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Chair

The Honourable Peter Kent

Standing Committee on National Defence

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● (1535)

[*English*]

The Chair (Hon. Peter Kent (Thornhill, CPC)): Welcome, colleagues and guests.

Given the events of the past week and that this is our first committee since the tragic events of last Wednesday, I would like to begin this meeting with a moment of standing silence in memory of Warrant Officer Vincent and Corporal Cirillo.

[*A moment of silence observed*]

The Chair: Thank you.

In today's meeting, pursuant to Standing Order 108(2), we are continuing our study on the defence of North America.

We have two witnesses with us today. They are appearing as individuals, but they are co-authors of a recent study on NORAD and, by implication, the defence of North America.

We have in our committee room Dr. James Fergusson, who is a professor and director of political studies at the Centre for Defence and Security Studies at the University of Manitoba.

Welcome, Dr. Fergusson, and thank you for your appearance here today.

As well, by video conference from Winnipeg, we have Dr. Andrea Charron, associate professor and deputy director of political studies at the Centre for Defence and Security Studies at the University of Manitoba.

Thank you, Dr. Charron, for appearing with us today. If you will, please go ahead with your opening remarks.

Dr. Andrea Charron (Associate Professor, Deputy Director, Political Studies, Centre for Defence and Security Studies, University of Manitoba, As an Individual): Thank you for the invitation to speak to you today.

I understand that this committee has sought information from a variety of academics and practitioners on the subject of the defence of North America on an ongoing basis. My assumption is that I'm being asked to make comments on NORAD and its role in the defence of North America based on the study that Jim Fergusson and I, with other academics, completed. My remarks today will focus on what is working vis-à-vis NORAD, and the current challenges it faces, especially with respect to the Arctic.

In 2006, NORAD was signed in perpetuity, and a new mission, maritime warning, was added to the air warning and control mission. The justification for the new mission was that 9/11 had proven that defence of the homeland was paramount and that threats could originate from a variety of sources, even from within North America.

NORAD is now undergoing a review of its ability to remain relevant to new threats given current command policies, current mission challenges, potential evolving or emerging roles, and missions and partnerships. This high-level review, consisting of approximately a dozen working groups, is called “NORAD Next”.

This is timely, given that the new maritime warning mission means that organizations other than military-to-military ones, which is the hallmark of the air warning and defence missions, are required to provide information so that NORAD can create a North American-wide maritime picture in addition to its air picture. However, while NORAD Next is preparing for 2030, our study focused on the here and now and what is working and not working for NORAD.

I'll begin with what is working. The binational partnership that is NORAD is incredibly important to both countries, but especially for Canada because of the geostrategic significance of this partnership and for the training opportunities and information it receives. NORAD can provide all-domain awareness and has the benefit now of an air and maritime picture of potential threats to all of North America.

Still, there are areas of concern that I wish to highlight. I have chosen to focus on the Arctic given my research area of expertise.

Arguably, the Arctic has always been a critical focus of NORAD. Indeed, during the Cold War, NORAD was focused on the threat emanating from the direction of the Arctic, hence, the logo of NORAD has a broadsword facing northward.

There is a fierce debate in Canada about whether or not the Arctic is subject to increased threats, especially from states like Russia and China, because the Arctic has garnered more attention for a variety of reasons, including melting ice, maritime boundary issues, and resource extraction. First, none of these activities in and of themselves are defence threats to the Arctic automatically, and second, there are many things the Canadian government can do that can help ensure increased traffic and attention in the Arctic is of benefit to Canada, such as better infrastructure, more services, and more navigational aids.

Based on the unclassified information I have reviewed, we can say that, yes, there have been Russian sorties of late, but this is not new, nor is it new for NORAD. Indeed, this is its bread and butter. What is of concern, however, is the aging NORAD infrastructure and general rust-out, especially with respect to the north warning system, which is made up of long-range and short-range radars. The north warning system is coming to its end of life, and some would argue that it is located too far south.

The north warning system provides critical information not only to allow NORAD to detect threats, but also to provide valuable constabulary information to both Canada and the U.S. We need this information to continue to be fed to Canadian Joint Operations Command, or CJOC, U.S. Northern Command, and NORAD.

Whether the north warning system remains in its present or some other form—for example, perhaps space-based—the cost of replacing or reinventing a north warning-like capability will be in the billions of dollars, and governments tend to be chary of such capital outlays, especially during uncertain economic times and when trying to replace infrastructure and capital across the country.

Often it is reported that melting ice leads to automatic increases in shipping and resource extraction in the Canadian Arctic, but (a) there is no direct causal relationship, and (b) increased traffic is not a NORAD-only concern.

A number of projects are tracking the amount of traffic in the Arctic. I'm involved with one: the Arctic marine use and transportation project, run by Jackie Dawson at the University of Ottawa. It will map for Canada the ultimate route for ships to follow in using the Northwest Passage, to limit the impact of shipping on Arctic ecology, benefit northern communities, and be safe for ships, given the incredibly difficult navigational realities of the Arctic. Such predictability would be a boon for NORAD, which could then separate the predictable law-abiding vessels from those they and other departments flag for warning.

● (1540)

Other concerns include the need for more communication infrastructure in the north, both for civilian and classified military use. We will need to ensure that these assets can be protected from cyber-attacks.

The NORAD maritime warning mission is new and is not as mature and well resourced as the air warning and control functions. This is why Dr. Fergusson and I have applied for funding to study this mission specifically.

According to testimony by General Jacoby, the commander of NORAD and USNORTHCOM, to the U.S. House Armed Services Committee in February of this year, the number of maritime warnings issued by NORAD increased from 8 in 2012 to 14 in 2013.

We do not have any idea of what percentage of all potential threats this represents or how many potential threats were dealt with at the national level before a NORAD warning was warranted. Still, another set of eyes on the North America-wide, all-domain picture is another opportunity to protect the homeland or to put Canada first, the number one priorities of both the U.S. and Canada.

Finally, the bifurcated command arrangement between the Canadian NORAD region, or CANR, and the Canadian Joint Operations Command needs to be considered. CJOC represents the amalgamation of several former commands. It is nearly two years old and is now being tested because of combat operations outside of Canada in addition to the need to conduct domestic missions. CANR, via 1 Canadian Air Division in Winnipeg and the joint force air component commander, is historically well linked to NORAD, but CJOC is still making and perfecting links with NORAD, USNORTHCOM, and CANR as a result of this new maritime warning function.

Finally, I'm conscious that with last week's events in Ottawa and Quebec, despite those being ground events, NORAD was put on heightened alert, which was important given that at the time there was uncertainty regarding the nature and scope of the threat. It demonstrates the continued importance of this binational agreement that binds the U.S. and Canada inextricably to the defence of North America.

Mr. Chair, these are my opening remarks. I'd be happy to answer any questions.

● (1545)

The Chair: Thank you very much, Professor.

Dr. Fergusson, please, for your opening remarks.

Dr. James Fergusson (Professor, Director, Political Studies, Centre for Defence and Security Studies, University of Manitoba, As an Individual): Thank you.

As noted by my colleague, Dr. Charron, who's a lead scholar for the “NORAD in Perpetuity?” study, this brief presentation draws directly from some of our findings. As I have no doubt that you are aware, the subject of the defence of North America is an extremely broad, deep, and complicated one, especially in terms of the range of issues involved, encompassing land, sea, air, outer space, the cyberworld, defence industrial, defence technology, and research and development, among other issues.

As the defence of North America has consistently been qualified in government documents over time by reference to the phrase “in cooperation with the United States”, one is immediately directed towards two questions or considerations as a means to understand Canada's North American defence relationship with the United States. One I loosely term as the dominant but not exclusive Canadian question, and the other is the dominant but again not exclusive American question.

The dominant Canadian question concerns the type or form of cooperation with the United States that should be undertaken in order to enhance Canadian defence and security in North America. The American question is the proportion of American defence and security in North America that should be undertaken in cooperation with Canada.

The foundation for the first question is simply the fact that Canadian military capabilities are dwarfed by the capabilities of the United States. The United States possesses the capabilities to defend all of North America. As such, under the traditional idea of "defence against help" that is produced by the reality of capabilities relative to an evolving or changing threat environment, Canada's fundamental national strategic interest continues to seek the means to ensure that U.S. plans to defend North America take into account Canadian defence requirements.

In effect, Canada seeks opportunities to influence American thinking and American planning. The means have been twofold: binationalism and bilateralism.

Binationalism, embedded in the NORAD arrangement, was initially driven by the common threat posed during the Cold War by the Soviet Union and its long-range bomber force, and functional defence requirements to ensure an effective and efficient response. This led NORAD into its two main missions: aerospace early warning—initially air breathing—and then ballistic missiles/space threats and aerospace control or defence, which remains restricted to air breathing threats.

Since its establishment, NORAD has been the institutional centrepiece of the Canada-U.S. defence relationship in North America, but NORAD or binationalism does not account for the majority of the actual defence relationship. Beyond its two missions and the addition of the maritime early warning mission in 2006, the overwhelming majority of the relationship has been bilateral in nature.

There was an expectation after 9/11, in the context of the new threat environment and the subsequent establishment of first the binational planning cell and then the successor, the binational planning group, which issued a final report in 2006, that NORAD or binationalism would expand to encompass greater cooperation. This did not occur beyond the addition of the maritime early warning mission, and this mission, in functional terms, was driven by the recognition that a maritime threat approaching the North American continent might quickly transition into an air breathing threat requiring a NORAD response. Specifically, a freighter might become the platform for the launch of a cruise missile.

Importantly, the new mission did not entail additional NORAD assets per se, but rather placed NORAD as a recipient of new maritime domain awareness information at the end of national sourcing and as an add-on to evolving bilateral arrangements between these national sources, which included both military and civilian agencies in both countries.

The dominant perception in this regard is that the United States sought a broader and deeper binational arrangement to include both sea and land, but Canada said no. I would suggest that the U.S. believed that its defence required expanded cooperation with Canada but was largely open to a range of modes of cooperation. Canada's preference was bilateralism, for a range of political reasons stemming primarily from concerns related to Canadian sovereignty.

The core issue confronting this committee is whether the current structure of the relationship concerning the defence of North America, dominated by bilateral arrangements relative to the three existing binational missions, is functionally efficient and effective for the defence and security of Canada relative to the current and future threat environments and the reality of constrained and limited defence resources on both sides of the border.

● (1550)

In this regard, let me add that NORAD binationalism, in practice, has not been a one-size-fits-all relationship or one dictated by the United States. There are national caveats that exist within the binational relationship, and the operational reality of NORAD's air defence mission, for example, is aptly summed up in the phrase "decentralized command and decentralized execution".

The American recognition post-9/11 that homeland defence requirements required greater cooperation with Canada has not been replicated in the case of the thorny issue of ballistic missile defence in Canada. Importantly, the current system deployed in Alaska and California, and possibly a future interceptor site in the United States northeast, is a function of a congressional mandate in law to defend all of the continental United States, Alaska, and Hawaii—not Canada.

As a function of its evolution and the failed 2003-04 negotiations, which were initiated by Canada, it is clear that the United States, for now, does not perceive cooperation with Canada as required for defence of a ballistic missile attack. The only portion of the missile defence equation sought through cooperation with Canada was a link of NORAD's aerospace—the ballistic missile and space component part of it—early warning assessment into NORTHCOM, or the Northern Command missile defence system, which Canada agreed to.

Even then, dedicated forward-deployed missile defence U.S. tracking and queuing radars are not linked into NORAD. It may be the case, however, that the U.S. will identify, if or when a third site is established, that a forward-tracking radar on eastern Canadian soil is necessary. If so, this will provide a range of options relative to the specific form of cooperation or Canadian participation.

For the time being, the issue of ballistic missile defence for Canada is a national one. Does Canada need the capability to defend itself against a ballistic missile attack relative to its origin and nature? If so, the issue becomes the possibility and cost of acquiring a national capability from the United States, and such a decision would naturally alter U.S. defence thinking and planning and possibly place NORAD back into the equation. If not, then missile defence will remain, in American thinking, a U.S.-only mission.

I look forward to your questions.

The Chair: Thank you very much, Dr. Fergusson.

We will proceed with the first round of questions, with seven minutes for each questioner, beginning with Mr. Norlock, please.

Mr. Rick Norlock (Northumberland—Quinte West, CPC): Thank you very much, Mr. Chair, and through you to the witnesses, thank you for being here today.

My question is based on fiscal responsibility and how we exercise it. I believe Professor Charron mentioned the rusting out of the north warning system. How do we begin to replace infrastructure or do things...? The infrastructure is becoming obsolete. My concentration would be on whether satellites, unmanned aircraft, are a more economical way than building these radar sites across North America, such as the old early warning radar systems, in that satellites look down. We know the technology in satellites is such that they can almost—and I think in some cases can—read licence plates on cars.

I'd like both of you to comment specifically on whether satellites and unmanned aircraft are a more economical way to defend North America from an air threat, or perhaps even a maritime one, because we know there are different platforms that threats can take place from.

Also, if you wouldn't mind, could you comment on the 1967 Outer Space Treaty, which you mentioned in some of literature you've referred to, and how it can relate to what I've just asked?

We could perhaps start with Professor Fergusson and move on to Professor Charron in response to that question.

Dr. James Fergusson: Briefly, satellites can do a lot for you, but they can't do everything that most people think they can do.

The current system that does provide limited wide area surveillance of the Arctic is RADARSAT-2. It provides all-weather capabilities 24 hours a day, seven days a week.

The planned deployment of our RADARSAT constellation for an additional three satellites will boost the coverage or exposure time, the ability to revisit areas. It basically provides wide area surveillance to identify something going on, such as a ship moving out there. The technology does not now provide the capability to provide a specific, narrow "what is this vessel?" answer. It may be able to provide that it is a vessel, but you need to send in something else for narrow surveillance or reconnaissance purposes.

Whether these should be drones or existing aircraft or new aircraft —and I'm not considering the F-35 here—is an interesting question from a cost perspective. There's an assumption that drones are cheap. Well, they're not cheap: you will still need infrastructure and alternative training. It requires significant investment.

We have an existing capability, which is an air breathing and pilot-driven capacity for reconnaissance—very limited—relative to investing in the large numbers of drones that you're going to need and the infrastructure that goes along with it. I can't answer on the trade-off, but you still need a supporting system at the end of the day, a north warning system.

One thing that's important to remember about satellites, and I'll conclude here, is that the north warning system was modernized in the 1980s. We are now 30-plus years away from that. Satellites don't last 30 years. You have to replace them in five to ten years, depending on how lucky you are relative to the harsh environment in outer space. The 1967 Outer Space Treaty has no bearing on this issue at all.

● (1555)

Mr. Rick Norlock: Dr. Charron.

Dr. Andrea Charron: Thank you.

The only comment I would make in addition on satellites is that often they have a predictable orbit, so we have to ensure that we have the opportunity to see all of the Arctic in one go. That's the advantage of the long-range and short-range radars.

If we were to completely replace the north warning system with unmanned aircraft, I would have a few concerns with that. First of all, we're talking about an incredible distance and amount of geography to track, and it may encourage more attacks. You have the impetus of being able to hedge your bet and hoping you are able to enter into Canadian airspace or marine space when the unmanned aircraft is not there. That's the advantage of the radar system: we always know where it is, and it's tracking 24 hours.

Rather than starting from whether we should be replacing the north warning system or not, maybe we should be thinking about the kind of information that NORAD and other agencies need, given that NORAD now is in the business of tracking not only traditional defence threats but also new threats like pollution and cyber-attacks. Do we need something different from the north warning system or in addition to it? Given that the cost of putting in this infrastructure is so expensive—in the billions of dollars—and that other agencies are going to benefit from this information, is there not a way that we can have one system collecting multiple bits of information that are then fed to the necessary agencies?

Mr. Rick Norlock: Since we have one minute left, I'd like to have you each make a quick comment with regard to, as you mentioned, Professor Charron, cyber-attacks. We see more and more of an interrelation between military and commercial cyber-attacks as a way of weakening the economy or defences.

Number one, we all know we have to spend more, so would you both comment on whether the authority should be under one roof? In Canada, it's under several roofs.

We'll start with Professor Charron.

Dr. Andrea Charron: The only comment I can make is that right now NORAD's requirement is to protect NORAD assets. Whether or not it should then be responsible for tracking other cybersecurity threats—for instance, civilian apparatus—it would mean that we need to change the nature of NORAD and the command and control structures to be able to do that.

Dr. James Fergusson: Beyond the important requirement to protect their own systems from cyber-attack through the military, I'm of the view that really this is not a military function. Certainly, in terms of North American defence or homeland defence in Canada and the United States, the military, by nature of its capabilities, is important in terms of consequent management of these events, but I don't see that really the military, the defence, should be taking the lead.

We are driven, as we always have been, by the United States. They set up a cyber command and somehow we think we should as well. Well, they are entirely different, those American motives and what's driving the United States, and what's driving our interests here.

● (1600)

The Chair: Thank you. Your time is up.

Mr. Davies, please.

Mr. Don Davies (Vancouver Kingsway, NDP): Thank you, Mr. Chairman.

Thank you, Dr. Charron and Dr. Fergusson, for being with us today.

Dr. Charron, I'm going to start with you. You mentioned priorities in your opening remarks. I'm wondering, from an operational perspective, what you believe are the key actions that Canada and the U.S. need to take to ensure NORAD's continued relevance and effectiveness.

Dr. Andrea Charron: Thank you.

Well, I think NORAD is doing that, and it's prompted by the Permanent Joint Board on Defence, the NAS/NORAD, and with General Jacoby's enthusiasm to look at how NORAD is going to remain relevant: the model for future and emerging threats. These working groups—and hopefully we'll have a report in a December-January timeframe—are really looking at the horizon out until 2030.

What Jim and I were interested in, however, was the here and now. While it's important to plan for the future, there are issues such as the fact that CJOC has been up and operational for nearly two years now. How does the Canadian CANR-CJOC relationship feed into NORAD? Those are more immediate concerns that we thought perhaps we could aid with.

In terms of priorities, I think NORAD is doing their due diligence. They are thinking about this, and we're trying to fill in a few gaps. I also note that we are hoping to do a study just on maritime warning, because that's the newest mission and it's by far the least understood.

Mr. Don Davies: Thank you.

Dr. Fergusson, I'd like to talk a bit about ballistic missile defence. Your report states that "given U.S. cuts to defence...Canada would have to make a significant contribution and investment" to participate in the program. In your view, what would be the cost implications for Canada to join the United States' BMD program? Could you give us a ballpark idea?

Dr. James Fergusson: It's very difficult to cost-estimate. The idea that somehow we can go to the United States and say that we want to participate and we can assign personnel and NORAD will get a window into the U.S. missile defence systems and get access to more planning, to intercept strategies, etc., I think is just simply wishful thinking on our part. It's part of what derailed the negotiations that Canada initiated in 2003-04, which was, if we participate, what does it mean?

It seems to me that if we're going to participate, then there would have to be some investments that provide added efficiency or effectiveness for the American system and would drive the United States to consider in fact opening the door and rethinking its current U.S.-only planning structure and process.

Radar? What does a modern tracking-queuing radar cost? I don't know. Interceptors? The current per unit price of an interceptor is $75 million. You can add up how many you want, where you would want to put them, and how this would assist the United States, but it's not free. We missed the free bus 20 years ago when things were different.

Mr. Don Davies: I'm going to ask you about priorities as well. Recently the Canadian Armed Forces have been grappling with significant cuts in addition to what has been called "reprofiling" of $3.1 billion in last year's budget. Given the significant need for military equipment in the form of ships and jets to defend Canada, what priority would you recommend BMD have for Canada?

Dr. James Fergusson: On the surface, the natural conclusion, given the nature of the threat, which is not clear right now—it's still evolving relative to North Korea and the question of the future of Iran's nuclear program and its ballistic missile program—and relative to the pressing need to replace the existing fighter force and large chunks of the Canadian navy, it's not one that I would suggest is a high priority right now.

● (1605)

Mr. Don Davies: This is for either of you, Dr. Charron or Dr. Fergusson.

You've mentioned space and of course the issue of BMD is linked to Canada's policy with respect to outer space and the non-weaponization of space. That has been Canada's policy.

I wonder whether you still feel that the non-weaponization of space is a wise policy to pursue. If so, why? Or why not?

Dr. James Fergusson: I'll answer this very simply. It's a wonderful rhetorical policy, but space is weaponized. Don't think it isn't. Satellites in orbit with fuel can be used to collide with other satellites. A missile defence system can strike at satellites in space. A variety of issues are coming down the road that require significant thinking on the part of Canada in the future.

I'm not trying to be a scaremonger about these things, but there are things Canada doesn't pay attention to that we need to pay attention to. We can keep the rhetoric of opposing the weaponization of space —the Americans and everyone oppose it—but strategic realities are changing.

Mr. Don Davies: Dr. Charron, do you have any comment in that regard?

Dr. Andrea Charron: Jim is really the expert when it comes to space and the weaponization of space.

Mr. Don Davies: I want to turn to aircraft. The U.S. government is reportedly looking beyond fifth-generation stealth jet fighter aircraft, such as the F-35 Lightning II, and we hear that it has initiated work on sixth-generation platforms.

Do you know when our sixth-generation fighter prototype is expected to be rolled out? How will this timing affect existing fifth-generation fighter programs, for example the F-35 program?

Dr. James Fergusson: Do you want me to answer?

Mr. Don Davies: It's for either of you.

Dr. James Fergusson: Whatever "sixth generation" means relative to "fifth generation", I would suggest to you that when we talk about those, we're talking 20 years down the road. The F-35 fifth-generation fighter is the only capability that exists out there, not only for Canada and the United States, but also for all our major allies.

It's going to proceed, but I would add for you that, in my view, this will be the last manned fighter that any of the nations buy. We will move in a different direction as drones and the technology related to them become more and more capable of replicating what fighters do.

Mr. Don Davies: Dr. Charron, do you have any views?

Dr. Andrea Charron: No. I would leave that area of expertise to Jim.

The Chair: Your time has expired.

Thank you, Mr. Davies.

Mr. Williamson, please.

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

It's good to see both of you here today, Dr. Charron and Dr. Fergusson.

Dr. Charron, you've mentioned—and it was interesting—that NATO strives "to remain relevant". We've talked a bit about some of the things that have to happen in order for this to happen, but tell me, looking at it from the other side of the coin, what are some of the challenges that are perhaps causing NORAD to be less relevant?

Excuse me. I might have said "NATO" earlier, but I meant NORAD.

Look at it from the other side: what are some of the things that are pulling it in a direction that we should be concerned about?

Dr. Andrea Charron: We can't underestimate the impact that 9/11 has had on NORAD. Whereas NORAD was focused on the assumption that it would be a foreign-based threat coming from outside of North America, 9/11 proved that it could be a threat coming from within North America, and it wasn't a defence threat: it was a plane, which isn't a threat normally and which became a weapon.

When you go to Colorado Springs, what you're hit with is the number of reminders—pictorial reminders, statues—commemorating the events of 9/11 and the association with USNORTHCOM and their motto, "We have the watch". There is this real concern that something—call it Rumsfeld's "unknown unknowns"—is going to come out of nowhere and attack the homeland.

Now that the focus is squarely on the homeland, NORAD is making sure that they consider all possible scenarios for what could be a threat to the defence of North America.

Mr. John Williamson: That's interesting.

Could I summarize this? It's almost a situation in which the Americans, because of 9/11, are less focused on NORAD as the singular focus—I guess because they have so many priorities now—and are a little less engaged in NORAD, or that NORAD is perhaps seen as the institution that is not the focus. Is that fair to say?

● (1610)

Dr. Andrea Charron: No, I wouldn't want to give that impression.

The U.S. is still by far the biggest supporter of NORAD in terms of resources, financial and otherwise. It's simply a unique relationship now that USNORTHCOM and NORAD are housed in the same building—indeed, the commander of NORAD is also the commander of USNORTHCOM—and we in Canada are getting more insight into the concerns of U.S. vis-à-vis the homeland.

NORAD, of course, is still charged with looking for traditional foreign defence threats, but now 9/11 has shown us that you can't only look for the missile coming from outside of Canada. You also now have to be far more aware of what's happening. Really, that was the impetus behind the addition of maritime warning to the NORAD missions.

Mr. John Williamson: Thank you.

Beyond the threats from 9/11—I'll call it a bit of a shift in the U.S. posture—what do you think are the emerging threats? Or what threats have emerged over the last decade since 9/11? If the missile threat is the traditional concern, how have threats to North America evolved over the last decade?

Dr. Andrea Charron: We've seen increased concern about and attention to things such as: criminal gangs; terrorism, both foreign and homegrown; maritime threats that could potentially become more than a search and rescue scenario, where the actual event could threaten North America in some respect; and cybersecurity threats, in regard to making sure that any of the information being gathered or pushed towards NORAD or pushed from NORAD is being protected and can't be manipulated.

Slowly but surely—and this is not unique to NORAD—security agencies and military departments are having to increase the size of their in-baskets for all the possible scenarios that could fall within their mandate.

Mr. John Williamson: Is NORAD the organization to deal with some of these threats, cyber threats in particular, and even gangs for that matter? That's a unique example that I'm not sure I've heard before. How is NORAD positioned to deal with those two very different threats, the cyber threat and the threat from gangs, or groups, or agencies?

Dr. Andrea Charron: We're dealing with defence matters versus constabulary matters. One of the issues we have to keep in mind is that the military are not mandated to deal with constabulary issues per se; however, because NORAD has this air picture and now the maritime picture, they can often provide an all-North American picture that can be very helpful to the constabulary agencies and other civilian agencies. That's the real benefit of NORAD.

Also, NORAD is really the model for how Canada and U.S. organizations can work well together. The amount of trust, training, and partnership that we have via this binational agreement is really the envy of many countries around the world, and it has a lot to teach us about dealing with the Americans.

Mr. John Williamson: Do I have time for one more question?

The Chair: You have just under a minute.

Mr. John Williamson: Could you assess how the maritime warning mission is working? Is it getting the resources it needs and the attention it needs, or is it a bit of an orphan? How do you describe its overall functionality?

Dr. Andrea Charron: This is the reason that Jim and I really want to look at it. One of the things that struck us when we were interviewing people, especially military and other agencies, and we asked exactly your question about how the NORAD maritime warning is going, many responses were sort of like this: “It has this mission? I didn't realize this.”

NORAD has always been very air-centric, and now with maritime warning we're talking about more of a navy focus. But also, other agencies like Transport Canada, the coast guard, the police, etc., have the remit for maritime surveillance, so it is very new for NORAD to try to integrate not only different military personnel, but now also different agencies in terms of the information that's collected, and who to pick up the phone and speak to.

Maritime warning began in 2006. It certainly isn't as well mandated and resourced as the air warning and control. Mind you, NORAD has only the maritime warning mission, not the control mission, so that can also speak to the reason that there is a slight inequality in terms of resources. It may be significant, however, that the new commander of NORAD is Admiral William Gortney, and he is with the United States Navy. He is a pilot, but is with the U.S . Navy.

● (1615)

The Chair: Thank you very much, Professor.

Mr. McKay, please, for seven minutes.

Hon. John McKay (Scarborough—Guildwood, Lib.): Thank you, Chair.

Thanks to both of you.

In another life, I was down at Colorado Springs and, as part of the committee, talked to General Jacoby, and I think it was General Perraut at the time, about this strange relationship we have over ballistic missile defences. It got to be some sort of theatre of the absurd that once it was identified as a threat, somehow or other our guy had to leave the room and it would be handled by the Americans and only by the Americans.

I was struck by Philippe Lagassé's comment that “Canada's current abstention acts as an obstacle toward closer cooperation”. Ferry de Kerckhove says: “To me, it's...very simple.... We are [all] in it together.” Then Lagassé said that, really, we could get into it at no cost to Canada, and de Kerckhove said no, that there are going to be cost implications, let's get real here—I added “let's get real here”.

So the threshold question is, should we at this point decide that we should go back in? Second, is it going to be costless? In 25 words or less....

Voices: Oh, oh!

Dr. James Fergusson: In 25 words or less?

Well, we're not going to go back in, because we've never been in. Let's start with the one basic assumption that we all start with. Somehow we all believe the Americans want us. Well, perhaps the Americans don't. They're not interested in Canadian involvement. In all the indicators I've had, in looking at this issue for many years, it's that the Americans see that there's nothing additional that Canada is going to bring to the table on this issue.

So what do we want? As I think Professor Lagassé said, do we simply want to be able to sit at the table and find out as much as we can about the system? If we do, what's the best way to do it? Is it through NORAD? Is it through perhaps negotiating a research and development memorandum of understanding with the United States on missile defence? Are we going to try to find out if the United States will defend us even if we don't do anything? Are we defended?

These are a lot of important strategic questions that may or may not be answered by simply saying that we want to play.

Hon. John McKay: It's interesting that you should say that, because I got exactly the opposite impression from General Jacoby, in that he was interested in Canada playing, for want of a better term, in Canada being involved, and that he respected the decision to not participate in 2006 but thought that really needed to be reviewed.

Dr. James Fergusson: General Jacoby is the commander of NORAD. He has a North American perspective. What I would say is that he drank the NORAD Kool-Aid. Missile defence is a U.S. Strategic Command mission. His role in NORTHCOM NORAD is direct command of one part of what will become the global U.S. missile defence system.

So who are we engaging here? Is it STRATCOM? Is it the senior levels of the Pentagon? Is it NORAD? I can understand General Jacoby, given the way it is structured at the operational headquarters. I've never been in there so I don't know exactly, but you have a Canadian sitting there doing ballistic missile early warning and beside him is the American doing missile defence, and you don't look at that screen because you are not allowed....

But of course most of the missile defence isn't going to take place in that venue anyways. The command and control systems are located in other places.

So I'm not convinced. I think you always get the answer out of the commander of NORAD, no matter who it is, including the new admiral, that yes, they would like Canada to participate and they'd like to cooperate more and more with Canada. But that person does not speak for Washington. They do not speak for the other major combatant commanders and other commanders in the United States, and there are other vested interests.

● (1620)

Hon. John McKay: I don't wish to take issue with you, but over the two or three days we were there—and we were in the Pentagon as well and had some really interesting briefings and luncheons and casual conversations with some pretty senior people—my impression was that they were pretty enthusiastic about maximizing Canada's participation.

Dr. James Fergusson: But did they tell you what they meant by “participation”?

Hon. John McKay: No. Well, that might be another issue.

Dr. James Fergusson: That's the key question: what do we mean by participation? Certainly if Canada went to the United States and said that we think the effective defence of the United States can be enhanced if we provide them with territory or if we allow certain.... This is the issue of the third site, if or when it develops. Then, I think, the whole negotiating process changes.

But remember, in the context of the negotiations of 2003-04, they partially failed because, one, we were not going to get a guarantee from the United States that Canadian cities would be defended, and I can understand from an American perspective why they couldn't give you that guarantee. Also, command and control was not going to go to NORAD. That was out. Specifically what access Canada would have relative to the system—information-planning filtered by the United States—remained an open and ill-defined question until the negotiations stopped.

The United States has left that open for Canada. The United States position on this is that if you want to consider participation, involvement, they're open to discussing this.

But before Canada goes to discuss this, this is something that I think was part of the reasons negotiations failed: there were unrealistic expectations that the nation, the government, or the department had in the time of 2003-04 about what we were going to get, and there was this idea that we were going to get it for free.

Canada—the government, the Department of National Defence, and this committee—has to decide exactly what we want out of this. Then you can start to consider what Canada will need to invest in order to get what we want. It's relative to all the competing demands on resources and investments, which have a greater priority within the military in Canada, for example, than ballistic missile defence will have.

Hon. John McKay: Well, I've never understood why anybody would want to defend Buffalo over Toronto in the first place.

Voices: Oh, oh!

Hon. John McKay: In the few seconds that are left to me—

The Chair: Very few seconds.

Hon. John McKay: Yes, the very few seconds, Mr. Chair.

If NORAD didn't exist, we'd probably have to invent it, so really, the question becomes, “Do you have a NORAD with silos or do you have a NORAD without silos?” What's your preference?

Dr. James Fergusson: Clarify for me. I'm not sure what you mean by “silos”.

Hon. John McKay: Well, it is said here that they would include the creation of a new “North American Early Warning Command” and an increased presence of civilian agencies, etc., Public Safety and Homeland Security would “require a significant investment”, and it would “reduce if not eliminate the silos that currently exist”.

There's the all-domain concept of expansion of NORAD into sea, land, water, or cyberspace—you name it.

Dr. James Fergusson: In terms of Canadian security interests, we should prefer NORAD without silos, and for one specific reason, which is that NORAD is the only perspective that exists where people like General Jacoby, and American officers as well as Canadian, think “North America” rather than thinking “United States” or “Canada”.

Given the threat environment, the complicated nature of it, and the integrated nature of all the different types of threats, you need North American thinking, not national thinking.

The Chair: Thank you.

We'll now move to the second round of questions with five-minute slots.

Mr. Payne, please.

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

Thank you to the witnesses for coming to this important meeting and discussing North American air defence.

Dr. Fergusson, you talked about maritime warning, air, cyber, land, sea, and satellite. I hope I didn't miss anything there. When I think about all of that and potentially some threat coming through NORAD, what happens in terms of the chain of command for getting that information directly to the armed forces? In particular, I'm thinking about the Canadian Forces base in my riding, CFB Suffield. How does that information get to them and what happens in that process?

Dr. James Fergusson: A lot of this is highly classified, so they don't tell us academics.

But what I would say to you is that in the North American and the traditional NORAD aerospace warning assessment mission—integrated tactical warning and attack assessment—the primary mission, based upon by and large relying on American assets, is to take a look at that threat environment, the aerospace threat environment, and assess whether or not Canada or North America is under attack.

That information then is transmitted to the national command authorities. In the air world, the person who's in command of that mission is also in command of the air response. It operates through standard operating procedures that have been developed and honed over decades and decades.

The maritime warning, however, doesn't work that way, and this is one of the reasons why we're going to look at this. NORAD gets the picture from the United States, the American maritime domain awareness picture and a Canadian picture, and we think that it sort of puts it together into a North American picture and then makes an assessment.

Where, then, does the assessment go? Well, it should go to the national command authorities or the particular actors involved in the responses. But as for how that works relative to the Canadian Joint Operations Command, the American command, the unifying command structures that exist, the issues of the Coast Guard in the United States and the U.S. Navy and the 500-mile limit between the two, where the line is drawn—everything from the land out 500 miles is Coast Guard and everything beyond that is U.S. Navy—that is an open puzzle right now.

● (1625)

Mr. LaVar Payne: Maybe I can get comments from both of you, Dr. Fergusson and Dr. Charron.

Last December, Vladimir Putin told reporters that a military presence in the Arctic is among the top priorities for their armed forces. I wonder if you could comment on that. We know what we've seen happen in Ukraine. What does that mean for North America?

Dr. Charron.

Dr. Andrea Charron: The working assumption of both Canada and the U.S. that has been made about Russia is that it's a state like others that we always watch, but it's not necessarily an automatic concern. We have other organizations like the Arctic Council. We have agreements like the Ilulissat declaration, and all states, including Russia, have pledged to abide by international law and cooperation.

The events of Ukraine are certainly worrisome, but when it comes to the Arctic, it's actually Russia that has the most to lose. They have put all of their eggs in the Arctic GDP basket, and it benefits Russia the most if law and order continue to function in the Arctic. Also, certainly, their behaviour with respect to things like the process for the UN Commission on the Limits of the Continental Shelf suggests they would prefer to follow law and order rather than try to dictate by force.

So yes, we all have to remember that often messages are more for a domestic audience than for an international audience, and I think this is the case in the Arctic, in that both Canada and Russia tend to be speaking to their domestic audiences first. Then it's up to the international community to sort of filter that out.

Mr. LaVar Payne: Do you have any comments, Dr. Fergusson?

Dr. James Fergusson: I agree with my colleague.

The only thing I would add is that when we talk about the Arctic question, about opening up the Arctic, the need to invest in infrastructure, and which departments and government institutions are going to take lead roles and what roles they should take, one of the things we naturally turn to is talking about the military. There's a variety of reasons why that military capability—not for military purposes, traditional war fighting, or defence purposes—is always a dominant consideration by government.

The Russians are doing the same thing. They face the same problems of infrastructure, investments, how to manage this, and where to turn. Like us, they'll turn to the military to do it, and not necessarily in a threatening manner.

The Chair: Thank you, Professor.

[*Translation*]

Mr. Lapointe, go ahead. You have five minutes.

Mr. François Lapointe (Montmagny—L'Islet—Kamouraska—Rivière-du-Loup, NDP): Mr. Chair, I have a point of order. Can we do the test for the interpreters before my five minutes? I see the witnesses have not put on the earphones.

Do you both understand French?

[*English*]

Are you okay? We're good to go? Thank you.

[*Translation*]

You made a few observations in your report and please correct me if I miss something.

The report says that state actors are not a direct threat to North America, but that the risk of other armed non-state actors acquiring high-technology weapons, such as cruise missiles, is increasing.

Could you elaborate on that? For instance, are the threats from Iran and Korea growing? That is not what I am reading, but do you have any information on that?

Also, is the situation so serious that we must consider it when we are wondering whether or not we should think about participating in a North American ballistic missile defence system?

We can start with Ms. Charron. Mr. Fergusson can answer next.

● (1630)

[*English*]

Dr. Andrea Charron: When it comes to ballistic missile defence, I'll leave that to Jim.

But this is what 9/11 taught us about the nature of states and nature of threats: that they can be both state based and non-state based. Also, this is why, with the increased concern on homeland security, NORAD now has to worry about state-based threats and also non-state based threats. They're still learning how to track this. NORAD is acutely aware of the need to be prepared for both types of threats.

[*Translation*]

Mr. François Lapointe: Is there any indication that non-state organizations might possess ballistic missiles that could cross oceans, or is that just speculation?

[*English*]

Dr. Andrea Charron: I'll let Jim answer on the tracking of missiles, but NORAD has both an air and a maritime picture, and it doesn't discount something that looks odd by saying, “Oh, this is a non-state actor, so we're not going to pay attention to it.” Anything now that looks like a threat to North America is literally a blip on the screen, and they pay attention to that, absolutely.

[*Translation*]

Mr. François Lapointe: Thank you, Ms. Charron.

Mr. Fergusson, could you comment on that?

[*English*]

Dr. James Fergusson: Very quickly, generally threats today are perceived in terms of capabilities that could pose a threat.

In the state world, these are capabilities in the absence of political intent, except for concerns about North Korea and, to a lesser degree, Iran. In the non-state world, they are also capability based. We imagine different ways terrorists.... We can identify terrorists who have said they are going to get us. Al-Qaeda and, more recently, ISIS are on that list. That's why we tend to focus more attention on them. Both of them, along with the planning and thinking and investments, are really a function of being able to identify a large set of capabilities that could threaten North America. That's great, but then what do we do?

In terms of the ballistic missile question, we know that North Korea has tested a long-range ICBM. Terrorists don't get ballistic missiles. We know they have tested nuclear devices. Can they reach North America? Can they target Canada? Will they target Canada? Those things remain to be seen. Iran is somewhat of a step down from North Korea in that. Should we be concerned about a potential North Korean bolt out of the blue? Possibly. Is it a major concern, a major threat to North America? The United States sees this a little differently from the way I do. I would say, for the time being, no.

[*Translation*]

Mr. François Lapointe: Do I have time for one more question, Mr. Chair? Do I have one minute?

The Chair: You have one minute.

Mr. François Lapointe: You are very nice.

The report also states that Canada and the U.S cooperate quite well and effectively in the Arctic through NORAD, and do so despite disagreements over certain waterways.

My colleagues and I talked about that and Ms. Charron also pointed to the importance of not having just a military presence. There are a number of related aspects. Clearly, there is military defence, search and rescue, and potential pollution problems in the event of a spill. In light of all those potential tragedies in the Arctic, how do your studies see NORAD's contribution? Is NORAD a priority in all those cases?

[*English*]

The Chair: Could we have quick answers, please?

Dr. Andrea Charron: NORAD, when it comes to the Arctic, is going to be more concerned with the classic foreign defence aspects of this, because the military of course doesn't have the mandate to be fining ships for vessel pollution and things like that. That's done by Transport Canada and other agencies.

That said, because we're talking about the Arctic and the austere conditions, one of the issues is that something like a search and rescue event that may or may not involve the military could easily turn into a bigger situation just because of those austere conditions. For the most part, though, the military operating in the Arctic has the function of aiding civilian powers. We are keen to call on the military because they have that unlimited liability, and there is always a possibility of dying when you go to the Arctic.

Really, in Canada especially, there's always been a whole-of-government approach. There are many other agencies, before the military, that have primary mandate for making sure that the Northwest Passage is navigable, that we have the aid, that we have them charted, etc.

What I'm saying is that the more we do of that, the less NORAD has to be tracking everything going on.

● (1635)

The Chair: Thank you very much.

Thanks, Professor.

Ms. Ambler.

Mrs. Stella Ambler (Mississauga South, CPC): Thank you, Mr. Chair.

Thank you to both of our experts for being here this afternoon and for informing our study on the defence of North America.

My question is with regard to cybersecurity. Not being a regular member of this committee, before I ask my question about it, I'd like you to indulge me and give me an example of what that might look like. Have we experienced any of that in Canada or in North America? Where are the threats coming from, and where have they come from if we've had them?

Dr. James Fergusson: I'm not a cyber expert. I've seen enough reports come out, mostly emanating from the United States, that there have been cyber-attacks. Whether they are designed to acquire intelligence—i.e., there are spying missions that have been identified, and the finger has been pointed at the Chinese, who deny it—or whether they are an attempt to imbed some form of undetectable virus such that if some conflict did emerge, it could then be triggered, again, it's beyond me.

The classic example everyone points to, for those who aren't really involved in the cyberworld, like me, is the embedding of the Stuxnet virus in the Iranian centrifuges, which destroyed them. That's sort of the image of what could happen here.

Mrs. Stella Ambler: Dr. Charron.

Dr. Andrea Charron: If there has been an attack on military assets, we're not going to know about it, because that's going to be classified, but for instance, now that NORAD has maritime warning, we are talking about other than military assets feeding in pictures, for instance, a recognized maritime picture that is fed from Canada into USNORTHCOM and into NORAD.

So there's going to be increased attention on who is injecting these feeds, and if there is due diligence on what information is being sent and what's the unclassified, what's the classified, and protecting the assets, because now we have a lot more eyes and a lot more conduits going into the military and into other organizations. That's generally what they're going to be concerned about.

Mrs. Stella Ambler: Dr. Charron, do you see the need for a more coordinated effort by Canada together with the United States? Or with your knowledge of this, of how they have been dealt with so far, do you think the current system of the countries dealing separately with these incoming threats is sufficient and is working well enough?

Dr. Andrea Charron: We do treat them separately and we don't treat them separately. Certainly, for Canada, we are very cognizant of the fact that, for the U.S., cybersecurity is a major, major concern, so the U.S. is always going to be looking to us to make sure that, as per the 1930 agreement with Franklin Delano Roosevelt, we can't be a weak link to impact U.S. security. Because they are interested in cybersecurity, they are always going to look to make sure that we have the best processes and agencies involved.

That said, like Jim, I am not a cyber expert, and this is where we have Ellie Malone, who is one of our researchers, an American, who really I would point to about cybersecurity.

● (1640)

Mrs. Stella Ambler: We did have one witness who spoke earlier to the committee about the electrical grid and its vulnerability in North America. The committee was told that a cyber-attack on the grid is a real threat and could do serious damage to our continent. Have you found this in your studies? Do you think NORAD should be taking on a bigger role in the protection of these types of assets?

Dr. Andrea Charron: Right now, NORAD would be involved if, for example, they used a jet to crash into one of the major electrical nodes. That's when NORAD would get involved. NORAD right now doesn't have that sort of land mission warning, and I'm guessing that's probably how an attack on an electrical grid would take place —or via computer. So for right now, no.

However—and again, Dr. Fergusson mentioned this a number of times—NORAD has this unique North American picture. We may not think a plane flying in a diverted air path is significant, but when you take that, look at the maritime picture, and have the luxury of being able to look at both together from a North American point of view, then maybe NORAD can help contribute to warning other agencies about a potential attack on an electrical grid. But right now, NORAD doesn't have that mission per se.

[*Translation*]

The Chair: Mr. Brahmi.

Mr. Tarik Brahmi (Saint-Jean, NDP): Thank you very much, Mr. Chair.

My question is for Ms. Charron.

I would like to go back to something you mentioned.

The current tensions between Russia and some NATO members about the crisis in Ukraine, as well as increasing tensions in the Baltic countries do not necessarily have an impact on how Russia sees the Arctic. I find that very interesting.

You said that it is not necessarily to Russia's advantage to increase the tension in the Arctic. Could you tell us what the impact might be if tension grows in Europe about the relations between the U.S. and Canada in NORAD, not between Russia and the U.S. or Canada?

[*English*]

Dr. Andrea Charron: The Arctic is in many ways slightly insulated, and this is one of these rare regional organizations where cooperation has been key. In fact, it was the Russians who wanted some sort of arrangement like the Arctic Council to govern relations in the Arctic, in recognition of the fact that it's a very strategic area for them, not only geopolitically but also financially.

Despite there being events in Europe, I still don't see them affecting the Arctic, and I think about the agreement that Norway and Russia struck with respect to the Lomonosov Ridge. Years ago, we honestly thought that could come to nuclear blows, and it didn't. In fact, it looks as if Russia has conceded some territory, so—

[*Translation*]

Mr. Tarik Brahmi: Let me interrupt you.

I understand what you are saying since you explained it in response to the previous question. I understand that this might not necessarily affect the relations between Russia, Canada and the U.S., but could you tell me what the potential impact is on relations between the U.S. and Canada in NORAD?

Do you think those relations could be affected by the situation?

● (1645)

[*English*]

Dr. Andrea Charron: The way the binational agreement is struck is that Canada and the U.S. jointly defend North America, so if for some reason Russia did try to attack the Canadian Arctic, then absolutely the U.S. would be there to assist, because that's always been the pledge. But I don't see that happening either. We haven't seen Arctic Council meetings being cancelled. We still have the Treaty on Open Skies, which is an agreement between Russia, Canada, and the U.S. In fact, two weeks ago in Winnipeg, we had a Russian military plane here at 17 Wing Winnipeg.

We may have concerns about Russian actions in Europe, but that's certainly not stopping the other bilateral or trilateral agreements that are going on among those three states.

[*Translation*]

Mr. Tarik Brahmi: Is the current or potential difference of opinion about the waterways a factor likely to affect the relations between Canada and the United States? Is it also a factor that might change their relationship within NORAD?

[*English*]

Dr. Andrea Charron: No, that's a managed disagreement. It's been a long-standing disagreement. Canada and the U.S. tend not to punish each other for concerns in one area through another. For example, when the U.S. and Canada have disputes about softwood lumber, it doesn't mean that in NORAD the U.S. refuses to speak to us.

The U.S. is usually very satisfied with the level of commitment we have. There may be small jabs and disagreements, but overall, the defence of North America is the number one priority of both states, and nothing yet has changed that fact.

The Chair: Mr. Miller, please.

Mr. Larry Miller (Bruce—Grey—Owen Sound, CPC): Thank you, Mr. Chairman.

Ms. Charron and Mr. Fergusson, I very much enjoyed your presentations today. One disadvantage of being the last questioner is that a lot of the things you were going to ask have already been asked, but I would like to continue Mr. Brahmi's discussion and interest in the Arctic, something that I have a keen interest in myself, and to continue the theme of the presence or perceived threat of Russia.

One may view it as just a lot of thumping of the chest and that kind of thing, but is there anything that Canada should be doing specifically with regard to some of the comments that have come out of Russia's government? Also, are there some things to do with security in the Arctic that other countries are doing in their regions that we could be copying or mimicking?

I'll ask both of you to comment.

Dr. James Fergusson: I'll be very brief because Andrea is the Arctic expert, but from my perspective—mostly from listening to Andrea about this—we need to engage the Russian military. The two militaries need to sit down and talk about it as—and if—the greater presence and activity continues to occur in the Arctic.

We need to talk about the response of Canada, and not just Canada but bilaterally, with Canada and Russia, given our common interests in the region. We both I think have similar interests. This is an area where we should consider engaging the Russian military—their foreign office to their military—in confidence-building discussions in the region.

Mr. Larry Miller: I'm glad you explained what you meant by "engaging" the military.

Voices: Oh, oh!

Mr. Larry Miller: Ms. Charron.

Dr. Andrea Charron: I agree with Jim. There are so many threats that are common to Canada, Russia, and the U.S. There's ISIL. There's North Korea. There are all sorts of threats like this, and we need Russia, being a Permanent Five member on the UN Security Council: the more we can do with them and understand with them.... Remember that in the Cold War the U.S. was big on having exchanges so that you'd get to see the other side's perspective. That's what things like the Arctic Council and others do.

That said, I think that in most cases when we're talking about security in the Arctic, we're talking about things like a mandatory polar code. We're talking about things like having the Northwest Passage actually charted for all vessels. In many ways, Russia and Canada have the very same perspective on our respective passages. We have a united front, in fact, against the United States, which sees the Northwest Passage and the northern sea route as potential international straits, whereas we classify them differently.

We also have the recent search and rescue agreement that requires the five coastal states to meet on a regular basis and share information about security and rescue assets and to start doing some joint activities, whether they're military-to-military, because they're the ones charged with doing search and rescue, or other agencies. But if we tone down the rhetoric and work with Russia on the areas of interest, we may actually find, then, that on areas like the Ukraine, we can start to chip away at what they're doing there, which we're condemning.

● (1650)

Mr. Larry Miller: I've been in the Arctic. There's a big development, a mineral deposit in the north end of Baffin Island, as you're probably aware, and there are probably going to be more. It's very important to the commerce of the area, but it's also very important from an environmental standpoint that we do it right. There's no doubt about it: the north is going to be developed.

With this in mind, does that change the game? Should we be doing something different because of the spinoff from what development does? We all know that the good and the bad come with development. Could you comment on that a bit?

Dr. Andrea Charron: Well, I think one of the things the Cold War taught us is the incredible pacifying force of commerce, if done properly, and this is where the focus of the Canadian chairship of the Arctic Council on economic opportunities for northern communities is really important.

Russia feels exactly the same way. Russia is going to benefit I think the most from any sort of economic activity that happens, but we need to make sure that, as you say, this is done to benefit northern communities and protect the ecology, and for that, you can't be lone wolves. You have to work together. In this globalized economy, it means that we're going to have to work with Russia in the Arctic because physically they're our closest neighbour when it comes to doing business in the Arctic.

The Chair: Thank you, Dr. Charron.

Mr. Davies, please.

Mr. Don Davies: Thank you, Mr. Chairman.

I'd like to carry on with the theme of the Arctic and the increasing importance it is clearly playing in Canada, not only economically but in every other aspect. A major theme of this discussion, I think, has been the interchange between old technology and boots on the ground and hard technology on the ground with some of the current technologies that are available to us. I'm just wondering where you see the intersection in terms of having an actual physical presence in the north militarily. Do you have any advice for this committee on what Canada should be doing to enhance our presence in the Arctic, if in fact you think that needs to be the case?

Dr. Andrea Charron: We have Joint Task Force North, which is based in Yellowknife, and we have the Rangers program. So we do have military presence in the Arctic, but arguably, again, it's not military threats we're faced with in the Arctic, it's really safety and security issues, which are often best done by other agencies.

I was on the C-130 coming into Resolute Bay when the First Air crash happened. What is often forgotten is that the locals were there first. Even though we had Operation Nanook about to start, and we had soldiers on the ground, it was still the locals who responded most quickly. The locals and the Rangers are instrumental in guiding the military on such threats as polar bears, which have often been seen; we have to make sure we worry about them.

Whenever the military is in the Arctic, they are there with that local knowledge. We can't get around having some military presence because of this unlimited liability—it's terribly dangerous in the Arctic—and until we have the sort of infrastructure where we can have more local services, we're going to have an element of the military in the Arctic. But again, it's more for aid to the civil powers than it is to guard against some defence threat.

● (1655)

Mr. Don Davies: Any thoughts on that?

Dr. James Fergusson: I largely agree with Dr. Charron. I understand why governments turn to the military to do these things. They have a capability to do what no one else in the government system can, and it's a natural desire to look at what you have and see what you can use.

In terms of the military side as the defence side of this relative to assistance or aid to the civil power, I think you really are not talking about boots on the ground; it really should be undertaken by other agencies in Canada. There are also issues about whether government is organized properly to deal with the nature of the Arctic.

For the military question relative to the type of threats, when thinking in military terms, I think you're trying to look at cost-effective high-technology solutions to surveillance and reconnaissance rather than taking the boots-on-the-ground approach. That's RCMP, that's coast guard people, and those resources probably should be devoted towards their presence up there.

Mr. Don Davies: I realize that this may be venturing a little bit outside of your areas of expertise, but perhaps you would comment on the degree of presence of those related services—i.e., the RCMP and the coast guard. Should we be beefing up our presence in those areas?

Dr. Andrea Charron: When it comes to the RCMP, they're sort of in onesies and twosies throughout the Arctic. They have been for decades, and they still are. Increasingly they're dealing with not just constabulary issues but also social issues, because there's a lack of other services being offered in the north, mental health services and things like that. Certainly that's one of the questions to ask: do we need more constabulary or do we need mental health and other services available in the north?

For the coast guard, of course they're only going to operate in the summer months, so giving the coast guard more money doesn't mean they'll be there for a longer duration. They may just have more presence during the summer months. But again, things like navigational aids, hydrographic information—that's also what we need, and for that there are different agencies.

The Chair: Thank you, Dr. Charron.

Mr. Williamson, please.

Mr. John Williamson: Thank you very much, Chairman.

Dr. Fergusson, I'm pleased you suggested for a second that we turn to the military because they can do so much, but in fact their capabilities are limited when we're dealing with domestic issues. I think you're right to put the emphasis on the RCMP and the coast guard to be the boots on the ground in the north.

With that in mind, as well as some of the questions my colleague Mr. Davies raised, when we think of the defence of North America, I'm wondering if we really do need to be on two tracks. I'd like both of you to comment on this.

On the one hand, we can strengthen NORAD's capabilities and continue to work with the Americans in areas of shared jurisdiction, but when it comes to the Arctic, given the size and the scope, it really is up to Canada to play the primary role, because it is our front yard and our backyard. It's our territory and it is so large, so on the one hand, it's important to have the onesies, the twosies, and the communities there to have a vigorous coast guard that is able to patrol the north, but also to at the same time have that military overlap, where the air fighters are able to move quickly should there be a marine or an air threat.

What are your comments on that? I believe it's not just a question of working with the Americans. In fact, there are areas where we do work with the Americans, but at the same time, there are other areas where it's up to us to be the pointy end of the spear.

I'm curious to hear comments from both of you, if you have any.

Dr. James Fergusson: Quickly, what I would say is that there may be areas.... I would add as an aside here that when we're concerned about Russian rhetoric about the Arctic we should take a look at our own rhetoric about the Arctic. That's just a side note. It's a little bit of a bugaboo that I have about this.

On those areas of national jurisdiction, this really becomes a question of costs and the expense, and what's the most effective way to do it. You can imagine that if the Arctic moves forward very rapidly, as some people predict it will, how much and where these funds, out of fixed government revenues, are going to come from.... There are always winners and losers in that context.

But no matter those areas where we think we have a national capability and we can respond nationally within national territory and waters, it is still vitally important that the United States be informed, because we still need to have them in a bilateral type of arrangement on these issues. Perhaps binationalism is too much for us right now in the Arctic, but certainly they need to be part of the picture.

Did we lose Dr. Charron?

● (1700)

The Chair: Just for a moment.

Mr. Williamson.

Mr. John Williamson: Okay. Let me follow up on that, then.

I take your point. I think what we've seen from Russia is, as I think Dr. Charron said, typical. It's not necessarily enhanced now. These are practices that they've done before and that they'll continue to do.

I represent eastern Canada. Even in a territory that is relatively small, resources are limited, whether it's coast guard or navy, and when I look at northern Canada, I see a huge territory. I wasn't speaking so much of jets to be used in terms of any foreign threat. I'm just thinking about what happens up there if there is an incident with a foreign ship coming through, for example. While radar installations and satellites are helpful, so is having the ability to scramble a fighter jet quickly to cover a vast territory very, very quickly.

That's my thinking on it. It wasn't so much the foreign threat that is there, but how are we going to police our own territory?

Dr. Charron, I see that you have returned, so I'll turn things over to you if you have a few comments.

Dr. Andrea Charron: My apologies for that. I missed a little of the conversation, but I'm guessing that what you are asking is if we should have jet fighters pre-deployed further north. I'm guessing that it was the direction of the comments and—

Mr. John Williamson: If you'll allow me, it was actually about how we patrol that territory. Ships and personnel on the ground are good, but the point I was trying to make is that fighter jets, or jets of some sort, will play a role for eyes on the ground, if you like, in a territory that is so very large. That's where I'm going in general. I didn't get to the level of where they would be deployed, but they would be available.

Dr. Andrea Charron: Well, we have a number of systems up there tracking various movements. We have the NORDREG traffic vessel system. We have RADARSAT-2, and we're hoping it has further capabilities in the near future. We also have the north warning system. So we actually have quite a few mechanisms for surveillance. We also have things such as Operation QIMMIQ, which Joint Task Force North operates on a regular basis, with the Auroras that go out to have a look at what's happening.

I think we have a lot of surveillance information, and that's why NORAD has always been so key in the Arctic. I guess the issue is whether these are sufficient for the threats that we are seeing now or anticipating in the future.

My concern is that if something happens to the north warning system—and remember, we've already had one of their radar sites burn to the ground—or if there is an interruption of the feed by the north warning system, that really would impinge on the ability of NORAD to see what is going on. That's why I am drawing the committee's attention to the need to start thinking about paying for a future north warning-like system. We can leave to the engineers the question how best to configure it, but it has been and still is one of the best sources of information for NORAD.

[*Translation*]

The Chair: Mr. Lapointe, go ahead. You have five minutes left.

Mr. François Lapointe: Thank you, Mr. Chair.

Mr. Fergusson, could you provide more details about the options you are proposing in your report? One of them is to maintain NORAD's operational status quo. However, my understanding is that decision-makers could then give more weight to the interests of organizations other than NORAD, which might marginalize NORAD. That is my understanding based on what I have read.

You also propose that NORAD go back to its original mission, drop the maritime warning mission, expand its early warning and attack assessment mission to include space, cyberspace, sea, land and air. In other words, you are referring to all the environments that might imply threats for North America. You add that these possible options will always entail decisions plagued by political and sovereignty concerns, command, organizational and jurisdictional issues, as well as legal obstacles.

Do you think that we, as elected representatives, should give priority to some of these proposals in our studies? Do you think we would be able to deal with the challenges that will automatically accompany the desire to make the slightest changes to how NORAD works?

Thank you.

● (1705)

[*English*]

Dr. James Fergusson: That's a very big question. We grappled with this when we wrote the report, because any one of those options that are identified requires really detailed analysis.

I can tell you quickly what my ideal solution is. The ideal is to gradually expand NORAD, at a minimum to provide all the main awareness for land, sea, air, space, and potentially cyber—I'm not good on cyber—so that you have all-domain awareness, and then leave the responses, except air, because it's already been in place, to national and bilateral approaches.

That, I think, is something that will be driven by the variety of events in the Arctic and elsewhere and the nature of the threat environment. I think it drives both Canada and the United States down that path, and it deals with the political problems of sovereignty that exist not only on this side of the border but on the other side of the border as well. We always think that somehow the United States is out to take us over or control us, but the Americans have as much concern about the nature of cooperation at the end of the day, of binationalism relative to their nationalist agenda, as we do.

[*Translation*]

Mr. François Lapointe: I know that this is a complex matter and that we don't have a lot of time.

Ms. Charron, do you something to say about the available options in terms of priority?

[*English*]

Dr. Andrea Charron: If we're talking about the defence of North America, the elephant in the room is Mexico and at what point Mexico needs to be included in NORAD. This is something that Canada traditionally has not wanted to have happen, although Mexico does have liaison officers at USNORTHCOM.

But it is something also to keep in mind, because Mexico and Canada are similar, in that we're both geographically located next to this major superpower, so there are things we can learn from each other. I know we tend to discount Mexico right away because we traditionally have not wanted to be associated with them in the defence of North America, but down the road, we may now have to reconsider that.

[*Translation*]

Mr. François Lapointe: Yes, but if we include—

[*English*]

Dr. James Fergusson: May I add to that?

[*Translation*]

Mr. François Lapointe: Please.

[*English*]

Dr. James Fergusson: The concern why I'm on centralized North America all-domain awareness from a North American perspective is the 9/11 case. That is where all the information existed, parcelled out among separate agencies and departments in the United States, and there was no one who put the whole picture together. That's what the danger is.

[*Translation*]

The Chair: Mr. Lapointe, you have 30 seconds left.

Mr. François Lapointe: I have an additional question about Mexico.

Ms. Charron, that is interesting, but I think that if we include Mexico in future negotiations, all the legal, organizational, jurisdictional and command issues will be even more of a burden. It won't be easy. I am not saying that it's not doable, but things will get even more complicated.

[*English*]

Dr. Andrea Charron: Absolutely, but I'm just saying that logically, if we agree that the defence of all of North America is important, at some point we do have to consider the role that Mexico plays. We can't keep discounting them out of hand because traditionally we didn't want to be associated with them because we enjoy and benefit from this very, very important relationship we have with the U.S. My academic logical mind is saying, "Yes, but they are part of North America as well".

The Chair: Mr. Norlock, please.

Mr. Rick Norlock: Thank you very much, Mr. Chair.

I'd like to connect a couple of dots. You can tell me if my connection is wrong.

It has been the observation of many—and I'm referring specifically to the Ukraine crisis of a few months ago—that whatever Vladimir Putin said, he did the opposite. For instance, when he said that the tanks and personnel carriers were heading east, away from the Ukraine, they were actually going the other way. When he said that he was telling the terrorists to desist, they were actually increasing in severity their actions within the Ukraine.

In this last hour and three-quarters, I think there was some mention of Mr. Putin saying this: "Over decades, step by step, Russia has built up, strengthened its positions in the Arctic, [and] our goal is not only to regain them, but also to qualitatively strengthen them." I wonder if you could comment. Did he mean it? Are they serious? How do we know they're doing that? Have they actually done something with their infrastructure? What policies should Canada be taking?

Quite frankly, when you were mentioning why the United States wouldn't really take us seriously with ballistic missile defence and they're going to do it on their own, I think it's because Americans tend to be a little on the xenophobic side when it comes to their defence. They're very introspective. The average Canadian knows more about the U.S., so we carry on and on.

So I'm not so much worried about that. The U.S. will never ever allow anything to happen to Canada, because we're their buffer to the north. We are their friends. When they're down and out, they can usually count on us—rarely can they not— because it's in our mutual interests. We share the same kinds of freedoms, rights, and all those other things.

My connection of the dots, quite frankly, is that Russia is something we should be worried about. Mr. Putin has intentions. Russia wants to build that buffer in eastern Europe, and if they can leverage the Arctic to get what they really want—and that's sort of the old Russian empire, as it was—they will. To understand that, all you have to do is realize where Mr. Putin comes from—the KGB. Can you connect some dots or would you be more likely to disconnect those dots when it comes to the defence of North America?

● (1710)

Dr. Andrea Charron: Well, I'm still of the opinion that the dots do not connect that way. There was great promise of having more integration between the ports of Murmansk and Churchill as a way to get out of the grain surplus problem that we had this summer in Winnipeg, because it was an outlet to get it out to European and Asian markets.

I was with Admiral Papp, who will be taking over as the U.S. ambassador to the Arctic Council, and never once, even when asked about Russia, was there any indication that the U.S. was looking to freeze them out. The great advantage of having Russia in something like the Arctic Council and working with them in these other fora is that there is that opportunity for the back-hall discussions about these other events.

For Russia, their backyard, which is the Ukraine, is geostrategically extremely important for them. For us and for Russia, it is the Arctic, and they do see them as being different.

NORAD has always been concerned about Russia. That's why their logo is the broadsword facing north. We will always watch them.

But to automatically assume that they have designs on the Arctic.... Remember, we have very little infrastructure up there, so I'm not sure what designs they're going to have. I think there are far more opportunities and advantages to having more discussions and links with them than there are in freezing them out pre-emptively.

Dr. James Fergusson: That's a big question.

First of all, the United States is not concerned with Russia. It's concerned with China. That's its number one emerging strategic priority. That's what the real debate in the United States is. It's not the Russian case.

Many of the dots you connect seem to work very nicely unless you're sitting in Moscow. Looking at the pace of events over the last 20 years from Moscow's perspective, they've seen the expansion of NATO to their neighbourhood; they've seen the west start to try to expand into Ukraine, into what they call the “near abroad”; and they've seen the issues of Georgian membership. From Moscow's perspective, all those things are seen as threatening and somewhat aggressive on the part of the west, Canada included.

My view is that our position on Ukraine and the way we've handled that has not helped. I'm not trying to justify Vladimir Putin's policies, but at the end of the day, should we be concerned about the Russians' capabilities relative to the Arctic and their military activities in the Arctic? Yes, we should keep a close eye on them. Whether they're just the natural modernization of military capabilities relative to the interests of the Arctic, which we can explain away—where I lean to right now—rather than having hostile intent, that's a difficult question to answer.

● (1715)

The Chair: Thank you, Dr. Fergusson.

Mr. McKay, you have the final questions.

Hon. John McKay: You saved the best for last, didn't you?

It's been an interesting discussion, and I thank you both.

I want to ask you a question about threat assessment.

The reason I was slightly late is that I had to wait for Secretary Kerry to be escorted off the Hill. It required a total of 13 vehicles, both trucks and cars, to escort Secretary Kerry from the Peace Tower onto Wellington Street. I had trouble visualizing how that would apply to John Baird.

When I was talking to some U.S. networks last week, I was surprised by one of the questions which was, “Should the U.S. close its border to Canada because of all of these terrorist activities up here?” This was a serious question by a well-known....

I'm playing that through as far as threat assessment is concerned. Our perception of threat, right or wrong, and American perception of threat, right or wrong, can from time to time be quite different. Do we, by bringing ourselves further and further into the NORAD fold, in effect by default end up with the American threat assessment?

Dr. James Fergusson: No, you end up with the NORAD threat assessment, which is a North American threat assessment, and it's not necessarily the case for the NORAD threat assessment that those who are NORAD personnel, Canada and U.S. personnel, themselves agree with the national threat environment perceptions. There are differences that exist there as well.

In what I call the “North American mindset” that comes out of the NORAD arrangement, if you were to look at it and dig a little deeper, I would suggest you would find that it sees the threat environment, as I've suggested, differently from the others. You're going to get a North American perspective. We're not going to be absorbed by the American threat perspective, which changes, of course, depending on administrations and what's going on, like ours. I have no concerns about that because we have no record historically that it's happened.

Hon. John McKay: Do you have a comment, Dr. Charron?

Dr. Andrea Charron: Canada and the U.S. have always seen our border differently. That's why you speak to immigration officers going into the U.S. and they ask who you are and where you're going, and in Canada they're customs officers and they ask where you have been and what you are declaring.

NORAD is so important because it takes those national caveats on how we see the world and how we see the threats, and, as Jim states, we get the North American picture. It's an education process on both sides of the border. I think it is really important. From the information we get, from the training opportunities, and from the ability for them to understand us and vice versa, it's essential.

Hon. John McKay: Thank you.

The Chair: You have 90 seconds.

Hon. John McKay: That's all right.

● (1720)

The Chair: All right.

Thank you very much, colleagues.

Thank you very much, Dr. Fergusson and Dr. Charron. You have contributed significantly to our study of the defence of North America. We thank you for accommodating the change in schedule from last Thursday because of tragic events here on the Hill, and again, thank you very much.

Colleagues, I'll remind you that we will continue our study of the defence of North America in our usual quarters in the East Block on Thursday afternoon. Thank you.

The meeting is adjourned.