



HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

Standing Committee on National Defence

NDDN



NUMBER 018



1st SESSION



41st PARLIAMENT

EVIDENCE

Tuesday, December 6, 2011



Chair

Mr. James Bezan

Standing Committee on National Defence

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•(0850)

[English]

The Chair (Mr. James Bezan (Selkirk—Interlake, CPC)): Good morning, everyone. We're going to continue with our meetings for our study on readiness in the Canadian Armed Forces.

Joining us this morning is Vice-Admiral Paul Maddison, the commander of the Royal Canadian Navy, along with Chief Petty Officer 1st Class Claude Laurendeau, who is accompanying the commander this morning. I want to welcome you both to the committee and we're looking forward to your opening remarks.

You have the floor, Admiral.

[Translation]

Vice-Admiral Paul Maddison (Commander, Royal Canadian Navy, Department of National Defence): Thank you, Mr. Chairman.

[English]

Mr. Chairman, it is a great privilege for the Navy Command Chief Petty Officer Claude Laurendeau and I to appear before your committee today.

I would like to leave the committee with three key messages today. First, your navy's readiness is above all about protecting Canada's maritime interests at home. Second, those same interests require the navy to be ready to operate globally. And third, naval readiness is all about empowering the great Canadians who choose to serve their country at sea with the tools they need to get the job done.

Mr. Chairman, no single word personifies the navy more than readiness. It is at the very core of our service culture in our motto, "Ready. Aye. Ready."

[Translation]

In French, it's "Toujours là, toujours prêt."

In January 2010, two warships departed Halifax for Haiti, which only days before had been struck by an earthquake that left tens of thousands dead.

Their departure occurred within hours of a government decision to respond in Haiti. Over the ensuing weeks, as part of a larger Canadian Forces relief operation, the ships and their crews performed a wide variety of tasks to help Haitians restore a semblance of order and hope to their ruptured lives.

[English]

Mr. Chair, my job is to generate combat-capable maritime forces by translating the resources that I have been allotted into readiness. As the Chief of the Defence Staff has stated, readiness is about getting the right assets to the right place at the right time to achieve the right effect, from saving lives at sea to controlling maritime events through the actual or latent use of force. I will address how we approach readiness.

[Translation]

But first, allow me to describe what it means in a domestic context.

We maintain a "ready duty ship" in both Halifax and Esquimalt, with which Canada Command may respond quickly to events year round in our Pacific and Atlantic ocean approaches.

[English]

However, a major disaster at sea or ashore would require more than a ready duty ship. In 1998, for example, one of Canada's worst disasters at sea occurred when Swiss Air 111 crashed into St. Margaret's Bay. As that mission evolved from an urgent search and rescue effort into a major salvage operation, it encompassed eight warships, including one submarine, several fleet auxiliaries, and a range of maritime patrol aircraft and helicopters. In a similar vein, the navy's response earlier this year to Hurricane Igor, while smaller in scope, nonetheless involved the dynamic retasking of ships at sea to a mission of rapidly unfolding and urgent need in Newfoundland.

This year's flooding in Quebec and in the Prairies demonstrated another important facet of readiness, the employment of the naval reserve's part-time citizen-sailors from across the country in an important public safety role.

Mr. Chair, domestic maritime readiness requires an awareness of events unfolding in Canada's three oceans, a region roughly three-quarters the size of Canada itself, encompassing the activities of thousands of vessels at sea off of our coastline—the world's longest. Achieving awareness in our home waters is among our most complex information challenges. But that is exactly what we are doing, along with our federal partners in our coastal marine security operation centres. Considered among the best examples in the world of how to organize for collaborative information-sharing and coordinated whole-of-government action at sea, these centres permit the fleet to be at the right place at the right time.

[Translation]

That "right place" is sometimes found at great distance from Canada. For example, we help keep cocaine off Canadian streets through the counter-narcotic patrols we conduct in the Caribbean Basin and in the eastern Pacific. Among the more recent Canadian participants in this ongoing effort was the Victoria-class submarine HMCS Corner Brook.

[English]

Mr. Chair, the oceans no longer isolate Canadians from far-distant events the way they once did. That is why HMCS *Vancouver* is deployed today in the Mediterranean, the result of a government decision to keep her in a region of strategic interest to Canada. She recently completed a highly successful mission off Libya, a mission that saw her and the *Charlottetown*, the frigate she replaced, enforce a maritime embargo; conduct maritime intelligence and surveillance; escort and defend NATO mine hunters operating to keep ports open for re-supply; conduct littoral combat operations; and most importantly, defend civilians ashore through activities that enabled precision targeting of NATO air strikes against the pro-Gadhafi forces.

The *Vancouver's* current mission required no additional training. As a high-readiness frigate, she is prepared to undertake missions across the entire spectrum of operations, from non-combat evacuation, on the one hand, to naval combat on the other.

This flexibility makes warships among our government's most agile instruments of national power and influence. The *Vancouver* is deployed forward not just to allow NATO to prosecute a counter-terrorism mission, but the mission also demonstrates Canada's strategic interests, reassures our allies, and helps to prevent conflict in a region where the political change agenda is white-hot. It contributes to the safety of ocean commerce upon which, in this globalized era, our prosperity as a trading nation vitally depends.

Finally, she provides a "Swiss-army-knife" set of potential response options to unfolding events.

• (0855)

[Translation]

Both HMCS *Vancouver* and HMCS *Charlottetown* are part of Canada's high readiness task group, which is our principal maritime asset for major contingencies at home or abroad. The task group consists of: one air defence destroyer, which also acts as the command platform for an embarked commander; two or three general-purpose frigates; one underway replenishment ship; their embarked helicopters; and, when dictated by the mission, one submarine.

[English]

The task group is the vehicle through which Canada projects leadership abroad at sea, as we did most recently in 2009 when a Canadian commodore exercised command of an international counter-terrorism mission in the Indian Ocean. His ability to do so was based on two things: first, the task group's readiness to operate independently against an organized adversary, which permitted other nations to entrust national assets to Canadian tactical command;

second, trust by our allies in Canadian naval competence built over decades with our closest partners.

Mr. Chair, every vessel in the fleet follows an operational cycle that takes an individual ship or submarine and her crew from intensive maintenance periods and refits, through a progressive set of technical trials, team training, and warfare certifications to a state of high readiness. For every ship at high readiness, there are several others at different points in this operational cycle, much as a hockey coach has three lines on the bench in support of the line out on the ice.

The operational cycle moves ships and submarines in and out of Canadian industry as well as through the navy's materiel, technical, and training systems. Readiness at the fleet level is orchestrated through a 10-year fleet plan, which we use to integrate individual ship operational cycles with major fleet-wide activities such as the ongoing Halifax-class frigate modernizations, as well as the phased transition from today's fleet to the fleet of tomorrow.

[Translation]

Mr. Chairman, the Canadian Forces invests heavily in its people, and the navy is no exception. As mariners, our sailors are required to perfect their skills in the daunting waters of the north Atlantic and northeast Pacific, and increasingly in the high Arctic.

As warfighters, they are second to none. As ambassadors, they represent Canada not by their words but rather by their deeds.

[English]

Our sailors are the foundation of readiness, much of which, like warfare itself, comes down to intangibles, including their sense of purpose, their belief that they are making a difference, and the trust they hold in their leaders to attend to their welfare and that of their families for the often dangerous and always difficult work they do. We may operate among the most complex machines on the planet—these modern warships and submarines—but sailors are always first at the core of your navy's readiness.

Mr. Chairman, you will recall that I stated at the outset my three key points about the navy's readiness. We must be prepared to act in the national interest first at home and then abroad, and at the heart of this capability is the Canadian sailor.

Chief Petty Officer Laurendeau and I are driven by these priorities every day, because we believe that the demand signal for the Royal Canadian Navy to act in the national interest will continue to grow over the next several years.

We look forward to your questions today, but we also encourage the committee to visit the fleet at your earliest opportunity to witness first-hand how we proudly live by our motto, "Ready. Aye. Ready."

[Translation]

or "Toujours là, toujours prêt."

Thank you.

• (0900)

[English]

The Chair: Thank you, Admiral. We appreciate those opening comments.

On behalf of the committee, I would like to express our gratitude and congratulations on a great mission in Libya and the hard work of all the sailors of the Royal Canadian Navy. It definitely made a difference in what's happening in Libya today. I know that HMCS *Vancouver* is still deployed in the Mediterranean and will be there for a few more months. We're looking forward to their safe return.

With that, we'll open it up to questions. Seven minutes to you, Mr. Christopherson.

Mr. David Christopherson (Hamilton Centre, NDP): Thank you very much, Chair, and thank you very much, Commander, for being here.

First, on behalf of the whole House and the official opposition, as opposed to anything partisan, we extend our congratulations on an excellent mission. We're very proud and very pleased to have our folks back.

I'll also mention that my riding is downtown Hamilton. I have the HMCS *Haida* as a focal point of our pride and joy down on our waterfront. In fact, recently we celebrated 100 years of Parks Canada and Canada Day at the *Haida*. It's an important part of our community and reflects the respect and tradition that my community has in the armed forces, particularly with the navy.

My first question, I'm sure, is not going to come as any kind of a surprise at all, Commander. With regard to your 10-year fleet plan, I'd like to hear how the current and future plans for the subs fit into that overall. We'll start with that and then move on to the Arctic from there.

VAdm Paul Maddison: Thank you very much for the question.

I'd like to start by saying thank you very much for your comments on the mission in Libya. I had the privilege of being in the Senate gallery a couple of weeks ago when the Government of Canada—in fact, I would say all parliamentarians on behalf of Canadians—recognized what our sailors, men and women, achieved in that mission. As someone who's been in uniform for over 36 years, that was unprecedented. It was extremely powerful and spoke to that re-energized bond between Canadians and their men and women who choose to serve in uniform.

For many of the young sailors sitting in the Senate who had sailed with HMCS *Charlottetown*, many of whom, as the chief will tell you, had not anticipated what was coming when they were invited to come to Ottawa, that was a life-changing event. I would submit that some of those sailors who were considering what their future might hold will probably, 30 years from now, be talking about that day as the day they chose to remain in uniform for a full career. I would like to thank all of you for that.

• (0905)

Mr. David Christopherson: That's good to hear. Thank you, Commander.

VAdm Paul Maddison: Thank you very much for the question on submarines.

We are at the end of a long beginning. In fact, I can tell you proudly that HMCS *Victoria* sailed out of Esquimalt Harbour yesterday as planned, to commence a very deliberate series of workups, trials at sea, aimed at bringing that submarine and her crew to a state of high readiness early in 2012. These will include diving operations and full weaponization, meaning the firing and certification of that submarine on the Mark 48 heavyweight torpedo. This is great news.

Later in 2012, on the east coast, HMCS *Windsor*, six months after *Victoria*, will follow her in that path, such that by the end of 2012 we will have two high-readiness submarines operating on both coasts—which has always been intended.

HMCS *Chicoutimi*, currently in deep maintenance—the first submarine in deep maintenance through the Victoria in-service support contract on the west coast with the Canadian Submarine Management Group—will complete her deep maintenance in early 2013. She will ramp up to high readiness, so that we will achieve a steady state in 2013, which we have been working so hard towards for several years. We will continue to maintain one high-readiness submarine on either coast, a third submarine at a lesser degree of readiness but available for operations nonetheless, and a fourth submarine always in that deep maintenance, as the contract stipulates with the Canadian Submarine Management Group. We will run that cycle, sir, through to the end of class for that submarine. Those submarines will be available for operations first and foremost in our three ocean approaches, but they'll also be available for missions continentally.

For example, the *Corner Brook* was transiting around to the west coast earlier this year and participated in the Canada narcotics mission in the Caribbean basin and the east Pacific, and actually played a key role detecting and tracking what the adversaries had been able to bring to that illegal activity, that is, fully submersible self-propelled vessels carrying tonnes of cocaine. The *Corner Brook* was able to play an effective role in the east Pacific as she transited up. This is the sort of mission she will be able to participate in, as well as being ready to be deployed anywhere for Canada.

Mr. David Christopherson: To go little further on that, is four an optimal number for infrastructure purposes in maximizing the benefit? Do you need more? Do you see us acquiring more? Can you speak to that a bit? Four doesn't seem like an awful lot, given all the infrastructure that needs to be provided to maintain them, the training and so on. It's a lot of attention and money for four vessels.

VAdm Paul Maddison: Yes, sir. Thank you very much for the question.

I would say that four is the minimum. It follows from the previous class of submarines. This is the second class of submarine that the Royal Canadian Navy is operating. Previously, we also ran for Oberon class submarines. We have taken the establishment that we had to man, train, and operate four submarines and projected that forward with the Victoria class.

Given the Canada First defence strategy, given the investment plan that underpins it, given the fiscal environment we find ourselves in, I would not advocate for more submarines. However, I am very comfortable with the four we have. I'm very, very excited to see that we're at that end of the long beginning.

Mr. David Christopherson: I'm sure there'll be further questions. I don't have a lot of time. I've been to the high Arctic. I've been to the Northwest Passage, stayed in Resolute, so I have at least some sense of the terrain and what we're dealing with. Can you tell us what you see happening in terms, again, of the investment in infrastructure the government has talked about, on building up our presence there but without it providing a lot of details on that. Can you put some details into that, please?

VAdm Paul Maddison: Yes, sir, certainly. Thank you very much for the question.

The Arctic is assuming a greater and greater strategic interest for Canada and, certainly, from a sovereignty surveillance or patrol and presence perspective, the government sees the Canadian Forces sustaining a greater and more persistent presence there. From a naval perspective then, through the Canada First defence strategy, and ignited by the national shipbuilding and procurement strategy announced by the government earlier this year, we will see the Arctic offshore patrol ship 628 being built on the east coast soon, with the first ship being delivered in 2015 and one every year thereafter. That will increase substantively our ability to operate in the high Arctic through the navigable season, including in and through first-year ice and what we call old-ice occlusion. That project also includes the Nanisivik naval facility at the high end of Baffin Island, which will see a refuelling facility that will help to sustain our deployed presence there.

I would say to you that when ships deploy from Halifax to go to the Arctic, it's about the same as deploying across the Atlantic to the English Channel; and equally from the west coast, it's about the same distance as deploying to Japan. When we deploy ships domestically out of Halifax and Esquimalt into the Arctic, it is a major operation. Therefore, the infrastructure that will be developed in Nanisivik will certainly aid that.

We are also working very closely with our whole-of-government partners here. With all federal departments that have maritime jurisdiction, we are working together in the Arctic to be able to respond collaboratively across a whole number of events, tasks, challenges. That's what we do every summer, as you are aware, as we deploy for Operation Nanook.

The Chair: Thank you. The time has expired.

Mr. Norlock.

● (0910)

Mr. Rick Norlock (Northumberland—Quinte West, CPC): Thank you very, Chair. Through you, to the witnesses, thank you for coming this morning.

I just have to put a plug in for my navy league and *HMCS Skeena* and the group of young folks there. It's heresy in my riding to say this because we're basically an air force riding, but those young people can really put on a good show when they're graduating in other areas.

My questions are about recruiting. I guess before you can do all the good things that you've said you've been able to do, and what you'd like to do, you need people to do them. You used a hockey analogy, so I'll use one too: you don't go where the puck is, but you go where you think the puck is going to be. Using that analogy, I do recall reading a little bit of history about this—and, of course, last year was the 100th anniversary of the navy. During the Second World War there were often a lot of folks from the Prairies who joined the navy. We seemed to attract a lot of people from places where you wouldn't normally think people would consider a maritime or navy career. So I wonder if you could talk about what challenges you have today with regard to recruiting.

I notice from our readiness studies that there is a great need in the RCN for specific trades, because upon them lies your ability to do many of the things you want to do. I wonder if you would want to talk about the group of people who you traditionally draw upon, and where you think the future lies or the groups of people, the type of people, whom you like to draw on, and specifically the challenges that you're facing with regard to recruiting the people you want.

VAdm Paul Maddison: Thank you, Mr. Norlock, for that excellent question, and thank you for your comment on the navy league. I would like to say to you and your colleagues that I know that all of you in your constituencies support the navy, air, and army cadet events. I thank you for that on behalf of all of us. I believe that these are the finest youth development programs in Canada. They are jewels. If all Canadian parents were aware of these opportunities for their children, this program would be even more popular.

Your comments about the Second World War are germane. We had 1,800 sailors in the Canadian Navy in 1939; we had 100,000 in 1945. The two areas in the country that attracted the most young men into the navy were Winnipeg and Calgary, and I'm not sure why that was. It could be that the wheat looked like the sea, as it were, but just a different colour.

Some hon. members: Oh, oh!

VAdm Paul Maddison: Maybe folks just wanted to get as far from the farm as they could.

It's interesting to note that from 2004 to the present, while the Canadian Forces grew mainly in the land combat trades to enable the success of the mission in Afghanistan, the Royal Canadian Navy actually became smaller. That was not good. It was understood that it was where the recruiting focus had to go. We reached a point two or three years ago where we had to raise the flag and realize that if we did not give the navy a greater recruiting priority, we would not be able to sustain the readiness we needed to put the ships to sea to meet the six core CFDS missions. The Chief of Defence Staff tasked the Chief of Military Personnel, who runs the recruiting group in the Canadian Forces, to make the navy the priority. In the recruiting centres across Canada, we took in more and more sailors, and this was very good. It allowed us to get on track to recovery, and I'm pleased with where we are.

The challenge the chief and I have today is that 20% of our sailors are going through their basic training to get to their first operational functional point. This puts stress on our schools and our fleets, but it's the right kind of stress to have. The trends are all positive. The distressed trades, especially the marine systems technical trades and the naval electronics technical trades, will recover by about 2017, which is fine. The key is to continue to sustain that attraction.

What's important for me is to maintain an institution that is well led and has a clear vision, that treats people with respect and supports their families, and that attracts people to the service of their country at sea. That's where I put a lot of effort. When I visit our ships, when I talk to our sailors, as the chief and I did last week when we visited the *Vancouver* the Mediterranean, I see people who are happy, professional, switched on, trained, enjoying what they're doing, and feeding on the respect and recognition they get from Canadians. With that kind of environment, we will have no problem continuing to attract the finest Canadians.

I would say to you, without any bias whatsoever, that when I talk to other heads of navies, they always comment on the quality, the education, the self-confidence, the enthusiasm, of our young sailors, and they ask how we're able to do this. I think it's across the three services. We should be very proud in Canada that we continue to attract our finest men and women into uniform.

● (0915)

Mr. Rick Norlock: Thank you.

The Chair: You have 30 seconds.

Mr. Rick Norlock: Oh, dear. So I'll go really fast

The oil sands would be developed a lot further if they were not about 1,000 people short in the trades. I've been telling young folks who don't have a skilled job such as welding or plumbing to take a look at the Canadian Armed Forces. They can learn a trade in five to ten years, and they might find that they'd like to stay. Or they'd be ready to move into civilian life. Do you recommend those sorts of encouragements? If so, how do your recruiters address high school students, or even post-secondary students, to get the people you want?

VAdm Paul Maddison: Thank you for the question. We have a very active dialogue with the Association of Canadian Community Colleges, so we deal with the folks who attract people into community colleges. We do outsourcing with some community

colleges—like the marine institute in Newfoundland, affiliated with Memorial University—to do some of our training.

The recruiters are in the schools and community colleges. We talk to educators when we can at the political level and at the public service level, and to university and college presidents and guidance counsellors. It's all about communication, in my view. There continue to be some negative biases about what it means to choose to serve in uniform, even in 2011. I think it's very important to continue to have that very active, positive, dynamic dialogue with those who influence our children.

It certainly would help to see those who are responsible for the curricula in the provinces review from time to time whether they are giving the right messages about service and how important the sacrifices of our men and women in uniform have been in building and ensuring the freedom we take for granted today, and just giving the young men and women the tools they need to make the right choices when they become adults.

Mr. Rick Norlock: Thank you.

The Chair: Thank you.

Mr. McKay you have the last of this seven-minute round.

Hon. John McKay (Scarborough—Guildwood, Lib.): Thank you, Chair, and thank you, Vice-Admiral, for your contributions. On behalf of my party I would add our congratulations on a job well done.

There was an article in *The Globe and Mail* recently about Chinese businessmen wanting to purchase a golf course. There are some deep military suspicions that maybe the golf course isn't the only intention of the purchase of this, I think, 0.3% of the country. It's only a golf course, but it may have been in some respects a stalking horse for Chinese ambitions in the Arctic. Military officials suspect it's part of a Chinese plan to position strategic assets to be converted to ports and staging facilities.

It seems to be a bit of a game changer as far as threat assessment is concerned, but also sovereignty assessment—your ultimate tasking. While I appreciate that you may or may not be prepared to comment specifically on a golf course that might become a water hazard, I'd be interested in how you see those challenges in the near Arctic at least—and in the far Arctic—changing things and really affecting your ability to be ready to meet those challenges.

● (0920)

VAdm Paul Maddison: Thank you, Mr. McKay, for the excellent question.

I'll start off by saying that I think it's all about activity in the Arctic. It's all about increasing human activity in the Arctic. That is the challenge that is being presented to us and to all polar nations: how do you deal with the increased human activity from a maritime shipping perspective, and with the increased activities in the Arctic from increasing seabed resource extraction activities—enabled by technologies that just weren't available until recently—and with the effects of climate change and its impact upon our first nations? How do we deal with all of these pressures?

For me, the Arctic is like a parable in the 21st century of the kinds of pressures that are beginning to make themselves known upon the world's oceans, which have a direct bearing on Canadian national interests and the fact that the globalized economy floats. It needs to be kept open and rules-based, following the United Nations Convention on the Law of the Sea. Wherever there are illicit activities or trends that challenge the rules-based international order, I think we as Canadians need to be paying attention.

A few years ago it was brought to my attention that those who design ships for transoceanic commerce—the Maersks and the Daewoos of the world—had drawn up designs for ships that would be Arctic-capable in the 2020s and 2030s. What this signalled to me was that the shipping coming out of Singapore bound for Europe, instead of going west across the Indian Ocean, would go northeast of Japan, over the transpolar route, and into Europe that way. Why? It's because it's shorter and would save money.

What that tells me is that we as Canadians, from a naval perspective, need to continue to focus our priority on the Arctic and be able to develop a persistent “maritime domain awareness”, as we call it, a recognized maritime picture of what is happening in the Arctic, and to do so through a combination of deployed ships, space-based and other surveillance assets, working with our federal partners, the RCMP—

Hon. John McKay: Does this mean that you're likely to be putting a port up there sooner rather than later?

Vadm Paul Maddison: Well, it means that as part of the Arctic offshore patrol ship program we will be increasing or improving upon the infrastructure in Nanisivik, and creating a refuelling capacity there to sustain operations in the Arctic.

Hon. John McKay: The problem up in the Arctic is that it's rather “come as you are”. That is, if you don't have it in the bottom of the boat, it's not going to come for you. How does that affect the very large procurement process that you've engaged in? Are you in effect making all of your assets, if you will, Arctic-capable?

Vadm Paul Maddison: The Arctic offshore patrol ship is designed to be able to operate in first-year ice, which is about three-foot thick. This gives that class of ship the ability to patrol in the high Arctic and not be limited by what the ice is doing in any particular navigable season.

Other ships—the joint support ship and the Canadian surface combatant, both programs that are being delivered through the national shipbuilding procurement strategy—will have an ability to operate in the Arctic, but in the marginal ice zones. Of course, the Victoria class submarine is well equipped to operate on the ice edge.

●(0925)

Hon. John McKay: Are you becoming, in effect, far more dependent upon icebreakers?

Vadm Paul Maddison: The ice-breaking capability in Canada is with the Canadian Coast Guard.

Hon. John McKay: I know, and that's the issue.

Vadm Paul Maddison: My view is that as we move forward, the Arctic Ocean will become exactly that, the Arctic Ocean. The focus really needs to be, I think, upon operating in that blue water and in the green water, namely the archipelagic straits, and bays, etc.

Hon. John McKay: Thank you very much.

The Chair: Thank you.

We are moving into our five-minute round.

To kick us off, we have Mr. Strahl.

Mr. Mark Strahl (Chilliwack—Fraser Canyon, CPC): Thank you very much, Mr. Chair.

To the witnesses, thank you for being here today.

As I've said before, I haven't served myself. My grandfather was in the navy in the 1950s. He served on the *Athabasca* and on the *Skeena* in the boiler room, among some other ships. He has the tattoos to prove it. I grew up admiring those and his service in the navy.

As a result of that, this summer I chose to participate in the Canadian Forces program for parliamentarians, and I was able to sail with Commander Jamie Tennant on HMCS *Montreal*. I would just say to my colleagues here that if you haven't done that yet, you need to take that opportunity. If you're lucky enough to get on the first leg of the Great Lakes deployment, as I was, you should choose that—the Halifax–Trois-Rivières segment.

I want to talk about that a little, and about the Great Lakes deployment, and Operation CONNECTION. Could you perhaps describe that operation, its goals, and the positive benefits you've seen as a result of it?

Vadm Paul Maddison: Thank you very much, Mr. Strahl, for the question.

Canada is unique in one respect, that one in every five and a half or six Canadians lives in the Greater Toronto Area. Yet, just because of history, we do not need to sustain a persistent naval presence in the Great Lakes. So, going back to Mr. Norlock's question about how we attract Canadians to the navy, we have something that I refer to as Maritime blindness in this country. Most Canadians just haven't had the opportunity to make that connection between their country, the quality of life they enjoy, and the relationship of that quality of life to the economy, and how the economy, as I said, floats.

The whole intent of the Great Lakes deployments every year is to bring the navy to Canadians the way we can do on the Atlantic and Pacific coasts, but which is a real challenge here in the heartland. The intent is that we take a frigate like the *Montreal*, which is well led by Commander Tennant, and we say to the crew, “You are ambassadors for the Canadian Forces first and for the navy second. This is an opportunity for you to go out over the next six weeks or so and visit these great communities”—the larger cities like Toronto, Hamilton, and Montreal, and the smaller places like Trois-Rivières, Matane, and Cornwall—“and to connect with Canadians.” It’s an opportunity to connect with leaders across the corporate, academic, political, and philanthropic sectors to sort of deputize them and energize them along their lines of influence to bring the naval message to Canadians, but also to attract students, cadets, educators, their parents, and families on board to see and to hear the message of what the Canadian Navy does that really matters to Canadians.

Inevitably, what I see happening is that folks are initially really impressed by the technology—by this 5,000-tonne warship with a helicopter on the back. It very quickly arcs to their being impressed with the men and women who are standing there so enthusiastically telling them about what they do for Canada. For me, that’s always a win. That translates into attraction. We actually measure that. People come on board and say, “I’m intrigued. I’m 21 years old, and I like what I’m seeing here. What choices are available for me?” We get that person’s email address and give them some vectors towards a recruiting centre, or we follow up. We’ve been able to measure that these Great Lakes deployments every year have actually helped us on the recovery journey we’re on in bringing the distressed trades back to health.

Next year, in 2012, of course, our Great Lakes deployment will also be aligned with the bicentennial celebrations around the War of 1812. It’s another very powerful opportunity for the navy to be there in those communities, to be persistent with those messages, and, for example, to tell the story about Libya. It’s a very powerful opportunity for us.

● (0930)

The Chair: Thank you.

[Translation]

Ms. Moore, you have five minutes, please.

Ms. Christine Moore (Abitibi—Témiscamingue, NDP): Thank you very much.

I’d like to go back to the issue of submarines. The four submarines that Canada acquired were used and cost \$2.5 billion. That was \$750 million for the purchase, \$1 billion for refitting and \$1 billion for relaunching. We have invested a lot, at least more than what we originally thought, and these are used submarines.

I would like to know their lifespan. When do you think they will have to be replaced?

VAdm Paul Maddison: Thank you for the question, madam.

First of all, I would say that the submarines are excellent warships that have quite a complex system. They will last until 2030.

Ms. Christine Moore: That’s good.

VAdm Paul Maddison: Around 2015, I will have to establish a program to replace those submarines so that we have new capacity and to replace the Victoria-class submarines in the 2030s.

Ms. Christine Moore: You mentioned that those submarines could go up into the Arctic, but not at just any time. That’s limited by the seasons. As none is permanently stationed in the Arctic, I would like to know whether there are currently any submarines that could remain permanently in the Arctic and not be required to come back to other coasts in winter.

VAdm Paul Maddison: Thank you, madam.

Our submarines have previously been deployed to Arctic waters on two occasions, in 2008 and 2009. Some countries have submarines that can carry on underwater operations in the Arctic.

[English]

These submarines are nuclear propelled, and this nuclear propulsion gives them the ability to remain submerged for a very extended period of time. But they are also submarines that are built, from a safety perspective, with the ability to surface through the ice in an emergency. There are only a few countries that have that capability, for instance the United States, Russia, and the United Kingdom.

This is a very expensive capability to have. It is a very expensive capability to sustain. It requires very unique technical, operating, and maintenance skill sets within the fleet that we currently do not have. That technology does exist, but it is not planned for the Royal Canadian Navy.

● (0935)

[Translation]

Ms. Christine Moore: Do you think the fact that we don’t have the capability to be in the Arctic on a permanent basis undermines readiness? Does the fact that we are unable to cover the enormous Arctic coast as effectively as other countries undermine Canada’s response capability?

[English]

VAdm Paul Maddison: I would say that I’m very comfortable with the capability that our submarines have in operating in the Arctic in the marginal ice zone, that is, in the vicinity of the ice edge—which is where all the activity is occurring, including activity on the surface—in terms of surveillance, in terms of understanding what is happening in the Arctic, and being prepared to respond across the spectrum of operations whatever the contingency might be.

I think the Victoria class submarine is a very capable submarine that is now on the edge of achieving full operational capability. As these submarines work through their operating cycles, we are going to see them generating real effect—as they have already, but in a more persistent way—here at home, in the Arctic, and overseas.

The Chair: Mr. Chisu, you have the floor.

Mr. Corneliu Chisu (Pickering—Scarborough East, CPC): Thank you very much, Admiral, for your presentation.

Canada's navy is getting the equipment it needs to do its job. The latest decisions by our government were to increase the fleet of the Royal Canadian Navy. Regarding these contracts for the future, how will the Royal Canadian Navy members interact with the consultants and the contractors to build the right equipment and have right weapons with the right specifications?

I think it is very important for you to have input on the construction of this new fleet. How do you plan for this?

Vadm Paul Maddison: Thank you very much, sir, for the question.

First of all, I would say that the national shipbuilding and procurement strategy is a real forcing function in helping to energize those programs with these major crown projects and capital programs that are coming forward. My responsibility, as commander of the navy, is to define the requirement, the capability, of the ships that are planned to be introduced into the order of battle. It is to recommend those requirements to the Chief of the Defence Staff, and through him, to the ministers.

The Canadian surface combatant, for example, is a class of ship that will be built in Halifax and will be the follow-on to the modernized Halifax class frigates, such as HMCS *Montreal*, and the replacement for the Iroquois class destroyers, which are approaching end of life.

My responsibility is to look at the future security environment. What's happening at sea today? What are the lessons from Libya and from recent operations in the Horn of Africa and the Arabian Gulf? What are the trends in terms of the naval arms race in southeast Asia, and what's happening in the Arabian Gulf? Where do we think, in concert with the Department of Foreign Affairs and International Trade, that strategic national interests would really be affected in the future at sea? It includes looking at the Canadian Forces' defence strategy mission set, which includes, at the low end, humanitarian operations and at the high end, prevailing in combat. It includes looking at the threat and defining the requirement.

The requirement for the Canadian surface combatant is, first and foremost, that it be a ship that can deploy at range and can be sustained anywhere around the world, including up in the Arctic, for a sustained period of time. It must have the ability to act decisively and successfully in the increasingly complex and sophisticated operating environment in the world's littorals, such as off Libya, where we need to work with air forces and, in the future, land forces. That requires certain weapons, certain self-defence capabilities, and certain propulsion capabilities in terms of speed. It requires certain fuel and endurance capabilities. It requires habitability on board and accommodation for a certain number of sailors such that we have the redundancy on board to deal with battle damage and emergency situations.

All of that is put together into a statement of requirement. That moves forward to industry. What we are doing now with the Canadian surface combatant is going to what we call a funded-definition phase. Industry will be brought together to look at the requirement and build teams that will bid on the eventual contract for the ship. The teams will consist of the yard on the east coast, which in this case will be Irving Shipbuilding; a combat systems integrator, which is a company that brings the weapons and sensors together; a

platform systems integrator, which is the marine systems side of the house, dealing with power generation, electrical power distribution, auxiliary engineering systems, etc.; and a design agent, which is a company that specializes in designing very complex, dense warships.

This consortium will come together to look at the statement of requirement and, of course, at affordability in terms of the money that has been allotted in the investment plan for the Canadian surface combatant. At the end of the day, a selection process will occur. Of course, there's dialogue with the department throughout in terms of capability and the cost trade-offs. At the end of the day, the right platform with the right capability at the right price will go into the yard for the first steel to be cut. The Canadian surface combatant will be out around 2018.

• (0940)

The Chair: Your time has expired; I'm sorry.

Moving along, Mr. Kellway, it's your turn.

Mr. Matthew Kellway (Beaches—East York, NDP): Thank you, Mr. Chair, and through you, thank you for coming today, Vice-Admiral.

We actually met on the *Montreal* when you passed through Toronto last summer. I came down to get a sense of the frigate, because I was due the next week to head out on the *Ville de Québec* in the parliamentary program Mr. Strahl talked about.

This is a job that comes with very many privileges, but I have to say the greatest I've experienced so far was my time aboard the *Ville de Québec* with the sailors there. They were all so obliging and answered all of my dumb questions so cheerfully. In fact, they insisted on showing me and my colleague, MP John Rafferty, every square inch of that frigate, so that we understood exactly what it was that was going on there and what everybody did. So it was a wonderful experience, and I have great memories of my time with our sailors aboard the *Ville de Québec*.

When we were on the *Montreal* together—and you touched on this again today—you spoke about the global economy and how it floats. I think in the summer you elaborated a little more on the role of the navy in ensuring that the global economy kept moving. When you look at our resources in the Canadian navy, looking forward and contemplating even the new equipment, what's the view as to the deployment of these resources? What percentage or portion of those resources are going to be committed to activities that are all about ensuring that the global economy keeps moving? You talked on the *Montreal* about some pressure points around the world. Is the plan maybe to participate in some multilateral or cooperative ventures to ensure that some of those pressure points are kept open?

Vadm Paul Maddison: That's an excellent question and I thank you for it.

One of my responsibilities in terms of readiness is to always sustain the high-readiness task group. The high-readiness task group consists of the flag ship, two or three frigates, the underway replenishment ship, and maybe a submarine, along with maritime patrol aircraft and helicopters, all enabling that mission anywhere around the world.

The Department of National Defence maintains what we call a global engagement strategy. This is a recent development, and I think a very positive one, over the last couple of years. What that allows me to do in generating those capable forces at sea is to look at where best to employ them—for example, in the Arctic every year, yes; in the counter-narcotics mission in the Caribbean and the east Pacific, yes; and the forward deployment now in the Mediterranean, yes.

Earlier this year, I deployed a ship across the Pacific to participate in an advanced exercise with the Australians, the Americans, and other Pacific partners, off Australia and then forward to Singapore and to engage in a diplomatic way with our allies in South Korea and Japan.

So we can't be everywhere all the time. But there certainly are places where we want to have a presence and we want to continue to be interoperable with our allies, to be there beside them and to exercise leadership.

When the opportunity arises, as it did in 2009, for a commodore to embark and sail with the Canadian task group, in leading a multinational mission in a counter-terrorist mission in the Indian Ocean, that's a real opportunity for Canada to be viewed very positively by our allies and other regional players. So we will continue to do that. We'll continue to generate....

My responsibility is to set those priorities of where we will deploy and to establish the policy, the doctrine, and the standards necessary to ensure that our sailors continue to be the best and most competent; that our ships are maintained and our systems groomed to that highest degree of readiness; that they go through a very deliberate, measured, and assessed training period to bring the crew and the ship up to that right degree of readiness; and that we continue to provide the right oversight. That's what we will continue to do.

When I look at the future operating environment, I actually see it becoming more complex, more sophisticated, and more challenging. That is something that certainly concerns me as we move forward.

• (0945)

The Chair: Thank you.

The time has expired already.

I'm moving along to Mr. Opitz.

Mr. Ted Opitz (Etobicoke Centre, CPC): Thank you, Mr. Chair.

Through you to our witnesses, Admiral, Chief, welcome. It's good to have you here. As an infantryman, I love going aboard ship and I think my favourite part of any ship is the wardroom, so it's a lot of fun being aboard.

Chief Petty Officer, 1st Class Claude Laurendeau (Chief Petty Officer, Navy, Department of National Defence): Then you're hanging around in the wrong place.

Mr. Ted Opitz: You know what, I am an amateur sailor, having been in CISM sailing, and I'm here to tell you that the water off Esquimalt is cold.

Sir, with reference to the reserves, we see the numbers here on our reserve and regular force breakdown, but what role do the reserves play with the regular force navy, and how much sea time do reservists generally get?

VAdm Paul Maddison: Thank you very much for the question.

The naval reserve in Canada, first and foremost, is a strategic reserve. These are part-time citizen sailors who play a key role in engaging in their local communities and establishing a Royal Canadian naval presence in communities that are far from salt water, who get that message out and allow bridges to be built and dialogue to be encouraged. They allow folks to learn more about their navy, what it does for them, and encourages them to be able to ask the right questions, especially when it comes to choosing to serve. So, first and foremost, that's what our several thousand naval reservists do. We have 24 naval reserve divisions in Canada from coast to coast and, of course, in all of your constituencies, I'm sure.

Having said that, they are primarily involved in strategic engagement locally. One of the principles for our naval reservists is that they must be trained and prepared to go to sea, because at the end of the day a reserve is all about surge and capability when the need presents itself, such as when the militia was surged to support the Canadian Army in the mission in Afghanistan.

So all our sailors in the naval reserve choose a trade as officers or sailors and are trained in those trades. One of the key missions they do for the navy is crew our Kingston-class minor coastal defence vessels, the 12 that we have in the inventory.

What the chief and I are moving toward, because we found that this model is not sustainable, is what we call the "one-navy concept". I would like to see our naval reservists not only go to sea in the minor coastal defence vessels, but also have opportunities to go to sea in the larger major combatants—the frigates, the destroyers, and the underway replenishment ships—and that our regular force sailors also have the opportunities to sail in our Kingston class. We've begun to do this. I want to create a one-navy mindset, a culture where naval reservists and regular force sailors look at each other on an equal level. I think this is a powerful way to go forward.

• (0950)

Mr. Ted Opitz: I know those reservists are going to enjoy those opportunities aboard capital ships.

You mentioned your outreach program with reservists, but there's another component to this, the civilian side, which you employ through people like Canada Company, True Patriot Love, and your honorary captain system. How do you do that in promoting the navy to Canadians?

VAdm Paul Maddison: Thank you very much.

First, I'd say that when you said civilian it made me think about the public servants who are such an important part of the navy. I'm not only talking about the folks here in Ottawa, but really the fleet maintenance facilities in Esquimalt and Halifax, those civilian workers have a far larger effect for the navy than I think you would see on the air force or army side. These workers are actually critical in enabling the technical readiness of our ships and submarines to go to sea. So when I talk about the defence team in the navy, it's regular force, reserve force, and very much civilians who are the members of the team.

With respect to strategic engagement, we have about 20 honorary captains in the navy, all of whom have volunteered for what they see as an honour. They come from all political sides, from corporate leadership, and from academic leadership, and what they do for us is to act as ambassadors. They energize and activate their lines of influence, and whenever they have an opportunity, they will speak, like the chief or I do, to whatever gathering they're with. It's simply to bring that message forward and to bring feedback to me about ways in which I could better engage with Canadians.

True Patriot Love is a great example of an organization that recently held what was called the Atlantic Maple Leaf Dinner in Halifax. It raised \$700,000 for the Soldier On program for our families as well. We couldn't imagine this kind of initiative and leadership by the corporate and public sectors or private citizens 20 years ago. For folks like Chief Laurendeau—and, again, here I recall the recognition of the Forces in the Senate two weeks ago—this sends an incredibly strong signal about the new relationship based on respect and trust between Canadians and their Canadian Forces.

The Chair: Thank you.

Your time has expired.

[*Translation*]

Mr. Brahmi, you have the floor.

Mr. Tarik Brahmi (Saint-Jean, NDP): Thank you, Mr. Chairman.

Vice-Admiral, if I understood correctly, you said in your presentation that, as we speak, we have no operational submarines.

VAdm Paul Maddison: One submarine is currently at sea. The *Victoria* went to sea yesterday, as planned, to start trials so that it can be certified to a state of high readiness in a few months.

• (0955)

Mr. Tarik Brahmi: That means it is in a testing period. There are no operational submarines, no submarines that could be sent out on an operation tomorrow morning.

VAdm Paul Maddison: You're correct, sir.

Mr. Tarik Brahmi: That's what I understood.

We saw in the press in September that parts from the *Chicoutimi* had been installed in the *Victoria* to make it operational. Is that correct?

VAdm Paul Maddison: Yes, but that's normal.

Mr. Tarik Brahmi: So that information is confirmed. Parts were removed from the *Chicoutimi* and installed in the *Victoria* to make the latter operational. Correct?

VAdm Paul Maddison: Yes, that's it.

Mr. Tarik Brahmi: Now as regards personnel capability, we also read that the number of submariners who are operational and thus ready to work in a submarine had fallen from 300 to 80.

Is that the approximate number of submariners? Are you also confirming those figures?

VAdm Paul Maddison: Yes.

Mr. Tarik Brahmi: With the number of qualified submariners falling from 300 to 80, how can we maintain readiness among the Canadian Navy's submarines despite that radical reduction?

VAdm Paul Maddison: The key to solving that problem is to have submariners who are ready to go to sea to train more sailors who can become qualified submariners.

[*English*]

Just to confirm what you've said, sir, when we get to the steady state—which we are on the edge of achieving, with those two submarines at high readiness on either coast, a third ready for operations, and the fourth in deep maintenance—that will require about 420 or 430 qualified submariners, those who wear dolphins on their uniform.

I'm about 100 people short, but what I need to close this gap is, simply and clearly, to have submarines operating at sea to provide the people with the opportunity to actually have the sea time to earn their qualifications. That's what *Victoria* will focus on as she goes through her workups and achieves operational status. That's what *Windsor* will do when she does the same later in 2012. My sense is, and the plan is, that we will deliberately but smartly grow the submarine force so that we can sustain the steady state I have described.

My belief is that success begets success, and that as the submarines continue to succeed in operations, this will attract more—

[*Translation*]

Mr. Tarik Brahmi: Thank you.

What is our icebreaker capability in the Arctic? I understood that our submariners aren't operational year round. They aren't able to surface in the Arctic at just any time during the year because they don't have the capability that nuclear submarines have. We don't have nuclear submarines.

What impact can the fact that Russia is developing its 60-megawatt class icebreaker have on the loss of Canadian sovereignty in the Arctic?

VAdm Paul Maddison: Like Canada, Russia is an Arctic nation. And like us, their purpose is to establish a greater presence or capability in the north and to improve that capability.

[English]

Russia, like Canada, is very much interested in the advantages of increasing its economic capacity in the north through the Northeast Passage, which is increasingly open for navigation across the top of Russia. But the key in the Arctic, in my view, is to apply the principal tenets of the United Nations Convention on the Law of the Sea concerning territorial waters and economic exclusive zones, and that when there is contention, as there was between Norway and Russia in 2009, to negotiate the common ground and reduce any tension that might be building.

• (1000)

The Chair: Thank you. Time has expired.

Ms. Gallant.

Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC): Thank you, Mr. Chairman, and through you, thanks to our witnesses.

On the issue of subs, what role do our subs fill in the context of NATO?

VAdm Paul Maddison: Submarines and navies are all about controlling activities and being aware of activities that happen across the entire water column—below the surface, on the surface, and above. NATO certainly requires combat-capable, high-readiness forces to exert that sea control throughout that water column.

The best counter, Madame Gallant, against a submarine is a submarine, and so having submarines capable of detecting, tracking and, if necessary, engaging hostile submarines is a very important capability for NATO.

Mrs. Cheryl Gallant: Are there any advantages to having our diesel Victoria class submarines, over and above, for example, nuclear submarines? How do they play into the full picture?

VAdm Paul Maddison: Thank you.

I've recently come across an assumption that diesel submarines are noisier than nuclear submarines, and are therefore less capable. In fact, the opposite is true. Diesel submarines are actually very quiet, which means they can operate very covertly; detect a nuclear-powered submarine, for example; track it at close range without being counter-detected; and if necessary, engage.

There is a real value in having diesel-powered submarines with the same weapons capability as nuclear powered submarines. There is also value to having them, when necessary, forward-deployed in those strategic choke points—for example, at the Straits of Gibraltar, and at Suez, Hormuz, Bab-el-Mandeb, and Malacca, and the Panama Canal—where pressure can come to bear on international commerce.

Mrs. Cheryl Gallant: But you said our subs would be patrolling our coasts and wouldn't be deployed outside of our regional waters. So they would still be playing a role in NATO, even though you're not sending them to the Straits of Gibraltar or wherever.

VAdm Paul Maddison: I'm sorry, ma'am, if that's what you heard me say. It would be the choice of the Government of Canada, obviously, as to where these submarines would be deployed, but they are absolutely capable of being forward-deployed anywhere around the world.

As an example, the *Corner Brook* deployed in 2007 or 2008—I think it was 2007—to northern Europe, where she participated in an exercise to help work up the NATO Response Force. This exercise included submarine-on-submarine engagements, and we've done the same with our American allies. What has come out of these training exercises is an affirmation from our allies that the Victoria class submarines are very capable boats.

Mrs. Cheryl Gallant: Thank you.

Going back to your introductory remarks, you mentioned that with the Swissair 111, the search and rescue effort turned into a major salvage operation. It encompassed eight warships, including a submarine, several fleet auxiliaries, and maritime patrol helicopters. Why did it take so many assets to salvage a downed plane?

• (1005)

VAdm Paul Maddison: That's a very good question, and I thank you for it.

It wasn't just the navy and the air force; the coast guard and civilian fishing fleets were involved as well. It was an all-points bulletin of sorts, the reason simply being that it was a tragedy of enormous scope. It required a submarine to actually find the black box, which it did. It required a great deal of recovery effort in respecting the remains of those who had perished. It was a major operation that required a deliberate command and control network to be set up, in order to support the necessary flight investigation that took place in Shearwater, across from Halifax.

That's why so many assets were involved. I must say, it was a very challenging and emotional operation for our sailors, one in which lessons were identified with respect to post-traumatic stress disorder, and applied as we've moved forward here.

Mrs. Cheryl Gallant: What role do the maritime helicopters fill in search and rescue? We know we have the Cormorants through the air force, but do the Sea Kings and their replacements fill a role in search and rescue, as well as being able—

VAdm Paul Maddison: Yes, ma'am, and I'll be very brief.

In search and rescue, the air force Cormorant helicopters are the primary rescue assets from the air, and the coast guard provides primarily that marine on-water search and rescue capability.

But all Government of Canada ships, especially naval ships, are ready at any time to respond to a search and rescue request with their embarked helicopters. As well, helicopters that are on the shore in Shearwater, or at Pat Bay on the west coast, are available to fly directly at any time. When required, they provide that secondary SAR standby response, in the event that a Cormorant is not available or, perhaps due to crew rest issues, is unavailable to fly. There's a very dynamic play between the Cormorant community and the Sea King community in always ensuring that we have a rotary on-water response.

The Chair: Thank you.

Mr. Alexander.

Mr. Chris Alexander (Ajax—Pickering, CPC): Thank you, Chair.

Admiral, Chief Petty Officer, thank you so much for being with us and for that stimulating presentation and exchange. It's great to be hearing from the senior service, as we talk about readiness—and no offence to the army colleagues on my right.

Your remarks seem to focus quite rightly on three challenges that the navy in particular faces, the home game; the away game, contributing to international security, often in far away places; but also this question of protecting the global commons and the reality of our dependence on intense international trade overseas, to which Canadians like many others in the world are blind when we're not specifically reminded of that dependence.

The one place on Canada's coast where these three issues potentially come together is the Arctic, given that there are unresolved border issues and the potential for rivalries of various kinds. Looking at the naval shipbuilding program that stands before us, the new capability we have, the big one for the navy is the Arctic offshore patrol vessel .

Could you tell us specifically what that will add to our naval readiness posture, and are there other countries that have that kind of vessel, or are developing that kind of vessel?

VAdm Paul Maddison: Thank you very much for the question, Mr. Alexander.

Yes, there are other countries that have that kind of capability, certainly Norway and Denmark. When you look at what they have in their order of battle, they have that medium-sized, lightly armed but ice-capable and mostly constabulary vessel, which is what the Arctic offshore patrol ship will be. We are talking about a vessel that is not being built or designed to go in harm's way high up the spectrum of operations. In other words, we would not deploy an Arctic offshore patrol ship off the coast of Libya, or off the coast of Syria or Yemen, or wherever the next hot spot might be as this interesting century unfolds. But it certainly is aimed at providing the ability to be present and persistent through the entire navigable season, to be able to navigate to where we need to go, including through that first-year ice; to be able to respond primarily to security and safety kinds of events; and to be there alongside our federal partners in providing support when they are the lead agency, whether it's CBSA, RCMP, Coast Guard, Fisheries, etc.

The Arctic offshore patrol ships are Arctic and offshore. The offshore piece means that we will have an increased ability or more flexibility to patrol off the east and west coasts during those months when the Arctic is not navigable, until such a time the Arctic becomes ice free—if and when it does. This is something I'm very excited about. The AOPS will provide me with the flexibility to have ships available supporting Fisheries and Oceans, for example, on the Grand Banks in February—which, if you're looking for a really interesting opportunity for the parliamentary program, is quite an interesting time to be at sea off Newfoundland—or similarly off the west coast.

• (1010)

Mr. Chris Alexander: My last question is about the away game. You rightly say, and we all agree with you, that there's no way of

anticipating with a high degree of fidelity where the next major requirement for naval deployment far from Canada's shores might be. You spoke of a naval arms race in Southeast Asia. Obviously, piracy concerns continue in many parts of the world. And there's drug interdiction as well. Wherever it may be, there is the challenge of sustainment, which new forms of replenishment will help to mitigate but not tackle altogether. We know that other countries are looking at different models of sustainment. Deploying a ship and not having it come back, but having the crew go out and being replaced. With these strategic hubs—which may not involve much of a permanent presence but can be ramped up to support a naval deployment—what sorts of approaches are you taking to that challenge from a readiness perspective, in case the next major engagement we have is highly dependent on the navy operating in a far-flung part of this earth?

VAdm Paul Maddison: Thank you very much, sir.

I would say at the outset that one of the unique and very positive attributes of a country deploying naval capability is that it is self-sustaining. There is no need to flow a lot of infrastructure and supporting capacity into another country to enable that to larger or lesser degrees. The naval task group is a completely independent, self-sustaining capability.

We have deployed for six months repeatedly in the past, and we have become quite good at that. During Operation Apollo from 2001 to 2003, in the wake of 9/11, we sustained a continual presence in the Arabian Gulf as part of that international campaign against terror.

When we do deploy, the key is certainly the underway replenishment ship. It is not just about fuel, but also ammunition and supplies. It's a medical support base. It's a maintenance support base for helicopters. It's a critical enabler to that globally deployed presence.

We also send what we call a forward logistics team. We have a small forward team deployed in the Mediterranean now, from Vancouver. It's a small team that enables spare parts to get through customs. They fly over to make sure the helicopter can fly and the diesel generators get fixed, and those kinds of things, or to get folks home who have a compassionate issue that needs to be addressed.

We do that. That's why the joint support ship, which is one of the key planks of the Canada First defence strategy, and the first of the west coast projects to be built through the national shipbuilding procurement strategy, is such an important one. This will replace the aging *Protector* and *Preserver* steam-driven underway replenishment ships, and will sustain that forward deployed presence you speak of.

•(1015)

The Chair: Thank you. Your time has expired.

Before I turn it over for our third round, I have a few questions myself.

Admiral, you were talking about the submarines and some of the advantages we have with the diesel-electric submarines, the Victoria class submarines, over nuclear submarines.

You talked about the ice-breaking capabilities of the Russian, British, and American submarines. Is there any thought at all of developing ice-breaking technology for Canadian submarines, with either the Victoria class submarines we have now or in the future, to provide us with the ability to patrol full time in the Arctic?

VAdm Paul Maddison: Thank you very much for that question. With regard to the Victoria class, no. But as we move forward and, as I mentioned earlier, once we achieve that steady state, and as we look at running this class of submarine to the end of life—which I foresee to be around 2030, based on our current submarine life extension project to see how long we can sustain that capability and at what cost—at the right moment, we will bring forward a submarine replacement program to ensure that we sustain this undersea capability, which is vital to any navy like ours and any modern G-8 nation that wishes to lead internationally.

When that project is initiated, we will look at all emerging technologies, such as air independent propulsion. We will look at whatever technology we can apply to increase the Arctic and ice-vicinity operational capacity of a future submarine. We will also look at the hardening of the hull that is required in an emergency to allow that submarine to surface through the ice and to keep that crew safe.

This is something that I absolutely agree we will be looking hard at in the years to come.

The Chair: I also appreciated your earlier comments about the distance to deploy to the Arctic being the same as going to the English Channel or going over to Japan from the west coast.

You talked about having a fueling station at Resolute Bay to extend that deployment in the Arctic. Is there a requirement to have a fueling station in the west Arctic Ocean as well, for the capabilities of our Pacific fleet?

VAdm Paul Maddison: No, sir, I don't think there is. The naval refueling facility will actually be in Nanisivik, and not in Resolute. So it's more in the eastern Arctic. In fact, if you wanted to go across the Arctic through the Northwest Passage to the western Arctic, it would actually be easier to deploy from Halifax. It's a long haul across the northeast Pacific, west of the Aleutians and up around Alaska. As we look at basing in the future, we have to decide where to base our six to eight Arctic patrol ships. My sense is that we're going to want to put more of our capacity on the east coast, and we won't require a huge refueling capacity in the western Arctic.

The Chair: You mentioned recruitment and how so many prairie boys and girls signed up with the navy over the years. Being a prairie boy, I always figured it was because we like those broad horizons: the seas of grain turn into actual ocean horizons.

You talked about recruitment shortfalls, particularly with submariners. What other technical trades are at such a critical stage

within the navy that you need to find replacements to maintain your readiness?

VAdm Paul Maddison: A couple of years ago, I would have said there were a number of critical trades, but right now the trend is very positive. My folks have shown me how that trend will lead us to healthy trades across the board by 2017-18. But the ones that are still causing me concern as we regrow the force are the marine engineers—the ones who maintain the gas turbine engines and diesel generators and all of the ancillary systems that bring a small town together on a warship. I am also concerned about naval electronics technicians. This is a key tactical trade that requires top-drawer skill sets. These are the folks who maintain and groom our radars, our fire-control systems, our guns and missiles—and they are in short supply at the moment.

My biggest concern, though, is not with any of the sailor trades or technical trades, but with the folks in my classification, the maritime surface classification, or officers. I am short in that department, so we are conducting a comprehensive analysis of the factors at play. We want to find out how to attract more young men and women who wish to lead as officers in the Royal Canadian Navy, and aspire to command men and women at sea. How do I retain and motivate them? That's something I'm really focused on.

The positive side of that story is that with the promise of a completely recapitalized, reconstituted fleet, with the modernization of the Halifax class and the Aurora aircraft, together with the introduction of the Cyclone helicopter, the joint support ship, the Arctic offshore patrol ship, and the Canadian surface combatant, we are going to see a whole new, more capable navy 10 years from now. I think this attraction piece will take care of itself.

•(1020)

The Chair: Thank you.

We'll go to Ms. Moore.

[*Translation*]

Ms. Christine Moore: Thank you, Mr. Chairman.

I'm going back to my questions on the submarines, particularly the deployment time issue.

If we needed a submarine in the Arctic, in Alert, for example, how much time would it take to get there? I would like to know the time for submarines leaving the east coast and the west coast.

Our submarines are said to be incapable of navigating in the Arctic during a certain period of the year. If a submarine on the west coast in a state of advanced preparation is ordered to deploy to North Africa, how much more time will it take to get there compared to a submarine on the east coast? It must be kept in mind that it will have to go all the way around.

In other words, when a submarine has to go all the way around, by how much is that time increased?

VAdm Paul Maddison: Thank you, madam.

It takes longer to go into the north from British Columbia than from Nova Scotia. A submarine leaving Halifax will take about five or seven days to reach the Arctic, it could stop over in St. John's, Newfoundland.

It is important to have a submarine anywhere in the Arctic, although probably not in Alert, but rather off Baffin Island, for example. That sends a very strong signal to other countries that might send their submarines to our inshore waters. That's a very important aspect.

[English]

The Government of Canada will have a number of tools in the box for applying naval power to best strategic effect anywhere in the world, based on the advice that I provide to the Chief of Defence Staff. I certainly agree with you that we can see, and we'll probably see in the future, opportunities to forward deploy a submarine out of Halifax, perhaps to be forward-staged in the Mediterranean or somewhere in the vicinity of Africa. For example, last year or the year before, the Dutch deployed a submarine in a very effective counter-piracy mission. Similarly, if regional tensions arose in southeast Asia in a way that compelled the Government of Canada to act through a naval presence, then we could forward deploy a submarine via Hawaii or Guam, for example, and operate from there.

• (1025)

[Translation]

Ms. Christine Moore: Could you state in days the additional time necessary for a submarine leaving British Columbia to go all the way around to Africa, compared to a submarine leaving Halifax? How much extra time will that take?

VAdm Paul Maddison: I'm going to consult my team so that I can give you the exact figures in response to your question, madam.

Ms. Christine Moore: Thank you.

What is the minimum number of warships that Canada must keep? What is the lower limit?

VAdm Paul Maddison: That's a good question.

I would answer that we have enough. However, Canada is a large maritime country that has a very large coastline.

[English]

I would say that we need to maintain the current fleet mix of 3 destroyers, 12 frigates, 4 submarines, 2 underway replenishment ships, 6 Arctic offshore patrol ships, and 12 minor coastal defence vessels. That number of ships is the right size for Canada. I would be uncomfortable going below that, because it would affect my ability to have a persistent presence and surveillance on the coasts.

Merci, madam.

The Chair: Can I get a clarification? You talked about the number of vessels. How does that compare with, say, Australia?

VAdm Paul Maddison: It compares very well, sir. It's very comparable. It's very interesting to compare Australia and Canada as

what we would call a medium power navy, with our similar populations and resources assigned by government and the same sort of national interests. They are much more seized by what's happening in southeast Asia currently, because of geography, than perhaps we are. We are going through a similar type of recapitalization, so there are real parallels.

The Chair: Mr. McKay, the floor is yours.

Hon. John McKay: Thank you, Chair.

Like Mr. Strahl and Mr. Kellway, I too was on a boat this summer, the *St. John's*. I quite enjoyed the experience and was exceedingly impressed by the quality of the crew. They were very thoughtful people and they too showed me, as in Mr. Kellway's case, pretty well every square inch of the place. I thought they were going over the edge when we got into the stores. One freezer, fine; two freezers, okay; but—

• (1030)

VAdm Paul Maddison: They love their job. They love what they do.

Hon. John McKay: They do indeed, and they're very proud of what they do. And from what I could see, they do it very well—although I felt sorry for the captain, because pretty well anything that could go wrong did go wrong, and that was all part of the experience.

The chair anticipated my question regarding the conversations I had on the ship about the frustrations about personnel and trying to.... So I won't go there, because I thought you gave a good answer to the chair.

There's an article in this morning's paper about charting, saying that the Soviets have far superior charts of the Arctic than we do. From what little I know about sailing, you live and die by your charts. Apparently in the Arctic we had three groundings, or some sort of accident, over the course of the summer, which arguably could be blamed on the inadequacy of our charts, both at surface and I guess at depth. The article says it would take us 300 years to catch up in hydrological charting and that there may be a buying opportunity from the Soviets with respect to the quality of the charts.

I'd be interested in your views with respect to the quality of our charting knowledge in the Arctic.

VAdm Paul Maddison: Thank you, sir. That's a really good question.

I haven't read the article you referred to; I wish I had.

I would say that the Russians certainly have put considerable effort over several decades into their Arctic capability, obviously including their hydrographic services.

When I talk to my captains and navigators, they share your concern. There are areas in the Canadian Arctic archipelago where charts are not to the standard, or areas that have not been explored recently, so there are challenges. When our folks deploy, this plays very much into the captain's risk reduction calculations concerning where he is going, at what speed, and under what conditions.

I agree with you that there needs to be a greater effort here in future, as the Arctic opens to greater human activity, to see surveying move forward to a much better level.

Hon. John McKay: Whose responsibility is this? Is it a civil or a military responsibility to obtain that kind of information?

Vadm Paul Maddison: It is a civil responsibility, but of course we rely heavily on those charts.

Your question about access to Russian charts is a very good one. I recently had the opportunity to meet the commander of the Russian navy at the International Seapower Symposium in Rhode Island—which, by the way, was the largest gathering of heads of navy in history. There were 90 heads of navy. It was a very powerful meeting. I had an opportunity for a bilateral meeting with the head of the Russian navy, Admiral Vysotsky.

So I thank you for your point, because I will raise it, hopefully, when I visit Russia in 2012.

Hon. John McKay: Now that we're still talking to them, that's probably a good time to raise it.

Okay, thank you.

The Chair: I was on the icebreaker *Amundsen*, a coast guard vessel, in the Hudson Bay a couple of years ago, and they were doing mapping of the seabed at that point in time. I know that every year they're trying to bite off another part of the Arctic and to do as much mapping as they possibly can with new technology. It's good to know that they're out there, but there's a lot of water up there, a big amount of space that needs to be charted already.

Vadm Paul Maddison: Yes, sir, I agree with you that the whole-of-government capacity that we have is being applied to full effect here. It's just a matter of time.

The Chair: Thank you.

Mr. Strahl.

Mr. Mark Strahl: Thank you, Vice-Admiral.

When I was on the *Montreal* for those few days, there were some army and air force personnel on the ship as well. As we've done our study on readiness, we've heard about the improved relationship between the army and the RCAF.

I'm wondering if you can talk a bit about your interaction with the Canadian army and the RCAF. What do you do in terms of joint training? And has that relationship perhaps changed at all over the last five years so that you are capable of conducting joint exercises? How do you interact with the other parts of the Canadian forces?

• (1035)

Vadm Paul Maddison: Thank you, sir. That's an excellent question.

The relationship between the heads of service is extremely positive right now and it has been for several years. From a joint perspective, the Canadian navy and the Canadian air force have been operating together for decades. Ever since we in Canada perfected the technology necessary to embark Sea King helicopter detachments and fly them off ships in sea-state 5 conditions, and to be really integrated into our ships' companies as an integral combat system in that ship, we've had that very close joint relationship with the air force.

In Afghanistan—where we had an air-land campaign in that landlocked nation—I still generated 50, 60, 70 sailors for every rotation, sailors who were there in Afghanistan on the ground, dressed in CADPATs and looking very much like soldiers. They were clearance divers who were outside the wire playing a key role in the counter-IED mission. They were junior officers in the intelligence joint operations centre in Kandahar. They were supply technicians. They were cooks. And so we were there. In fact, today I have a commodore, three captains, a chief petty officer, and about 40 sailors all part of the training mission in Afghanistan. So there you see that joint and integrated culture moving forward.

From a land and navy perspective, how we operate together is a bit of a challenge. General Devlin and I talk about this frequently. We saw it clearly in the wake of the earthquake in Haiti, where we saw our ships operating off the coast of Leogane and Jacmel. We were going ashore to do good in support of the Haitians who were suffering, and we were working alongside soldiers and airmen and airwomen there and actually bringing the soldiers back to the ships for some respite and then taking them back into the mission ashore.

General Devlin and I, and General Deschamps, are working together on how to increase our interoperability and integration from a platform at sea. When we deploy next into the Caribbean, for example, I will invite an army sub-element or a small platoon or section to come on board and to work with my team, our sailors, and to go ashore in some of our partner nations in the Caribbean and work there.

We also are working very closely together with special operations forces and our well-trained naval boarding parties to take it to the next level in our capability, which is the ability to engage, from the sea, a vessel that is non-cooperative. For example, this could be a vessel that might be involved in a terror-type mission, involving hostage-taking, or in a piracy-type mission. There are a whole number of means by which we are pushing that joint and integrated capacity forward.

Mr. Corneliu Chisu: Thank you very much.

I just would like to return for a moment to the Arctic. We know that we have friends, we have foes, and we have the usual suspects. We also have the Chinese, who are emerging as a naval power and, personally, I'm concerned. From my background, I am concerned about the Chinese and I don't trust them in the military sense.

Are you planning more exercises in the Arctic or training exercises with, let's say, friends or allies in NATO? We had the incident with Hans Island. I'm just asking if the Royal Canadian Navy is concentrating on doing some more exercises in the Arctic?

•(1040)

Vadm Paul Maddison: Well certainly, sir, we exercise in the Arctic every year, and this is led by the commander of Canada Command. My responsibility is to train and generate ships and sailors to participate in that exercise, and each year, hopefully, to make it incrementally more challenging and to introduce more capability and knowledge and to identify new lessons that need to be applied. I continue to see the Arctic area as a great opportunity to be a forcing function for international dialogue, cooperation, and partnership.

To go to your question about China, I share your concern. Here is a country that is clearly emerging as a very influential world power, which has every right to bring a very capable blue-water navy into being, like Canada and our allies. The key will be to see how China employs its navy as it moves from a more coastal to a globally deployable capability, and to ensure that its intent is always to enable the system of the world as opposed to complicating it.

In my view, the key here is the United Nations Convention on the Law of the Sea and ensuring that all who use the sea respect this treaty, this very powerful convention, and that when nations act against the way that we have all agreed it should be followed, that we be prepared to stand up alongside one another and make sure everyone gets the right message and is encouraged to be part of the international community.

The Chair: Thank you.

Vice-Admiral Maddison, Chief Petty Officer 1st Class Laurendeau, I want to thank both of you for your participation today in our hearings on readiness. These are exciting times for our Royal Canadian Navy. Again, please pass on our congratulations and appreciation to all members of the Royal Canadian Navy, the sailors and the officers, for such a great job in Libya and the great job they're doing every day, day in and day out, across this great expanse we call Canada, the country we love so much.

With that, I'll take a motion to adjourn.

It is so moved.

The meeting is adjourned.

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