



HOUSE OF COMMONS  
CHAMBRE DES COMMUNES  
CANADA

## **Standing Committee on National Defence**

---

NDDN • NUMBER 025 • 1st SESSION • 42nd PARLIAMENT

---

**EVIDENCE**

**Tuesday, November 1, 2016**

—  
**Chair**

**Mr. Stephen Fuhr**



## Standing Committee on National Defence

Tuesday, November 1, 2016

• (1100)

[English]

**The Chair (Mr. Stephen Fuhr (Kelowna—Lake Country, Lib.)):** Welcome. We are studying the Royal Canadian Navy, naval readiness, and the defence of North America.

Today we have Robert Huebert, associate professor, department of political science, University of Calgary.

We have Andrea Charron, assistant professor, University of Manitoba, director of the centre for security intelligence and defence studies at Carleton University.

Thank you both for coming.

Mr. Huebert, because we have you by video conference and for fear of losing you at some point, we'll go with you first.

Sir, you have the floor for 10 minutes.

**Dr. Robert Huebert (Associate Professor, Department of Political Science, University of Calgary, As an Individual):** Thank you very much. First of all, it is indeed my honour to be able to appear before you again just to share some thoughts that I have on the issue of North America and naval power.

Let me start with a major issue that many Canadians often forget about but the fact remains that Canada depends upon sea power and has been a naval power since at least the end of the Second World War. We have what's often referred to as saltwater blindness, the fact of the matter being that our major elements of naval power reside in Victoria and Halifax, and as a result, the rest of Canada tends to forget about the importance that naval capabilities play.

This committee is meeting at an ideal time, because the Canadian navy is at a point of massive transformation. We are either in the process of becoming or planning to become what is referred to within naval circles as "the next navy". Because of the peculiarities of the manner by which Canadian naval procurement has gone, we've tended to have these periods in time in which we have to reinvent ourselves, and that means what we do in both strategy and actual procurement. As a result, we face the challenges but also the opportunities of designing what we think this next navy needs to look at.

More to the point, we are also entering a period in time in which we have to think very seriously about what we mean about sea power in Canada. The reason is that from an international perspective, things look reasonably positive today. They look reasonably co-operative, but if we start digging underneath the surface and look at some of the reasons we need sea power both in

the past and in the future, some very troubling developments are coming.

From an alliance perspective, we are starting to see some people challenging the issue of the founding elements of NATO. In the current American election we've heard candidate Trump put forward the idea that perhaps the United States was not going to follow article 5 unless everyone paid more. Hopefully, we won't have to worry about this after the election, but the fact that this is an issue of debate is troubling.

More troubling, however, we're seeing the economic underpinnings of the alliance also being challenged, and we've seen the difficulties that Canada has faced in the negotiations with the free trade agreement with the Europeans. We've seen both American candidates take very isolationist programs in their economic policies, and I dare say the British exit from the European Union is also the same.

At the same time, we see an increasingly powerful China and Russia, both asserting their powers in ways that are going to have a direct ramification for the navy.

From a geographical perspective, I would contend that the two areas the navy will have to focus on more so than in the past are the Asia-Pacific region, for reasons that I will get into in a moment, and the Arctic. The European side will, of course, continue to be relatively well served by the maritime infrastructure that NATO provides, as long as we do not start losing sight of the importance of NATO.

In terms of the Arctic, despite the efforts of many to say that somehow the Russians' actions in Georgia, Ukraine, and Syria can be separated from the types of actions that will be undertaken in the Arctic, I'm afraid I'm not in that particular camp. Nevertheless, some of the major rebuilding of the Russian capabilities has been with their submarine forces within the Arctic region. In the short term we see no immediate threat, but in the long term as Russia resumes its efforts to great-power status, I would suggest to you that Canada is going to have to again revisit what it does in the context of its naval capabilities in that region.

At the same time, the Chinese served us notice in 2015 when they sent a naval task force through the Aleutian Islands chain and sent port visits to several Arctic states. As a result, all of us can agree that the Chinese tend to proceed with long-term plans, and we can expect to see some form of involvement in a navy beyond their existing coast guard and icebreaker capabilities.

What does all this mean for the navy, and where do we have to start thinking? I would also argue that we can't think just of the navy. We also have to think of the Coast Guard because it also plays a critical role in Canadian maritime security.

• (1105)

In Canada we tend to separate the two from each other unlike, say, the United States that obviously joins the two together much more closely. Given the fact that we are dealing with a relatively small navy and coast guard and that, in fact, many of the stresses and challenges are the same, I think it's imperative upon us as a nation to think in terms of both coast guard and naval powers.

What are we going to have to be thinking about in the context of the North American naval sea power scenario? First and foremost, I think history makes it very clear that we have to ensure that any navy that we are creating retains a war-fighting capability that can fight with the very best. Our tradition has always been and our history has placed us alongside the two most powerful naval powers of this and the last century. They are, of course, the Brits and the Americans. Our maritime interests are best protected when we can, in fact, fight alongside our allies, be it in the Korean conflict, World War I, World War II, the Cold War, and so forth.

The second part is going to be much more challenging and relates directly to the interim report that you just released. That is, of course, war deterrence. A lot of the open literature is now pointing to the fact that a lot of the anti-ballistic missile capabilities are now being designed to have a maritime capability, in other words, pursuing naval assets for ABM capability. As you indicated in your very good report, you recognized the need for Canada to once again reconsider whether or not we are to join with the Americans in terms of their ABM. One of the possibilities into the future and something which I know the Norwegians are now considering is what role their maritime capabilities will play in the context of war deterrence.

At the same time, the renewed Russian submarine development also may require us to revisit some of the secret co-operative measures that we had with the American navy in meeting the Russian Soviet nuclear-powered submarine threat. I would add we need to be cognitive of whether or not the Chinese give their new submarines an under-ice capability, which, of course, then requires even more strenuous war deterrent capability.

We never have to lose sight of the fact that we are a trading nation, and we also have to play our role in terms of the maintenance and protection of maritime trade.

There is a fourth element that we need to add to the list of what the navy is already required to do, and that's to respond to the increasing problems and threats that climate change is now producing. We see quite clearly that the scientific evidence is overwhelming that our climate is changing. It is warming to a degree that I think many people 10 years ago were not prepared for. A warming climate automatically means more stress is placed on the requirements for what a navy has to do.

What you have here is a requirement for the navy to retain its war-fighting and war-deterrent capabilities at the highest level with the strongest naval powers there are, but at the same time be able to respond on constabulary capabilities to the growing environmental

crises that we can predict at this point. It is unfortunately only a matter of time until we see increasing storm powers and rising sea levels that will affect us and other nations, which the navy will be required to respond to.

In conclusion, what do we need? First of all, we need to ensure that we have a robust maritime strategy. The navy itself has worked very hard at trying to come up with the type of strategy that is necessary, be it Leadmark one or Leadmark two, or any of the subsequent strategies that it has tried to develop to respond to what is required by Canadian sea power. We need to ensure that this is an ongoing process that is open, and that is open to criticism and in fact is not smothered by any effort to have one coherent overall government fits all.

The second element we need to maintain is the shipbuilding strategy. For too long, Canada has built in fits and starts, and this has been expensive and very problematic. The maritime shipbuilding strategy needs to be maintained so we are copying what the Americans, what the Japanese, and what the French do in ensuring that a shipyard is continually putting out state-of-the-art capability on a one ship basis following each other.

• (1110)

Third, we need to ensure that we can meet the largest and most modern surface and subsurface capabilities, both in terms of missiles, as you have heard, and in terms of the subsurface capabilities. Torpedos that can probably start hitting the speed of missiles are threats that we need to be able to assure, and I would recommend that we be very serious about maintaining our submarine capabilities.

Finally, we need to have the ability to meet these major threats right across the spectrum. We need to ensure that the political leadership remembers that Canada is a maritime power. We need to ensure that not only do we have a navy, but we have a navy that is capable of meeting such a wide spectrum of needs and threats.

Thank you very much.

**The Chair:** Thank you, Professor Huebert.

I'll give the floor to Professor Charron.

**Dr. Andrea Charron (Assistant Professor, University of Manitoba, Director of the Centre for Security Intelligence and Defence Studies at Carleton University, As an Individual):** Thank you for the invitation. It's always an honour to be invited here.

Based on my research areas, I want to restrict my comments on naval readiness and the defence of North America to three areas. The first is maritime domain awareness, or MDA. The second is maritime warning, especially in the context of NORAD. The third is maritime control which, while currently achieved bilaterally with the U.S., may become binational in the future. These three areas are often overlooked, but I argue that when one considers readiness, knowing your environment, the actors, activities, and potential threats approaching North America, this is essential.

Also, I find conversations about readiness tend to volte to the size of the fleet and the overseas capabilities, and they overlook the importance of information and intelligence sharing with other government departments, which hold arguably 90% of the information about vessels of interest in Canada's maritime zones.

The first area is maritime domain awareness, which is the understanding of anything in the maritime environment that could adversely affect security, safety, the economy, or Canada's environment. This is an ongoing challenge. It is dependent on technology, such as the readiness of RADARSAT constellations, the information and intelligence of other government departments, and on things as simple as the number of flying hours dedicated to surveillance and the navy's ability to compete with the needs of other government departments for those flying hours.

To improve MDA, Canada created three marine security operation centres, or MSOCs, in 2004, against the backdrop of 9/11. The MSOCs on the east and west coast are led by the navy, and they house other government departments in order to fuse and share information to aid in the creation of Canada's maritime operating picture. This picture is only as accurate and useful as is the completeness, accuracy, and assessment of the information provided by all the participants.

If other government departments, for example, choose not to participate, it compromises the left of bang picture as well as response options for the navy.

The second area is the new maritime warning mission of NORAD. This was added in 2006, when the agreement was signed in perpetuity. It is still not a well-understood mission. It has three parts to which Canada's common operating picture is an essential element.

Maritime warning involves, first, the processing, assessing, and disseminating of intelligence and operational information related to the approaches to North America. Second, it involves developing a comprehensive shared understanding of the activities in the NORAD common operating picture. Third, it requires warning and advising of maritime threats against North America.

NORAD's maritime area of operation is global, which provides Canada with more information and far earlier warning than national systems alone can provide. For the Arctic this is especially important.

NORAD's common operating picture, generated by NavNorth U.S. fleet forces, is only as good as the information provided by Canada and its allies.

The third area is maritime control or the deterrence or defeat of a threat. NORAD doesn't have this mission yet, but it could in the

future. NORAD considers how to evolve in the coming weeks. No doubt the 60th anniversary of NORAD, which will take place in 2018, is an impetus.

Our navy works closely with the U.S. and the Coast Guard, as well as with other government departments within Canada. The navy works bilaterally with the U.S. to achieve maritime control, but should NORAD accept the maritime control mission and it comes to fruition, this will require a rethink of Canada's naval command and control structures.

Canada's maritime community is small, and it seems everyone knows everyone, but if maritime domain awareness, maritime warning, and maritime control in whatever form are to keep ahead of evolving threats, these sometimes orphaned functions need serious attention.

• (1115)

Canada lacks a national maritime intelligence-integration office like the one in the U.S., which forces a re-look at these sorts of functions. In Canada, the sharing of information between other government departments and the navy, while improving, is still a work in progress. A common maritime lexicon is still maturing. There is still no formal feedback to NORAD regarding the usefulness of the warning and advisories, and I fear there is a growing disconnect between the perceived threats the Americans feel they are facing. There are certainly growing calls for us to go after the archer and not the arrows, which I think could represent a doctrinal change for the navy and for the Canadian Armed Forces.

This concludes my opening remarks. I look forward to your questions.

**Mrs. Sherry Romanado (Longueuil—Charles-LeMoine, Lib.):** I have a point of order, Mr. Chair.

**The Chair:** Go ahead, Mrs. Romanado.

**Mrs. Sherry Romanado:** Mr. Chair, I would like to bring forward an issue that happened at the meeting last Thursday. I am referring to a comment made by my colleague across the way that I believe was an inappropriate comment and was in direct conflict with appendix I of the Standing Orders, "Conflict of Interest Code for Members of the House of Commons". Given that the statement that was made, which insinuated that a member of this committee and other members of Parliament...broke one of those principles in appendix I of the Standing Orders, possibly principles 2(b) and 2(c), and that the member has absolutely no evidence to prove such a statement, I am asking Madam Cheryl Gallant to apologize to this committee for the following false statement made last Thursday. I quote:

Ms. Romanado mentioned that as a parent of a Canadian Forces... It very well could be that the children of serving members of Parliament, especially with government, would be able to have a seamless release from the military and then to Veterans Affairs, but the average everyday person who's being medically released from the military does not have that advantage.

I therefore request that the member retract that statement and issue an apology.

Thank you.

● (1120)

**The Chair:** Mrs. Gallant, go ahead.

**Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC):** I will not retract it. I believe the statement I made is true.

**Mrs. Sherry Romanado:** That's very unfortunate.

Thank you.

**The Chair:** All right. I'll consider that closed.

Let's move on to our seven-minute questions with relation to what was said today by the witnesses.

Mr. Spengemann, you have the floor.

**Mr. Sven Spengemann (Mississauga—Lakeshore, Lib.):** Professor Charron and Professor Huebert, it's great to see you again, and thanks for your time.

I want to start out by presenting a big-picture question taking us back to the two principal threats that you mentioned, Professor Huebert, those being Russia and China, and put that into the context of our needs to take a look at our submarine program in particular.

I also want to draw attention to recent news that China is aligning itself more closely with Iran than what we may have seen in recent history. When you talk about reinvention of our navy and our naval strategy, I wonder if you could comment on the more precise parameters of what you see in Russia and China in terms of platforms and in terms of numbers, and our need to anticipate rather than react. Also, casting an eye over to our friends in Australia, who are a much smaller Pacific nation with a much smaller coastline—we have the longest coastline in the world—we see that they are engaged in a submarine program that is now, in terms of numbers, in the range of six to 12. I wonder if you could comment on that.

I would like to hear from Professor Charron as well. What is it, in terms of this strategic threat from Russia and China, that we should precisely be keeping an eye on and doing in the intermediate term?

**Dr. Robert Huebert:** That's a very important question because it gets down to the brass tacks of trying to look forward into what we need the navy for.

In the context of the Russian capability, where we see the Russians putting most of their money and succeeding is in their nuclear submarine program. This is the underlining security requirement for Russia. It's in their documents. It's in their forced posture. It's a maintenance of nuclear deterrence. They call it nuclear stability.

This creates an issue in that they are also developing the capability of a broader maritime reach. We've seen this with the recent deployment of their aircraft carrier to the Syrian fronts. They don't have to send a carrier there, but it's a means of showing that they have the projection of a surface capability. What this means for Canada is that there is going to be a renewed problem, and that is, as we face an increasingly aggressive Russia, we have to deal with the fact that our closest ally, the United States, is increasingly becoming concerned with the nuclear SSBN capabilities of the Russians.

Publicly, they say that everything is fine, everything is okay. We can see in their procurement, however, particularly in their Virginia class, that they are continuing to give their subs an anti-submarine mission. We are going to have to meet that type of requirement, even if we don't agree that the Russians have moved in an aggressive fashion, which I think is a false context in this element. But we see this in the American procurement, and we see this in the American force posture. It ties directly to what Professor Charron was saying about the maritime mission of NORAD.

With respect to the Chinese, probably one of the biggest threats we are going to be facing—and this is something that the Australians are very sensitive to; you can read it in all of their documentation, and you can see it in their recent decision to buy 12 submarines from the French—is that the Chinese are expected to become a maritime nation presenting a challenge to western nations. They are already moving to become a peer competitor. We can see this in both their force composition and in their statements. We can see that they're getting increasingly unhappy with the existing international legal dimension just by looking at the recent arbitration decision that went very clearly against them. The suspicion is that the Chinese, through the type of missile capabilities and submarine capabilities they are developing, are increasingly going to be threatening western interests.

If that is to be expected in the long term, what Canada needs is the best capability of responding to a submarine threat, which means submarines of our own. It's not a World War II movie where you get destroyer surface capabilities. You need submarines to meet submarines. In order to meet the Type 094s and 096s that are now being prepared and that the Chinese will be building in increasing numbers, it is imperative that we maintain a submarine capability, much the same way as the Australians have.

● (1125)

**Mr. Sven Spengemann:** Some Canadians might say that we have friends to the south who will take care of this, and that we have allies over on the other side of the Atlantic who have their capabilities. What precisely are our allies telling us that we should do more of with respect to naval development, particularly the submarine program? Are there any messages to us that we need to close gaps?

**Dr. Robert Huebert:** That's a very difficult one right now. As I said in my opening statement, what we're seeing increasingly among many of our closest friends and allies is an inward look that I don't think is allowing them to take an alliance perspective in looking outward to the type of threats we're meeting. At this point, I'm not aware or privy to the types of conversations on what Canada specifically has to meet.

The reason I say we need to have an independent submarine capability is that, as we've seen in this presidential election, we cannot assume we will always have a United States that will have Canadian interests at heart. In the long term, we have to be sensitive to that. Remember, regardless of where Trump ends up polling, he has a substantial amount of population that is isolationist-oriented. That, to my mind, is also a threat. We need to ensure that we have an independent capability if the worst type of environment, i.e., an America that returns to isolationism, is ultimately in the cards somewhere down the road.

**Mr. Sven Spengemann:** Thank you very much for that.

Professor Charron, I'd like to get your views as well.

**Dr. Andrea Charron:** Usually when you get a briefing from NORAD and they talk about the strategic threats from Russia and China, they tend to focus on the aerospace threat, so the fact that Russia is investing significant resources in strategic nuclear forces, or that they have global precision strike capability now. For China, it's the fact that they are rapidly modernizing their nuclear forces.

As far as Canada's subs are concerned, that's not something I can necessarily comment on, except that I would sort of borrow from the thinking of John Mearsheimer. The advantage that the U.S. has to Russia and China at the moment is that the U.S. has the freedom to roam, which Russia and China don't yet have. It's improving, but they don't have it. Any conversations that Canada has, being as we are one of the United States' most important allies, is how our growing capabilities will match their ability to keep that freedom to roam.

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

**The Chair:** Thank you.

Now over to Mrs. Gallant.

**Mrs. Cheryl Gallant:** Welcome back to our witnesses. We're quite honoured to have you back. In fact, you're doing better than our chief of the defence staff, whom we've asked since this committee was first constituted. I don't know why it is that the government won't let him come, or what he could possibly tell us that they don't want us to know. We haven't had any briefings on deployments, despite repeated questions. Most importantly, we haven't had a briefing, even in camera, of force protection and what has been done to protect our armed forces personnel since the attack on a recruitment centre.

I'm really disappointed that in the face of the promise of an open and transparent public government, not only are we being deprived from hearing from the CDS, but now they don't even want MPs to speak. The committee and the House of Commons chamber are supposed to be the sacred places where an MP can ask questions or make statements without fear of reprisals.

My first question is for Professor Charron.

What do you make of the reported nuclear war training exercise in Russia with the 40 million people?

•(1130)

**Dr. Andrea Charron:** I'm not privy to classified information. I don't know any more than what has been reported in the news. Certainly, it's something that people are tracking, but we have to

remember that there are two parts to a threat. There's capability, but there's also intent. I think sometimes we're quick to assume the intent, but that's something that I think we need to investigate more.

**Mrs. Cheryl Gallant:** With respect to the scheduled visit by a nuclear U.S. submarine to Guam, what, if anything, do you think would be the possible ramifications that Russia or anyone else in that area would have to this planned exercise?

**Dr. Andrea Charron:** The good news about exercises is that generally, they're well communicated. They're certainly watched by everybody. As long as they've been on the books and planned, that doesn't cause nearly as much concern as when there are sort of pop-up events and people are caught untoward.

That speaks to my comments about maritime domain awareness. Always knowing about these events and being able to put them into some sort of context is very important. Otherwise, we can make some precipitous decisions that may launch events that we can't retract, and that's never a good thing either.

**Mrs. Cheryl Gallant:** Dr. Huebert, we don't have any submarines in our navy that can go beneath the ice, so I'm going to ask you a two-part question. One, do you think that we need this capability? Two, Canada's nuclear policy is that there is to be no use of nuclear energy whatsoever when it comes to military. If you think it is required that we have a submarine that can go beneath the Arctic ice and if the only capability is through a nuclear-powered submarine, do you think Canada should be looking at changing its policy towards being able to use that capability in nuclear power?

**Dr. Robert Huebert:** We did look at having nuclear submarines twice and, ultimately, what's been the killer both times has been the cost. There's no question that having a nuclear-capable submarine is what will allow us to go under the ice, but the problem that has always bid the devil for all planners has been what to sacrifice to get that capability. In other words, it has proven virtually impossible for Canadians, be it Liberals or Conservatives, ever to come up with a defence budget that would allow having the capability to deal with all the requirements that have already gone through from a surface capability and at the same time going nuclear. It has always been that cost factor that has been the killer.

Would I personally like to see us having one or two nuclear submarine capabilities? Of course, but I'm an academic. I don't have to deal with the broader issue in that particular context.

Realistically, the best thing we can do is work as closely as possible with the Americans, which we have done, to allow them to ensure that that is in fact protected under the ice, but ensuring we retain a submarine capability so they keep us fully informed in terms of what they have done, which I will add we now know has been the case.

There was a lot of speculation that wasn't the case in the past, but one of our students at the University of Calgary found documents that demonstrated there has been an agreement between Canada and the U.S. on how to proceed under the ice, which makes it clear there were not sovereignty violations.

As for nuclear capabilities, keep in mind that ultimately because of the manner of the Cold War, Canada had to be, as a NATO member, always subscribed and avoided the issue of no first strike because we were quite aware that if the Soviets attacked, we might have to go to the nuclear option, if that ever came in.

You get into a fuzzy area in your second question in the context of how much and what we can and cannot do.

I'll say one other thing about your point about information. This is also a challenge that we as academics often face in terms of getting information. For example, we don't know how many flights the Russians have had in terms of bomber long-range patrols up to Canadian airspace. That tends to be classified information, and it's very difficult for us to know whether or not we should be concerned, because that information is not made widely available.

A lot of the materials that form the basis of what we're trying to come to is, in fact, classified. Some of it is classified for very good reasons, some I would dare say for political reasons and because we've inherited the words from the British tradition, and that is, classify unless you can prove there is no harm, as opposed to the Americans who say to classify if you can only show there is harm. That's a challenge I think we all face.

•(1135)

**The Chair:** Mr. Garrison, you have the floor.

**Mr. Randall Garrison (Esquimalt—Saanich—Sooke, NDP):** Thank you to both witnesses for being here with us again.

You said the second need was to maintain our shipbuilding strategy. My question for you is which shipbuilding strategy? What we had initially was a shipbuilding strategy that talked about Arctic patrol ships, originally eight, then six, and now five. We talked about service combatants that used to be a minimum of 15, and now it's a ceiling of 15. We've talked about the supply ships. The number used to be three, and now it's two, maybe three.

My concern is that while everyone says they support the shipbuilding strategy, the strategy is actually morphing into something less than it originally was. It's becoming a ceiling rather than a floor of what the military needs.

Do you have any comments on that?

**Dr. Robert Huebert:** Absolutely. That's a very good question.

It's a typical Canadian response that instead of understanding that the ship strategy as it has been conceived and as the experts have called for is supposed to be seen as an ongoing process, rather than an end-all, and as you've pointed out, there has been a growing tendency to say that we're not dealing with an ongoing process. We're saying how do we achieve a final end product of five, six, or seven Arctic offshore patrol vessels with 14 or 15 surface combatants.

We know, and this is the part that's so frustrating for us, that from a technological perspective, from an economic perspective, and most importantly from a military perspective, you cannot stay with technology. The only way you can ensure that your naval assets have the best and most modern navy is to have constant, ongoing upgrading.

The only way the Americans, the Japanese, and the French have been able to do this is by having a shipbuilding strategy that says, "We will have one hull that is constantly being built. We will constantly be upgrading the technology, keeping in mind that we want to be able to retroactively retrofit. We want to have one aircraft carrier coming out at a time and one submarine coming out at a time." It is an ongoing, never-ending process.

From today's economic industrial perspective, the idea that we build a whole class of vessels, as we did in World War II, is simply outdated thinking. We find ourselves paying for these huge numbers of vessels with great technology for their day, and then we just let them fall apart because we can't maintain the workforce that is necessary.

The shipbuilding strategy, in theory, as was put forward, needs to be thought of as an ongoing process. We build the Arctic offshore patrol vessel, but instead of trying to compress it as we're doing right now—and that's the problem—we spread it out, and then we get ready to start putting in the surface combatant.

The problem we face of course is that because we have always done it in group blocks, we need to meet that obsolescence today, so we have two pressures coming in. On the one hand is the immediate requirement, and on the other hand is the recognition that we have a rare opportunity to get it right, but it's going to take a little bit of pain and political patience. That's one thing, of course, that we have difficulty dealing with as a democratic state.

**Mr. Randall Garrison:** My second question is about the tendency to substitute the strategy for everything. The shipbuilding strategy was to replace certain capabilities. Submarines, which you talked about, or long-range patrol aircraft are not part of the shipbuilding strategy, but we talk about the shipbuilding strategy as if it were the solution.

As somebody who represents a base where submarines have been refitted, I was glad to hear you talking about submarines. Could you talk more about the necessity, especially in the Asia-Pacific region, of maintaining our submarine capacity?

**Dr. Robert Huebert:** Absolutely.

One of the great difficulties we face whenever we talk about submarines—and this gets right back to your colleague's comment on secrecy—is that we don't know their record of success.



In other words, if you talk to Rear-Admiral John Newton or anyone who has submarines under their operational command, they'll tell you that they can't talk about how successful they are. We will hear about every single failure, every time one goes bump in the night or there is some episode. We often do not focus on the fact that the other nations maintaining submarines have had far worse accidents than what we have had.

Having said all that, why we need submarines relates first of all to something which Dr. Charron was referring to, and that is domain awareness. The only way that our allies and friends will share information in terms of what their submarines are finding and doing is if we have submarines. If we don't have submarines, we don't have shared undersea water domain awareness.

Second, we need to have that independent capability so that the Chinese or any future threats don't just think, "Oh, we only have to think about the Americans. We don't have to think about the Canadians because they have no capability." It factors into their calculations.

The third factor, and this is one which, as Canadians, we don't like talking about, is that into the future, given the nature of where torpedo capabilities are going, the only way that you are going to defend against a submarine with a torpedo that has a 100-mile torpedo range at speeds almost approximating those of surface missiles is by having your own submarine.

Having a surface vessel means you're just going to be a floating target at some point for submarines, given where technology is going. If you want to defend against submarines, you need to have submarines yourself.

• (1140)

**The Chair:** Mr. Garrison.

**Mr. Randall Garrison:** I'll wait for another round to talk to Professor Charron.

I have just one follow-up question.

The question of off-the-shelf designs for Canadian ships. Do you think this is a relevant part of the debate, given your emphasis on the technology rather than the hulls?

**Dr. Robert Huebert:** The reality is, and this is the thing, as academics and politicians, we have difficulties. We like black and white, right?

The issue is, of course, what do you mean by off-the-shelf technology? This is where so many of us get so tied up. We sit there and say that this is sort of pure, made at home. We think of an Albanian-style complete containment of capabilities. We know where that leads you. To say off-the-shelf, how far do you go? Even if you design it yourself, the experts that are designing it inevitably are being influenced by others.

I have difficulty always when someone pushes me a bit and says, "Do you want to build it in Canada, or do you want it off-the-shelf?" My response is always, "Okay, tell me the difference between the two." I do think the necessity is to ensure that we have the capability of assembling our naval capabilities on Canadian territory.

It doesn't matter for the replenishment vessel if it's a Berlin-style design, as long as we have the capability to build it in Canada and aren't hostage to other forces that all of a sudden want to interfere. I think that's the way to go.

That's where the Australians are going with the French design of their submarines. It's going to be a French design, but they're going to start building them in Australian yards at one point. Quite frankly, history tells us that's the way to go. That's how the Japanese became a naval power after World War I, precisely by working with the Brits that way.

That mix is the way to go. It's the very answer that you and I don't like, but that's the reality of where we go.

**The Chair:** Thank you.

Mrs. Romanado.

**Mrs. Sherry Romanado:** I'd like to thank our two witnesses for joining us again. It's a real pleasure to see you both.

My first question is for Professor Charron.

You talked a bit about an area of which I am quite concerned. Our NORAD agreement right now only talks about domain awareness and not domain control in terms of our maritime. You alluded a bit to that in speaking about the fact that it's an opportunity with the 60th anniversary of the NORAD agreement coming up.

Can you talk to us about what the pitfalls are of the fact that we do not have maritime control as part of our current NORAD agreement? What should we be looking at when we're looking at reviewing that? What should we be looking at, given the current threats and those that are forthcoming?

**Dr. Andrea Charron:** While NORAD has maritime warning, maritime domain awareness is still essentially the responsibility of both states.

I am just undergoing the start of a study to look at what would be the implications if NORAD were to include maritime control. NORAD itself is undergoing these looks. It's called EVONORAD. They're not only looking at maritime control, but cyber and possibly other elements.

My comment vis-à-vis 2018 is I'm concerned that this looming date may quicken the minds before we're fully ready to think about all the implications. We are differently structured from the U.S. Whereas they have NORTHCOM, which can command maritime, land, air capabilities, we have a bifurcated system in Canada, where we have CJOC, but we also have 1 Canadian Air Division in Winnipeg, which takes care of all sorts of the air elements, especially vis-à-vis NORAD. CJOC has the maritime and the air expeditionary forces. We don't have that sort of seamless, as they like to say in NORAD, one belly button to push.

We also have, of course, MARLANT and MARPAC. We also have the Arctic. We have MARLANT that takes care of the Arctic, and is the main communication centre for the common operating picture. If we are going to transfer maritime control to NORAD, we have to think about those C2, command and control, structures, to make sure they're not an impediment to being able to react with NORAD.

At the same time NORAD is thinking about things like what should be its role. If NORAD becomes a strategic as opposed to operational role, one thing that could be considered is to make one of the NORAD regions basically the combatant commander, which then has some interesting implications in the relationship of Canada's NORAD region, CANR, to CONR. We also have Alaska NORAD region.

Everybody is starting to think about these implications, and we're still working through them. It's a bit like trying to change the tires of a car that's still running. We don't have the luxury of asking if everybody could just stop so we could just think about this. We have to keep responding to threats at the same time as considering these changes to command and control vis-à-vis capabilities and our relationship with the U.S.

• (1145)

**Mrs. Sherry Romanado:** You mentioned you're starting a study on this. I'm curious about when that study will be completed.

**Dr. Andrea Charron:** It will be completed for summer 2017.

**Mrs. Sherry Romanado:** Once it's public, would that be something you could share with the committee?

**Dr. Andrea Charron:** Of course. Yes, it's there. It's always public.

**Mrs. Sherry Romanado:** Thank you. I'm going to come back to you if I have time.

My next question is for Professor Huebert.

You talked about a different way of looking at our procurement, where it's, forgive the pun, a pipeline of procurement. You're creating this constant conveyor belt of ships, any kind of asset in terms of our military defence. It's different, as you said, from what we've done in the past, where we make the big order, the big announcement, the big splash; we hope for the assets to be delivered, and then don't touch them for the next couple of years.

Since as part of the defence policy review we're looking at such questions, what would you recommend to us? Would you recommend that we move to a long-term strategy that has short-term objectives to fill the current gaps we have in capability in naval—of course, right now we're looking at naval—but aerial and land as well? Then, for a long-term strategy, it will require a different way of thinking in government, because every time a new government comes in there is review of projects and so on. How would that long-term planning and long-term strategy look for our military procurement?

**Dr. Robert Huebert:** That's a very good question. The immediate overall answer, I'd say, is that it's not going to be a one size fits all. When it comes to certain elements of procurement, it's still going to be that you have to buy everything at once. For example, if we decide that we want to retain heavy armour, which at one point we

were thinking of getting rid of, the Americans and everybody still tend to buy their Leopard 1s and Leopard 2s all in a bulk. There's a bit of spreading out, but there's not the technological payoff you get in naval assets.

To a very large degree, naval hauls are unique because of their huge expanse, because of the industrial capabilities, because of all the difficulties. When I start talking about, as you put it so well, a conveyor-belt style of procurement, I'm really talking in the context of a naval asset, and this is by looking at who has really been successful in modernizing their navy.

The Brits have not. Let's be clear on that. The Brits are now starting to face major problems. They basically have followed our procedure.

The Japanese have very clearly adopted an American style, which is this conveyor line; in other words, keep it going. In fact, if you look at the Japanese submarines, they retire each of their submarines after 20 years. They're very strict in that context. They have another submarine that comes forward at that point. They say it's a competitive process, by the way, but they have two companies that take turns. The companies know that they're going to get the turn to build the next submarine next time and they're keeping their workforce. In other words, they get to say to us, "Oh well, we're being competitive about it." It's not competitive, but it works very nicely. I believe it's Mitsubishi, and I can't remember the other company, that builds them. They keep these 20-year-old subs, and therefore, you have them going in that context.

When I talk about that particular element, I'm talking primarily from a naval perspective. It doesn't really work with, say, fighter aircraft, because we know all the challenges that come in that particular context. If we look at land forces, once again it's a different kettle of fish in that context.

The challenge that we face always—and you've hit it brilliantly, and I congratulate you for being honest on this—is, of course, the political payoff. As you pointed out, any of us who've looked at white papers or new strategies know that, in the Canadian context, the only time we ever have a white paper is in the first term of any government. We should be having white papers all the time to respond to issues, quite frankly, but from a political perspective, we only ever do it when a new government comes in. They'll do in their first term. They'll change everything, and then by about the second term everything goes back, because there are certain strategic imperatives that limit what we can actually do.

In my mind—and I'm speaking as a political scientist—we have to figure out a political payoff for government. That's the political reality: you need to have that capability of saying, "We did this." The question is, how do you do it? The question in my mind is, how do the Americans then succeed to do that with their carriers? How can they make sure that enough Democrats and Republicans can go back home and say, "Look, we're responsible for all the successes of the Ford class, and the other guys are to blame for all the failures"? We know how the system works. The Americans have worked out that political waltz that goes in that context.

I say this as a serious question, because if you do not have the political agreement that we will get credit for this, we tend not to go ahead. That's not Canadian; that's American. That's part of the democratic process. That has to be worked into the system in such a way that it doesn't have to be the major priority, but it has to be a function of it.

However, the critical point, and you've hit it right on, is that for certain units you have to have that ongoing capability, so you retain that workforce. That becomes the critical element of any future ship. As well, you have to be able to suffer the pain in the medium term and short term of readjusting to the bust and boom building cycles that we've had on the naval aspect, and that's the real challenge right now.

• (1150)

**The Chair:** Thank you.

We're going to five-minute rounds of questions.

Mr. Gerretsen, you have the floor.

**Mr. Mark Gerretsen (Kingston and the Islands, Lib.):** Mr. Huebert, I'd like to examine a comment you made earlier about the potential of a more isolationist approach that you might see come out of the U.S. government, regardless, I think, of the outcome of the election. There's perhaps a tendency to go in that direction, and you highlighted that nicely. If you look back to post-World War II, that was a time of isolationism within the U.S., yet the relationship between Canada and the U.S. actually solidified and grew during that time. I think one might argue that the motives for the U.S. being a defender, for lack of a better expression, of Canada is not so much because they see it as a goodwill opportunity, but more because they see it as an opportunity to genuinely protect themselves at the same time by having defence of the continent.

I wonder if you could expand a bit on that. I'm not saying at all that it should ever be the excuse of Canada. I agree that our military should be ramped up, to use your term. However, could you expand on the isolationist approach and the comparison that you used, in relation to what I just contributed?

• (1155)

**Dr. Robert Huebert:** Absolutely.

We could have a nice argument. I would say that the Americans, particularly under FDR, very decidedly moved against isolationism in the post-Second World War period. That's a point of discussion we can have over a coffee or beer.

On your point of what it means for Canada, you're absolutely right. The Americans, in terms of any form of isolationism, will of

course say the defence of North America becomes the most important. Where it will, in my view, have the biggest impact on Canada is in our freedom of action. In other words, any time that they've moved to isolationism, the Americans will turn around and say, "Okay, Canada, we're doing this for North America. This is going to cost you this much more."

Dr. Charron has emerged as our leading scholar on NORAD today. If we look historically, we see some of the previous scholars on NORAD, such as Dr. Sokolsky and Dr. Jockel, have pointed out that we have a pretty good deal. The Americans, because they tended to see benefits of close relationships, tended to pay for the bulk of what NORAD was requiring.

A more isolationist America, which I think Trump summed up when he pointed to the Baltic states and said, "You have to pay more for NATO membership", goes against everything we've said in terms of proper deterrence. It's that attitude that you have to pay for more. I think that's the first thing you have to worry about.

The second part on isolationism is, if you don't have that capability of saying, "No, we want to do this; we want to make sure we have the ability to make important decisions" when it comes to submarine forces, or interceptors, or any of these aspects, that means you have to have that more capability so that if the Americans do start thinking more insularly, you're ready to say when we're protecting North America, "We already have these assets. This is the role we're playing, and by the way, you can't tell us in terms of doing this because we're already spending a whole bunch of money here." Hopefully, more reasonable voices in the U.S. will understand that so we're not just told by an isolationist America, "Thou shall be doing that", with all the sovereignty ramifications carried with that. That is my big fear.

The bigger fear, if you want to go really extreme, is the type of emotional backlash that we've seen starting to be unleashed. Look at what's happening in Britain as they move towards separation from the EU. As we're seeing the rise of some of the far right in France, we see that the question becomes that isolation tends to be associated with extremism from a national perspective. I don't think we want to be focusing too much on that, but we need to be cognizant of it within the Canadian context also.

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

I really want to get to the second part of my question. You've been talking a lot about ramping up the navy, as you put it. I think, to the layperson, that means spending more money on more ships, submarines.

Ms. Charron made a very good point. She talked about how readiness is more than just buying things and having the physical infrastructure. She talked about information sharing, about being ready more holistically, and it can be done by more than just spending money. What are your thoughts on that? Do you agree with her position on that?

**Dr. Robert Huebert:** Oh, I always disagree with Dr. Charron, to my peril.

It's part of the overall package. This is the problem we face: it's not an either/or. She's absolutely right when she talks about information sharing, when she talks about the types of structure capabilities we need to put in. But, to get taken seriously on that, you need to have the assets, I'd say the so-called boots on the ground, but when it comes to the navy, that metaphor gets all wet. The issue, of course, is you have to have that capability to have information sharing, and that you need all of it.

I would push back when you say that Canadians in general would say this means more money, but it also means that we are then able to make more money. Without the maintenance of an open maritime trade system that we are part and parcel of—and we tend to lose sight of this—if we don't have the means of being able to provide that protection, if it becomes a greater challenge by a peer challenger such as China, we're going to start seeing impacts economically suffered by the country. In other words, a stable maritime shipping system is in our economic interest.

The question becomes, what role do we play in that context? We can never be the dominant player. We're not going to be the British navy. We're not going to be the American navy. The issue is where do we fit, with a recognition that if we don't fit, ultimately the system could become very expensive for us.

By the same token, I appreciate your comment: how much is too much in terms of spending?

• (1200)

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

**The Chair:** Mr. Paul-Hus, you have the floor.

[*Translation*]

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

Mr. Huebert, you said that, as an academic, it's sometimes difficult to obtain accurate information on the different threats that Canada may face. Rest assured that I have the same issue. Since becoming an MP, I have been receiving much less information than when I was a senior officer in the Canadian Forces. In the Canadian Forces, we had access to information that was much more sensitive than the information sent to us here. We'll work together to identify the problem.

Ms. Charron, you mentioned three different areas, namely, maritime knowledge, maritime warning and maritime control. With regard to maritime knowledge, I want to go back to the threats. We

often hear about threats, but I think the problem relates to the proper identification of the intention.

In terms of threats, Canadians in general tend to believe that it isn't possible; that no one would attack Canada; and that we're nice, lovely and kind. I think the threat isn't necessarily a first level military threat—and I want your opinion on the subject—but more likely a threat to take control of the territory for economic purposes. It would be a matter of entering our territory and establishing a presence that may then become a military threat if Canada responds to it.

Can Canadians be convinced to see the threat as something other than a possible attack by Russia or China, and much more as a territorial threat against Canadian sovereignty? I want your opinion on the subject.

[*English*]

**Dr. Andrea Charron:** It used to be that when you talked about threats you would stovepipe them into: safety issues, that's for the Coast Guard to deal with; security issues, that's for the RCMP; and defence threats are for the navy to deal with.

We're finding now that this continuum is very blurred. If you start with a safety concern, any of these incidents can rapidly turn into a security...and turn into a defence threat.

The other thing we're seeing is not only are threats being able to morph quickly, but the roles of the various government departments are also changing. You see the navy taking on almost quasi-constabulary roles when we give them fisheries powers, for example.

It's very difficult to delineate and say this is this kind of threat and it only fits into this category. You're right that there is always a concern that we are going to overblow threats from China and Russia. I think especially the U.S. feels them far more acutely than we do. Whether or not we're underestimating or the U.S. is overestimating the threat is yet to be seen. When we talk about Canada's national interests, I tend to rank them maybe differently from some. Yes, defence of Canada and North America, but ultimately we found our security is tied intimately to the economy. Our September 11 was September 12. When the borders close, when the U.S. doesn't have confidence in us, when we cannot get trains, trucks, ships into Canada we are in trouble very quickly. One of the things that we define defence to be is also a healthy economy, and the navy certainly has a role to play in that.

Perhaps I'm not answering your question, but you're right: we can always put a skew on every threat. In Canada, we are learning that different government agencies are going to have to adapt their mandates as far as they can. I think a comment was made earlier about the Coast Guard, which is a safety organization. Perhaps that needs to be considered in the future because it is one of the agencies that houses about 80% of the maritime information we need about ships of interest approaching North America, but also because its mandate is limited in its ability to respond.

• (1205)

**The Chair:** Mr. Paul-Hus.

[*Translation*]

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

That confirms what I'm thinking about the very important relationship with the Coast Guard. I know our special forces are currently trained to inspect civilian vessels, and not only Russian or Chinese naval ships. These vessels may come from other countries and represent different threats.

In terms of threats, we often look at the west coast and the Arctic, but there is also the Atlantic. I told the committee last week that, in Halifax, there is an enormous volume of traffic from the Atlantic. Could the different types of civilian threats be significant?

[English]

**Dr. Andrea Charron:** I think the reason the Atlantic is certainly favoured, especially when it comes to Canada's maritime structure.... The commander of maritime forces Atlantic is also the commander of maritime component, which means ultimately they are the ones for command and control of naval forces. Traditionally we have been more oriented towards the Atlantic because of our relationship with the U.K. and because we were trading with western Europe, and that's where you're going to see more of the traffic.

We now seem to be pivoting more to the Pacific, and so perhaps we need to think about how the navy is structured and how the Coast Guard is structured, etc. to respond to potentially more traffic coming from the Pacific.

To your other point, there is a reason China finally got a coast guard. They realized that by sending out their navy every time they had an issue, it tended to ratchet up the tension level a lot, and that's maybe something we need to think about. As much as threats are evolving and the mandates of government departments are expanding on the margins, when it comes to responding to an event, if you send the navy, it is a very different response from sending, for example, the coast guard. That applies to China; it applies to Canada, and it also applies to the U.S. Keeping that distinction is sometimes very helpful.

**The Chair:** Thank you.

Mr. Rioux.

[Translation]

**Mr. Jean Rioux (Saint-Jean, Lib.):** Thank you, Mr. Chair.

I want to thank the witnesses for being here and for sharing their valuable knowledge again.

Mr. Huebert, you said at the beginning that we don't hear much discussion about the navy because it's centred in Vancouver and Halifax. We seem to make a distinction between saltwater and freshwater. I'm thinking mainly of the St. Lawrence River. Last year, two war vessels entered the St. Lawrence River, but their presence was noticed only when they were already close to Quebec City. That's when they were asked to identify themselves.

Is the navy monitoring and defending all waterways, both freshwater and saltwater?

[English]

**Dr. Robert Huebert:** A challenge that always faces the Canadian navy is that they know they're going to have a limited number of hulls. We get back to hulls, of course, in this context.

Anyone who has lived in Victoria or Halifax will know the distinction between a brown-water navy and a green-water navy, which are supposed to have a little bit of a coastal ability, and a blue-water navy, which means dealing with the type of storms we have off of both sides. The distinction is substantial.

Your question, however, gets to the point that Dr. Charron was raising. How do you have that maritime awareness? How do you integrate a system of sensors that will allow you...? When I say sensors, I mean all the way from the individual person to the highest tech in terms of satellite surveillance, the satellite constellation system, and this integration.

I think in many ways the stuff that Dr. Charron was talking about in how to take the limited assets and make sure that you have complete capability of knowing who is in fact entering your waters is an ongoing requirement. Once again, we get into the unsatisfactory answer that, to have proper surveillance capability, it's not just that we've solved that problem and we know that everything is coming, because on the other side, the technology is always changing in that context, so it's a mindset.

I think a lot of the recommendations that Dr. Charron was saying about a creation of a maritime intelligence capability have to be something that we are thinking of. That then integrates into the actual assets that we have.

•(1210)

[Translation]

**Mr. Jean Rioux:** Ms. Charron, you started telling us about the Coast Guard. How do you view its role in Canada? Should it intervene more in economic or maritime trade situations? That's the approach the Chinese coast guard seems to want to take.

How would you assess the Canadian Coast Guard's current role?

[English]

**Dr. Andrea Charron:** The Coast Guard amazes me, given the amount that they are asked to do with so few funds and so few ships. I mean, they are instrumental. They have one fleet and sort of two seasons to deal with everything, such as making sure that resupply happens in the Arctic, making sure that commercial ships are able to make it down the St. Lawrence, and marine rescue. It's an unbelievable portfolio, so to consider adding more mandates makes me a little nervous because I think they're running full tilt, and I don't see them having much more room to add much more, but it's part of a conversation that maybe Canada needs to have, and everything is interconnected.

Our Coast Guard is different from the U.S. Coast Guard, which has what they call title 10 and title 14 capabilities. Under title 10 they actually come under the U.S. forces and become like a warship. Under title 14 they're under homeland defence, and they're doing more constabulary work. Our Coast Guard doesn't have that constabulary function, except for the Arctic Waters Pollution Prevention Act in the Arctic.

I think the time is now to have that conversation with the new commissioner about where she sees the Coast Guard in the future. I think a lot of people are surprised that our Coast Guard is limited to sort of the safety mandate, but given how important that is, given the environment, and given that commercial traffic is so vital to Canada, I would be very cautious about expanding their role precipitously, because I think that those other functions, which are vital, would be impacted.

[Translation]

**Mr. Jean Rioux:** The question is for Ms. Charron or Mr. Huebert.

I was told that all Canadian vessels on our oceans, including fishing boats, Coast Guard vessels, army vessels and ballistic missile launchers, can be quickly identified. Is that true?

[English]

**Dr. Andrea Charron:** Yes and no. We have vessel identification systems, and for ships that are compliant, that's very helpful. We're actually not so worried about the compliant ones, but about the ones that, for a variety of reasons, will often turn off their transponders, and sometimes they are very good reasons. For example, if you're on a fishing boat, you often don't want to attract attention because then all the other fishing boats follow you, and you lose the best catch. There are also more nefarious reasons for turning off your transponders. We have vessel identification systems. We have radar. We have HUMINT. We have surveillance. We have regular patrols. All of this information is something that MSOCs look at on a regular basis and discuss among each other so that they can make the Canadian operating picture the best, most complete, most useful picture that we have.

One of the things we often wrestle with is that more information is sometimes not always helpful because it gets harder and harder to see the outliers in that big picture. It's also a constant challenge to look at the types of filters we have, the quality of the information that goes in, and then turning information into intelligence requires an assessment function. That's often the first thing that goes, especially when you want to save money on personnel and funding. That's a really difficult, challenging, and specialized work. So more information without have the ability to assess it is a problem; likewise, being able to warn of a situation but not being able to respond is also a problem. All along the way there are these points of failure.

•(1215)

**The Chair:** Mr. Bezan.

**Mr. James Bezan (Selkirk—Interlake—Eastman, CPC):** I'll just follow up on Dr. Charron's comments right now about the Coast Guard and having the commissioner here. I think we should be encouraging the commissioner to show up. I hope she is on our witness list. We can have that discussion about whether she believes the Coast Guard should expand its constabulary responsibilities and duties under various pieces of legislation.

I want, first of all, to thank both of you for being here today and participating in this study we are doing.

Dr. Huebert, you mentioned the U.K., Japan, the United States, and how they are going about their shipbuilding and maritime assets that they've been able to employ. I'd like to ask you about Australia.

They, too, seem to have a bipartisan approach to dealing with their white paper. They have a very ambitious shipbuilding program as well, including putting at least six submarines in the waters.

I wonder if you could talk to the Australian model and whether that should be something we're looking at here when it comes to the navy in Canada.

**Dr. Robert Huebert:** Absolutely.

In fact, it's even more ambitious. The open literature has said it's going to be 12 submarines. It's basically a conventional nuclear-powered French submarine that they're buying.

With the Australian model, part of the thing that always drives anybody when they are getting their defence procurement done right—and this is the one thing that comes out in the open literature—is that the more the decision-makers see and feel that there are real security threats, the more you have bipartisan agreement. It's not a criticism of our system, per se. However, if you look at the Australians, every time the Indonesians were becoming more of a threat—in any of the white papers from 1965 onward—the more you saw bipartisan agreement. In other words, the threat seemed to bring the ideas together. We can say the same thing about the Japanese with regard to North Korea and some of the issues. In other words, there seems to be a relationship between bipartisan and democratic states and the threat perception that exists in that particular context.

In terms of the model that the Australians are doing, the one piece I would say works the best, that we may want to take issue with, is that the Australians have an ongoing process of white papers, examinations, and other means of determining what the threat is. The Australians are a Commonwealth nation, just as we are. They take the practice of white papers just as we do, but it does not end with the white paper. You have this constant re-evaluation of what the threat is and then what they have to do.

The significance of that is twofold. First of all, it allows you to deal with the ongoing issues, so you can respond to changes much more rapidly than simply by doing the examination at the beginning of any government term in office. Second of all, I think the critical point is that it educates decision-makers.

In other words, if you are required to be constantly looking at that—you guys have such limited time to focus on any of these issues, as all of you are very well aware—so that you have to dedicate this amount of time and you have to rethink this, that has a means of educating any governance system. That is part of the reason we see countries like Australia, France, Japan, South Korea that are able to do this, because you have to bring in the decision-makers on a more regular basis.

I would say going beyond simply looking at the navy, you need to be able to deal with the threat environment around you on an ongoing basis. That then mixes the decision-makers with the threat perception.

•(1220)

**Mr. James Bezan:** To carry on with the threat discussion, Dr. Charron, you're the expert on NORAD, being first and foremost aerial threats, and dealing with Russian bombers coming across the Arctic.

How serious is the maritime threat—our naval approaches to Canada—by other state actors, and for that matter by non-state actors?

**Dr. Andrea Charron:** I think it's a growing concern.

Some of our detection systems are contingent on the size of the vessel, so one of the new areas of concern is what we call go-fast boats, the tiny little whalers that can be very destructive, but are not required by law to have a vessel identification system, nor do I think that's necessarily practical or possible to do. Maritime traffic is increasing generally. Whether this is a function of globalization and having more trading partners is all up for speculation.

As for nefarious warnings, if we go by how many NORAD advisories and warnings they have been giving out, it's on a downward trend, and that could be because either Canada, the U.S., or both are able to detect the threat early enough that they can neutralize it before it has to become an advisory or a warning.

At the same time, our definition of a threat is expanding and changing. For example, one of the big innovations of NORAD was to track vessels coming from western Africa because of the Ebola threat. Ten years ago, we would never think of NORAD having that kind of a role. What it did though is allow Canada and the U.S. preparation time to come up with a plan of what to do if somebody lands in North America having been exposed to that virus.

Do we have an increase in incursions by foreign vessels with nefarious intent? I don't know. Based on the NORAD warnings and advisories, we are on a downward trend, so you could infer perhaps not, or we are getting better at detecting these issues earlier and neutralizing them before we have to hit panic stations.

**Mr. James Bezan:** Okay, and that's based upon the non-state threat. What about the state threat coming from China, Russia, and other state players out there that want to either capitalize on resources in Canada's Arctic, or want to challenge us under the UN Convention on the Law of the Sea as to passage through the Northwest Passage and other Arctic waters, or may have even more ambitious role ideas on how to challenge our maritime defences?

**Dr. Andrea Charron:** I am a little different from Rob Huebert when it comes to the Arctic in that I still see it as a region of co-operation. I think Russia and China know very well the maritime limits of Canada. They haven't pressed them. Nobody has more to lose in the Arctic than does Russia, and they prefer it to be an area of stability, because they are going to benefit most economically from that.

The same goes, so far, with China. That may not be the case in the future, but just as with our Atlantic and Pacific coasts, when we endeavour to make them zones of peace and allow for commercial traffic, the same probably should be said for the Arctic, and so there is an inconsistency that Canada has there, whereas we have the opinion that we prefer ships to stay out.

It will be very interesting to see what comes out of the reports from the *Crystal Serenity* and how much it costs Canada for that to go through without a hitch. It's something we have to keep tracking.

• (1225)

**Mr. James Bezan:** Professor Huebert.

**Dr. Robert Huebert:** I'm glad you've given me this opportunity because the issue when we raise maritime security in the Arctic—first of all, Dr. Charron and others are completely right when they say at the surface level there is co-operation. I agree with them. There's not going to be an issue of someone using military force to challenge over the extended continental shelf or resource grab. Absolutely there's co-operation.

The point where we differ very strongly is in my contention that we see a renewal of Arctic capabilities at the strategic level. This is the part we don't see. This is the part that's subsurface. It's aerospace threats. We see an increasing usage by the Russians, and I expect that we're going to see the Chinese starting to become involved, the so-called great games, where nuclear deterrence starts playing a more critical role.

It's not a question of fighting over Arctic resources, but the fact that the Russians are an Arctic power, that the Americans have Alaska. It's those strategic assets and the issues that then surface in the context of when relations go downhill, say over Syria, Georgia, Ukraine, that we start seeing this push and pull.

In other words, absolutely, we can pat ourselves on the back and say that things are going well at a co-operative level because they are at a superficial level, but in true naval power, the type of stuff that we traditionally use navies for, since 2008 we've seen an increase in use of maritime passages in the region by the Russians.

We also see the Americans doing it very quietly with their submarines, particularly their Virginia class, but they are doing it and this is the part that's under the surface. We as Canadians can say we're not seeing this, so that's not happening. The fact that we don't see it doesn't mean the issues aren't there, and when they do surface, they become so serious that they escalate quite quickly in that context.

**The Chair:** Mr. Bezan, your 10 minutes are up.

Mr. Fisher has the floor for five minutes.

**Mr. Darren Fisher (Dartmouth—Cole Harbour, Lib.):** Thank you both for being here today and sharing your expertise as well as your perspectives.

Professor Huebert, you spoke about the naval needs from your perspective, how we need a fighting capability, submarine maintenance, the impact of climate change, and your belief that we need a robust maritime strategy.

I've asked this question of other academics and also of some DND officials: a grocery list, a naval want, a sea power need based on your perspective. Can you give me your grocery list of what you would do starting today if I handed you the chequebook?

**Dr. Robert Huebert:** If you were to hand me a chequebook, the first thing would be to institutionalize and systemize a naval political capability of an ongoing examination of the maritime issue.

In other words, the navy is very good at keeping this ongoing. They do their maritime strategy, their naval strategy, but there needs to be this ongoing process, maybe a committee system that's headed by the PMO, but something that keeps it at the high political level and is ongoing.

Without understanding what you are developing your capabilities for, why are we doing this? It's not just having the ships look nice and attractive, but ultimately understanding what Canadian sea power is required, not wished for and not what would be good, but what is required. That would be the first thing I would establish.

The second thing—and it goes back to one of your colleagues calling it a conveyor belt—is a recognition that the procurement has to be an ongoing response to this changing environment. The type of ship that we're saying we may need right now...Dr. Charron gave a whole bunch of wonderful examples of what we need to respond today, and what we're doing successfully. The question then becomes, 10 years from now, will we need the ships to do something extra? Once again, it is looking at flexibility in the capability.

In terms of the third aspect, and that gets into the mechanics, what do you need? We need something that allows us to have access both above and below in terms of all three of our oceans. We are a three ocean country, and we often forget that. We need to have something. If not the Arctic offshore patrol vessels, we'd have to have something that would be very similar.

We need to have the ability to go both under and above. That also means air assets. That's something we haven't talked about; for example, the replacement of the Auroras that are a critical part in all of this. They will eventually wear out, so you need to have that capability and flexibility.

The fourth aspect is that you need to be able to go worldwide. One of the ironies is that even though we don't think about it, we are a blue-water nation. Our interests rely on it. We need to have that replenishment capability that we are trying to rebuild now in the Vancouver shipyards. Ultimately, we need those types of assets.

If you want to drill down a bit further, the surface combatant has to be a critical element. The FELEX program, by the way, has been a major success. We always talk about procurement failures with Canada, but we often forget that the modernization of the frigates was done under budget and, in fact, ahead of schedule. That's a testament to good planning.

We need to be thinking about having these assets at the front end, and they need to be flexible. Once again, we're thinking of today's threats, and we need to do so. However, if we add in climate change, may I ask you this, how do we respond as a nation if, in fact, climate change means that 60% of Bangladesh ceases to exist because the sea level rises, say, 10 years from now, and that sparks a war between Bangladesh and India, and then Pakistan comes in?

You can create all sorts of scenarios. What do we do as a nation, particularly given our current demographics, alliances, and so forth, and what type of navy do you need? Then you start saying that maybe some of the Danish models could apply because they have war-fighting capabilities, but they also have emergency response

capability on their Absalon-class frigates. We need to understand the constant change of it, but we need to have the assets.

The fourth wish is to be very sensitive, and make sure that we are slightly ahead of what the Americans want us to do. We never want to be in a situation.... It's not politically correct to say it, but we always have to be sensitive. It's called a defence against help. We want to be sure that the Americans never feel that we're letting them down. That sort of grazes us from a sovereignty perspective, but once again, getting into the North American perspective, that is a requirement.

Those would be the four things I would go for, if you were to give me the chequebook.

• (1230)

**The Chair:** Time is up.

**Mr. Darren Fisher:** May I just ask him how many submarines he would want?

**The Chair:** We'll circle back. We'll have time later.

Mr. Garrison.

**Mr. Randall Garrison:** Professor, you just raised the question I was saving for this round, and that's about the Auroras.

In the Canada First defence strategy, the Conservatives promised they would build 10 to 12 new long-range maritime patrol aircraft, and then decided they couldn't afford them. They would refit the Auroras so they would last until 2030, at which time they would be 50 years old. But they decided to only refit 14 instead of the 18 that the military said they needed.

In terms of domain awareness, how do we sit with the Aurora patrol aircraft, and the fact that we will have only 14 out of the 18 the military asked for, which seems to me to be problematic, and the fact that they may not actually last until 2030, being 50-year-old airframes?

**Dr. Andrea Charron:** You're probably right. I mean I—

**Mr. Robert Huebert:** Wow, that's—

**Dr. Andrea Charron:** Go ahead, Rob.

**Dr. Robert Huebert:** Go ahead? Okay.

As I was saying on the Aurora, one of the critical things we have found—and the Russians and the Americans have found it—if that if you have a relatively robust size of airframe and it is not supersonic, you can actually make them. The new industrial capabilities mean that we're getting a lifespan out of these aircraft that exceeded anyone's expectations. If you look at the American B-52s and you look at the Russian Bears, those are even older aircraft. Both the Russians and the Americans have found out that there are certain aspects, in terms of responding to the airframe fatigue that everybody thought was a major issue, so the airframe itself can actually go much further than we thought.



That's part of the problem that adds to the complexity of this. We have found that we can push the lifespan of the Auroras. Of course, the question is, what is the optimal amount? Usually the numbers in most studies go all the way from 12 to about 24, but it really depends on what we do. The problem is every time we do a refit with the Auroras, and get them up and get new assets, we find new things for them to do. The problem is that every time we make them better, as typical Canadians, we use them for more. What we were saying we needed them for is to go, "Oh, by the way, we're going to do it, and we're going to do a whole lot more", and that becomes part of the problem.

**The Chair:** Madam Charron.

**Dr. Andrea Charron:** I can't comment on the number, but tied to the number of Auroras is also the question of the status of the north warning system, and also brings up issues of cybersecurity, etc. Fixating on the number is a bit like looking through a straw: you're narrowing your lens and missing some of the other implications. I would certainly defer to the Department of National Defence on whether or not they think they have enough planes. The other aspect is the number of funded flying hours. You can have all the planes in the world, but if you don't have enough money to send them up there to do the surveillance, that's also a problem. That's something that is often the last to be considered in a budget.

• (1235)

**The Chair:** That ends the formal round of questions. We have time, so we'll go through three more back-and-forths, so the Conservatives, Liberals, and NDP, five minutes each. We'll start with Mr. Bezan.

**Mr. James Bezan:** Thank you, Mr. Chair.

I want to go back to talking about the current request for proposals for the surface combatant design. In the request for proposals, there is a clause in there, and essentially it's a gag order on anyone who's bidding on the design phase, any of their subcontractors or their employees, and I quote right here from the CBC, "any public comment, respond to questions in a public forum or carry out any activities to either criticize another bidder or any bid—or publicly advertise their qualifications". That is prohibited.

Now Dr. Danny Lam—and I've talked to him about this—said in the CBC story this morning, "The clause will effectively stifle any public debate about the procurement".

David Perry, who both of you are very familiar with.... After we had the department on Friday, he tried to clarify it. He said, "I don't understand how it could have been misconstrued: 'You shall not speak in public.' It's an attempt to keep the competition out of the headlines."

Do you believe this clause that's in this request for proposals has the probability of showing up in other requests for proposals going forward from DND? How is this going to impact the public debate, and the debate here in the House of Commons, and being able to properly analyze the different options that are coming forward? Also, how does it impact both of you in how you do your research on defence policy?

Who wants to start?

**Dr. Robert Huebert:** I can start with that. Yes, I'll start with that one.

Dave is absolutely right. How can you construe it as anything else but limiting any debate? The problem that occurs is it doesn't stop debate. What it does stop is informed debate. You ask, what do we do as academics? Both Dr. Charron and I have plenty of colleagues who, if they don't have the facts, they'll make them up. You know how it goes in terms of debates. People will then look to anecdotal pieces of information. It means we get a very stifled debate. This is unfortunately something that we have inherited, and it continues. It's one of the issues that really stymies us as researchers. It may be this particular clause but, ultimately, people will only share information if they feel there is no risk at all. I think this whole danger of creating information that may not exist totally misinforms any real substantive debate that we want to have on defence. Having said that, given the way the state of industry is, we have to be sensitive there will be proprietary information they don't want getting out. It's a question of how you balance those two requirements, in my view, that becomes most problematic.

**The Chair:** Madam Charron.

**Dr. Andrea Charron:** I tend to self-gag on all issues of procurement and fine print, in terms of clauses. I really don't know.

**Mr. James Bezan:** I want to go to the design itself.

Dr. Huebert, you had already mentioned that we're building a whole block of ships rather than just trying to do this over time. Dr. Lam and I have talked about this as well, that it would be better if we were going in smaller groupings to keep up with technology.

One witness we had at the table here talked about how we should just be buying the hull, and everything else inside of it would be modular so that you could move technology in and out a lot more easily, and also repurpose the ship for different mission protocols that are going to be required.

Is that something we should be focusing on as we go forward on shipbuilding, especially as new technologies are coming on, such as lasers—I know there's talk around electromagnetic rail guns, things like that—which aren't here today but could be within the next decade?

• (1240)

**Dr. Robert Huebert:** The Scandinavian countries have moved very strongly towards going to a modular layback. If you look at both the Norwegian navy and coast guard, they can make their coast guard vessels the equivalent of a naval combatant by the usage of modularity in terms of missile systems, torpedo systems, and so forth.

Historically, from the Canadian perspective, any time we have started experimenting with that capability we always get cheap in terms of any follow-up modularity. If you look at the Kingston class, there was some experimentation in terms of giving it some form of mine-clearing capability, with the idea that you could off-load and on-load. But what we ended up doing, once we bought the Kingston class—and once again, it's this Canadian mentality that we built it; it's done and over with, and we don't have to think about it—we never ever provided it with the proper demining capability that we gave her that capability for.

If we were to go to a modular formulation, which is entirely conceivable and which many say works for medium navies, we then have to change our mindset and be willing to say that we need those modularities now, and they in fact cost money. That's something we haven't shown an ability to do. If we could do it, in theory I think it's a great idea, but I haven't seen evidence that Canadians of any political stripe have really had an appetite for those sorts of add-ons. They don't get the political punch for that, and that's been a problem.

**The Chair:** Mr. McKay.

**Hon. John McKay (Scarborough—Guildwood, Lib.):** Thank you both for this very interesting discussion.

Just as a point of clarification, I did have a conversation with a senior procurement official yesterday, and there was no intention of frustrating any conversation that might occur as a result of the bidding process. The idea was to try to achieve an orderly bidding process, but they have since withdrawn and it's back to however it is we used to do things. I just want to make that point.

Your conversation about the navy and coast guard led me to think about an experience I had recently in Miami with a NATO group on an absolutely magnificent coast guard ship. Our Coast Guard or our navy would be delighted to have the ship, and I think the Americans have recently purchased about 55 of them. Its area of operation was off the Florida coast in the Gulf of Mexico, which coincidentally was the same area of operation that a couple of our navy boats were in. It led me to wonder whether we should continue to maintain this distinction between the Coast Guard and the navy, and whether really we should be seeing the entire naval domain awareness, control, warning, constabulary functions, terrorist- and war-fighting functions all as a bit of a spectrum of conflict.

Your debate has actually brought that out a bit more. This is a general question. I just wonder whether we can continue to afford the luxury of the separation between the coast guard and the navy, given the threat spectrum, from both state and non-state, but also inevitably the increasing responsibility in the Arctic.

Whoever wants to pick that up first can answer. I appreciate it's a general question, but I think it's something we need to come to ground on sooner rather than later.

**Dr. Andrea Charron:** I'm hesitant to say let's just take the Coast Guard and navy and smack them together.

**A voice:** It could be a bit of a mess.

**Dr. Andrea Charron:** You're talking about taking a special operating agency with a safety mandate and marrying it to the navy, and that doesn't solve the constabulary problem, because neither the

navy nor the Coast Guard right now really has a constabulary function. That's Transport Canada, the RCMP, etc.

But we're starting to do this in some ways in the Arctic, based on the platform that we have. The Arctic offshore patrol vessels will be piloted by the navy but will have on board Coast Guard, Transport, RCMP, etc., as required. Maybe that's the way to go, working with this whole-of-government approach rather than taking the Coast Guard and the navy and making them into a new sort of hybrid.

We have a small navy and a small Coast Guard. On the one hand, perhaps that gives us economies of scale, but you would have to change the whole training, the mandate. It's something that could maybe happen far off in the future, but it makes me nervous for a whole bunch of reasons. I think it's a conversation that the commissioner and the commander of the navy are much better placed to participate in, concerning the limit.

The real innovation of the Arctic offshore patrol vessels, however, is being able to do that. You get the range of responses, from the safety to the constabulary to a defence option, based from one platform. For a small country such as Canada, for our naval, Coast Guard, and Transport Canada forces this is very innovative.

• (1245)

**Hon. John McKay:** Professor Huebert, would you like to add anything?

**Dr. Robert Huebert:** If I may add, there's also something critically important here. Of course, I agree to a certain level. You don't want to simply mesh them together. On the operational side, there are all sorts of issues.

What has been a major problem, however, is that the Coast Guard has traditionally seen itself as operators. They see themselves as responding to immediate requirements, many would say with a tactical sort of mindset. I think what has been required and what Jody Thomas has been doing an outstanding job of is to bring the Coast Guard into strategic planning. In other words, the unification needs to come in via thinking in the context not just that we want the Coast Guard to respond to specific issues and that's all we think about; rather, they have to be part and parcel of the strategic response, the layered response, from the constabulary to the war-defending to the deterrent, so that they are part and parcel.

Really, the integration you're talking about has to be at the senior leadership level. Once again, I have nothing but praise for the current commissioner and the direction in which she is now trying to take the coast guard in this context. What has happened is, because no one thinks the Coast Guard operates at a strategic level, they tend to be ignored because they are so successful. We can see this in the financial difficulties they constantly find themselves in.

Once again, raise it up into an understanding. Bring the type of issue you're talking about, of integration, into the strategic vision that is necessary for thinking about the maritime defence of Canada. Once you manage to get the Coast Guard thinking in that context, you have the integration that is necessary.

I think that's the direction they're going in, and I think that would directly respond to questions of the type you're raising, sir.

**The Chair:** Mr. Garrison.

**Mr. Randall Garrison:** I'm going to do something at the risk of seeming too clever or cute. These witnesses have both been with us before. One of our previous witnesses who had been here twice said there were things he wished he'd been asked. I'm thus going to actually put this to both of you: what is the question you wished you'd been asked today? Then go ahead and answer it.

I'll start with Professor Huebert.

**Dr. Robert Huebert:** The question I would like to be asked is how we get a political understanding that is ongoing. In other words, I love the type of work that the committee is doing and the questions they are asking, but you know the system in which the committee will be proceeding: you'll go on to other issues.

How do you situate a political institution that allows us to remind ourselves constantly that we are in fact a maritime power, not just relying on maritime forces to have pretty ships and look good in nice uniforms, but remind ourselves that there is in fact a very real security need for Canada, and how do we ensure that the political leadership remains constantly aware of that in addressing the ongoing challenges that basically require us to think of very expensive but necessary solutions?

That would be one of the questions I would like to be asked in that context.

But you guys always ask so many good questions, how can we turn around and say we haven't been asked any questions?

• (1250)

**Mr. Randall Garrison:** Okay, thank you.

We'll turn to Professor Charron after that.

**Dr. Andrea Charron:** It's not so much as a question, but one thing I've been trying to do over the last couple of years is remind everybody that we have this binational agreement with the U.S. called NORAD. When it's out of sight and out of mind, it can be easily marginalized. I'm also starting to see signs that NORAD itself is thinking about how it can evolve and change, and this will have repercussions for Canada. I'm hoping that we're going to be able to keep pace to evaluate those suggestions, so that we're not doing it in an ad hoc fashion.

I think the brilliance of NORAD was that Canada and the U.S. came together and saw the need for this agreement. In fact, we have to remember that the military actually got ahead of the official signing of the treaty. We don't want to do that again.

But to pay attention, to go to NORAD, to ask them questions... For example, as we considered the Arctic offshore patrol vessels, how would they fit in with NORAD? That's a question we don't often ask ourselves, and I think it's an important question.

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

Ms. Gallant or Mr. Bezan, do you have any other questions?

**Mrs. Cheryl Gallant:** I have one question.

What would you like to see done to strengthen the RCN's interoperability with allied naval forces, including the United States navy and their coast guard, NATO navies, and navies of other foreign allies?

**Dr. Robert Huebert:** I'll take that one, because it's one that I've been very interested in. It's the issue of making sure that the navies of our friends and allies are aware of what our capabilities are.

Our starting to integrate with the American battle groups really stemmed from an initiative that occurred on the west coast when the commander of the west coast fleet, MARPAC, simply had a good relationship with the commander of the American force and said, "Our frigates are really good, why don't you see how they can integrate?" That was when we saw HMCS *Ottawa* being integrated, I think it was with the Lincoln battle group, for the first time.

The point of the matter is, the more we show what we can do—because we are one of the most capable navies there are, in terms of our training, capabilities, the men and women who man the ships... We are one of the truly great naval powers, in that context. But we have to make sure that they are aware and that they can see the integration.

Then when they see the integration, it's basically jumping at opportunities, such as integrating with an American battle group or any other formation, such as Combined Task Force 151 for the anti-piracy patrols, demonstrating to people how we work, then working together so that we can integrate our systems, so that wherever there are difficulties in integration, we're able to overcome them.

Let me be clear. All the open evidence points to Canada's being probably unique in its ability to integrate itself with all the NATO countries and with the Americans at the highest level, and that means also in terms of security capabilities, but also as one of the very best countries to integrate with the forces of countries with which it hasn't traditionally integrated, such as the Indian navy or the Chinese navy. This is due to the flexibility that goes into the training and capabilities that our forces have.

This is one of the untold stories, but if you look at Combined Task Force 151 or at RIMPAC and at the ways we're brought in, you see that we're always at the top level in terms of integration. We are one of the few countries being given task force command in, say, some of the conflicts in the Middle East.

That's a testament to what we do, and it basically means that we have to unleash the navy to let them do this more and more, so that people are aware.

**Dr. Andrea Charron:** I would add that in addition to the hardware and software compatibility, which we often think of first, there are also the very important soft skills and exercises and forms that we tend to under-resource.

For example, when sequestration hit the U.S., the first thing we saw was that they couldn't participate in joint exercises anymore. That's a non-starter for interoperability; it really hurts us. We have to make sure that we're able to fund exercises.

Also consider things such as the Canadian Forces College, which brings together military and other government department representatives, especially at the NSP level, not only from within Canada but from outside. It's those connections that in the future can be really important conversation starters. We should not underestimate the importance of that NATO staff college system.

● (1255)

**The Chair:** Mrs. Romanado, you have the last question.

**Mrs. Sherry Romanado:** Thank you.

Actually, Professor Charron, you brought up a question I want to talk about.

We've heard a lot about the procurement and the fact that our Canadian Armed Forces have been able to manage a capability gap quite well, given our procurement issues. We don't talk a lot about the men and women who are currently serving. You brought up the Canadian Forces College.

You talked about the funded flying hours. In terms of domain awareness, it's one thing, but also in terms of recruitment and retention. We heard about that from the commander of the Royal Canadian Navy, that some of the challenge we have is that sailors want to sail. They want to be out on the water. They need to be practising. They need to be out there doing what they do best.

I'd like to give you an opportunity just to touch on that, on what we should be doing in terms of focusing on the training and development of our men and women who are serving, in spite of this capability gap, and in terms of future procurement projects, what we should be looking for to make sure that they are able to use these new systems, because it is a system of systems, the interoperability, and so on and so forth. I think it would be nice if we could hear about the importance of that.

As two academics, I'm sure you'd like to talk about training, and so on and so forth.

**Dr. Andrea Charron:** I would just say, yes. Any leader is always looking for opportunities to train, opportunities for their subordinates to be doing what they "signed up to do". Often training can be compromised because it's an easy place to save dollars, but especially when it comes to the navy and the Canadian Armed Forces, or the RCMP, the Coast Guard, and so on, it's that repetition; it's knowing what to do in crisis situations that is the reason we have such professional forces and police, and we're the envy of much of the world. So, yes, please continue.

**Mrs. Sherry Romanado:** Professor Huebert, do you have any comments on that?

**Dr. Robert Huebert:** Yes, absolutely. That's a critical point. As you and Dr. Charron have pointed out, often when we face financial crises, the first thing that goes is training because that's the budget item where people can say, "Okay, as long as we can still get the procurement projects going and as long as they're paying for the individuals, the expense of the personnel, we don't have to worry about training and we can cut that back."

I think there has to be a mechanism in place, and I've seen a couple of instances where commanders have tried to say to the political elites, "We need more training, full stop; the amount you've given me isn't enough."

The Coast Guard also faces this. I want to be very clear on that context. They tended to say, "Yes, sir, or yes, ma'am, what we're going to do, and we'll cut back on training."

There surely has to be some mechanism at one point, and this can't be open or arbitrary, where the commander says, "No, this is a crisis; we need to keep it going and I think you're making a bad decision." I don't know if we have that necessary capability that we can have that feedback from the commanders in the context.

We also have an interesting development from a longer-term perspective in terms of our new procurement. In most instances, most sea capabilities are going for much smaller crews, so we may be in the growing situation that for the individual sailors who go to sea, the crew sizing is going to be a lot smaller, and that may give us the capability of sending those smaller crew sizes out to sea. Of course, once again, how this transpires and works out, I'm not an expert in that field that I can say, but if in fact we do succeed in making crew sizes a lot smaller, we should be thinking very seriously about how much we're extending, but the extending of course then means that we have to have a very robust repair and mid-life extension issue. In other words, the more training you do, the harder it is on the sea frame, and that means further repairs in that particular context.

● (1300)

**The Chair:** Thank you both.

**Hon. John McKay:** I know that all professors are keen to know that their students have a job after their courses, so Professor Huebert needs to know that one of his students, one of his best students, is working for me now.

**The Chair:** Professor Huebert and Professor Charron, thank you so much for coming today. It's nice to see you again, and I'm sure we'll be seeing you in the very near future.

May I get a motion to adjourn, please?

Thank you.

The meeting is adjourned.







Published under the authority of the Speaker of  
the House of Commons

---

### SPEAKER'S PERMISSION

---

Reproduction of the proceedings of the House of Commons and its Committees, in whole or in part and in any medium, is hereby permitted provided that the reproduction is accurate and is not presented as official. This permission does not extend to reproduction, distribution or use for commercial purpose of financial gain. Reproduction or use outside this permission or without authorization may be treated as copyright infringement in accordance with the *Copyright Act*. Authorization may be obtained on written application to the Office of the Speaker of the House of Commons.

Reproduction in accordance with this permission does not constitute publication under the authority of the House of Commons. The absolute privilege that applies to the proceedings of the House of Commons does not extend to these permitted reproductions. Where a reproduction includes briefs to a Committee of the House of Commons, authorization for reproduction may be required from the authors in accordance with the *Copyright Act*.

Nothing in this permission abrogates or derogates from the privileges, powers, immunities and rights of the House of Commons and its Committees. For greater certainty, this permission does not affect the prohibition against impeaching or questioning the proceedings of the House of Commons in courts or otherwise. The House of Commons retains the right and privilege to find users in contempt of Parliament if a reproduction or use is not in accordance with this permission.

---

Also available on the Parliament of Canada Web Site at the following address: <http://www.parl.gc.ca>

Publié en conformité de l'autorité  
du Président de la Chambre des communes

---

### PERMISSION DU PRÉSIDENT

---

Il est permis de reproduire les délibérations de la Chambre et de ses comités, en tout ou en partie, sur n'importe quel support, pourvu que la reproduction soit exacte et qu'elle ne soit pas présentée comme version officielle. Il n'est toutefois pas permis de reproduire, de distribuer ou d'utiliser les délibérations à des fins commerciales visant la réalisation d'un profit financier. Toute reproduction ou utilisation non permise ou non formellement autorisée peut être considérée comme une violation du droit d'auteur aux termes de la *Loi sur le droit d'auteur*. Une autorisation formelle peut être obtenue sur présentation d'une demande écrite au Bureau du Président de la Chambre.

La reproduction conforme à la présente permission ne constitue pas une publication sous l'autorité de la Chambre. Le privilège absolu qui s'applique aux délibérations de la Chambre ne s'étend pas aux reproductions permises. Lorsqu'une reproduction comprend des mémoires présentés à un comité de la Chambre, il peut être nécessaire d'obtenir de leurs auteurs l'autorisation de les reproduire, conformément à la *Loi sur le droit d'auteur*.

La présente permission ne porte pas atteinte aux privilèges, pouvoirs, immunités et droits de la Chambre et de ses comités. Il est entendu que cette permission ne touche pas l'interdiction de contester ou de mettre en cause les délibérations de la Chambre devant les tribunaux ou autrement. La Chambre conserve le droit et le privilège de déclarer l'utilisateur coupable d'outrage au Parlement lorsque la reproduction ou l'utilisation n'est pas conforme à la présente permission.

---

Aussi disponible sur le site Web du Parlement du Canada à l'adresse suivante : <http://www.parl.gc.ca>