English*]

It's important to note, however, that other departments and agencies retain the lead for dealing with most northern security issues. Despite this, they often draw upon the capabilities of the Canadian Forces to help fulfill their mandate. So basically we have a very important support role to play in the region.

I also want to emphasize as well that the role and the mandate of the Canadian Forces in the Arctic is not changing as a result of climate change. Really, what climate change means for us is that we'll need to be prepared to do more of what we've already been doing and also to improve our ability to operate in the north. So in that sense we're moving forward with a number of initiatives that would support our activities. You're probably aware of them, including the acquisition of Arctic offshore patrol ships, the establishment of the Nanisivik berthing and refueling facility at the eastern entrance of the Northwest Passage, the expansion and modernization of the Canadian Rangers, the establishment of a Canadian Forces Arctic training centre in Resolute Bay, the establishment of a primary reserve company in the Arctic to be based in Yellowknife, and the establishment of an Arctic readiness company group in each of the land forces areas in southern Canada.

The Canadian Forces also maintain a number of assets in the north and conduct sovereignty operations through Canada Command, and these are issues that my colleague Commodore Dave Gardam will speak to.

Thank you. *Merci*.

● (1540)

Commodore D. Gardam (Director General - Plans, Strategic Joint Staff, Department of National Defence): Good afternoon, everyone. It's a pleasure to be here.

First, to situate the committee, my position on the Strategic Joint Staff is that I work directly for the Chief of the Defence Staff, so my portfolio deals with, among other things, the Arctic, Afghanistan, and a number of other files. So it's kind of a mile wide and an inch deep.

On the issues of the Arctic, what I'm going to talk to you about today is the roles of the Canadian Forces and missions in the Arctic, how we do that. What I want to do, instead of giving you a 30-minute diatribe on what we do, is restrict my comments to about five minutes and then allow this to be more a question and answer period than me just talking.

Without further ado, as my colleague from policy has already mentioned, one of the key roles that we do play in the defence of the Arctic is conventional defence. We do not see right now an actual conventional threat that would impact upon the Arctic.

When discussing the Arctic, there are a few points that are very important to understand. First of all, regardless of climate change, regardless of what's happening, there are certain givens in this environment. It's an austere environment. We call it a theatre of operations to support. What that means is there is no real infrastructure in place to readily support significant operations, so we have operating bases in various locations that help us do that.

It's cold for half the year, extremely cold, and it's dark. There will be some level of ice up there. Admittedly, the ice level is changing as the years go on, and if we want to discuss a little bit about the ice, we can do that later—what impact that is having on the Northwest Passage, etc.

One of the major roles we play is search and rescue in the north. Also, in a major air disaster, if there were one, we would be the key and lead responder for that. But as my colleague from policy has mentioned, I would say 90% of our responsibility in the Arctic is to work with the other government departments in a support role. This is very important to understand. We support many agencies because of the fact that it is an austere environment that we're working in and they need our assistance, and we often have the capabilities they don't have to work in that environment.

From a resources perspective, we have Joint Task Force North, which is located in Yellowknife. That is on the far west, and then there are two sub-headquarters associated with that. We have the Canadian Rangers, as has already been mentioned, as well as 440 Transport Squadron, which are the Twin Otters that support operations. There are four forward operating logistics sites. Those forward operating logistics sites are designed with runways to support air operations. In addition, we also have CFS Alert, which is the most northern station we have in the Canadian Forces, on Ellesmere Island.

Infrastructure itself, if you look from west to east, is as follows: Joint Task Force Atlantic is in Yellowknife, then you have FOLs at Inuvik, Yellowknife, Rankin Inlet, and Iqaluit, which span the Arctic.

On operations, we in the Canadian Forces conduct three key operations a year. There is Nunalivut, which is on the western approaches in March and April of each year. This is run by Joint Task Force North, which I understand will be appearing in front of this committee at some point. This is specifically to work with the 440 Squadron and the Rangers. The operation employs the unique capabilities of the Rangers to support JTF North, and it's a sovereignty and presence operation. In 2008, Operation Nunalivut occurred in March to mid-April and included approximately 100 personnel. Three patrols of Canadian Rangers and scientists operated on the northwest side of Ellesmere Island, and they were involved in the International Polar Year, permitting scientists to investigate changes in Arctic climate.

● (1545)

We also have Nunakput, another operation that is done in the central northern part of the Arctic. This is an integration exercise run by JTF North and it takes place in the summer, in cooperation with the Canadian Coast Guard and the RCMP. The aim of the operation is to exercise sovereignty and practice interoperability. It is key for us in the Canadian Forces command and control to be able to operate with our other government departments so that we are able to operate together in case of emergency.

We also have Operation Nanook, which is held on the eastern side on Baffin Island. It's a coastal exercise and involves the Hudson Strait area. It was run last year from August 9 to 16. It helps develop and refine that relationship between the intergovernmental departments. The purpose of this exercise is to work with the other government departments on scenarios such as disaster and humanitarian assistance.

Those are the major events in the north that we in the Canadian Forces are involved in.

Thank you.

[*Translation*]

The Chair: Thank you very much.

I will now turn the floor over to Mr. Wilfert. I believe that you will be sharing your time with Mr. Bagnell.

[*English*]

Hon. Bryon Wilfert (Richmond Hill, Lib.): Thank you very much, Mr. Chairman.

Thank you, gentlemen, for coming here today.

I will give most of the questions to my colleague, who's from the Yukon, but I'm particularly interested in noting, when we talk about other agencies and departments, how the coordination is done in terms of the sharing. Could you elaborate? I raised this issue with the Deputy Minister of the Environment at another committee.

I'm curious to know what aspects are shared and who ultimately has the responsibility in terms of the execution in dealing with this. The fact is that the United Nations said in 2007 that of all the requests for relief, only one was not related to climate change, so I'm curious to know how we are preparing ourselves for this.

Then I'll turn this over to Mr. Bagnell.

Cmdre D. Gardam: I'll respond to that.

On sharing of information, it depends on how you want to define that. We have the Arctic security working group, which is probably the principal way in which we share information and best practices. The Canadian Forces, through Joint Task Forth North, co-chairs this body with Public Safety. That is where we explore best practices on how to work in the north.

One of the key things in the north, which is not like what we have south of 66° north, is the lack of infrastructure. The ability to work together is critical to being able to operate in this type of environment. So from our perspective, the sharing at the operational level happens at the Arctic security working group.

At the tactical level, it's where it happens in the exercises themselves. The exercises are built to allow the various departments, whether that's the coast guard, the RCMP, DND, or the fisheries department, the ability to understand what the other departments do and what roles they play. This is very important. It's understanding the lane in which we all operated and then, from there, understanding how we can best support those departments. That's how we do the sharing of information.

In the last two to three years, certainly, I would say that a lot of the work being done by Public Safety and Joint Task Force North has further enhanced that sharing through the Arctic security working group.

● (1550)

[*Translation*]

The Chair: Mr. Bagnell.

[*English*]

Hon. Larry Bagnell (Yukon, Lib.): Thank you.

Either of you can answer this.

I love the military. I've been trying to get more in the north and have been moderately successful.

Is there a paper or are there recommendations to the PMO and the government, etc., related to the security problems that global warming will cause? I'm not talking about the north; I'm talking about the security crisis around the world that global warming is predicted to cause. Has the Department of National Defence done such a paper or a study or, in your connection with Foreign Affairs, provided such information or suggestions to the government?

Mr. Philippe Hébert: From our side at DND, we've looked at it from an Arctic point of view, really, in terms of the changing climate in the Arctic and what it means in terms of operations and activity in the north. We have done little up to now in terms of the broader climate change impact on the rest of the world. I don't want to talk for Foreign Affairs, but I believe that they are already starting to work on that issue. I'm not sure if anything has gone all the way up to the PMO and PCO. I couldn't answer that question.

Hon. Larry Bagnell: You might want to read a book, if you haven't already, called *Climate Wars*, by Gwynne Dyer. Basically, it outlines how the British Ministry of Defence, the Pentagon, and NASA have all done serious papers on the dramatic world security problems that are going to be caused by climate change. I would hate it if our departments were not engaged and not behind those other main countries in the world.

Mr. Philippe Hébert: I'll just add though, sir, that I actually met with somebody from the U.K.'s Foreign and Commonwealth Office just last week, because they are doing a tour to inform some of the other allied countries about their work. We've promised to share information, so we're going to get some of the work they've been doing. And as we ramp up on this particular issue, we'll be sharing with them and with the U.S. as well.

Hon. Larry Bagnell: Regarding the Arctic offshore patrol boats for the Department of National Defence, I know that when you commission new pieces of equipment, you have an idea of what they're going to be used for and where, in general. Roughly where do you see these boats being used, in what general areas, and at what times of year? I know that sometimes in the year they'll be on the coast, and sometimes in the north. What's your general plan? I know there are different needs for these boats, but what's your general concept?

Cmdre D. Gardam: The general concept for the deployment of the Arctic offshore patrol ships is actually to have them based in the east. The reason for that is distance and time, to be able to transit to the north. The distance from Victoria to the north is 5,000 nautical miles. The distance from Halifax is half of that, so it's just a matter of economy of effort in space and time. So they will primarily be based on the east coast.

The plan is that during periods when the ice is opening, we will put Arctic offshore patrol vessels in the north to patrol and to provide a presence; and when the areas are closed because of the ice conditions, they will operate outside of the closed barriers of the ice and farther south.

Hon. Larry Bagnell: So would that be for maybe three months of the year?

Cmdre D. Gardam: It depends, because what's happening in the Arctic is a journey. We're seeing the beginning of what's happening. Right now we're talking of the Northwest Passage, but quite frankly, its a trans-polar issue; it is not the Northwest Passage, which as Canadians is something we need to be considering. It's north of Ellesmere Island, because that's the area that will be open as the ice starts to melt. So at some point, we see ourselves moving farther and farther north as the areas become open.

So I would say it will be a document in transition as to how we employ these ships, and each year we will look at how we will do it, based on ice conditions, etc. Obviously marine safety and security would be our number one issue.

● (1555)

The Chair: Your time is up, Mr. Bagnell. Thank you very much.

Mr. Bachand.

[*Translation*]

Mr. Claude Bachand (Saint-Jean, BQ): Thank you, Mr. Chair.

I would like to thank our guests for their presentation.

There are many ways to exercise sovereignty on a territory. The Russians used a rather odd way, by dropping a Russian flag into the bottom of the Arctic ocean in a titanium capsule. I'm not sure that that's the best way to ensure sovereignty over a territory.

Mr. Hébert, this question is more for you: what is Canada's strategy regarding its commitment to ensuring full sovereignty? For example, concerning the extension of the continental shelf, is that how Canada wants to show that the north belongs to it? For example, are there scientific expeditions being conducted to justify this extension?

It seems to me that we have solid arguments on our side. This also raises the aspect of mapping the seabed. Does DND participate in that? Are there scientific expeditions to map the seabed? Is that the strategy? There are other strategies. The idea is not just to drop a flag into the ocean; there are also maritime military patrols. Personally, I have never believed that we could win militarily against the American or Russian navies or against the American army. It seems to me that we need scientific and logical arguments.

Could you explain whether the continental shelf extension and seabed mapping are part of the strategy to assume full Canadian sovereignty in the Arctic at the present time?

Mr. Philippe Hébert: Thank you very much, Mr. Bachand.

Many of the points you raised concern the representatives of DFAIT. They are the ones who are responsible for answering questions concerning international law.

However, generally speaking, it is clear that Canada's strategy is to continue to work within the United Nations Convention on the Law of the Sea, and that seabed mapping and the continental shelf are also part of the strategy aimed at establishing the exact boundaries of our territory. A great deal of work is being done in this regard.

The Canadian Forces assist Environment Canada and others. They participate in a certain number of scientific operations, whether by supplying aircraft or other equipment. We have supported these missions in the past, and this is very important.

There is little media coverage of potential conflicts in the north or anything like that. No one at DND or DFAIT foresees a war or anything like that with the Russians or the Americans.

We must recall that Canada's sovereignty concerning our Arctic islands and territory is not challenged, except for the small Hans Island. With Denmark, there are certain conflicts concerning maritime borders, but they are properly managed at the diplomatic level. There is a strong international legal framework concerning the Arctic, which is based on UNCLOS.

Thanks to these instruments, it is possible to manage international relations concerning the north. It is certainly not a question of conventional defence; it is more a question of diplomacy.

Mr. Claude Bachand: But there is a bone of contention with the Americans. We consider that the Northwest Passage lies in Canadian territorial waters, whereas the Americans consider that it lies in international waters.

Mr. Philippe Hébert: There's a distinction to be made.

Once again, I believe that you will be hearing from representatives of DFAIT.

We in Canada consider that these are internal waters. The United States do not challenge the fact that they are Canadian territorial waters but they claim that there is an international strait that passes through these waters. That's where the conflict between the two countries arises. Both our countries have agreed to disagree.

Mr. Claude Bachand: Yes.

Mr. Philippe Hébert: We even have a treaty with the United States, which was signed in 1988 concerning the passage of icebreakers. Under this treaty, the United States must ask our permission, regardless of their position, each time an American icebreaker wants to pass through our waters.

Mr. Claude Bachand: Yes, but the Polar Class Icebreaker, an American vessel, passed through our waters on one occasion and did not ask our permission until afterward. That was the case.

Mr. Philippe Hébert: In the 1960s—

Mr. Claude Bachand: In 1970, 1975, 1980.

Mr. Philippe Hébert: That was before the treaty was signed. However, I know that since the treaty came into force, they have always asked our permission.

Mr. Claude Bachand: Can you send that treaty to us?

● (1600)

Mr. Philippe Hébert: I'll have to see. Once again, this question is more for the representatives of DFAIT. They are the ones who are responsible for this.

Mr. Claude Bachand: Okay.

As concerns occupation of the territory—we know that this is very important—under the strategy, you have indexed the population of each Inuit village to ensure that the Inuit have been there since time immemorial. These are the terms used by Indian and Northern Affairs Canada when they refer to the Inuit: time immemorial. These people have always been there, they are considered as Canadians and therefore, the territory truly belongs to them. I imagine that that is a question for DFAIT as well?

Mr. Philippe Hébert: I don't know whether that is the responsibility of DFAIT or Indian Affairs, but I do know that it certainly does not concern DND.

Mr. Claude Bachand: Okay.

I now have a question that I think is for National Defence. Is the Joint Task Force North, which includes the army, navy and air force, a division of Command Canada, or is it separate?

Cmdre D. Gardam: It is part of Command Canada.

Mr. Claude Bachand: It's part of Command Canada?

Cmdre D. Gardam: Yes.

Mr. Claude Bachand: Who is in charge of Joint Task Force North? Is it you? No?

Cmdre D. Gardam: No, it's Brigadier-General Miller.

[*English*]

This committee, I believe, has already asked to have him report, along with Admiral McFadden, in the coming weeks.

[*Translation*]

Mr. Claude Bachand: I would like to apologize—

The Chair: You have 30 seconds left.

Mr. Claude Bachand: I would like to apologize because we are starting our study, and we're trying to see how things fit in. I would eventually like to hear from you, Commodore, concerning the use of UAVs and satellites during reconnaissance missions.

In future, will UAVs and satellites be used more than ships? Will these technologies be important for reconnaissance missions in the Arctic?

The Chair: In 15 seconds, please.

[*English*]

Cmdre D. Gardam: We have Radarsat-2, which has already been launched, and that is a satellite that gives us some persistence in the north. The next project to be launched is Polar Epsilon, which will be 2013 to 2015. That will give us more dexterity in the picture as well as access to automatic identification systems, AIS, tracking any ships of a gross tonnage of 3,000 tonnes or more, plus additional systems. To build maritime domain awareness in the north is not one system, it's a system of systems.

If someone else would like to ask me more, I can expand.

The Chair: Thanks.

Ms. Black.

Ms. Dawn Black (New Westminster—Coquitlam, NDP): Thank you, Mr. Chair.

Thank you for coming today. As my colleague said, we're just about to undertake the study, and it's one I think all of us are incredibly interested in, so we're happy to get the information you shared with us today.

I think we're all aware of the fragile ecosystem in the Arctic and have concerns about it. Through my friends who live in the north, I know that one of the big concerns of people who are living there is that the ice highways are melting, and they're having difficulty transporting things from one area to another. They've raised other concerns with me around wildlife—polar bears, and other things that are being affected in the Arctic by the changing climate. I wonder how those kinds of changes around the ice highways have affected your work in the Arctic, if they have.

I also wanted to talk about the issue of surveillance, which you just touched upon. I think everyone shares concerns about what will happen in the future as more and more of the ice cap melts. I also have concerns. I come from metro Vancouver, and we're going through terrible gang warfare right now. A number of people have been killed, most of them because of drugs. So I'm concerned about the opening waterways, the issue of drug runners getting drugs into Canada and also getting guns into Canada more easily.

The other thing I'm concerned about is the trafficking of people when another avenue opens. That's also a huge organized criminal activity that affects all of us.

I wonder if you could touch on that, and then I have a couple of others too.

Cmdre D. Gardam: I'll start off.

On the issues of ice highways and the infrastructure, most of the areas where we are operating are in such austere areas—for example, Alert—that what we move in, we move in by air. In some of the other areas where we have port operating logistics sites, a lot of that is also done by air.

One of the things missing in the north is the critical infrastructure to move things around—railways, etc. So to answer your question on the issue of illegal trafficking of drugs and personnel, undoubtedly you could have increased access. It's a vast area. The problem is, when you land there, where do you go? That's the real issue. It is such an austere area...I would be interested. How many on the committee have seen the north? So then you know what I'm talking about when I say it's austere. The colours of grey and white are all you see for a vast part of the year.

To be able to move things in and around that area would be quite a logistical feat. You would have to be able to fly in or support something of that nature, which then gets to the issue of how you know what's in your sky and how you manage it. We do that right now through NORAD, which is our warning, and it gives us the ability to see who's flying in our air space through our early warning sites, which allow us to see if we have aircraft.

Could someone come in through our north? Yes. It would be very difficult, though, and there are easier ways to do it.

● (1605)

Ms. Dawn Black: With the possibility of the Northwest Passage becoming navigable, isn't that a way where they would have an opportunity to bring in more drugs and deal in people trafficking?

Cmdre D. Gardam: I brought a map, and I don't know if you've seen it, but if you look at the Arctic on the eastern side, looking into Hudson Bay, that's probably the best place to come in because that's an open-water port for at least three months of the year. That being said, there's also infrastructure in Hudson Bay to do some screening.

So yes, we could have increased access to the north. There is a possibility you could get some smuggling, but I still think there are easier ways to do it south of 66° north than going through the trouble of doing it north of that.

Mr. Philippe Hébert: It's not just that. As well, you mentioned the issue of the Northwest Passage becoming more accessible. If you're going to see a number of witnesses, I would probably encourage you to talk to the Canadian Ice Service. They will be able to give you a really good idea of their projections of the ice melting and the fact that actually the Northwest Passage won't necessarily be easily navigable any time soon. The waters over the North Pole and the northeastern sea route will be probably open way before the Northwest Passage for navigation through the waters.

We have the Canadian Arctic, and it will probably be more of a destination rather than a transitway. People will go there to extract resources. It is probably actually going to be north-south more than east-west, if you know what I mean, because a lot of the ice will accumulate at the western entrance of the Northwest Passage because of the way the currents are going.

Ms. Dawn Black: You indicated that the Canadian Forces role won't really change even with climate change. I'm wondering if you could expand on that, because it seems to me that if the climate's changing, albeit slowly, and if more and more areas are going to be accessible through climate change, and if there's the kind of devastation of the environment people are concerned about, surely that would make some changes to the role of the Canadian Forces.

Cmdre D. Gardam: Perhaps I will go back to what I said our primary missions were.

When I say “conventional defence”, I mean we still don't see that changing in the long term.

On search and rescue, as there's an increase in the north, our role is not going to change but perhaps our emphasis will, because with access comes the increased risk. There will always be that risk. So I would say there will be perhaps greater emphasis or risk for search and rescue, and it's the same with major air disasters because we're getting more flights over our North Pole.

On assistance to law enforcement, the role won't change, but the amount of support we're giving might.

On humanitarian assistance and assistance to other government departments, these are fundamental roles and I don't see them changing, but I do see the emphasis changing.

● (1610)

The Chair: Thank you very much.

Mr. Boughen.

Mr. Ray Boughen (Palliser, CPC): Thank you, Mr. Chair.

I wonder if the navy has any projections in terms of how the environment will be affected by the number of ships that could increase if the Northwest Passage becomes a reality and becomes open for more than a small part of the year. We hear the sea ice is melting and that barrier to ocean travel is diminishing. What does the navy see as increased traffic due to those climatic changes, and how will that affect the environment of the north?

Cmdre D. Gardam: I actually have some statistics going back a few years that show there has been a slow increase in the traffic we are seeing in the north. As my colleague from policy said, most of this traffic right now is from tourists; it's a destination. We do envision, though, that as the ice continues to melt you will see greater activity, but not necessarily in the Northwest Passage.

I'd like to explain a little bit about the Northwest Passage, what it is and what it isn't. What the Northwest Passage is to a mariner is a backcountry road with potholes. That's the best way to explain it. The northern sea route is a 400-series highway.

If you're not a mariner, you don't look at what's under the water; you just look at what's on top. As mariners, we look at what's under the water, because it's what stops us. And in the Northwest Passage, on the western side, it's very clogged. It's very dense with bergy bits, which are the small icebergs, about the size of a house. They float just above the surface of the water.

The problem is the climatic conditions in the north. You have high winds and poor visibility. So now those bergy bits that you could have seen in a flat, calm sea you can't see. They're as hard as a rock and they will sink a ship. That is the reality of the Northwest Passage, and that will be the reality for at least the next 20 to 30 years.

What we need is a pragmatic and staged approach on how we're going to deal with this. That's why I think things like the AOPS—the Arctic/offshore patrol ships—and developing the maritime domain awareness are so critical to building that front, so we know who's in our backyard and why. The other piece that's very interesting is that in Canada we have a 96-hour northern regulation that requires ships to report in prior to coming into our waters. It's mandatory.

We also have a series of other regulations that have actually been very effective: the Arctic Waters Pollution Prevention Act, the UNCLOS. These are all regulations that have been adhered to by nations.

So we're actually in pretty good shape when it comes to that piece. Now it's how to move on to ensure that as water continues to be more open in the north, taking a polar view, we're prepared for that. That's going to be over the next 40 to 50 years. It's going to happen; we just need to be prepared.

There will be additional investment required. I think AOPS is a very good start. These ships will last 30 years, and by then we'll be looking at something else that we need for the next gap.

Mr. Ray Boughen: Thank you.

The Chair: Mr. Wilfert, for five minutes.

Hon. Bryon Wilfert: Thank you, Mr. Chairman.

The British, the Americans, and the Danes certainly have done a lot of work on climate change and dealing with strategic issues in the north. Through you, Mr. Chairman, can you elaborate on the kind of interaction you've had so far with, in this case, our NATO partners in terms of the north, particularly in dealing with the changing ice floes, the fact that we're seeing parts of the shelf break off, and the impact this is having?

And I'll go back to the issue of tourists. We're getting a lot of tourist ships in the north, with people who don't necessarily know how to respond—it's not like sailing in the Mediterranean. What impact is that having in terms of having to go and rescue them?

● (1615)

Mr. Philippe Hébert: When General Millar comes, I'm sure he'll be able to talk about some of the interactions at the operational level that they have had with the Danes. They've been talking to them in terms of sharing lessons learned in operations and so on. There have also been some contacts with Joint Task Force Alaska on the U.S. side. So at the operational level this channel of communication is being opened in terms of lessons learned and sharing best practices. That's already been happening.

There have been other fora. For example, you might be aware of a conference held in Reykjavik at the end of January. Our Chief of the Defence Staff attended. My deputy director was there as well. He went with people from Foreign Affairs. They met and they talked about these issues with some of their counterparts from NATO countries. So there have been some discussions.

I'll just add that a lot of NATO countries have come to the same conclusion as we have, that the north is not an area where we see a conventional military threat, so there is not a specific military role for NATO. But this is an area we need to pay attention to. We need to look at where we can cooperate more with other countries.

Cmdre D. Gardam: I can't really comment on details of specific issues we've dealt with on climate change. Those discussions have not occurred within my office, so I'm not aware of them. They may very well have happened. But on a strategic level, we have had military-to-military discussions, and they are ongoing, on how we are going to cooperate in the north.

The north is a vast territory that's essentially untapped, which means we have a chance to cooperate with the league of arctic nations on how we're going to deal with some of the issues in the north. I think this dialogue will continue as the years progress. We have a chance to get this right.

Hon. Bryon Wilfert: In terms of getting it right, you indicated you report directly to the head of the armed forces or the chief of staff, and I assume he has taken a particularly strong interest in this, from what I have read so far.

Cmdre D. Gardam: I completed an Arctic estimate and presented it to our commanders two weeks ago. The chief is very much focused on the Arctic and how we will work with our other government departments to ensure that we are responding appropriately to issues in the north. So the answer is yes.

Hon. Bryon Wilfert: I don't know if this is a fair question to ask either of you. In terms of a whole-of-government approach, are there things we are not doing currently that would streamline both the sharing of information and the ability to respond more effectively? Is there anything you are looking at that we could make recommendations towards?

Mr. Philippe Hébert: I can't answer for the operational commanders in Canada Command, but I'm sure they'll have some suggestions.

At the strategic level in Ottawa, for example, a number of interdepartmental committees deal with the Arctic on a weekly or monthly basis at both the ADM and DM levels. So there is information sharing. I've been working on the Arctic files for about seven or eight years now, and a lot of progress has been made. So right now it's working fairly well at the strategic level.

[*Translation*]

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

It is now Mr. Payne's turn.

[*English*]

Mr. LaVar Payne (Medicine Hat, CPC): Thank you, Mr. Chairman.

I'm really pleased to see these gentlemen here today. I appreciate your coming to bring forward your expertise to our committee and enlighten us on some of the issues around the Arctic.

It is becoming more and more important, as we have seen over the last number of years and months. Our government has suggested that we create a deepwater port in Nanisivik for Canada's Arctic fleet. Can you let us know what stage that port is currently at?

● (1620)

Cmdre D. Gardam: I'm going to check my notes here because I want to get my facts right. Somehow I think I'll be quoted if I get them wrong, so I want to make sure I get them right.

The request for proposal is currently ongoing for the deepwater port in Nanisivik. We expect to see an implementation for approval in 2010 or early 2011. The port will be fully operational by about 2015.

The port will essentially be a fuel depot. It will have a jetty and fuel stocks, and then it will develop over time. But right now we're putting in the infrastructure to support that austere environment I talked about earlier. By about 2015 we should see it operational. It will be operational during the periods when it's ice free. So we're not going to have a station commander there—I certainly hope it won't be me—for a 12-month period, but there will be activity during the periods when the port is open.

Mr. LaVar Payne: What kinds of vessels will have access to this port?

Cmdre D. Gardam: It'll be a government port, so there will be Canadian Coast Guard, Fisheries, and DND vessels. This is not just for DND; it's for the Government of Canada. I don't know if civilians will be given access to it, but I know it's going to be an all-of-government port for Canada.

Mr. LaVar Payne: Do you have any estimates on when the port will be open once it's up and running?

Cmdre D. Gardam: It will probably be open for three to four months every year. Those are the times when it's ice free. The rest of the time it's blocked in by ice and you can't access it.

Mr. Philippe Hébert: It will be basically during the navigable season, so when there are ships in the Arctic we'll be there to support operations.

Mr. LaVar Payne: If any foreign vessels have emergencies, would they have access to that port?

Cmdre D. Gardam: I can't see why they wouldn't.

Understand what the port is. It's a jetty with four or five bollards to tie ships up, and a fuel depot. That's it. But I cannot see why we would refuse someone the use of that facility if they required it, because there would be no purpose to that.

Mr. LaVar Payne: Thank you.

[*Translation*]

The Chair: I will now turn the floor over to Mr. Paillé.

Mr. Pascal-Pierre Paillé (Louis-Hébert, BQ): Thank you, Mr. Chair.

Thank you for being here today. You stated here that there is increased shipping and that new shipping routes in the Arctic are currently being studied. I would like to know when you plan to release the results of these studies.

Mr. Philippe Hébert: What I mean by that is that countries are trying to determine where the ice will melt first and what would be the best routes to take through the Arctic Ocean. There's the route that goes above the North Pole, which is the transpolar route. If one day, perhaps in 10, 20, 30 or 40 years, there is no more ice in summer, that would be a very direct route between Europe and Asia. There is also the northeast route which passes just north of Russia. This route is also open during the navigable season. And there is the Northwest Passage. So all these routes are being looked at. However, as we said earlier, I have the impression that of the three, it is the latter that will be open, simply because of the ice conditions that are specific to Canada. So I was referring to these routes.

Mr. Pascal-Pierre Paillé: So more specific information on this subject should be available in future.

Mr. Philippe Hébert: Predictions concerning retreating ice cover are not always accurate from one year to the next. One of the most difficult things in the Arctic is certainly to predict weather conditions over the coming years.

Mr. Pascal-Pierre Paillé: Okay.

I would like to raise another point. There are many countries involved, and perhaps some of them have information that you cannot share with me. Whatever the case, I would like to know whether Canada is expressing its will to protect its sovereignty and what its actions in that regard are, as compared to other countries. In your opinion, is Canada doing about the same, more, or less than other countries?

● (1625)

Mr. Philippe Hébert: All countries that have territory in the north make efforts to protect their sovereignty. All countries do so everywhere on their territory. We also do so on the east and west coasts in the same way. There has been new interest in the Arctic due to climate change, whether in Denmark, Russia, the United States or Canada. I think that we are about the same as other countries. We're certainly not lagging behind. We are making similar efforts to other countries in this regard.

Obviously, we're not going to build five or six nuclear icebreakers like the Russians, but we're making every effort possible. Our efforts are comparable to those of other countries.

Mr. Pascal-Pierre Paillé: I would like to raise one last point. If I have any more time, I will share it with a colleague.

The Chair: You have two minutes left.

Mr. Pascal-Pierre Paillé: Perfect.

You said earlier that the deep water port would perhaps be ready in 2015. There are also other needs that will naturally incur costs. Do you foresee that the amounts indicated here will be sufficient in the short term? Do you foresee other needs based on how things evolve?

Mr. Philippe Hébert: As Commodore Gardam said earlier, as things develop in the north, needs will have to be reassessed, and that's what we foresee for now. Current projects and initiatives correspond to the needs anticipated for the next 10, 15 or 20 years. Obviously, conditions can change drastically. It's difficult to foresee. We therefore made a best guess regarding what will happen, and conducted our analysis on this basis. If in 20 years the needs are greater, then it will be up to the government to decide if it wants to invest in more resources.

Mr. Pascal-Pierre Paillé: Currently, do you feel that you have the resources you need to achieve the objectives you have set?

Mr. Philippe Hébert: Yes, I think so.

[*English*]

Cmdre D. Gardam: Without a doubt, as I said earlier, we require a pragmatic approach to how we're going to deal with Arctic security and how we're going to work with the other government departments. What we can't do is say we've done our bit now, and rest. We have to continue to look at what is happening to the Arctic and how we need to respond as a nation.

This is something that will be with our grandchildren and our grandchildren's children. We have to get it right. I think the approach we're taking now is pragmatic and responsible, and it's one that will serve us for the next 20 years or so. As the ice continues to melt, we will continue to have to look at this. I will not be in the navy in 20 years, but I expect my reliefs to be saying we need something further north—up by Ellesmere.

The Chair: Thank you, Mr. Gardam.

[*Translation*]

Mr. Blaney, the floor is yours.

Mr. Steven Blaney (Lévis—Bellechasse, CPC): Thank you, Mr. Chair.

I would like to welcome you because I was not present at the first meeting. I would like to say that when my colleague from the Bloc Québécois referred to Canadian sovereignty, that was music to my ears. I would like to reassure him that I will not bring that up during question period.

I would like to welcome our colleagues who are beginning our study on the Canadian Arctic. It's true that this region represents 40% of Canada's territory and has a population of 100,000, which is very few. I would like to thank you for the slides and the explanatory notes that you handed out to us.

Mr. Gardam, you refer to 90 people in the headquarters in Yellowknife and a squadron of 45 people, as well as 75 people at Alert. This means that there are 200 to 300 military personnel stationed permanently in the far north. Is that correct?

[*English*]

Cmdre D. Gardam: These are our permanent positions. We rotate them every two to three years. People are posted to one of these bases and they are there, as you will find when you speak with Brigadier General Millar. He is the commander of Joint Task Force North and he lives in Yellowknife right now.

[*Translation*]

Mr. Steven Blaney: Do you intend to increase the number of military personnel from the regular forces on a permanent basis, whether for a reserve company or a training centre? Do you foresee this number increasing over the coming years?

● (1630)

Mr. Philippe Hébert: I don't believe that the army will deploy many permanent staff to the far north. We want to improve our operational capability in the far north as needed, but we don't need to deploy 500 or 600 soldiers on a permanent basis. A small group will likely be on site for a few months to work at the training centre.

Mr. Steven Blaney: In any case, there are 1,500 Rangers in the area.

Mr. Philippe Hébert: Exactly.

Mr. Steven Blaney: Mr. Hébert, there was something that surprised me in your presentation. You talked about cooperating with other departments, but you did not refer to the coast guard.

Could you enlighten me on the role of the Canadian Forces and the coast guard and their relative importance? How do you see this role developing over time?

[*English*]

Cmdre D. Gardam: I'll take that question.

The Canadian Coast Guard is primarily an aid to navigation organization. They service all our lighthouses, buoys, marine aids, and our waterways. They ensure it's safe to transit in Canadian waters. The work the Canadian Coast Guard is doing in the north right now is helping to chart the passages through the north. We're working in cooperation with them on SAR and how we would jointly respond to a SAR incident in the north.

Mr. Steven Blaney: SAR?

Cmdre D. Gardam: That's search and rescue. That's where our level of cooperation is, and it will continue to be in those sorts of areas.

In the past, the navy has done some work with the coast guard. A good example was Hurricane Katrina. In 2006, when we sailed ships down the east coast to work with the Americans, we took coast guard ships with us. They did buoy tending and that sort of work, while we did humanitarian assistance.

[*Translation*]

Mr. Steven Blaney: Do I have any time left, Mr. Chair?

The Chair: You have 50 seconds left.

Mr. Steven Blaney: We could talk about ships. You are going to purchase a patrol ship, and the coast guard will have icebreakers. What is the role of these ships?

[*English*]

Cmdre D. Gardam: The coast guard will have a heavy icebreaker capable of breaking a passage. The Arctic offshore patrol ship will be a class 5 haul, which is capable of working in about one-metre ice—very different. One is heavy icebreaking to open routes of navigation, the other is to operate in areas in and near ice. That's the difference between the two.

[*Translation*]

Mr. Philippe Hébert: Mr. Gardam referred to Operation NANOOK. Most of the time, the coast guard participates in exercises led by our navy. A great deal of work is done as concerns interoperability.

The Chair: Thank you very much.

I will now go to Mr. Wilfert.

[*English*]

I know you're going to share you time with Mr. Bagnell.

Hon. Larry Bagnell: All three of us.

The Chair: Okay.

Hon. Bryon Wilfert: Mr. Chairman, a group of retired U.S. senior generals wrote a report called *National Security and The Threat of Climate Change*. It said that climate change is a direct threat to U.S. national security. They highlighted the accessibility of the enormous hydrocarbon resources in the Arctic region and they looked at the changing geostrategic dynamics of the region and concluded that this is an area that the United States had to be at the forefront on because it could create international instability.

This is the genesis of what I'm looking at in terms of this report. I wonder if you could briefly comment on that or indicate to us who would be best, if we don't already have them on our list, to talk to about that aspect.

Mr. Philippe Hébert: There are a number of people in academia, obviously, who are looking at that, but from our perspective, the issue of resources in the north and the accessibility and the potential for conflict.... These, again, are mostly international law issues that probably Foreign Affairs, from a government point of view, would be able to address, as well as Natural Resources Canada. I don't have a map here with me, but I've seen maps that show that a lot of the resources in the north around the Arctic are already found either in the territory or in the maritime zones of countries, so there's not a lot of stuff that's blank in the middle of the Arctic Ocean.

Personally, I think that some of the projections about conflict and what not over resources may be a little bit exaggerated at the moment. As I said, there's a very clear international legal framework that applies to the north, especially through the United Nations Convention on the Law of the Sea, and so on, and the process that we have now, in terms of charting our continental shelf. The Russians are doing the same, and the Danes, and so on, so I think there's a process in place to deal with these issues.

● (1635)

Hon. Bryon Wilfert: Also, we're following the oil and gas issues in particular.

Cmdre D. Gardam: Yes. I think if you looked at a polar projection, you'll find there are only two or three areas that are not claimed, and that's where China is looking. That's also why the EU is interested in having a seat on the Arctic Council.

But the vast majority of the resources for Canada, 25% of our resources, are north. They're there for Canada to exploit. There are only a few small areas that have not been claimed, and those are the areas where you'll see China and the EU have a very keen interest. The rest of the Arctic nations are there. They're in their exclusive economic zone, they're their resources.

Hon. Anita Neville (Winnipeg South Centre, Lib.): Very quickly, do you have any relationship with the territorial governments? If so, how does it work?

Mr. Philippe Hébert: Not from Ottawa. We don't directly interact with them. I think that's done more at the operational level—Brigadier General Millar, I think.

Hon. Anita Neville: That's fine. Thank you.

Hon. Larry Bagnell: I'm just finishing up my last session on the AOPS. I'll assume, because you said there are three months of open water, that's approximately when they'd be in the Arctic.

There was a government announcement a couple of summers ago that there would be limited dumping allowed by the navy—a new policy—into the Arctic Ocean. Has that policy been rescinded?

Cmdre D. Gardam: I'm sorry, I didn't hear that.

Hon. Larry Bagnell: The government announced the navy would be allowed to dump waste—food, this kind of stuff—periodically in the Arctic Ocean. Has that directive been rescinded?

Cmdre D. Gardam: I'm not sure if that directive has been rescinded. I know why it was put in place. It was specifically for one operation. It's what we call food waste. We mulch it up—

Hon. Larry Bagnell: Actually, maybe you could get back to me on that, because I want to get another question in.

On search and rescue, as you know, for years we haven't replaced our fleet. The minister said he was going to, which is great, but he didn't say if there would be any fixed-wing planes north of 60. We need them there. Do you know of any plans in that respect?

Cmdre D. Gardam: As you're aware, we have a project for fixed-wing SAR that is moving its way through the approval process. I think last year, out of 18,000 SAR incidents, we had 160 in the north. We responded to each one of those in the north. Right now I would say we have the right number to manage that, the correct balance between SAR assets and incidents.

Understand that everything we do is based on risk management. It would be impossible to have all the resources you need; therefore we have to manage risk, and I think we're managing it appropriately.

[*Translation*]

The Chair: Thank you.

[*English*]

Thank you.

Ms. Gallant.

Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC): Thank you, Mr. Chairman.

First of all, I'd like to start off by welcoming back Larry Bagnell. It's a long time since he's been here, and he was here when I first arrived a number of years ago. Larry was the first one who always harped on the importance of northern sovereignty and the defence aspects. Through all those years Larry was on this side of the table. I just want to point out that it took a little change there for us to get the job done and started.

Some hon. members: Oh, oh!

Mr. Claude Bachand: He was sitting there earlier on, when we arrived.

Mrs. Cheryl Gallant: My questions, first of all, have to do with the unmanned aerial vehicles. Does Canada currently own UAVs that are known to be able to withstand the harsh conditions in the Arctic? Are they workable?

Cmdre D. Gardam: We currently are using UAVs in Afghanistan. I am not an expert in UAVs. All I know is that the conditions of the Arctic, because of icing and other issues, do make it difficult to fly at certain times because of the meteorological conditions. I can't really comment on that because I'm not an expert in aviation.

● (1640)

Mrs. Cheryl Gallant: Okay, so we don't launch any from ships.

Mr. Philippe Hébert: I can add to this, if you want me to.

One of the issues that the UAVs are facing in the north is the transmission of their information south. Because they are so high up, just because of the latitude and so on, there are some issues. They need relaying stations so that we can have access to the information. I know the air force is looking at that issue, to be able to employ some of these assets in the future in the north. So that's one of the technical issues we have to deal with.

Mrs. Cheryl Gallant: Right, so we have a few hurdles to overcome, then.

What about the submarines in Canada's navy? Are they able to navigate in the Arctic?

Cmdre D. Gardam: We've had a submarine operating near ice but not under the ice. These are air-breathing submarines, which means they do not have the ability to operate under the ice, because the diesel engines, which charge the batteries, need air to breath—so near but not under.

Mrs. Cheryl Gallant: Which countries that we know of have submarines that would be able to navigate under the ice?

Cmdre D. Gardam: France, Germany, the United States, Russia, the U.K., China—I think I have them all. That's it.

Mrs. Cheryl Gallant: Okay, and of those countries, which ones do we know have been navigating in waters in the Arctic that we would consider to be our waters, Canadian waters?

Cmdre D. Gardam: You're now approaching an area in which some of the information is classified. I can tell you we know our U. S. partners, because we have submarines ourselves and we want to avoid what happened with the U.K. and the French, which is having two submarines bump in the night. We have a method of controlling where allied submarines go. However, submarines that are not allied, we find them with our ships if they're there. If we're not in the space and time, we don't know where they are, just as no other nation would know where they are either.

Mrs. Cheryl Gallant: We may have non-allied submarines traversing beneath the ice in Canadian waters. We may. Okay. We're not going to go there, because that's classified.

Cmdre D. Gardam: Yes.

Mrs. Cheryl Gallant: You did lead into my next question, and that is whether this deepwater port is going to be equipped to handle a nuclear submarine that is in trouble.

The Chair: You have 30 seconds.

Cmdre D. Gardam: I don't know. I can't answer that question, I'm sorry. A submarine in trouble, a nuclear submarine? It depends on what you mean by trouble.

Mrs. Cheryl Gallant: I mean trouble with the reactors. Will they be able to go there to seek help or assistance?

Cmdre D. Gardam: I can't answer that. I don't think we've even looked at that. It's a good question.

Mrs. Cheryl Gallant: Thank you.

The Chair: Thank you.

We'll go to Mr. Hawn.

Mr. Laurie Hawn (Edmonton Centre, CPC): Thank you very much, Mr. Chair.

And thank you for being here.

I'll actually follow up on Mr. Bagnall's question and give you a chance to answer the one about dumping and the program the navy had for it.

Cmdre D. Gardam: The Arctic Waters Pollution Prevention Act prohibits the discharge of black water, which is sewage, and oil, which is obviously a pollutant. It also restricts putting food stocks or garbage in the water. By garbage, normally, we refer to things such as garbage bags and so on.

Years ago when we developed new Canadian patrol frigates, we made them environmentally friendly. We don't put any material in the waste that is not biodegradable by Canadian standards. That includes what you would put in your sink at home. But that material, in the Arctic, is a prohibited substance.

Our ships are not capable of holding material such as used potatoes that have been ground and so on for a prolonged period of time. So if you're up in the Arctic for two, three, or four weeks, you have to ask for permission to do that. We asked for permission to pump what we call grey water into the Arctic, which is what you would put down your sink. But nothing was toxic. That was the key. It was not a toxic substance. It was normal waste from a galley that was going out. It was food stocks.

● (1645)

Mr. Laurie Hawn: That was not a blanket clearance. That was on an exercise.

Cmdre D. Gardam: That was an exercise clearance we had, and that was for one of our patrol frigates in the eastern Arctic.

Mr. Laurie Hawn: I have just a quick question about lessons learned from the three operations you mentioned. What kinds of lessons are we learning from those? Are there any you can share?

Cmdre D. Gardam: Yes, we're learning that working in the Arctic is very difficult. Fuelling is an example. If you take a frigate in the north and you want to fuel it, well, there are no fuel stocks. So we have to go alongside a coast guard ship. We have to boom the ship, which means we put an oil pollution boom around the ship when the ship's at anchor. We have to ensure that we do that in order to pass our fuel.

One lesson we're learning is that the environment is extremely fragile. We have extremely good practices when it comes to ensuring environmental due diligence, but we have to double- and triple-check everything we do to ensure that we do not damage that environment.

Those are the biggest ones we're learning. The other thing we're learning is that it's just difficult to support anything. The distances are extremely long. If something breaks down, you either repair it or it stays broken. There is no service station to go to.

The Canadian Coast Guard are experts in the Arctic, and the reason they are is that they have so many years of experience. When they sail in the Arctic, they take with them sailors who have been there for 20 years who can rebuild engines. Now, that's great if you're working on agricultural diesel. If you're working on a state-of-the-art jet engine, which is what is in Canadian patrol frigates....

We're learning a lot of lessons.

Mr. Laurie Hawn: Thank you very much. That's fine.

The Chair: Thank you.

We'll go to Mr. Bagnell.

Hon. Larry Bagnell: Thank you.

Following up on Mr. Hawn's question, you are going to get back to us on whether that grey water thing still stands—you know, on whether it's active.

I wanted to go on the record that the constituent who was asking about the worldwide security was Ken Madsen.

I wanted to make sure I was clear on the training centre. It wasn't my question, but you said that the training centre will have a few staff for a few months of the year. Is that correct?

Mr. Philippe Hébert: I think the training centre will have some staff there during the time when there is training or when the Canadian Forces are going to have students and units up there for Arctic training. I'm not sure the army is intending to have people there 12 months out of the year, though.

Cmdre D. Gardam: We're sharing that facility with the Northern Research Institute organization, so we get it for a period of time when they are not using the facility. Right now we use it on a periodic basis. We're still developing the concept of operations for the Arctic training, and that's a work in progress, so we'll see where it goes.

Hon. Larry Bagnell: You talked about being in cooperation, so I'm assuming that at centres like PEARL, the Arctic scientists are a big help in sovereignty. You're 1,500 kilometres north of the Arctic Circle, at one of our northernmost sites. I assume that's part of the network of things that you would agree helps ensure our sovereignty in that area.

Mr. Philippe Hébert: In terms of the science?

Hon. Larry Bagnell: Having scientists there.

Mr. Philippe Hébert: Oh yes, yes. And we provide support as well to some scientific operations, as required.

Hon. Larry Bagnell: It's too bad they're going to close that centre.

I think Ms. Gallant asked a good question about submarines. They're not covered by NORDREG, I assume, so they don't have to list that they're coming. I'm just wondering what the deal is with non-NATO submarines. Do we track them? Do we know they're there, do they have to ask permission, etc.?

Cmdre D. Gardam: The deal with non-NATO submarines is that they'll travel where they want to and they will operate, and if they are detected, we indicate so. But they do not participate in the same processes as our allies do.

● (1650)

Hon. Larry Bagnell: So considering we consider them to be Canadian inland waters, what would we do if a non-NATO submarine was in our inland waters?

Cmdre D. Gardam: As for the issue of a submarine being in Canadian internal waters, if an incident occurs—and this is a question best answered, actually, by the commander of Canada Command—the way we would probably find it is by visual detection of a conning tower coming up, most likely, and we would then send out a team to investigate. That's the reaction we would follow, and then we'd see if we could determine if it was an ally or not.

Hon. Larry Bagnell: Do you not do UAV tests over Baffin Island, after Ms. Gallant's good question?

Cmdre D. Gardam: DRDC has been doing some work through Northern Watch, their TDP, which has been dealing with gaps in the north. But I'm not aware if they've been flying UAVs or not.

Hon. Larry Bagnell: Thank you.

[*Translation*]

The Chair: Mr. Bachand.

Mr. Claude Bachand: Thank you.

Submarines seem to be popular this afternoon. At one point, there were plans to equip Canadian submarines with air-independent propulsion systems, which would enable them to go under the ice cap. Given that we are part of a group of submarines, the Americans make sure we know they are there because they want to avoid any risk of collision, as occurred between the French and British submarines. If a submarine wanted to get away by passing under the ice cap once it was detected, no Canadian submarine could pursue it because it does not have this air-independent propulsion system.

Does the department plan on equipping one or two submarines with this system?

[*English*]

Cmdre D. Gardam: The Victoria class submarines right now are going through their final equipping, which is making them fully operational. It has been a process to take the U.K. boat and convert it to Canadian standards and Canadian procedures.

There has been discussion of air-independent propulsion as an option, but it is currently not something that is being actively sought.

[*Translation*]

Mr. Claude Bachand: I am now going to speak to you about NORAD. We know that this command does not see solely to air space; it has also developed a new mission for maritime approaches. I have the impression that it will have a role to play in this type of approach. In my opinion, anything connected to satellites will have to go through NORAD. Air traffic above Canadian territory in the Arctic should normally be overseen by NORAD.

The North Warning System is controlled by NORAD. Will the data sent to NORAD first transit throught Winnipeg?

[*English*]

Cmdre D. Gardam: NORAD has a new mandate, which is maritime warning, which was included in the last round of negotiations. And I suspect the Canada-U.S. binational command is going to continue to work on maritime domain awareness in the north. That is something we can potentially explore.

With regard to radars and information passing and where we see the information, information is passed through the NORAD early warning system. It is passed to Colorado Springs, and we have that information also in Canada. It passes seamlessly through Canada and the United States. Because this is a binational command, it's neither Canadian nor American; it's both. And that's key. The deputy commander of NORAD is a Canadian.

Certainly the way we have been passing and exchanging information is not going to change as NORAD progresses down the road of looking at maritime domain awareness. In fact, if anything, it will increase.

● (1655)

[*Translation*]

Mr. Claude Bachand: I've heard that certain generals don't like data leaving Canada and being sent directly to NORAD. There is a type of filter in Winnipeg that also comes under NORAD operations.

Before being sent to NORAD, does the data collected by satellite or by other means transit through Winnipeg, to ensure that there is some kind of Canadian control over this data?

The Chair: In 20 seconds.

[*English*]

Cmdre D. Gardam: I'm not an expert in NORAD, so I really can't get into the detail of where the zeros and ones go.

[*Translation*]

Mr. Claude Bachand: Okay.

The Chair: Thank you.

[*English*]

Mr. Hawn.

Mr. Laurie Hawn: Thank you, Mr. Chair.

With respect to that last question, the information is available to Winnipeg, to Colorado Springs, to everybody in the NORAD system. They can pick off the information they want. It doesn't have to go through any filters to get to anywhere. The information is out there to all those organizations.

To clear up something that maybe I misunderstood, carrying on with Mr. Bagnell's point, am I correct in saying that there is no policy that gives blanket authority to the navy to dump the kind of material we're talking about?

Cmdre D. Gardam: If there is, I'm not aware of it. I know the incident we were speaking about. There may have been a change in policy that says that it is now approved for these types of missions. I don't know the answer to that.

Mr. Laurie Hawn: But my understanding of this was that authority was given for one specific operation.

Cmdre D. Gardam: It was for that operation.

Mr. Laurie Hawn: And if a similar one came up, it would be granted on a case-by-case basis.

Cmdre D. Gardam: That's my understanding.

Mr. Laurie Hawn: Okay, thank you.

I'll pass the rest of my time to Ms. Gallant.

Mrs. Cheryl Gallant: Actually, my final questions had to do with NORAD as well. We know that, as Claude mentioned, there's supposed to be a maritime component. At present, are they able to superimpose the maritime component over top of the air component? Can you see what's going on in both dimensions at once?

Cmdre D. Gardam: Yes, you can.

Mrs. Cheryl Gallant: Okay. Is the information as complete and reliable for the Arctic section of the map, so to speak, as it would be in the more populated areas on the Pacific and Atlantic coasts?

Cmdre D. Gardam: No, it's not. As my colleague was mentioning, the issue of the Arctic is about transmitting information and having the right satellites that have a polar orbit and that can actually look down and pick up this information. We're putting those up now. We have some up and we'll put more up. As we put more up, our information level will become more detailed.

Mrs. Cheryl Gallant: Thank you. Those are all my questions.

The Chair: Thank you very much.

I just want to ask the members of the committee if they have other questions. If not, I will thank our witnesses.

Hon. Larry Bagnell: I have one short question on the cleanup of the DEW line sites?

Cmdre D. Gardam: I've got that here somewhere. Just give me a second. Pardon me if I refer to my notes.

During the Cold War North America relied on radar networks to provide early warnings. In the early 1960s twenty of these sites were decommissioned and became the responsibility of the Department of Indian Affairs and Northern Development. Twenty-one of these sites remained in operation within DND until 1993. The northern warning system has subsequently been replaced.

The DEW line cleanup project was initiated in 1990 to remediate the contaminated soil of 21 DEW line sites. The project is expected to spend $500 million over the life of the project. Between 1996 and 2007 it cleaned up 14 sites. The cleanup of the remaining sites is expected to be completed in 2012, and we'll continue monitoring the landfill until 2037.

● (1700)

[*Translation*]

The Chair: Thank you.

[*English*]

I would like to thank the witnesses. I think your presentation was really appreciated by the members.

[*Translation*]

The same goes for the answers to the questions that were put to you by the members. Thank you very much for the information you gave us this afternoon.

You are free to go. Thank you.

[*English*]

We received a motion from Mr. Wilfert, and I cannot discuss this motion right now. I need unanimous consent. Do we have unanimous consent to discuss this motion?

[*Translation*]

I see that we have unanimous consent, and so I will ask Mr. Wilfert to move his motion.

[*English*]

Hon. Bryon Wilfert: Thank you, Mr. Chairman. Thank you members of the committee.

I move that in light of the recent statements by the Lieutenant-General Andrew Leslie, Chief of Land Staff, that the Canadian military is in "a state of crisis" due to strains of the mission in Afghanistan, the Standing Committee of National Defence undertake a study on the Department of National Defence's current and future recruitment strategy to attract the needed personnel and resources to meet the current and future demands of the Canadian Forces.

From consultation with my colleague Mr. Hawn, I agree with his amendment, if you want to put the amendment forth.

Mr. Laurie Hawn: A friendly amendment: that the motion be amended by adding, after the words "Canadian Forces", the following: "and that the committee undertake this study after its current studies on health services offered to CF personnel and Arctic sovereignty are completed".

[*Translation*]

The Chair: Thank you.

[*English*]

Hon. Bryon Wilfert: Do we need a vote on that, Mr. Chairman? Because we are going to get our report on the health services, we have this report on the Arctic, but my intent was to try to deal with it before the end of the session. I'm quite amenable to the amendment. I deem it a friendly amendment.

[*Translation*]

The Chair: Okay.

Mr. Bachand.

Mr. Claude Bachand: I didn't hear Mr. Hawn refer to the incursion of the Russian bomber and witnesses from Russia. I imagine that stands as well?

[*English*]

The Chair: Yes, It will be next .

[*Translation*]

Mr. Claude Bachand: Thank you, Mr. Chair.

[*English*]

Mr. Laurie Hawn: I'm sorry, yes, you're right. Mainly it was business that is currently before the committee, which would include other motions and so on.

Hon. Bryon Wilfert: Notwithstanding.

[*Translation*]

The Chair: The amendment is moved by Mr. Hawn and seconded by Mr. Wilfert.

(Amendment agreed to)

The Chair: We will now vote on the motion.

Are the members in favour of the motion moved by Mr. Wilfert?

[*English*]

Hon. Bryon Wilfert: As amended.

The Chair: As amended, thank you. It's my first time.

[*Translation*]

Thank you very much.

(Motion as amended agreed to)

The Chair: Thank you.

The meeting is adjourned.

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