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## **Standing Committee on National Defence**

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**EVIDENCE**

**Thursday, May 5, 2016**

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**Chair**

**Mr. Stephen Fuhr**



## Standing Committee on National Defence

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•(0845)

[English]

**The Chair (Mr. Stephen Fuhr (Kelowna—Lake Country, Lib.)):** Good morning everyone. Welcome to our defence committee and our study of the defence of North America and more specifically the Canadian NORAD region and our aerial readiness.

I'd like to welcome our witnesses, Colonel Horgan, Mr. Pitfield, Mr. Finn, and Ms. Campbell. Thank you very much.

As an administrative note, we'll be having two panels this meeting. We'll start with panel one morning, the witnesses you see here. I understand that Mr. Pitfield and Mr. Finn will share 10 minutes for opening statements and then Ms. Campbell will have 10 minutes, and then we can start with questions.

Having said that, welcome. Thank you very much.

Mr. Pitfield or Mr. Finn, I'm not sure who is going first, but you gentlemen have the floor.

**Mr. Jaime Pitfield (Assistant Deputy Minister, Infrastructure and Environment, Department of National Defence):** Thank you, and good morning.

[Translation]

Mr. Chair, distinguished members of the committee, thank you for inviting me here to talk about the role that my group, the assistant deputy minister of Infrastructure and Environment, plays in the readiness of the Royal Canadian Air Force.

As Lieutenant-General Michael Hood told you when he spoke to you on April 14, readiness includes our people, our aircraft and systems, and the other resources that together provide the air-power capabilities the government requires to serve Canadians and Canadian interests. Infrastructure is a large portfolio of these other resources and that my group is concerned with.

[English]

On behalf of the Department of National Defence, ADM(IE) manages over \$26 billion in real property assets, including buildings and roads, hangars and airfields, and runways across Canada. Simply put, if these facilities are not designed, built, and maintained to meet modern standards, the readiness of our air force is severely compromised.

Allow me to touch briefly on how ADM(IE) supports the air force in its mandate to provide reconnaissance, mobility, support, humanitarian aid, search and rescue, and force capabilities to the Government of Canada. Since 2014 ADM(IE) has been gradually

assuming management responsibility for defence infrastructure, and on April 1, 2016, we achieved full operational capability when we became the sole custodian of over \$26 billion in defence real property holdings on behalf of the Canadian Armed Forces and the commanders of the army, the navy, and the air force.

This centralization will allow the Commander of the Royal Canadian Air Force to concentrate on preparing and operating his air force without having to plan and operate a diverse and complex infrastructure base. Ultimately my role is to ensure proper prioritization of DND infrastructure, resources, support operations, and training, and to reflect the evolving needs and constraints of the department. For example, in the past General Hood had to ensure that he had functioning runways and hangars, but he also had to ensure that the local armouries were in good shape, that the hospital was maintained properly, and that roofs weren't leaking. ADM(IE) manages that now, prioritizing DND infrastructure resources. Centralization will permit ADM(IE) to allocate those resources more effectively, bringing the right resources to the right assets at the right time.

To support ADM(IE) in this endeavour, on 24 November 2014 the Government of Canada launched the federal infrastructure investments program, or FIIP, a plan to invest \$452 million in new funding over two years to repair and upgrade Canadian Armed Forces facilities across Canada. In Trenton we're undertaking \$234 million in investment to provide a reconfigured runway layout, new aircraft parking space, proper drainage, and upgraded lighting systems.

In Comox we're undertaking \$52 million in investments. In addition to that, we've invested \$18 million in FIIP funding for utility upgrades, flood control measures, shoreline erosion protection, military housing, and hangar and airfield repairs.

In Cold Lake we're undertaking \$132 million in investments, improving the roads and utilities, runways and airfield, and constructing a new health care centre, with a total investment of just under \$18 million in FIIP funding.

In Bagotville we're undertaking \$175 million in investments. In addition to that, we will construct a new headquarters building and improve runways, airfields, and housing with a total investment of \$16 million in FIIP funding.

In Winnipeg we're undertaking \$68 million in investments and will be investing \$4 million of FIIP funding to repair hangar doors and make roof and lighting repairs, etc.

In the north we've created a new aerodrome engineering section that will allow us to maintain critical air power assets in this remote region.

● (0850)

[Translation]

It is projects such as these, Mr. Chair, that will allow the assistant deputy minister of Infrastructure and Environment to focus on rationalizing and sustaining National Defence's real property portfolio while balancing evolving military requirements, financial responsibilities and effective stewardship of resources.

[English]

**Rear-Admiral (Retired) Patrick Finn (Assistant Deputy Minister, Materiel, Department of National Defence):** Mr. Chair, and distinguished members of the committee, I'd like to add my thanks for the invitation to appear before you to answer questions relating to your study of the defence of North America.

[Translation]

As assistant deputy minister, Materiel, for the Department of National Defence, I am responsible for the acquisition and support of all military equipment. In other words, I focus on the technical readiness of the Canadian Armed Forces. I also oversee the material certification of military equipment in the same way that the Department of Transport does for the civilian equivalent.

[English]

With a budget of approximately \$6 billion a year, a team of 4,000 people dedicated to the task, and over 12,000 contracts under management with my colleagues at PSPC, the work is complex and plentiful. The vast majority of procurements unfold as planned on an ongoing basis. Procurements for key equipment are, however, in a different category.

Defence procurement is a complex undertaking, particularly for large systems such as aircraft, ships, and armoured vehicles. The decisions made on equipment are often half-century ones. The next combat ships we deliver will still be in service in 2070. Many of the aircraft we are pursuing will be flying beyond the middle of this century.

At the same time, the threats this equipment will face are continuously evolving. This means that we must strike a balance between the anticipated life of the equipment measured in decades with the need to update the equipment on a continuous basis to meet evolving threats. This also means that the supply chain and support mechanisms must be adaptable and enduring to meet the needs of the Canadian Forces.

Equipment is de facto never in its final configuration, as upgrading aircraft, ships, and combat vehicles is a continuous process and bringing the new configurations into service is a complex undertaking that requires very close cooperation with various elements of the Department of National Defence.

● (0855)

[Translation]

That said, we continue to advance and deliver on various programs that will continue to increase the capability of your Canadian Armed Forces. From an aerospace perspective this includes:

[English]

the delivery of the fifth C-17 aircraft and bringing that project to effective project closure; the introduction of the C-130J aircraft and their upgrades to the block 7.1 configuration; the enhancements of the Aurora aircraft and their life extension, with block III aircraft well into delivery and block IV in definition; the introduction of the Chinook helicopters back into the order of battle; the transition to the Cyclone maritime helicopter, with training on the block 1.1 aircraft to start in the coming months; the completion of the evaluation process for the fixed-wing search and rescue aircraft to be completed this summer.

DND is not only introducing these aircraft into service, but is also well positioned to provide the necessary support to ensure their appropriate operational employment.

We in the materiel group are very proud to be able to work closely with the Canadian Armed Forces in the defence of Canada and Canadian values abroad.

[Translation]

Thank you for allowing me to provide opening comments.

I would be pleased to answer your questions.

[English]

**The Chair:** Thank you very much.

I understand that Ms. Campbell didn't want to speak.

**Ms. Lisa Campbell (Assistant Deputy Minister, Acquisitions Branch, Public Services and Procurement Canada):** I have about five minutes of remarks, if you'd like.

**The Chair:** Yes, for sure.

**Ms. Lisa Campbell:** Good morning everyone. It's a pleasure to be here.

I'm Lisa Campbell, assistant deputy minister at Public Services and Procurement Canada.

Governments around the world spend a lot of money on goods and services to meet the needs of their citizens and Canada is no exception.

[Translation]

The amounts paid by Canada's provincial, territorial and municipal governments combined total over \$100 billion a year.

[English]

Federal procurement spending contributes close to 1% of Canada's gross domestic product annually. Over the past decade, the federal government has issued more than 500,000 contracts on average per year, worth about \$18 billion annually. This spending is used to acquire a vast array of goods and services, ranging from office supplies to information technology, to military equipment such as aircraft and tanks. About half of the federal spend is on defence spending, and the other half is on everything else the government needs to function, such as bridges, infrastructure, nuclear facilities, and vaccines.

A little-known fact that I want to share with you today is that over 80% of federal contracting is done by government departments themselves. At Public Services and Procurement Canada, we only handle 12% of the contracts, but that represents 80% of the money. We focus, I think appropriately, on the most complex procurements. That's where we put our specialized contracting expertise.

Our basic precept in Canada, based in law and policy, is that federal procurement should be fair, open, and transparent, and provide best value to Canada. We have heard from industry—and we engage with them regularly through supplier advisory committees and a recently formed defence industry group—that it's overly complex and administratively burdensome. We agree. Our minister has a mandate to modernize procurement, and that, quite frankly, is a business priority for us.

Let me spend a moment on some of the complex dynamics at play in procurement. Buying things, in and of itself, isn't complicated. It's what we try to do during the process that makes it complex. Canada is part of several trade agreements that require that we open up procurements to the world for fair competition. At the same time, we're also trying to achieve industrial and socio-economic benefits for Canada. There's a natural tension between those two dynamics, and this is perhaps most marked in the defence procurement area.

We have a mandate to modernize the Government of Canada's procurement practices so that they're simpler, so that they deploy modern controllership, and that they support economic policy goals, including green and social procurement. As part of this modernization, we started to look at our contracting processes. We're not just looking at our counterparts around the world. We're actually going to the private sector as well to see how businesses have made it simpler to streamline the basic contract forms; and we're also looking at our standing offers and supply arrangements to see if they can be streamlined. It would make it easier for business to sell and for government departments to buy.

Also, and this is a really important piece, we now have out on the street a request for proposal to acquire a new web-based e-procurement solution. I'm not saying it's going to become like Amazon, but that's where we're headed. Essentially, we want to move the Government of Canada procurement function to an e-business model, leveraging industry best practices, and reducing cost and process burdens for federal department and agencies and for suppliers.

Small and medium-sized businesses in Canada get about half of our contracts, and we want to make it easy for them. Ideally, they

would eventually be able to do a lot of this off their smart phones, connect with their suppliers, find out what opportunities there are, advertise, and really be able to check contracts and how things are going.

We're also working with my colleagues at National Defence; and also Innovation, Science and Economic Development Canada; and representatives from industry associations, to improve our overall approach to contracting for the maintenance and repair of military equipment. There's a lot of focus on the start of contracts, but quite frankly increasingly a lot of work is done in service support and repair of military equipment, because, once you buy it, you have it for about 30 years.

In the old days you would put a contract in place and then let it run for 30 years, but that doesn't work anymore because in-service support means that the procurement life cycle is shorter and more complex. We're actually looking at our existing stock and flow and refreshing some of those contracts to make them, for example, performance-based. Where perhaps we had a fixed price and that worked in the past, now we're saying to companies, we're going to incentivize you. If you perform in the next five years, you might get the next tranche of work, but we're going to see how you do.

We're finding that to be really effective, both from industry's perspective, and also ours. It gives us better value.

● (0900)

Taken together, in our view, some of these initiatives will help modernize the federal procurement function, foster competition and innovation, and also allow us to better leverage procurement to advance economic, social, and green-policy objectives for the benefit of Canada and Canadians.

[Translation]

Thank you very much.

[English]

**The Chair:** Thank you very much.

We'll open the floor for our first round of questions, and we'll go to Ms. Romanado.

You have seven minutes.

**Mrs. Sherry Romanado (Longueuil—Charles-LeMoine, Lib.):** Thank you so much for being here today. We appreciate your presence and wise counsel.

Mr. Pitfield, you were talking a little bit about the infrastructure and some of the purchases that are coming down the pipe and the investments that are being made. How important is factoring in current infrastructure into future purchases that we may be planning?

**Mr. Jaime Pitfield:** If I understand your question, the point you're getting at how the new construction or new capability fits with what we're already doing.

We spend about \$1.9 billion a year on infrastructure. If I break that down, it's roughly \$150 million for new construction; \$250 million for recapitalization of existing infrastructure; and then several hundred million dollars for maintenance and repair, and O and M, and those kinds of thing.

As we bring new projects on—and these are years in the pipeline—we plan them and build them in such a way that they fit with what's already existing on a base or a wing. We're trying to leverage where we can. Going forward, we will be changing how we've managed in the past.

One thing we're looking for is to densify bases. Right now they sprawl and are very expensive to operate. We will be putting like functions with like functions, buildings that complement each other next to each other, and supporting base operations to the extent that we can.

**Mrs. Sherry Romanado:** My next question is for Mr. Finn or Ms. Campbell.

One item that was not in your presentation is the elephant in the room, the replacement of the CF-18s. As you know, in the 1980s we purchased 138 CF-18s. We modernized 80 of them. We currently have 77. From what we understand, we need a magic number of 65 fighter aircraft to replace the CF-18s, according to our previous Prime Minister.

We've gone from 138 down to 80, and now have 77, and now we're going to 65. Have our commitments to our partners, whether they be NATO or NORAD, changed significantly enough to justify this number of 65? Again, we're not talking about attrition. We're not considering any training. I'm just concerned that we're lowballing on this number. I just want to see if you can give us some information on that.

**RAdm Patrick Finn:** I can only provide a little bit of information. It's really one for the air force or, I'd say, the Canadian Armed Forces.

I will touch on some of what General Hood said when he was here about a month ago. I think it's also important to remember how we were deployed at the time that we acquired the CF-18s, the footprint in Europe and what we were doing there, as well as the work in NORAD.

The fighter replacement project is called an options analysis, led by the air force, with briefings for the minister and others. Once the actual decisions are made and it enters into execution, if you will, my role as ADM Materiel is to take it from there and deliver the requirements as set by the Canadian Armed Forces.

Other than to say, from personal experience in 36 years in uniform, is that where we've evolved from and to, as far as the footprint is concerned, is a key piece. I can't speak beyond that as far as the number of aircraft are concerned.

● (0905)

**Mrs. Sherry Romanado:** I'm not sure you can answer this. We are trying to extend the life cycle of the 77 that we currently have to

2025, I believe. What are your thoughts on the investments that are going to be required to keep these in the pipeline, to be functioning? Are we going to be upgrading all 77?

**RAdm Patrick Finn:** That is something I do. Also, it's not just the acquisition but the in-service technical authority; we are working on that.

We are completing a very large program to extend them to 2020. It is in the billions of dollars. We have a very detailed plan to do structural reviews, structural repairs, but also a significant number of upgrades to communications and their sensors. That is happening to all 77 aircraft.

Our estimate of the cost to go from 2020 to 2025 is about \$400 million. We're doing work to bring detail to that. It breaks out as follows. Roughly half of that is for spares and maintenance. Irrespective of the aircraft we have—and I assume we have a fighter, which I think is a forgone conclusion—we will spend that money, irrespective of what was in the order of battle.

We have set aside another \$200 million, approximately. Our efforts today to do the structural work to 2020 have worked very efficiently. They've worked very well. In fact, they have not been as costly as anticipated. That's because we have a process in which we, literally, take the aircraft completely apart, inspect all of the airframe, all of the structure, and then repair it where needed. In a number of areas there's been less repair required.

Our plan is to continue to do that. We will do as many aircraft as required to 2025. I'm not sure, at this point, how many that will be. We have an annual cycle of revisits. That will be some of the capital piece that we do to life-extend the airframe.

Of that \$400 million, we've set aside about 20%—and again, these are rough orders of magnitude—for anticipated upgrades. If all of our allies go to a different set of communications crypto, we would upgrade the aircraft accordingly. That is the intention.

Again, about half of that money will be spent no matter what. It's about \$200 million for structure, and potentially other pieces.

From the perspective of extending the life of the aircraft, that's what we'll do. From the context of the operational effectiveness of the aircraft, again, that's something the air force would have to speak to.

**The Chair:** Ms. Campbell, you wanted to add something.

**Ms. Lisa Campbell:** Thank you.

That's an excellent question. As Mr. Finn indicated, it's an options analysis. That's when the Department of National Defence is looking at what its needs are, what's on the market, and what it should buy. We support them in that role, because we do industry engagement earlier and earlier. We've found that this helps us to be precise about what is available in the market, what Canada can afford, and what fits with our needs.

I would point out, as well, that increasingly we're buying complex systems to put on platforms, whether on land, sea, or air. The acquisition cost is a diminishing portion of that. The real money is in sustainment and in-service support over the life cycle. Increasingly, it is about two-thirds of the defence cost, if you look at it. It's something we need to plan for, be ready for. It's a continuous cycle, as Mr. Finn pointed out—continuously maintaining existing equipment while you're thinking about refreshing it.

**The Chair:** Thank you very much.

I'll give the floor over to Ms. Gallant. You have seven minutes.

**Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC):** Certainly today all our thoughts and prayers are with the people of Fort McMurray and the surrounding areas, who are now getting evacuation orders, and to the first responders and the members of the Canadian Armed Forces who are helping with those efforts.

Seeing the efforts on the news last night and this morning, I noticed that some Griffon helicopters were being used in the search and rescue operation there. That reminds us of the previous procurement of the Cormorants. The military had recommended that in order to do its job, 18 Cormorants were required. This committee travelled out to Newfoundland. We learned that for every three Cormorant helicopters they had, only one could be in the air, because they had to cannibalize the others for parts.

My question, first of all, is this. What is the number of Cormorants actually available to the Canadian Armed Forces to do their search and rescue operations?

● (0910)

**RAdm Patrick Finn:** I'm sorry, I don't have the information with me on the number that are available right now. What I can tell you is that the required rotary wing search and rescue is being covered. In the context of a kind of 3:1, as you indicated, materiel, I would say that that's not unusual of any fleet, whether it's ships or armoured vehicles, or things that are in heavy maintenance and are maintained locally. I think at times aircraft may be off the line but still actually at the wing and, therefore, could be brought back up to service quite quickly. The coverage of rotary wing search and rescue is in fact there.

As for parts, one of the things that I would add, though, particularly on the Cormorants, is the work that we did to acquire the presidential helicopters. Again, when President Obama came to office, shortly afterwards the project to replace their helicopters was cancelled. The airframe they used was in fact the same airframe as the Cormorant. We acquired them, VH-71s, and they're sitting at IMP in Halifax, Nova Scotia. They fundamentally have never been flown, and we have been using them to significantly increase our parts availability. As the fleet has matured, I can tell you that the availability of spare parts and the reliability of the components, which we continue to work with the original equipment manufac-

turer to increase, are such that the Cormorants on the three bases where they operate—noting that of course we use Griffons in Trenton—are able to perform other duties and respond to the SAR requirements.

**Mrs. Cheryl Gallant:** Remember that the Cormorants were a cheaper version of the EH101 helicopter that was originally ordered but cancelled in 1993 out of political expediency after that election. Cracks were found in the tail rotor hub. I'm wondering whether or not that problem has ever been rectified.

**RAdm Patrick Finn:** I think ultimately the Cormorant was more focused on search and rescue. The EH101 was multi-purpose aircraft and also meant to be the maritime or shipboard aircraft, which of course engenders all kinds of things when operating in a maritime environment and structure, and with the anti-submarine warfare systems that come with that aircraft. It's more focused.

We became one of the early operators of that aircraft. Internationally people looked to Canada to what we were experiencing with the tail hubs. That has been rectified. That has gone back to what is now AgustaWestland for them to take action across the entire fleet. That has been addressed, and the Cormorant today operates very effectively in that role. It is approaching its midlife and we, the department and the air force, are looking at options for how to proceed beyond the midlife of this capability.

**Mrs. Cheryl Gallant:** That's comforting, especially after we lost three members of the Canadian Armed Forces back in July 2006 due to that problem.

Let's switch over now to the Cyclone maritime helicopter project. We understand that there are cuts being made to that project. What aspect of that purchase is being cut? Is it the avionics upgrade or something else?

**RAdm Patrick Finn:** If I could just go back to your previous point, I don't believe the crash was related to the tail rotor hub issues in the Cormorants.

With the Cyclone there are no cuts being made to the project. There has been a reduction in the budget. I would tell the committee that in the process by which we look at vote 5 capital, my project managers, on a recurring basis through the parliamentary process two years ahead of time, are cash phasing and forecasting what will be the demands on their project. They are trying to estimate what the exchange rates will be, what the rate of delivery will be, what the training will be, and what any number of things will be.

We reprofile those budgets on an annual basis, and in fact are introducing a number of new methods to try to tighten it up, because, quite frankly, in the hundreds of projects that I have, as you roll them they become a significant source of the lapses in the reprofiling that occur. It is very hard to predict, and it's very hard to crystal ball it.

Therefore, the changes in the allocation to the project are really at my request, in what I can spend this fiscal year and next fiscal year. Again, that's working with the supplier Sikorsky and others.

We have delivered about a third of the aircraft. We're transitioning. We're about to start training on what are called the block 1.1 aircraft and continuing through to deliver the greater capability.

We have a very robust plan, and it's a project where a few years ago we really were at loggerheads with the supplier—both sides. We renegotiated that project, and we've really shifted into a method of delivery and introduction of capability that's very positive.

We have the Cyclones at sea now purely for testing. We've done a bunch of ship-helicopter interface testing recently. We're now well into the in-service piece, so it is well on its way to delivering the capability. We've had it at sea on a U.S. range called AUTEC tracking submarines and targets. It has a very impressive capability for that.

The change in budgets, as I say, is really as a result of my organization coming forward and saying through the parliamentary process, through the ARLU, through the estimates, what we need. There have been no cuts imposed on us.

• (0915)

**The Chair:** That's your time.

Just before we move on to our next question, I would like to remind the panel to try to keep the questions related to procurement in general, or focus on what we're talking about, which is the Canadian NORAD region and aerial readiness therein and questions related to that, so that we can stay focused.

Having said that, Ms. Blaney, you have the floor for seven minutes.

**Ms. Rachel Blaney (North Island—Powell River, NDP):** Thank you so much for being here with us today. I really enjoyed listening to your testimonies. I'm also the proud representative of CFB Comox and really happy to see some of the investments that are happening in the area.

I do know that the Buffalo aircraft is really the workhorse for our 442 Transport and Rescue Squadron, and that it's really facing the end of its life. I'm frankly concerned that we're putting the lives of our servicemen and women at risk, and I don't want to see any more critical failure reports.

Canada's pacific region deserves a reliable plane, so I have a few questions related to that. What is the current delivery schedule? Can you provide a status update on the fixed-wing search and rescue aircraft testing? When do you expect all 15 of the fixed-wing search and rescue aircraft to be fully operational in RCAF squadrons?

**RAdm Patrick Finn:** It is a project that is in evaluation. In fact, we have just completed this week the flight testing of the second aircraft. We are down to two suppliers in this competition. Again, there are lessons learned from the past—which I talked about early on—about the length of time these aircraft will be in service, such that we do very detailed testing analysis before we proceed with the selection.

We have been out with the Alenia aircraft and the Airbus aircraft. We have done a number of flights and a number of works, and that is completed. The evaluation process is due to end this summer and we will then proceed through the normal approval process internally and, of course, across government. Our target for signing the contract is by the end of this year.

When going out and doing industry consultations, we at times have a tendency to be very aggressive about wanting to take quick

delivery. In this case, we talked to all of the aircraft manufacturers, who all told us that with the complexity of this, the order book, and the marshalling of material, the first aircraft would be delivered three years after the contract award. So we are targeting the delivery of the first aircraft at the end of this decade, and with a fairly quick delivery thereafter. Now that's the delivery of the aircraft. There is training, there are trainers, there are spare parts, so we're still a number of years away from that aircraft being in service, wherever it's going to serve, to continue to provide the fixed-wing search and rescue role.

I would tell you that notwithstanding the age of the Buffalos—and again, I am the materiel authority for the Canadian Armed Forces—we don't fly aircraft that are unsafe and that we have a lot of experience, which can be good and bad, in operating older aircraft. These are also aircraft that operate elsewhere in the world, so we are able to get spare parts and have a very rigorous technical airworthiness program to ensure that the current aircraft cannot only meet their function, but are also safe for the people in the Canadian Armed Forces. And for me, that's job one.

• (0920)

**Ms. Rachel Blaney:** Thank you so much for that answer.

Another question I have is what key capabilities does the RCAF require from its new fixed-wing search and rescue aircraft? And what are the challenges that have been encountered over the years in trying to find this new FWSAR for the RCAF?

**RAdm Patrick Finn:** Again, I can't speak to the capability on behalf of the air force. Certainly, I can say it needs to cover the Canadian airspace. In the request for proposals, there are timings that they have to meet, so there are some capabilities of that nature. Of course, there's the nature of Canada with its large expanses, as you would appreciate from where you're from, and operating both in the Rockies and in the plains and eastern Canada, the complexity that comes from all of that. For the specific capabilities beyond that, though, I'd have to defer to the air force.

To go to the other part of your question, it has been a long and at times cumbersome process to get to where we are today. We're marching towards a request for proposal, but have not yet launched one. There was quite a debate publicly about the nature of the requirements as listed, and whether or not they were written to specify a given aircraft. In fact, this is an oft-referred to example of military requirements and the issues around them. It was the genesis of the establishment of our Independent Review Panel for Defence Acquisition, which now looks at all of them independently.

In the case of the fixed-wing search and rescue, we put it out to the National Research Council to do a review of the procurement and the requirements. It came out with a recommendation for a completely performance-based approach. So the request for proposal requirements are now....



We did put some limits on that, a number of bases, between three and five, some different things, but it certainly was a strong example for us. Whether or not we agree that the requirements were focused is irrelevant, because the perception was there and it really delayed this project and caused us to do, again, some independent work, and we are now finally off and running with the expectation that we are very close now to getting into contract.

**Ms. Rachel Blaney:** That's my time.

**The Chair:** We're going to take the next question over to Mr. Spengemann. You have the floor for seven minutes.

**Mr. Sven Spengemann (Mississauga—Lakeshore, Lib.):** Thank you, Mr. Chair, and I would like to share the remaining time, if any, with the next speaker on the Liberal list in the speaking order.

Thank you, all, for being here and for your expert counsel and for your service.

I wanted to start with a question for Mr. Pitfield. Could you give us a quick flavour of the improvements you're proposing that are scheduled for the base in Comox, with the \$52 million, as per your testimony? What kinds of things are being done to that base?

**Mr. Jaime Pitfield:** We're recapitalizing roads and utility corridors. We are making upgrades to the runway and to lighting. That's pretty much all the detail I had.

**Mr. Sven Spengemann:** Is it fair to say that the across-the-base upgrades that are currently scheduled would increase or improve the forward deployability of our fighter assets?

● (0925)

**Mr. Jaime Pitfield:** You'd have to ask the air force that question, in terms of capability. Certainly it will result in a base that is better equipped to support operations than it was before the upgrades.

**Mr. Sven Spengemann:** Was that part of the proposal, then, to say that we would like to have greater flexibility in where you deploy your aircraft on a temporary basis?

**Colonel Kevin Horgan (Commander, Real Property Operations Group/Director General Fire And Nuclear Safety, Department of National Defence):** I can address that one, sir.

Certainly, Comox has been a DOB, a deployed operating base, for our fighter aircraft for a number of years. The facilities are there to support that operation. They'll continue to be there. The projects we're looking at really support the base at large, which of course then supports that concept of being able to support those deployed operations on the fighter side.

**Mr. Sven Spengemann:** That's helpful, and is the same true for the other bases in terms of upgrades?

**Col Kevin Horgan:** It is.

**Mr. Sven Spengemann:** Have any of the base upgrades taken into account our obligations under NORAD's Operation Noble Eagle, which is inward-looking domestic airborne threats?

**Col Kevin Horgan:** Again, I think I can address that.

Certainly we have a number of projects in line to upgrade the QRA facilities, the quick reaction capabilities we have for those deployed fighter aircraft. We have that plan for those DOB locations

across the country. Those projects are in development now, and they will eventually deliver those additional capabilities.

Again, they're already there; they already can support those operations. These are enhancing those capabilities on the ground with these new QRA facilities.

**Mr. Sven Spengemann:** In terms of the overall order of magnitude of upgrades to our bases, as your testimony outlines, if we put that against some of the upgrades that our friends and allies are doing with respect to next generation fighter aircraft—for example, Australia is upgrading a base to the tune of \$1 billion and the U.S. is upgrading Eielson Air Force Base in Alaska to the tune of \$500 million—is that something that's captured in your current process of upgrading our bases? In other words, are we preparing for a different kind of fighter asset through these upgrades? Are they still—and I don't want to put the wrong label on it—"catch-up" upgrades, or are they forward looking?

**Mr. Jaime Pitfield:** Our regular maintenance and regular upgrades are scheduled to keep the asset in the condition that it needs to be to support operations right now. As new aircraft or new capability come on anywhere within National Defence, we'll change the infrastructure to support that. At this point we're not preparing for anything for the next generation, because we don't know what it is.

**Mr. Sven Spengemann:** Would it be wrong of me to invite you to speculate on the order of magnitude we would have to undertake to invest in if we were to go to a different generation of fighter aircraft?

**Mr. Jaime Pitfield:** I'll ask my colleague to answer that one.

**RAdm Patrick Finn:** We don't have the order of magnitude established yet, in the sense that we're still looking at options and are unsure of aircraft and what that would involve.

The point I was going to make as the project leader for all these new acquisitions—and it's something that's somewhat unique in Canada—is that when we establish budgets for all our new projects, they are very comprehensive. They include infrastructure, which is something that most of our allies don't do.

As we go forward through the options analysis—led, again, by the air force—our chief financial officer and I will become engaged. As project leader, I'll have to ensure that the appropriate money is there for the artifact, the aircraft whatever it is, the infrastructure, training, spare parts, technical data, etc. That is all work to come. It is then funded through vote 5, which comes to me and I transfer to my colleague to execute the infrastructure.

**Mr. Sven Spengemann:** That's helpful. Thank you for that.

I want to briefly touch on the second supporting pillar—if you will—for the fighter assets, which is our tanker fleet. We have to house our aircraft in the right places at the right location. We also have to make sure, given the vast territory we have and the rather complex operating requirements, whether local or across the country, that our aircraft are fuelled well and effectively.

My current understanding is that there are five tanker aircraft in the Canadian fleet; that's two Polaris and three C-130s. I'm wondering if you could comment on the potential replacement of this fleet, or what the thinking is at the moment, looking down the road.

**RAdm Patrick Finn:** Again, I think that when General Hood was here he talked about how that becomes.... You can look at a fighter decision, and then that comes thereafter. If I remember correctly, for the Airbus anchors, we'll have another decade out of them. The Hercules model H aircraft, of course, are being used for both fixed-wing and search and rescue right now, so that is something we will be looking at as well.

It's basically about what is the capability and what is the refuelling requirement, and then taking a look at some of those support aspects as well. We certainly are covered for a decade, and in the case of the Herc-Hs, it could go beyond that. We'll have to look at the method of refuelling, how much, and where we need to do it, and that will follow suit.

• (0930)

**Mr. Sven Spengemann:** There's no current thinking in the absence of a switch to a different generation of fighter aircraft to upgrade our tanker fleet to replace any of this—

**RAdm Patrick Finn:** I beg your pardon for interrupting.

I would not say that there is no current thinking in the context of needing the capability.

**Mr. Sven Spengemann:** Okay.

**RAdm Patrick Finn:** What that looks like and how that evolves.... The Polaris aircraft, for example, were retrofitted for that capability. Again, the Herc-Hs were modified. Fuel bladders are installed so they can be.... I won't say it's simple, but it's a different thing that could be done. Potentially, you even could modify the Herc-Js to pick up some of that.

So is it a bespoke fleet or is it stuff we're doing with existing aircraft? There is thinking around it, led by the air force and our chief of force development, but I would say it's secondary to what direction we take with fighters and where we go.

**Mr. Sven Spengemann:** I see that I only have 30 seconds.

Is there greater attention to the Far North in terms of fuel distribution and refuelling capacity at this point?

**RAdm Patrick Finn:** For aircraft or for infrastructure?

**Mr. Sven Spengemann:** For aircraft.

**RAdm Patrick Finn:** I don't know. I'm sorry.

**Mr. Sven Spengemann:** Okay.

Mr. Chair, thank you. That's my time, I think.

**The Chair:** Yes, it is. Thanks very much.

We're going to move on to five-minute questions.

Mr. Gerretsen, you have the floor.

**Mr. Mark Gerretsen (Kingston and the Islands, Lib.):** I want to pick up on the questions my colleague was posing regarding the infrastructure renewal.

You talked about Comox and the runway infrastructure investment that was being made there. He asked about what it would mean if we were to change the use of the runways. On the investment that you're planning for, how long is that good for? Is it expected to last 50 years?

**Mr. Jaime Pitfield:** In terms of upgrades to the runways and that kind of thing, that would be decades and decades. As needs change, the runways would be changed. The spending that I'm talking about is on a scale where it really is recapitalizing the current base, current capability, and current support to operations.

**Mr. Mark Gerretsen:** My question is, how long is it meant to recapitalize for the current use?

**Mr. Jaime Pitfield:** We recapitalize on a 40-year cycle. We do \$26-billion worth of assets every 40 years. That's the intention. In terms of Comox itself, it would be for a long time.

**Mr. Mark Gerretsen:** If the intent changed 10 years from now, let's say, would the remaining 30 years of capitalization be lost? I realize that the intent would have to change fairly dramatically for that to occur, but I'm just trying to understand if we're wasting money in that regard.

**Mr. Jaime Pitfield:** I would say no, we're not all. Change on the scale that you're talking about would mean there's a new capability—

**Mr. Mark Gerretsen:** Right.

**Mr. Jaime Pitfield:** —and it would be quite dramatic. New capability requires new infrastructure and new support, so that would be an investment. As my colleague said, it's part of the overall equipment program.

**Mr. Mark Gerretsen:** Okay. I'll turn it over to somebody who wants to finish my time, but just for clarification, if I understand you correctly, you're saying that this investment will not be lost if there's a change to the use?

**Mr. Jaime Pitfield:** I would say, generally speaking, yes, it would not be lost.

**Mr. Mark Gerretsen:** Okay. Thank you.

If there's any time left, I'm ready to share it.

**The Chair:** I have a quick one, unless somebody else wants to take it, with about two minutes left.

Mr. Rioux, you have the floor.

[Translation]

**Mr. Jean Rioux (Saint-Jean, Lib.):** Ms. Campbell, Canada's economic growth is one of the goals of the defence procurement strategy, which was adopted in 2014.

Has this strategy had any positive effects? If so, could you give us some examples?

You also mentioned that free-trade agreements had limited policy implications.

Could you tell us about the impacts of that?

**Ms. Lisa Campbell:** Thank you very much for that excellent question.

In fact, we are starting to see results.

The goal of the strategy is to better plan where we try to invest. We now have a system that we use to evaluate bids from companies based on what they provide to Canada. It's very mathematic. We determine quotas during the overall bid evaluation, such as 20%, which means that the supplier must attract benefits to Canada amounting to a proportion of 20%, be it jobs or investment in economic research and development.

Our approach is increasingly strategic. This now applies to all military procurement of a certain amount. We are working with Innovation, Science and Economic Development Canada. We are preparing a map of Canada that would show where the capacity exists. Still, we want to be reasonable. We don't want to force investments where there is no capacity. We want to see investments where capacity already exists in order to feed them. Ultimately, we want to develop capacities that can be part of the global supply chain. That's the goal. The industry is very excited by this direction because it means that it really has a chance.

We have started to put a few nuances in place. We require that it not be exclusive. Therefore, a supplier must not commit itself to a single company. It can take part in several bids. It is very important for the Canadian industry. So small and medium enterprises that try to determine where they should align themselves have a number of options. For the Government of Canada, that means that there is more competition, more innovation, and that's what it wants to encourage.

I hope that answers your question.

• (0935)

[*English*]

**The Chair:** I'm going to give the floor over to Mr. Bezan.

**Mr. James Bezan (Selkirk—Interlake—Eastman, CPC):** I'll be splitting my time, Mr. Chair, with my colleague Mr. Paul-Hus.

I have a quick question for both Mr. Finn and Ms. Campbell on this whole issue of life-cycle costs, predictability, and your ability to project what the costs are going to be. We know that one-third of the cost, roughly, on most procurements is the capital acquisition cost. Two-thirds is maintenance operations and upgrades.

If you take the national shipbuilding procurement strategy, the Canadian surface combatant project, the Arctic offshore patrol ships, or new fighter jets, how well can you predict the costs of things that are very volatile, such as fuel and exchange rates? How do we put that into the budgetary processes so that it doesn't become a political football, regardless of which party is in power?

**RAdm Patrick Finn:** I think we can predict no better and no worse than anybody else, as you indicate.

I'll speak to ships. I spent a lot of time in that domain. As you indicated, the costs are about one-third acquisition and one-third personnel. If you look at the \$100 billion we more or less forecast from a whole-life perspective for the next version of warships, that's what we're talking about. For some of them it would be part of that, meaning personnel costs. We also look at historical costs.

When we developed the through-life costs, the rough order of magnitude numbers, for the surface combatants, it was based on our

experience of the Halifax class, the Iroquois class, and things of that nature.

In our budgetary process, of course, we have, on the capital side, the long-term accrual, the long-term budgeting profile. For the operations and maintenance personnel, as you'll appreciate, we have vote 1 done annually in the estimates. So at times we look at the money that's available, and we respond accordingly.

It is hard to predict, but we do have decades of experience of understanding how to do maintenance. There is almost a natural cycle of ebbs and flows. We will look when can we do more heavy maintenance, when we need to defer maintenance, when we can pick it up again, particularly in that long cycle of heavy maintenance.

Beyond the rough order of magnitude estimates, we can't comment on whole-life costs, but we do a lot of work. Our chief financial officer is heavily engaged in that. He has an economist who looks at future costs, including fuel. We have a departmental economic model. We have a cost factors manual that captures all of this on an annual basis. Every year, we capture personnel costs and the cost of operating and maintaining all of our large fleets, as well as the personnel costs, which allow us to see and project into the future. However, it is macro-economic at best.

As we come into more of a three-year profile we do very detailed costing, on maintenance, for example. For the funds that come to me under the national procurement budget—about \$2.5 billion a year—we do very detailed work as well. We have a good three to five-year plan, and much rougher order of magnitude estimates downrange.

I think that would be the same for all of our allies. In fact, many of our allies shy away from any kind of through-life life costing. As I talked about, even in the acquisition piece they tend to look at the artifact and try to stay away from infrastructure and other things.

Frankly, I think in Canada we're more forthcoming about looking at the total budget, the total cost. Most of our allies in fact don't go there.

• (0940)

**Ms. Lisa Campbell:** If I may add a quick point, Mr. Chair—

**The Chair:** Go ahead.

**Ms. Lisa Campbell:** —the early validation of requirements that's happening at DND is very helpful. Their independent review panel on defence acquisitions helps brings some certainty. We also do a lot of industry engagement to validate this. We collaborate with international counterparts. We also talk to the supply chain because, increasingly, prime contractors are procurement entities in and of themselves.

Your question relates to risk management. There is risk in all these complex projects, whether military or non-military. As I said earlier, the life cycle of procurements is getting shorter and shorter. What we're really concerned with is making sure the government has opportunities for choice and innovation throughout the life of whatever it buys. That means that intellectual property, for example, isn't locked down such that you always have to go back to the OEM. You can actually have choice down the road.

**The Chair:** Thank you for that.

Unfortunately, that ate up all your time, Mr. Bezan. I'm going to have to give the floor over, and we going to have to suspend so that the witnesses can leave, so, Mr. Fisher, if you have a question, you have about three minutes.

**Mr. Darren Fisher (Dartmouth—Cole Harbour, Lib.):** Thank you, folks, for being here today. I'm probably going to sound a bit repetitive, but I want to get a little more clarity on a couple of things.

We spoke about infrastructure needs and we spoke about order of magnitude. We're talking about the investments we're making in some of our airfields and stuff, and at one time the plan of the government was to move forward with an F-35. Were there orders of magnitude done? Was there work done on what it would cost us for infrastructure improvements when it was understood, or thought, or felt that we might move in that direction for a fifth-generation stealth fighter?

I'm sorry if that's a little repetitive if you feel that you've sort of answered the question, but I don't really have the clarity that I feel I need on that.

**RAdm Patrick Finn:** Again, yes, we have a directorate of costing services. Our chief financial officer's work was done on what would be the rough order of magnitude approach for infrastructure in that model. They looked at hangars and what kinds of runways. Again, I would just say that it was early work. The aircraft itself was still evolving, so what would it entail and what would we need to do? Some work was done there. I'm sorry to say that I don't know the resulting numbers.

**Mr. Darren Fisher:** You have no ballpark figure on what those resulting figures were?

**RAdm Patrick Finn:** I do not.

**Mr. Darren Fisher:** That's what I'm trying to get at. Was it in the order of magnitude of billions and billions of dollars? Or was it in the ballpark of what I see here, which is \$30 million, \$3 million, \$10 million, \$9 million, \$10 million, and \$20 million? That's what I want to know. I think that's what the committee needs to know.

**RAdm Patrick Finn:** In the context of the acquisition budget that was discussed and reviewed for the F-35, we can take that question on notice and go back to our chief financial officer.

• (0945)

**Mr. Darren Fisher:** I would respectfully request, through the Chair, if I could, to have that detail, if there is any detail existing, provided to the committee in terms of any of the early order of magnitude work on expansion of infrastructure.

If I have another second, Mr. Chair, again, Admiral Finn, you talk about how we have plans to procure a replacement for the CC-150 Polaris, yet in your next sentence you say that we have plans to

upgrade, modernize, and extend the life of the Polaris CC-150. Can you give me a breakdown of how that works? Is that because we're in a bit of procurement hole? Or is that just real forward thinking, in that we're saying that until we're in the position where we're going to procure a replacement for the refueller, we also must extend the life? Can I get a 30-second clarification?

Do I have 30 seconds?

**The Chair:** That's about all you have.

**Mr. Darren Fisher:** Okay.

**RAdm Patrick Finn:** Our normal process is that we identify requirements. We go into what's called an "option analysis". In option analysis, we look at whether we life-extend, replace, lease, or eliminate.

That is a project that is literally in the identification phase and has not even entered option analysis. All options will be on the table.

**Mr. Darren Fisher:** Okay.

Thank you, Mr. Chair.

**The Chair:** I would like to thank our witnesses for coming. Thanks very much for your time and your efforts today.

I'm going to suspend for a few minutes while we switch out witnesses.

• (0945)

(Pause)

• (0945)

**The Chair:** Welcome back. To respect the time that we have left, we need to get started.

I would like to welcome and thank Ms. Mason and Mr. Perry for joining us today for our discussion on the defence of North America, and more specifically, the Canadian NORAD region and our aerial readiness from a bunch of different perspectives and aspects.

You each have up to 10 minutes to talk to us today, so I'd like to give the floor to either Ms. Mason or Mr. Perry for 10 minutes. Thank you for coming today.

It looks like it's ladies first.

• (0950)

**Ms. Peggy Mason (President, Rideau Institute on International Affairs):** Thank you very much for giving me this opportunity to address you on this important study.

[Translation]

I'm sorry, but I didn't have time to send my remarks in advance for translation. However, I have provided copies of my presentation for the interpreters.

[English]

I am going to focus my opening remarks on the issue of Canadian participation in the American strategic system for the ballistic missile defence of North America.

I should note that as an international security policy adviser to the then foreign minister, Joe Clark, in the Mulroney government, I was intensely involved in the Canadian decision not to participate on a government-to-government basis in President Reagan's strategic defense initiative, a decision made by Canada in the height of the Cold War in 1985 on the basis that participation in what was then only a research effort, while prudent for the United States to pursue, did not accord with Canadian defence and security priorities. As everyone is well aware, in 2005 Canada decided again not to participate in what had become a program not only of research but of development.

In a nutshell, my position is that both those decisions not to participate were in accordance with Canadian defence and security priorities, and the same holds true today. I will advance six reasons why Canadian participation in U.S. BMD for North America should not be a Canadian priority.

One, the American BMD system, called GMD, or ground-based midcourse missile defense, is not reliable, despite 30 years of investment and billions of dollars spent.

Two, strategic BMD is a spur for Russia and China to build ever more and better offensive systems in order to overwhelm these defences in case they should ever work and be directed at them. It is infinitely cheaper to build more offensive systems. In other words, BMD has very negative security implications.

Three, as senior DND officials testified before you on March 22, there is no military threat to Canada from either North Korea or Iran. In any event, North Korea is primarily a non-proliferation challenge, and addressing it as such—so successful with Iran—is what should be followed with North Korea.

Four, there is very little likelihood that Canadian participation in missile defence would give Canada the much sought-after seat at the BMD table. In 2004 the United States made the decision to locate the ballistic missile defense command in NORTHCOM, not NORAD, and during our subsequent negotiations on participation would not provide Canada with any guarantee of a meaningful operational role in BMD, or even a guarantee that Canadian cities would be defended.

Five, the fact that European members of NATO are participating in a version of theatre missile defence and regional missile defence is an issue that is entirely separate from whether Canada should participate in a strategic system that does not work for North America. There might be a separate debate as to whether Canada should participate in any way in the NATO systems—for example, on ships—but that is not what is under discussion here.

Six, there will be significant financial costs to Canadian BMD participation at a time—this is what you've been discussing this morning—when the Department of National Defence is facing a veritable abyss of delayed procurement, not to mention a major modernization of the north warning system in about 10 years.

For all these reasons, I argue that it is not in Canada's defence and security interests to pursue participation in the American ballistic missile defence program for North America at this time. Let me pursue just a couple of these reasons in a bit more detail.

On the BMD not working, I leave that for questions for those who want to follow up on it. I'll turn to reason number two, which is the vital arms control dimension, bearing in mind that awhile past I was the Canadian ambassador for disarmament to the UN and have a special interest in those issues.

It is worth briefly recalling why the Soviet Union and the United States agreed to the 1972 anti-ballistic missile treaty, which severely restricted ballistic missile defences. It was because of a straightforward proposition. It is much easier and much cheaper to build more offensive systems to overwhelm defensive systems like BMD than it is to develop a reliable defensive system, and thus, if pursued, they risk triggering an offensive nuclear arms race.

● (0955)

At a minimum, both Russia and China have to take into account the potential effect of a functioning BMD system negating their retaliatory capability, which in turn means they must keep open the possibility of building up offensive forces as a hedge against U.S. BMD development, whether or not they believe American assertions that right now the system is aimed not at them but at rogue states.

The American BMD system also acts as a catalyst to nuclear weapons modernization, as Russia and China seek not only increased numbers of nuclear weapons but also increased manoeuvrability to evade defences. Preventing these incredibly destabilizing developments was the whole rationale behind the ABM treaty, which George W. Bush abandoned in 2002 in order to pursue the BMD chimera. It is precisely these destabilizing developments that we have seen increasing since then, especially with respect to manoeuvrability.

On reason number three, the low level of threat from North Korea that can best be addressed by the non-proliferation challenge, you've heard some testimony on this, so I'll leave that follow-up for questions.

On reason number four, which is that participation in BMD will not give Canada a meaningful seat at the table, physically sitting at the table does not mean you have a say. In this regard, I would point to the excellent study commissioned by DND, "NORAD in Perpetuity", dated March 31, 2014, and in particular page 34, which draws the same conclusion.

In the interest of time, I'll not add to my prior comments on the lack of relevance of NATO missile defences to Canadian participation in the U.S. strategic BMD for North America.

On my final point, there will be significant financial costs to Canadian BMD participation at a time when there are so many competing priorities. The "NORAD in Perpetuity" report referenced earlier goes into this issue of costs.

For all these reasons, seeking Canadian participation in BMD at this time, in my view, does not serve Canada's priority defence, security, and non-proliferation interests, and that's what it's all about: what are the priorities? We can't do everything.

I would like to add one further point. On October 28, 2014, in the hearings then being held before this committee on the defence of North America, one of the authors of the above-noted report, "NORAD in Perpetuity", Professor James Fergusson, gave testimony. He, until that point, had surely been Canada's foremost academic expert on and proponent of Canadian participation in American BMD, but that was not his testimony on that day, October 28, 2014.

He had, after all, worked on the "NORAD in Perpetuity" report, which highlighted the extremely low probability of Canada's getting a meaningful seat at the BMD table, as well as the costs associated with Canadian participation. To these reasons, he added the low level of ballistic missile threat from rogue states and the many pressing needs of National Defence in relation to procurement, not least for "large chunks of the Canadian navy", as he put it.

For all of these reasons, he stated in answer to a direct question about what priority he would give to BMD, "...it's not one that I would suggest is a high priority right now".

Thank you. I very much look forward to your questions.

**The Chair:** I'd like to reset the clock and give Mr. Perry the floor for 10 minutes.

**Mr. David Perry (Senior Analyst, Canadian Global Affairs Institute, As an Individual):** Thank you very much, Mr. Chair and members of the committee, for inviting me today. I think this study on North American defence is important, both in the context of the review of defence policy that's ongoing right now and beyond that, because I think the strategic situation surrounding North American defence has appreciably worsened in the last couple of years. I think this study is timely.

For more than two decades, the focus of North American defence and security has been largely on non-state threats, on things like narcotics trafficking and terrorism. I'd argue that Canada is currently quite well positioned to defend itself against those types of threats.

I would argue, though, that we're significantly less well prepared to defend ourselves against state-based threats, such as North Korea and their ballistic missile threats. North Korea has been developing this technology for several years and is now working to put these types of missiles on their submarines. While the United States has developed their ground-based midcourse defense system, which my colleague just referred to, and originally asked Canada to participate in that system, Canada declined to do so. As a result, I think the only thing you can guarantee about ballistic missile defence in Canada is that Canada currently has absolutely no say in potentially defending Canadians.

Beyond ballistic missiles, events over the last two years have reintroduced the need to defend North America against other potential state-based threats. The Russian military has significantly upgraded its air and naval forces in recent years, and it continues to do so. Over the last two years in particular, the Russians have demonstrated this new equipment's effectiveness, as well as a willingness to use it to advance their own interests.

Russian forces successfully employed in Syria a new class of sophisticated conventional air- and sea-launched cruise missiles that have greatly enhanced range, are difficult to observe, and are capable

of precision targeting. Three aspects of this development are troubling.

First, these weapons come in both nuclear and conventional variants. Second, they can be carried by long-range Russian patrol aircraft and their newest and most capable submarines, and over the last decade Russia has resumed deploying both of these asset types in and around North America. Third, because of the increased distances at which these new missiles can successfully hit targets and their low observability characteristics, the current arrangements for defending North America against them must be upgraded to counter them effectively.

In sum, Russia has developed and recently used abroad sophisticated new technology that could be deployed against North America, using the same aircraft and submarines that now routinely patrol the air and waters around Canada and the United States. I would argue that it's not a question of whether the Russians are coming, because they're already here; the question is what their intentions are and how we should respond.

As part of the review of Canadian defence policy, I argue that we need to increase our ability to detect and effectively counter this type of state-based activity. Accordingly, I'd recommend five measures be taken to enhance Canada's ability to defend North America.

First, we should seriously examine becoming a full partner in the ballistic defence of North America, and if the terms are agreeable and the Americans are willing, we should join. This would give the Canadian government the ability to potentially defend Canadians from ballistic missiles, something which it cannot do at present.

At a minimum, even if Canada is not threatened directly by North Korea, the United States clearly thinks it is. This means that Canadian citizens could be threatened by an accidental launch or a wayward missile from North Korea, even if it's aimed south of the border. I am personally not sufficiently confident in North Korean missile technology to think that there's zero chance North Korea might hit Vancouver with a missile even if it's aiming at Seattle. Currently, the Canadian government could do absolutely nothing to prevent this from happening.

Second, the increased Russian activity around North America requires that we enhance our ability to know what is happening in our airspace and our maritime approaches, particularly in the Canadian Arctic. Since 2007 the Russians have conducted long-range aviation patrols towards Canada's Arctic airspace, and they've done so in ways that indicate an inclination on their part to link this type of activity to strategic confrontations with Canada elsewhere in the world.

Similarly, Russian submarine patrols in the Atlantic have recently reached levels not seen since the Cold War. To that end, progress should be made to further upgrade and life-extend the existing platforms we currently operate to conduct intelligence, surveillance, and reconnaissance missions, so that we maintain an awareness of this activity. In the medium and long term, we need to acquire new platforms that would enhance our ability to do so in the future. This should include upgrading the Canadian component of the north warning system with a system better suited to the current and future threat environment.

Third, the government should move quickly to replace our fleet of CF-18 fighter aircraft to maintain our ability to successfully intercept long-range aviation flights approaching Canadian airspace, both today and in the future. Since the government has committed to holding a competition, a competition that is fully open to all interested bidders, it should begin as soon as possible.

• (1000)

Fourth, the government needs to invest in antisubmarine warfare capabilities to be able to counter Russian submarine activity if required. Canada's existing submarines, which are our most capable antisubmarine warfare assets, are rapidly approaching the end of their current lifespan. Options for extending the life of this fleet should be explored in the short term, and a project to acquire new submarines that could patrol all three of Canada's oceans should commence immediately.

Fifth, the government needs to ensure that the Department of National Defence has the needed financial and human resources to acquire modern capital equipment to defend North America. At present, in my assessment it does not.

Under the existing financial arrangements, a number of projects that are needed to maintain a modern capability to defend Canada against aerospace and maritime threats are not included in DND's investment plan and are therefore not funded. A list of unfunded projects would include the upgrade of the north warning system, a replacement of our maritime patrol aircraft, and the life extension and eventual replacement of Canada's submarine fleets. Funding for these projects must be found.

Similarly, the Canadian defence procurement system continues to be unable to acquire needed military equipment on schedule. We just witnessed this last March when almost \$4 billion allocated for the procurement of capital equipment was deferred. This was the third time in six years this has happened, so a total of almost \$10 billion in capital equipment funding has been pushed into the future, which means that that equipment has not been acquired.

Adequately defending North America requires a better functioning defence procurement system. In my assessment, improving the procurement of military equipment would require, at a minimum, a clear indication by the government that recapitalising the military is actually a priority, a prioritization of the defence equipment projects that National Defence is looking to pursue as part of the defence policy review, streamlining the currently unwieldy process that exists to procure this equipment, and finally, an increase in the capacity of the procurement workforce.

The combination of these measures would make an important improvement in Canada's ability to defend North America in conjunction with the United States.

I would now be happy to take any of your questions.

• (1005)

**The Chair:** Thank you very much for your presentation.

We're going to start out with our first round seven-minute round of questions.

The first question goes to Mr. Gerretsen. You have the floor.

**Mr. Mark Gerretsen:** I have a lot of questions and I'm going to ask you to keep the answers as short as possible. If I cut you off, I apologize in advance.

Ms. Mason, you talked about the significant cost of participating in the BMD program. You seemed to reference that a number of times and you cite that as a being reason for not getting involved. Do you know what it's going to cost, because we certainly don't and I'd love to know.

**Ms. Peggy Mason:** No.

I cited the report entitled, "NORAD in Perpetuity?" as underscoring the fact that there's no free lunch this time around, and that we would have to pay our way. They cite, for example, U.S. sequestration, where the Americans, because of their defence budget, are requiring that others pay their way.

**Mr. Mark Gerretsen:** So we don't know what it's going to cost, but you used that quite a bit to suggest that we shouldn't get involved.

What if we found out that it costs us nothing, hypothetically speaking? Would you then change your position on it?

**Ms. Peggy Mason:** I gave six reason, and the arms control reason is the strongest reason of all, but frankly it is inconceivable that it would cost us nothing.

**Mr. Mark Gerretsen:** You mentioned that you don't see a threat—and I believe you said no significant threat—from North Korea or some of those smaller-state players. To be quite frank, we've been hearing a lot of the opposite, which is that those smaller-state players are specifically the ones that BMD is designed to defend us against.

Could you expand on that? Why don't you see them as a threat?

**Ms. Peggy Mason:** I would refer to the testimony on March 22 before this committee by Rear-Admiral Scott Bishop, director general, international security policy; and Stephen Burt, assistant chief of defence intelligence, Canadian Forces intelligence command. They stated quite clearly and unequivocally that there is no military threat to Canada—

**Mr. Mark Gerretsen:** Right, there's no military threat.

I'm sorry. I appreciate the fact that you're referencing one particular example, but we just spent the last few days at NORAD where we heard quite the opposite. I can appreciate the fact that it might be a biased forum as well, but the particular type of missile that we would be trying to defend against is not necessarily one that what would come from a major state such as Russia, but from a smaller state such as North Korea, or Iran for that matter.

**Ms. Peggy Mason:** Well, the Americans of course say that's the purpose of it, and of course the capacity of the system is even well below that. I'm not saying that we shouldn't be concerned or do nothing about North Korea. I'm saying that I agree with the testimony—and there were also Foreign Affairs people who testified to the same effect—that there's no military threat to Canada from North Korea.

I also believe very strongly that we should make every effort to work the on non-proliferation front. This was the approach, with multilateral negotiations and the full range of international non-proliferation architecture, that was brought to bear to get Iran off the track of developing nuclear weapons and to get them back into the fold squarely on the nuclear non-proliferation treaty.

There have been some efforts on that, desultory efforts, and six-party talks with North Korea on it. I believe it is absolutely fundamental that those talks be re-energized, and I believe that it is the most effective way to bring North Korea back into the fold. Canada can play a role there.

• (1010)

**Mr. Mark Gerretsen:** Are you suggesting that it's the only way?

**Ms. Peggy Mason:** I'm saying it's the most effective way because, in my view, ballistic missile defence is not an effective way.

**Mr. Mark Gerretsen:** It's not an effective way at all?

**Ms. Peggy Mason:** Yes. It's not effective.

**Mr. Mark Gerretsen:** You also made a number of other assertions. You said that it wouldn't guarantee us a seat at the table if we were to be a participant in BMD. What if, through negotiations and getting involved and being part of that program, we did guarantee ourselves a seat at the table? Would that change your position on it?

**Ms. Peggy Mason:** Again, we have to look at the relevant evidence. We participated in intense negotiations with the United States in the 2004-05 period. At that time, it wasn't just that they wouldn't give us any guarantee of meaningful participation—never mind full—but they wouldn't even give a guarantee that Canadian cities would—

**Mr. Mark Gerretsen:** I know, but I'm asking a hypothetical. What if we were able to negotiate that guarantee?

**Ms. Peggy Mason:** I indicated from the outset that for me the most vital consideration is the arms control and disarmament consideration. The fact is that this, with no payoff in terms of any reliability or in terms of its actually working against rogue states, has already had an incredibly negative impact on impeding arms control and reduction with respect to Russia and in propelling very negative developments.

**Mr. Mark Gerretsen:** You have six reasons that you presented to us, but really, one reason is the most important.

**Ms. Peggy Mason:** Well, they're all important. You see, if you give reasons and then someone says, "If we pretend that none of these reasons will apply, will you agree with me?", I'm not willing. I think it's not a reasonable premise.

**Mr. Mark Gerretsen:** I appreciate that.

Very quickly, Mr. Perry, in your opinion, what does Canada's lack of participation in BMD say about our sovereignty and our ability to defend our own autonomy, so to speak?

**Mr. David Perry:** It means that it's not inclusive.

I would reframe this argument totally in the other direction. I think the only guarantee we have is that if we don't participate in the system, we will have absolutely no say in defending Canadians against that type of threat. We may not have a full guarantee that we

would fully participate if we were in, but if we aren't in, there's no ability to defend Canadians.

**Mr. Mark Gerretsen:** Well, I hope you guys are friends at the end of the day and are able to shake hands when you leave the room.

**Ms. Peggy Mason:** We know each other well.

**Mr. Mark Gerretsen:** Thank you, Mr. Chair.

**The Chair:** You have another 45 seconds left.

**Mr. Mark Gerretsen:** I'd be happy to share that with another member.

**Voices:** Oh, oh!

**The Chair:** Okay, now you have 30 seconds. That said, we'll move on.

I'm going to give the floor to you, Mr. Paul-Hus. You have seven minutes.

[*Translation*]

**Mr. Pierre Paul-Hus (Charlesbourg—Haute-Saint-Charles, CPC):** Thank you, Mr. Chair.

We're having a good discussion here. Actually, there are really two ways of seeing things. My colleague Mr. Gerretsen really got the ball rolling.

Ms. Mason, we've had many witnesses here from the start, including people from the Department of National Defence, who told us that there was no threat. However, many other witnesses, civilians and military personnel alike, have confirmed that there was a huge potential threat. Perhaps there wasn't one 10 years ago, but there currently is a threat.

We're back from Cheyenne Mountain, where NORAD has facilities. We had some very good discussions on Tuesday with our American and Canadian colleagues, and they showed us in a very practical way. We really understood the threat.

Ms. Mason, I'd like to talk about something a little more political as to Canada's participation or non-participation. I think you mentioned that our participation in the missile defence program would prevent us from having a seat at the UN. How does having a seat at the UN take precedence over the safety of Canadians?

[*English*]

**Ms. Peggy Mason:** Thank you very much.

[*Translation*]

I'm sorry, I will answer in English because of the terminology.

[*English*]

The interpreter mentioned a seat at the United Nations, but without any context, so I'm not sure if there was something left out of the translation.

[*Translation*]

Could you repeat your question about the United Nations?

**Mr. Pierre Paul-Hus:** You mentioned in your presentation that Canada's participation in the missile defence program would prevent it from having a seat at the United Nations.



How is not having a seat at the United Nations a bigger problem than the safety of Canadians?

•(1015)

[English]

**Ms. Peggy Mason:** Thank you. I'm very glad for the opportunity to clarify.

I did not make any reference to Canada's role at the United Nations and equate that in any way with the BMD discussion. There must have been a problem with the translation. No, I made no such comment.

One can make an argument on the arms control side—for example, with respect to North Korea and certainly with respect to Russia—that not participating in BMD might enhance our ability in a multilateral negotiation to play a constructive role, but no, there's no relationship with our role at the United Nations. When we run for the Security Council, one of the things we'll be judged on will be, of course, the kind of multilateral role we've played in arms control and disarmament, but again, that's a separate issue.

[Translation]

**Mr. Pierre Paul-Hus:** Thank you.

Mr. Perry, in discussions with our colleagues this week, we spoke about missile defence. It was raised that our participation might be political and that there would be a clear commitment. There was also discussion about participation in research and development, which would avoid astronomical costs for Canada. The Americans are aware of our financial constraints.

Do you think that would be a good way to be involved?

[English]

**Mr. David Perry:** There was a reference earlier to the fact that it would be inconceivable for it to cost nothing. In a past generation, that was entirely conceivable. That was apparently the deal that was offered to us before. Maybe that's a possibility and maybe it's not.

I think the Americans would look at our participation in that program in the context of our participation in a wider set of North American defence activities, including upgrading and modernizing NORAD and a modernization of the north warning system. I would imagine that right now, in concert not just with looking at that issue in isolation but across a series of other investments you're that going to make—including fighter aircraft to participate in our NORAD missions—we would have more opportunities right now to get favourable terms if we were interested in doing it in the sense of missile defence participation than we would have if we were looking at that issue in isolation or at another time.

[Translation]

**Mr. Pierre Paul-Hus:** Yesterday, our chair and I had some questions. This week, the Americans gave a demonstration of interventions for reacting to missile launches.

Based on your experience and knowledge, would you say that the Americans would be able to intercept missiles launched at high altitude?

[English]

**Mr. David Perry:** I do. I don't think it's a 100% perfect system, but it has a limited ability to work. It's not designed to account for every conceivable possibility. To do that, you would need a much larger system, and a much larger system, I think, would potentially be destabilizing.

I would just point out that I think it's logically inconsistent to suggest on the one hand that the system doesn't work but also that it's going to be a threat to international stability on the premise that it does work. It has to be one or the other.

I happen to think that the system is effective in terms of working towards the type of threat specified. Beyond that, though, it's not going to be a conclusive security blanket, but it would provide Canadians, if we were to participate, some level of assurance that Canadians may have the chance to be defended against that type of missile. If we don't participate, there's none.

[Translation]

**Mr. Pierre Paul-Hus:** I know that our study today is focusing on air strikes, but you spoke about antisubmarine warfare. We've been told that, ideally, we should intervene before the missiles have been launched, not after.

Do you think Canada has the equipment required for antisubmarine warfare?

[English]

**Mr. David Perry:** I think there are a number of things. One is enhancing our intelligence, surveillance, and reconnaissance capacity. We currently have a fleet of maritime patrol aircraft that has just been upgraded, but only 14 of the fleet have been upgraded. I think there's the potential to at least look at expanding that upgrade program to include the entire fleet, which would give us better coverage, particularly because when we first acquired those assets we weren't using them in an overland surveillance role like we are currently doing in the Middle East. Some of those aircraft are doing things that weren't factored into the analysis when the initial assessment about fleet size was made.

Beyond that, I think we need to build into our future surface combatants a sophisticated anti-submarine warfare suite and its capabilities because, as the Russians are demonstrating right now, they have advanced submarines, and they are continuing to develop that technology. Then, I think, the third major thing is that we need to life-extend our existing fleet of submarines and look quite seriously at ways forward to acquire new ones.

[Translation]

**Mr. Pierre Paul-Hus:** Thank you.

[English]

**The Chair:** That's perfect timing.

I'm going to turn the floor over to you, Ms. Blaney.

•(1020)

**Ms. Rachel Blaney:** Thank you so much for your presentations.

Ms. Mason, you talked a lot about identifying priorities and about the fact that we really don't have a threat, and you said that building defensive systems is cheaper and better. Can you tell us a bit more about what that would look like?

**Ms. Peggy Mason:** When I was talking about offensive systems, I was talking about the very negative international security and arms control consequences of pursuing missile defences. I'd like to make the point that in my view it's not inconsistent at all to argue that the BMD system, as it's currently configured, doesn't work, but that prudent Russian and Chinese defence planners must hedge against the possibility that it might someday work. That's what defence planning is all about.

I'm not advocating building a massive offensive system, but I would note that among the nine declared nuclear weapon states, we actually have a rather significant modernization program going on. What I was arguing was that the whole logic during the Cold War when the Soviet Union and the United States were facing off at each other—and I argue it holds true today—was that you don't invest in missile defences because they are so easily.... Missile defences are so hard to prevail; they have to be 100% accurate so that nothing can get through. As for offensive systems, the famous Nitzsche doctrine was that they're "cost-effective".

The question of cost-effectiveness is at the margins. It will always be cheaper to build more offensive systems. If you go down the road of missile defence, even if you have a somewhat reliable system, which the current one is not, you're pushing on the other side, those who are concerned—Russia and China in particular—to hedge their bets by building more offensive systems and by building more manoeuvrable systems.

Part of the deal in the Cold War was not only that there were no missile defence systems except a very restricted one, but also, there was an agreement to ban the MIRVs, that one missile system that has many independently manoeuvrable warheads. On that, too, the Bush administration gave up when they abandoned the ABM treaty, and now China is pursuing that.

The argument is that there is a lot of evidence of the negative consequences in arms control terms of going down this road and very little on the other side in terms of a positive benefit of this system.

**Ms. Rachel Blaney:** One of the things I would like to talk about a little more is identifying some of our priorities. We're put in this place, and I'm not convinced that there is an active threat. Can you tell us a bit about why you feel there isn't an active threat against us in terms of ballistic missiles?

**Ms. Peggy Mason:** Initially when the previous studies were done, the two countries that were pointed at were North Korea and Iran. Well, here today, no one is pointing at Iran. Why aren't they pointing at Iran? It's that Iran is no longer a threat in this area, or that it didn't have the capability such that it would have become a threat. That's not because ballistic missile defence works better, but because there was a huge international multilateral effort to provide Iran with both positive and negative incentives to back off the offensive nuclear weapon track.

Therefore, the international community now has significantly reduced a potential threat from Iran in the future. Likewise, it's worth

pointing out that North Korea doesn't yet have the ballistic missile capability that would get them reaching North America. As for their nuclear capability, they exaggerate it greatly.

The evidence would suggest, in my view, that if you look at the absolute unreliability of the American missile defence system.... I mean, you have former directors recently writing and acknowledging that the radar system cannot distinguish between decoys and real ballistic missiles, so even a rogue state can defeat the system by having a couple of decoys. There is no radar that can do this, and it's not on the drawing board right now.

I'm not in any way suggesting that we should not be concerned and that we should not do everything we can to deal with the potential for North Korea to continue down this road, but it seems to be that there are more effective ways to do it, and we have a very powerful example before us in terms of Iran on how to do it right.

• (1025)

**Ms. Rachel Blaney:** One thing we have heard a lot about today concerns Russia. We know that with climate change we really are looking at the north and at what is happening there. With that context, what are your recommendations or thoughts on this?

**Ms. Peggy Mason:** Again, I draw on other witnesses here and in the past and on one of the authors of the NORAD perpetuity report, Dr. Charron, who have emphasized the importance of the Arctic for Canada in many ways, including security. Witnesses, including National Defence witnesses before this committee, have noted that, in stark contrast with the breakdown in relations with respect to Ukraine, in the Arctic context, in the context of the Arctic Council, cooperation has continued apace with Russia. In fact, we've had very good cooperation and would definitely want it to continue.

It's interesting that on the Arctic front, we share some interests vis-à-vis the United States. The best example there is the Northwest Passage. The United States declares those waters to be international waters that they can pass through; Russia and Canada both take a different view of the international law on that. There is also the Ilulissat Declaration with respect to the Arctic, emphasizing that even in a military context, everything possible should be done to cooperate.

I think it is very much in our interest to continue along this track. I would again argue that participation in BMD, with very little to help our security, might in fact undermine that cooperation with Russia.

**The Chair:** Thank you very much for that answer.

We will move on the next questioner.

Mr. Spengemann, you have the floor for seven minutes. Feel free to split your time.

**Mr. Sven Spengemann:** I'm going to try to keep it under seven minutes and defer the rest of the time.

I'm going to try to set this up as a bit of a comment and then get you to react. The level of debate we've had here really is very useful for the committee, and it also suggests that there be some further inquiry, that the BMD engagement be not simply thrown off the table, but moved forward.

I want to say that in terms of public perception and the actual value added by it as a Canadian mechanism to be engaged in, it needs to be compartmentalized; it needs to be confined, to be reduced in scope below what is currently perceived to be BMD.

The first thing I want to do is commend you, Ms. Mason, for your tremendous work on disarmament and non-proliferation. These must remain at the fulcrum, because it is in these areas that the real threats are.

By the same token, BMD has to be a combination basically of perfection in terms of its functionality, but also of confinement of its scale to its current level. The minute we scale up, it's going to be a political threat to Russia and China, and as you correctly point out, there will be a response strategically by those two countries. BMD, then, needs to remain in the paradigm of older technology and rogue states and of potential slippage into the hands of non-state actors, because technology that ended up pretty easily in the hands of North Korea and Iran may well in the future end up in the hands of a non-state entity.

The risk level, really, is a combination of likelihood and severity of impact, and even though the likelihood may not be great, the severity of impact would be tremendous. We should therefore work towards improving it, but we should definitely politically work to keep its scale confined and, in the eyes of Russia and China, be very clear that it is being kept confined and aimed at rogue entities.

With that setup, what I would suggest is that there is a research and development opportunity for Canada in the area of perfecting the system. The committee received testimony on and in fact witnessed the demonstration of the system, to the point of seeing that the imperfection really lies, as my colleague has correctly pointed out, in the use of decoys and the inability of the defence system in the future potentially to recognize correctly what the re-entry vehicle is.

If research and development could be aimed at that point in the fulcrum, to better keep track in the future of the actual threat rather than decoys that have been deployed with other projectiles or even in the same projectile, there would be an opportunity for us to engage at potentially a reasonable cost but also to gain the credibility of being active on the file. What the seat really entails is an operational question. We have a tremendous seat at the table through NORAD, and we could deepen it, as you point out, Mr. Perry, through engagement on BMD.

I'll leave it there for you each to comment for a couple of minutes on your reactions.

• (1030)

**Mr. David Perry:** I'll pick up on a couple of things there.

The math that you're illustrating, I think captures the fact that this is not a destabilizing system. There are less than 50 interceptors at present that physically have to hit an incoming missile. The Russians have thousands of ballistic missiles of their own, and the Chinese

have multiple hundreds. Just based on the sheer math and the way they're going to be employed, right now I don't see how this could be more widely destabilizing.

I think the use of that system, even against a rogue state, to deal with the different decoy issues is one where you.... You don't have a lot of ability to defend yourself against many different types of attacks, just because of the limitations and the strict math. If there were an opportunity for Canada to participate in terms of research and development, I think that would be an added bonus, but I think the main reason to do this is to provide for the security of Canadians.

To touch on something that was raised earlier about the issue of the threat and whether or not this is a direct threat to Canada, the traditional definition is that a threat is a mix of capability and intent. The North Koreans have the capability. Maybe right now we don't think they have the intent to actually directly target Canada, but again, I would say that it's more than 8,000 kilometres across the Pacific, and Victoria—I checked just before coming—is about 130 kilometres from Seattle as the crow flies, while I think that for Vancouver it's under 250 kilometres.

I don't think it's unreasonable to think that even if you're aiming for Seattle, where there are major industrial-based considerations with the Boeing plant in the region and with major United States military installations in that region.... If Seattle is viewed as a strategic target by some rogue state, I don't think it's at all implausible to think that one of those missiles may end up on the Canadian side of the border even if the intent were to go further south. We don't know what could happen in terms of the North Koreans' intent in the future, and that may change, but if you don't have a capability or any ability on your own to have any possibility of defending yourself against that, then you're left to the fortunes of others.

**Mr. Sven Spengemann:** Ms. Mason, I'm wondering if we've narrowed the debate a bit further through the two comments that Mr. Perry and I have made.

**Ms. Peggy Mason:** Well, I want to talk a bit more about the state of the system. I've honed in on the problem of the radar and the fact that it's acknowledged that there is no ability to discriminate. Experts like Philip Coyle say that there will never be such an ability to discriminate, but I also want to go back to the other side of it, and that's the interceptor missile, the so-called kill vehicle.

It has managed to intercept an incoming missile in prescribed circumstances. Well, should North Korea or another rogue state decide to embark on a suicide mission and launch a missile at North America, they are not going to provide the trajectory. Therefore, there will be significant problems 30 years down the road and billions and billions of dollars later, even with the kill vehicle. There have been a number of U.S. General Accounting Office reports saying that the current kill vehicle interceptor missile can't be fixed and that, essentially, an entirely new design is required, so I think we still have some serious questions there.

Again, I come back to the point that something being destabilizing is in the eyes of the holder. As for us saying that Russia and China need have no fears, it's their perspective that matters. We already have tangible evidence that both Russia and China feel that they have to hedge against the system. We are talking about the United States, after all, with its tremendous capability, so from their perspective, whether or not the system works now or whether or not the system is said to be narrowly focused, they have to be concerned that there might be a capacity to scale it up quickly. They can't sit back and do nothing in the hope that.... They can't just rely on the words of the United States.

**Mr. Sven Spengemann:** That's where politics comes in. That's where diplomacy comes in. To some extent, we have to be open. That goes back to your work, right, to the negotiations that took place on disarmament and non-proliferation. We have to weave this into it and say, "Look, we need to protect ourselves against the residual threat, however small, and here, our books are open and we're not scaling it up." I think the scale question is a very important one.

I'm not sure if I still—

**The Chair:** That's about your time. Thanks very much.

We're going to move on to five minutes of questions. We need a couple of minutes at the end for committee business, so I would ask people to be really disciplined on their timing.

I'm going to give the floor over to you, Mr. Rioux.

●(1035)

[*Translation*]

**Mr. Jean Rioux:** Mr. Perry, you mentioned in your presentation that the first priority is to know Russia's intentions.

Is Russia a threat to Canada? Could it be? What do you think Russia's intentions are?

[*English*]

**Mr. David Perry:** If I understood this—and the translation wasn't picking it up fully, so I apologize in advance—you're talking about the threat from Russia and their intentions.

I would say that Russian intentions in the North American context right now are unclear. Again, to go back to the idea of a threat's capability and intent, they clearly have the capability right now. They've just demonstrated it operationally. What they've done in Eastern Europe, I think, has demonstrated a willingness to use their recently acquired force to change the status quo in that particular area of the world. They've done so again in Syria.

Those exact same capabilities, which can also be nuclearly armed—this would get into the wider strategic stability equation—can be deployed on their aircraft that have resumed flights towards Canadian airspace over the last 10 years. Some of those flights have been timed, as an example, with the visits of senior Ukrainian officials to Canada. Unless it's just a happy coincidence on their part, to me at least, this indicates that they're using those flights as a way of strategically signalling unhappiness with what we're doing in other parts of the world.

Even if the premise isn't that they're going to launch an attack on Canadian soil, I think part of what they're doing is exerting an influence to affect our strategic thinking. It's not just about what we're doing in North America, but about what we're doing elsewhere. If the Russians don't like what we're doing, they now have a capability to very seriously change our way of viewing something unrelated to strictly North America.

[*Translation*]

**Mr. Jean Rioux:** Okay, thank you.

[*English*]

**The Chair:** Please be as brief as possible.

**Mrs. Sherry Romanado:** Ms. Mason, I'd like to know, have you ever visited NORAD-NORTHCOM Command Center in Colorado Springs?

**Ms. Peggy Mason:** No, I have not.

**Mrs. Sherry Romanado:** You mentioned the "NORAD in Perpetuity?" report. One of the authors, Dr. Joel Sokolsky, was here on April 21. He said, "Canada should become directly involved in missile defence to protect itself."

We have visited this facility and have received threat assessments from many other witnesses, who have said that Iran and North Korea are increasingly showing their capability and their intent to use ballistic missile defence.

Could you comment, please?

**Ms. Peggy Mason:** Of course, there were many authors of that report. I would just refer to the report and what it says, with respect.

They weren't talking about the level of the threat, in the report. They were talking about the seat at the table, the fact that NORTHCOM has the command, and why there's a "double-hatted" factor at the operational level. Canada can't participate in that. Therefore, if we did get into missile defence, we might get "double-hatted", and we could participate in that as well. However, they go on to say in the report that we shouldn't interpret that to mean that it would necessarily be a meaningful role.

Really getting down to brass tacks, if a missile, an intercontinental ballistic missile, were launched towards North America, we are talking about a very short period of time and the United States' making decisions on its most vital interests. I suggest to you that there is no indication in the history of how the United States responds to these things that they would enable someone else to weigh in, in a way that would prevent them from acting the way they deemed they had to act. We would be lucky to be advised.

That's where I'm coming from on that point.

**Mrs. Sherry Romanado:** I'm pretty confident that if Canada did choose to join ballistic missile defence, in its negotiations it would ask for a seat at the table. At the moment, NORAD has confirmed that it has no obligation to defend Canada against a ballistic missile, because NORTHCOM would, in fact. That's at the commander's discretion. I'm pretty confident that Canada would have a seat at the table if it were to choose.

**The Chair:** I'm going to give the floor to Ms. Gallant for her final questions.

**Mrs. Cheryl Gallant:** My first question goes to Ms. Mason. Does the Rideau Institute receive funding from any non-Canadian entities, either directly or indirectly?

**Ms. Peggy Mason:** No, it does not. We receive all of our money from small donors across Canada. The only money that doesn't come from small donors across Canada is—I guess you could say—an indirect subsidy. In the summer, we get one intern under the Canada student employment program, which subsidizes the salary of that individual. In that way, we receive an indirect sum of money from the Government of Canada. Otherwise, it's entirely—

• (1040)

**Mrs. Cheryl Gallant:** Thank you. I was asking about non-Canadian entities. The reason I asked is that when I go to your website, I see that Rideau Institute receives its funding through Tides Canada. We all know very well that Tides Canada receives its funding from Tides in the United States, which has a multitude of American interests.

When I go to your donation page, I see that among the different places from which an individual can donate are Russia, Iran, and North Korea. I really have to question whether or not the Rideau Institute is looking after Canada's national interests.

My next question goes to Mr. Perry. Under what circumstances would North Korea, Iran, or Russia, for that matter, actually fire a missile against North America?

**Mr. David Perry:** I don't know the specific terms. I'm not that familiar with their strategic thinking.

**Mrs. Cheryl Gallant:** What is North American missile defence defending against other than the state actors of North Korea and Iran?

**Mr. David Perry:** Other than those two countries, it's a wide series of strategic nuclear arrangements in principle. The American nuclear deterrent that we live under—

**Mrs. Cheryl Gallant:** But nothing exists, in terms of ballistic missile defence.

How can Canada best contribute to the defence of North America with respect to cruise missiles?

**Mr. David Perry:** I think the best way to respond against them is by participating fully and upgrading the north warning system to enhance our ability to project further north into our Arctic with our intelligence, surveillance, and reconnaissance assets, and to acquire some new ones to give us a better picture. We must make sure that we move forward quickly with acquiring a new fighter aircraft that has the capabilities to respond to Russian aircraft that can fire cruise missiles towards Canada from greater distances than the current set of arrangements were designed to defend against.

**The Chair:** Thank you very much for those questions.

Thank you very much for your presence here at committee today.

I will just suspend for two minutes. I will ask everyone who's not able to stay here for two minutes of in camera committee business to quickly exit.

Thank you so much.

*[Proceedings continue in camera]*

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