

**THE STANDING SENATE COMMITTEE ON TRANSPORT AND
COMMUNICATIONS**

UNREVISED EVIDENCE

TERRACE, Wednesday, April 17, 2019

The Standing Senate Committee on Transport and Communications, to which was referred Bill C-48, An Act respecting the regulation of vessels that transport crude oil or persistent oil to or from ports or marine installations located along British Columbia's north coast, met this day at 1:03 p.m. to give consideration to the bill.

Senator David Tkachuk (*Chair*) in the chair.

The Chair: I call to order this meeting of the Standing Senate Committee on Transport and Communications. This afternoon we are studying Bill C-48, An Act respecting the regulation of vessels that transport crude oil or persistent oil to or from ports or marine installations located along British Columbia's north coast, called the "Oil Tanker Moratorium Act."

We are honoured to be in Terrace this afternoon to hear from witnesses on this bill, and I will ask all senators to introduce themselves.

Senator Cormier: Good afternoon. Senator René Cormier from New Brunswick.

Senator Gagné: Hello, I am Raymonde Gagné, from Manitoba.

Senator Dasko: I am Donna Dasko from Toronto, representing Ontario.

Senator Simons: I am Paula Simons, senator from Alberta, from straight down Highway 16 in Edmonton.

Senator MacDonald: I am Michael MacDonald, from Cape Breton, representing Nova Scotia.

Senator Smith: Larry Smith, Hudson, Quebec.

Senator Patterson: Dennis Patterson, representing a territory with Canada's longest coastline, Nunavut.

Senator Miville-Dechêne: Julie Miville-Dechêne, Montreal, Quebec.

The Chair: And I'm David Tkachuk. I'm from Saskatoon, and I am representing the province of Saskatchewan and the region of Western Canada.

I'm pleased today to welcome, from the City of Dawson Creek, Mr. Dale Bumstead, who is the mayor; Mr. Ellis Ross, the MLA for Skeena; from the City of Fort St. John, Ms. Lori Ackerman, the mayor; and from the District of Kitimat, Mr. Philip Germuth, mayor.

We'll just start with Mr. Bumstead.

Dale Bumstead, Mayor, City of Dawson Creek: Thank you so much. Bonjour. My name is Dale Bumstead. I am the mayor of the City of Dawson Creek, and a proud member of the Métis Nation of British Columbia. [*Indigenous language spoken.*] Thank you for giving me the opportunity today to present to the Senate committee.

Dawson Creek, on Mile 0 of the Alaska Highway, is a small city in northeastern British Columbia, founded in the early 1900s. And it might seem unusual, why we would be here today requesting an opportunity to speak to the Senate committee on Bill C-48.

We're a little city that was founded in the early 1900s based on agriculture. That's the foundation of our community. The railway came into Dawson Creek in 1931 to serve the agricultural products and distribute them across North America.

After the Pearl Harbour bombings in 1941, the U.S. needed an overland route to Alaska to protect their homeland, and the only way to do that, to build that Alaska highway, was to bring those troops into Dawson Creek at the end of the railway, the end of the line. And 10,000 troops came into Dawson Creek in March 1942, and away went the construction of a 1,500-mile highway that opened up northern British Columbia, Yukon, and Alaska with the building of that highway in nine months; an engineering marvel.

And over the years we've progressed as a small city, with transportation being, obviously, a key component of our community, our economy. Tourism and agriculture. Through the years, then, mining became a component of our community, forestry.

But with the evolution of the natural gas sector and the shale gas, the unconventional development, the unconventional resource development of natural gas in the Montney. The Montney is a huge, huge natural gas reserve. It's probably one of the top five reserves in North America today. It was looked upon as being one of the top five when it was first discovered in the early 2000s.

And I want to expound upon that, and that's really the purpose of my being here today, was to talk about how prolific those resources have proven to be for our region, our province, our country. And it is now one of the largest natural resources, it is one of the most prolific. There are five in North America that are looked upon as being the resources that are providing the unconventional resource to the world: the Montney; the Duvernay in Alberta; the Marcellus in the eastern States, Ohio, Pennsylvania, New York; and down in Texas, the Permian and the Eagle Ford.

And so part of what happens in the natural gas development in this unconventional resource development, in the shale gas, in the rock, are these reserves, these resources. And I want to talk a little bit about this today. I didn't realize there would be as many here today, so I don't have

enough copies for everyone, but I do have an electronic version that we've passed on, and it talks about the age of the ultra-liquid resource, the Montney.

And in this resource contains these prolific reserves of natural gas. Along with it come these liquids, they're called, natural gas liquids, and at the bottom of that scale is condensate, is light oil.

And I listened to some of the testimony and the statements earlier today about Saskatchewan and Alberta, and how to get that oil to the world. Well, in northeastern British Columbia, there is probably in excess of 20 to 30 billion barrels of oil within the natural gas, and it's that prolific.

Gas Metro in Quebec produces and distributes probably 200 billion cubic feet of gas per year. The Montney today, in proven reserves, has in excess of 100 years' worth of proven reserves, producing 8 to 10 billion cubic feet of gas per day.

So if LNG Canada, Kitimat and LNG, one other LNG project were built and could produce 8 to 10 billion cubic feet of gas per day, The Montney has in excess of 100 years' worth of reserves, with proven potential.

These world-class resources, these world-class reserves, are giving us the opportunity to provide the world, globally, with reserves and resources, fossil fuels. We touch fossil fuels in every aspect of our daily life. I think the perception is that we touch fossil fuels only in home heating and the fuel for our vehicles, but everything that we touch in our daily world as a consumer touches the petrochemical industry and the fossil fuel industry.

Over 100 years ago, when man first started using hydrocarbons for heating, for transportation, for cooking, or for light, those same hydrocarbons are in use today. So they've been in use, and man is using them a lot more efficiently.

But my point about why this is so important to us is the natural gas sector, when you get the natural gas out of the ground to provide it for the liquefied natural gas industry, that we hear so much about LNG, we don't get those reserves out of the ground without the associated liquids, the propane, the butane, and the condensate. And the light oil finds that exist in northeastern British Columbia today are marvelling and are matching those that exist in Alberta and Saskatchewan today.

And without us having access to the global market, it is impacting us in our regions, our communities, our province, and our country. In the province of British Columbia, the medical premiums, the medical costs of our province, it's expected that it was going to rise by \$3 billion in the next three years. That money is coming from the development of the resource sector. It has to come, and the social programs that we provide to our communities and to the province and to the country are built upon those reserves. LNG Canada, \$7 billion, \$7.5 billion in GDP.

The Chair: You're so enthusiastic, I don't want to --

Mr. Bumstead: Thank you so much, and I appreciate the time. I'm happy to answer your questions.

The Chair: I didn't want to do it, but go ahead. You can finish up, if you have a paragraph to finish off with.

Mr. Bumstead: So, for us, it is about allowing global access. We need to ensure we have global access to these resources. Without global access, we are going to lose so much opportunity, and we do it the best.

And I think the one thing that I do want to stress is that it's the British Columbia Oil and Gas Commission that regulates the development of the industry in British Columbia; it's not through any other process. We have the best regulatory system in the country and in North America, in the development of this reserve, and for us it is absolutely about the development of these world-class reserves for the benefit of global access.

Thank you so much for giving me the time today.

The Chair: You're welcome; thank you very much. Mr. Ellis Ross, MLA for Skeena. Welcome, Mr. Ross.

Ellis Ross, Member of the Legislative Assembly of British Columbia for Skeena, as an individual: Thank you. And what I want to talk to you about is, as a newcomer to provincial politics and national politics, I want to talk to you about a trend that I've seen in B.C. and Canada over the last five years, and it only seems to be getting worse.

To get to the bottom line, the deck is being stacked against Canadian resources, and it's Canadians and Canadian governments that are actually doing the stacking. Which would be fine, but none of this seems to be based on facts or truths, and it certainly doesn't seem to be based on the interests of Canadians or what's best for our future.

If it was based on facts, these types of proposals would be aimed at all types of industries and jurisdictions across the board, equally, and that is not happening.

I'll give you an example. One of the reasons given for blocking Canadian tankers on the west coast of B.C. is the threat to orcas. Even Governor Inslee from the state of Washington made this comment about the threat to orcas from tankers. But he didn't mention his own oil tankers travelling from Alaska to Washington State to feed refineries, and they park right across from Victoria, B.C.

The B.C. government also made similar concerns about orcas in terms of shipping, but failed to mention that increased traffic coming from an increase of cruise ships visiting Vancouver or even the B.C. government's plans to ferry sailings along the B.C. coast would not affect orcas. They never mentioned that. Somehow B.C. ferries, international cruise ships, and Washington State oil tankers have a secret technology that avoids orcas, but Canadian tankers, including LNG tankers, don't.

I mean, if that's the case, why don't we put this secret technology on oil tankers and LNG tankers?

And by the way, Governor Inslee's commitment to block Canadian tankers is not an idle threat. The newly enacted B.C. Environmental Assessment Act has a provision in it that says B.C. environmental assessments can be stalled in B.C. if a neighbouring jurisdiction mounts a formal challenge, and this includes the United States. And I don't believe there's a reciprocal clause in the United States.

My real concern here is that there is no formal institution that is tasked with separating fact from fiction or rhetoric from truth. And I thought this would be an obvious job for government, because we can't expect the average citizen to decide what is legitimate information or what is an unbiased authority on information, and nor should they be expected to do so.

I myself, over the last 14 years, have had to hold myself to a higher standard to decide what is fact and what is fiction, but it's a struggle I deal with every day. Social media doesn't make it any easier. What I find is, as a society, we are starting to listen more to political ideologies, statements from burned out rock stars, and visiting Hollywood actors, instead of basing our decisions on experts from specific fields and related jurisdictions.

I don't know if this is how it's always been done, but I'm very surprised and disappointed that this is happening now at all levels of government, because governing and politics are supposed to be separate, in my mind. They are two separate processes, and they should not be combined. And if we can't depend on our own governments to sift through what is fact and what is propaganda, then what else can we depend on as citizens?

I learned over 15 years ago that what's best for the majority of my constituents isn't always popular, and those decisions that I made went against the grain. But most understood the decisions when the facts were laid out, and overall we described that it was best for the long term.

I can see these types of measures like Bill C-48 and Bill C-69 obstructing --

The Chair: Just move back a little bit, because the microphones are so sensitive.

Mr. Ross: Sorry about that. I'm just trying to rush through my five minutes.

The Chair: Don't rush. You're only at 3:50, so you have a long way to go.

Mr. Ross: Is that right? So I've got 15 more minutes? Okay.

I can see these types of measures spreading to obstruct other industries, like LNG, which I fully support.

Now, I don't want you to think I'm here advocating for the oil and gas industry, or the mining industry, or the forestry industry. I'm not. I just see this as unfair to Canadian resources and to the Canadian economy, to the delight of our competitors and economic activists. The U.S. is already laughing all the way to the bank, and these kinds of bills will have them rolling in the aisles.

With these types of bills, like Bill C-48 and Bill C-69, in combination with the provincial bills and acts that are created to create more red tape and to stall more projects, we're giving in to politics. We're giving in to propaganda instead of thinking about responsible government. Instead of responsible decision-making.

The result has been a bit of a Gong Show, with Alberta, B.C., and Canada in a three-way standoff, with Washington State poking the fire. And it doesn't make sense. We cooperate with other countries fully and whole heartedly, but when it comes to cooperating with provinces and Ottawa, we fight. We fight amongst ourselves. We fight about oil. We fight about wine; of all things, wine. And we encourage this with ideologies and political grandstanding and propaganda.

And if we continue to encourage this infighting based on propaganda and ideology instead of good governance, we will be the next country to fail. Venezuela, who believed political ideologies, who believed in everybody gets to get the best of everything in life, is paying a heavy price now. Their country has collapsed, and they are rich in resources, just like Canada.

This is not good governance. Good governance is treating everybody equally, including industry, including our resources. This is not how Canada was built, and it's not how we should build it into the future. And it's definitely not what we want to leave our descendants, when we think about our kids or our grandchildren, thinking about leaving the province or the country to find a job. Thank you.

The Chair: Thank you, Mr. Ross. That was pretty good.

Ms. Ackerman.

Lori Ackerman, Mayor, City of Fort St. John: Thank you. Good afternoon. I want to thank the Senate committee for this opportunity to speak on an issue that is vital to the economy of Canada. I also want to acknowledge that we are gathered here on the traditional territory of the Tsimshian First Nations, the Allied Tribes of the Lax Kw'Alaams, and the Nisga'a First Nations.

By way of introduction, my name is Lori Ackerman. I am the mayor of Fort St. John, and I have had the pleasure of living in all four western provinces. Our city has carried the title of Clean Energy B.C.'s Community of the Year, and we are B.C.'s energy capital. We also work with the Federation of Canadian Municipalities in Peru on building sustainable communities, and we have linked our strategic plan with the United Nations sustainable development goals.

In a nutshell, we understand the fragility of communities in the fact of national and provincial decisions.

What I want to share with you is a story of our community and how we managed in the fact of industrial development on our doorstep outside of our jurisdiction, and that's B.C. Hydro Site C hydroelectric dam, the third dam on the Peace River. The other dams had been developed decades prior, and we had no knowledge of the construction and how that would impact a community.

We could have immediately joined the Make the Lake Committee or the Damn the Dam Society, but as policy makers, it's our job to provide an opportunity for a safe environment to listen to those who are going to be impacted, so we took a pragmatic approach.

Most residents get up in the morning and they don't really know who provides their services to them. They just expect the water to be there, the water to leave; they expect the roads to be there; they expect that all levels of government are going to work together, well, to provide them with health care, education, and public safety. And they don't know how we do that, and there are days we don't, either, but it remains our job to listen to our residents.

The environmental assessment process allowed us to be the voice of our community and the residents to engage and voice their concerns. The job of the Environmental Assessment Office is to make the recommendations on the impacts of each individual project, based on what they have heard and what the real science tells them. With engagement, involvement, and dedication, Fort St. John has managed to show how we could be impacted by that project, outside of our jurisdiction and outside of our sphere of influence as a local government.

With these facts armed, we negotiated a community measures agreement that works. It's possible, and I would be more than happy to provide your staff with an electronic copy of our community measures agreement and our Peace River agreement with the province.

We have seen projects where proponents are not able to manage those recommendations within the financial framework, and therefore the investment stops. Projects need to be managed on their own merit. I cannot imagine why any sort of moratorium would constrain opportunities, should they be initiated. It's a very slippery slope.

Any community fighting for a share of revenues should understand that the projects have to happen first. We negotiate for jobs and a sustainable community, supported by responsible resource development. In other words, we negotiate for prosperity, not poverty.

It is our goal to protect an enhanced sustainable development, to provide a high quality of life for our citizens. We ensure that economic, social, community, and financial impacts of any project are fully mitigated and compensated by government and industry. We promote the value of local workforce content and advocate for investment for our youth in skill development.

This bill unfairly inhibits the opportunity for First Nations communities and non-First Nations communities to understand and develop their communities to become sustainable economies and offer the social programs that improve their quality of life.

I understand you're concerned about safety. I am, too. And in Canada we have some of the strictest safety regulations. There is no recognition of advanced technology and the stricter regulations that have made tanker traffic a highly reliable and increasingly safe way of transporting oil.

Canadians have a right to expect consistent and fair legislation and regulation that are not contradictory, arbitrary, and discriminatory towards one region of Canada.

We can protect all the coastlines of Canada and any threat of impact, while at the same time working to develop sustainable economies for our local communities. From my perspective, Bill C-48 is not the way forward.

Thank you for your time.

The Chair: Thank you, Ms. Ackerman. Mr. Philip Germuth, mayor of Kitimat.

Philip Germuth, Mayor, District of Kitimat: Thank you, and thank you for inviting me here today.

I will give a brief history of the District of Kitimat. Kitimat exists only because of industry. It was back in the early 1950s that the province of B.C. worked with the Aluminum Company of Canada to allow them to create a water reservoir for a hydroelectric facility to power an aluminum smelter.

Years past that, we've also had pulp and paper, methanol, and of course now Kitimat is the location of the largest private investment in Canadian history with LNG Canada's project.

The people of Kitimat fully realize and appreciate the benefits that happen from industrial development. For a town of just over 8,000 people right now, we have two ice rinks; we have a great recreation facility; our infrastructure, roads, sewer, et cetera, is in generally good condition for a community of our size.

Having said that, we are also very supportive of value-added industry, and we very strongly do promote that. In the whole history of Kitimat, there has only ever been one industry where the community, through a plebiscite, stood together and said, "Thanks, but no thanks." And that was for the export of a persistent oil product.

Basically, operating in a global economy, it is natural that industry will seek profit first and foremost. Therefore, it is essential that all levels of government work together to ensure that citizens' best interests are protected. Canada, its provinces, First Nations, and regional and local governments must start collaborating to implement appropriate policies and regulations to guarantee our natural resources are being utilized in an economically and environmentally sustainable manner.

Kitimat's slogan is "A Marvel of Nature and Industry." This motto recognizes our past and present assets of pristine natural environments and world-class industrial operations. This motto also reflects our present stance on economic development.

Kitimat is in favour of value-added industrial development, as long as the development does not pose a significant threat to our natural environments. It only makes sense to add value to Canada's natural resources before exporting them to foreign markets. It is in the best interests of all Canadians.

Value-added industrial development helps bolster our economy at the same time as reducing risk to our environment. It is a win-win. Thank you.

The Chair: So are you supporting C-48 or are you opposed to it?

Mr. Germuth: We're not opposed to it, let's put it that way.

The Chair: You're not opposed to it?

Mr. Germuth: We are not opposed to Bill C-48.

The Chair: But you're not supporting it?

Mr. Germuth: We did write a letter in support of it, yes.

The Chair: All right, just so I'm clear.

Senator Simons: Thank you. I have many questions I want to ask, and I'm going to sneak in two quickly, completely unrelated.

Mr. Bumstead, when you're talking about the condensate that's in your natural gas reserves, did you want to be able to pipe that to market for sale, or do you want to mix it with bitumen and sell it as dilbit dilutant?

And then I wanted to ask Mr. Ross, we understand you are a former chief of the Haisla Nation. We've heard from many people from the Haisla community who are vehemently opposed to C-48, and I wondered how you respond to their concerns.

Mr. Bumstead: The condensate is the final product in the chain of the hydrocarbons, and when the gas is produced, the condensate comes. Condensate is the dilutant. Condensate is the product that you use for the bitumen, and the only way they can ship it by pipeline or mix it is to combine it with it.

And so that's the value that condensate brings to the marketplace. A few months ago, the price of a barrel of oil was \$50, and a condensate barrel was \$70. It's that valuable, and so it goes now to Alberta to be mixed with it.

And it's a hugely valuable asset, and it part of the process of the hydraulic fracturing of the shale gas. The gas comes; so do these liquids.

Mr. Ross: So I was the chief councillor for the Haisla during the Enbridge days. Previous to that I was on council, as an elected councillor. And back in those days, 2004 was when the Haida court case came out, and the duty to consult and accommodate. But for three years, or four years, industry and governments actually just continued on the same road map that had gotten them to the courts in the first place. It took quite a few years for industry to understand, and government to understand, the rules had changed.

And Enbridge was one good example. They continuously made huge mistakes. Originally, the process was about recognizing rights and titles. Nobody recognized that, and they paid the price. LNG came in and did the opposite of what Enbridge had done.

Even the Coastal First Nations, and I'm sure you heard from them, even they made a statement in the Globe and Mail that said, if they could just go back and start the clock over again, they were sure that they could get a better outcome. By the time the company and Canada had woken up and realized they had to change their approach, it was too late. We were already in court.

But if they had taken the approach that LNG had done, that forestry had done, that the mining community had done, who knows. It could have been a different approach.

Right now, we don't have that problem. Government, B.C., industry, they all have a different approach, and they're all following the road map that LNG actually created.

Senator Simons: Do you think the federal government has met its duty to consult in the drafting of C-48?

Mr. Ross: I doubt it. It's hard to say, because it's hard to get hold of records that show what the consultation was made up of. You have to go over how many times did they meet, how many emails were sent, how many letters were sent, did you talk about it over the phone.

If there was an extensive list of how often and how meaningful consultation was, then you could decide. And unfortunately the only place that can happen right now is in the courts.

The Chair: Senator Patterson.

Senator Patterson: Thank you all.

Mr. Ross, I believe it was you that expressed some support for the B.C. Oil and Gas Commission, its regulatory excellence.

Bill C-48 would, in effect, ban the export of a certain commodity, heavy oil, and it would exclude that from the regulatory process. In that sense, would you agree that Bill C-48 actually undermines our regulatory process that's in place and working well?

These projects would need to undergo rigorous environmental scrutiny, and probably at both federal and provincial levels if they were to succeed. Is that another problem with C-48?

Mr. Ross: You know, the whole thing about bills -- and I deal with bills at the provincial level; that's my job, and even I have a tough time with it, so I can't understand how you relate this to the average citizen. And this is part of the problem with legislatures themselves on trying to describe this on what it is and what the outcome is going to be.

But I don't think anybody who really supports or opposes this kind of bill actually understands what the long-term impact is going to be. I did not say anything about the B.C. Oil and Gas Commission, but they were foreign to our territory previous to LNG, and I had to travel up to Mayor Bumstead's territory, Mayor Ackerman's territory, to see fracking for myself, and I had to go see the offices of the B.C. Oil and Gas Commission, and I had to read about what they were doing and how they were doing it. And I came back to my people and told them there was

actually a pretty good regulatory framework in place. They're actually doing pretty good up there.

So when they came to our territory, they were kind of welcomed with open arms, even to come onto our reserve, where another LNG plant was being proposed. And even to the point where they hired an LNG-B.C. Oil and Gas liaison to work between the people and the B.C. Oil and Gas Commission.

So I thought the regulatory framework was okay the way it is. Maybe it needs tweaking in certain areas, but it's such a complicated picture, I don't think even people like myself, as an MLA, can understand and explain it fully to citizens.

Senator Patterson: Thank you.

Senator Miville-Dechêne: Thank you. This is a question for Ms. Ackerman and Mr. Ross. I will put to you an argument that we have heard over and over since yesterday here, which is that maybe your city or people upstream will benefit for pipelines or different projects, but the people who will bear the brunt of the risk are the coastal nations. Because, if there's a spill, you won't, in Fort St. John, be affected, but they will be.

Obviously I know that the risk of a spill with a supertanker is less than it was during the Exxon Valdez spill, but there is still a risk, so I'd like you to answer this argument, which is some people make the money and others bear the risks.

Ms. Ackerman: Thank you for that question about the risk. The reality is that, when we put our feet on the floor in the morning, we start taking risks. And we do have world-class regulators in this nation, and in in this province in particular, and I believe that Canada has done an exceptional job of ensuring that the technology is there.

The tankers that are going from Alaska down to Washington State through the Strait of Juan de Fuca and the supply vessels taking petroleum products from Vancouver over to Vancouver Island are more of a risk than the tanker traffics that are regulated by Transport Canada. And so the argument about risk, for me, I don't see that.

The reality is, if there is a risk, the industry could very well be impacted financially, and that will be a risk to all of us.

I think what I'm trying to say is that communities need to understand the industry. They need to engage up front, through the environmental assessment process. They need their voices heard, and the recommendations that come from that environmental assessment process, the company then has to put those in place in order to be a successful proponent.

So each area is different. Each community along the coast has different impacts. You could have a sheltered bay that the tankers go in and out of and then to open ocean, or they may have a lot of islands. That's where the local community, the local knowledge, needs to be heard.

Mr. Ross: I heard this argument with LNG. It was the same argument, and the answer was inclusion. How do we get these First Nations involved? Not only with the obvious, which is spill response; everybody wants to be a part of spill response, but even that is regulated and you have to be qualified to a certain respect to actually engage in that kind of activity.

What my point was, and I actually proposed this to Canada during the LNG days, was don't just include First Nations in the after-effect. Also include them in the monitoring.

Now, there is off-the-shelf technology that we can buy, the software and hardware that can put the First Nations in a position where they can monitor tanker traffic. And let's face it, the risk is already there. It's been there for 60 or 100 years. Gill netters, ferries, they've all been sinking in our B.C. coast for the last hundred years, and those vessels are still leaking diesel and oils into our environment. We can't do anything about it.

Senator Miville-Dechêne: But there's going to be more risk with tankers.

Mr. Ross: There's going to be more, so mitigate it. Get the First Nations included, not only in cleaning up spills but also in monitoring. The technology is there, and it provides an opportunity not only for employment but for communities in our own right to monitor tanker traffic, the AIS technology. It's there.

And the good thing about this is that the First Nations can participate with no liability and responsibility, but they can work in cooperation with Transport Canada and the Coast Guard. It's a good win-win in terms of partnership, and it can close that gap between Ottawa and the First Nations communities on the coast.

So there are a lot of different ways to include people in the shipping on the west coast, not just for oil tankers, but LNG and anybody else who has AIS technology on their vessel.

Senator MacDonald: Thank you, Chair. I thank all of you for being here. Ms. Ackerman and Mr. Ross, I'm just interested to hear your comments on risk. The senator just mentioned to you about increased risk.

In Nova Scotia, we have 100 million metric tonnes of petroleum going through the Cabot Strait every year to feed refineries in Quebec. We take all the risk; we get no benefit. Quebec gets the benefit. They also take risks, but we take risks without benefit.

As you say, you walk out the door in the morning, you have to deal with risk.

We keep hearing about the Great Bear Rainforest, which of course is an artificial name created by an activist from Vancouver who happened to be in San Francisco. I spoke to some of the Natives from the area who said, "We never called it the Great Bear Rainforest." I said, "What did you call it?" They said, "We called it the woods." The same as we call it in Cape Breton, the woods.

When it comes to those who say that tankers should not be able to transit the water near the Great Bear Rainforest, what's your response to them? What's the correlation between the Great Bear Rainforest and tankers in the water, if any?

Mr. Ross: So my band was part of the organization that actually put that all together, the Coastal First Nations, and we had a small portion of our territory that was within that protected land. And at the time, we just saw it as that it's good for the majority of the First Nations that live in that area. They want to protect it, which wasn't protected, by the way. There's still logging that goes on there. There are still exploring activities for other ventures. So it wasn't fully protected.

So what we thought as a band was, look, out of sight, out of mind. As long as it doesn't affect what we're doing, and it's such a small sliver of our territory that's going to be impacted.

But, and this is what I've mentioned before, when we're talking about this kind of activity, this kind of bill that actually affects other industries and that is based on propaganda, it's not based on facts, then it's going to start to spill over.

So a few months ago I saw a proposal that says, okay, all the land surrounding the Great Bear Rainforest should be labelled protected as the Great Bear Waterway, whatever that means or whatever the title was. And it just so happened that what they're proposing is right in the middle of LNG shipping lanes.

Now, that's not a coincidence. And we see this, when we're talking about activists, that's actually funded by United States money coming in, and they're proposing all these different mechanisms that are entirely legit within the B.C. framework, or the Canadian framework, but it's with a purpose. It's to shut down our resources from getting to Asia.

I mean, it's obvious. Otherwise, I don't see them doing it in Texas. If you did this in Texas, said, okay, all oil and LNG coming from Texas is going to be shut down, but all the rest of the eastern seaboard, you're allowed to continue exporting, and, by the way, the west coast of the United States, you can continue exporting, you'd be hung. They would run you out on a rail. Not an oil rail, by the way.

But this is only happening in Canada. We're only internally fighting amongst ourselves, and we're allowing all of these other interests to dictate. And this is why I say that there's a difference between politicking and governance. In governance, we have to think about Canada as a whole. We have to think about the provinces. We have to think about the people. We have to sift through and push aside the ideologies, and we have to sift away the propaganda.

So that was my opinion on it. I supported the Great Bear Rainforest because it didn't impact me, but then it started to spread. And it had an obvious objective: Shut down exports to Asia.

The Chair: Thank you. Senator Dasko. Oh, do you have another question? I'm sorry, go ahead. We have time. There are only three of us left on the list.

Senator MacDonald: Thank you, chair.

Coming out here, we have a great country, and we have a big country. And when you get to northern B.C., it's a big country; a lot of isolated communities separated by a lot of land, and everybody fighting to get some prosperity.

When it comes to the Eagle Spirit proposal, which I have to say I find to be an attractive proposal for many reasons, how would that proposal impact on your communities, geographically, physically, or economically? Would it have any impact on your individual communities?

Mr. Bumstead: As Mayor Ackerman talked about, we built community-built quality of life; health, happiness, and economic opportunities. People come to our community because they need to get -- they're coming for a job, a career, or a business opportunity. It's created by the resource sector.

And so anytime we have an opportunity that creates access to the global markets, and that's how world-class the resources are, it creates economic benefit to our community, our region, our province, our country. They're that prolific; they're that bit; they're that immense of what's available to us.

So direct jobs, sometimes, are minimal, but indirect, it all spins through our community. And so anytime we have an opportunity, and that was, I guess, my point about the age of the ultra-liquid, it's a world-class resource, and it is going to create a long-term economic benefit for -- and I use these terms deliberately -- our community, our region, our province, our country. They're that significant.

The Eagle Spirit will have a benefit.

Mr. Ross: It doesn't affect my community directly, but indirectly, it does. I understand why they're doing it. And if you want a good example of what this type of initiative can do for Aboriginal people, you have to look at the question of unemployment, the incredible number of our children being in government care, the incredible number of our people who are in jail, and the incredible number of our people who are committing suicide. We are starting to see that problem go away in Kitimat, and it's not through a government program. It's not through council programs, which have all failed in the last 30 years. It's because the council opened the door, and an open mind, to resource development, and we were included.

So now these younger generations are actually going out and getting jobs, and they're doing things that the rest of us take for granted. They're getting mortgages. They're buying trucks and cars. They're going on vacation. And they have no need to actually engage in all the social behaviours that we did in my generation and the generation before us.

And this is not a program. In fact, when I was a chief councillor, my goal was to say no to Ottawa funding. I didn't want it, because that's the only hold that the Indian Act had over my band. The door is wide open now to First Nations who are waking up and are understanding that their opinions are evolving; very fast, mind you, ever since 2004. So now the door is open to proposals like Eagle Spirit, and it's only because they're included at all levels; spill response,

monitoring, the economy, the regulations. They're included, and they feel better about it, and their people are the beneficiaries.

Senator Dasko: Thank you, everybody, for coming and for your presentations.

My question is to Mayor Germuth. You said you used a referendum. I wasn't sure which project that was on; I'm not sure if that was the Enbridge or the LNG project, so maybe you could clarify that.

And tell me how you got to the idea that you wanted to use a referendum as a decision-making process. Tell me if you are contemplating or have done this on Bill C-48. And also I trust you've done a better job than the Brits in dealing with referendums. Thank you.

Mr. Germuth: Thank you for the question. Just to clarify, it wasn't a referendum, it was a plebiscite. A plebiscite is basically non-binding.

We had concerns from the community. We had questions from the community. You know, they really wanted to, the council, to basically poll the community to see where the support was for the Northern Gateway Enbridge project. And as the District of Kitimat we had already at that time had a position that we would support value added resources. We would support value added. We currently have two value-added megaprojects, refineries, for our area; there's Kitimat Clean Refinery and Pacific Futures Energy.

When we talk about providing jobs for our children for the future, wanting to pay for health care, education, et cetera, we honestly can't see why we would ship out a product unrefined. We're basically giving it away and, as someone said, we're talking all the risk with very little benefit.

So it was for the Northern Gateway Enbridge project. It came out 58 per cent of the community was against the project. And as I mentioned earlier, for a community that was built by industry and only exists because of industry, and all the benefits that we have from industry, it really was quite something that you had a majority of the community coming out and saying, you know what, we realize all the benefits from industry, we support industry, but on this one, sorry, we're going to say no thanks, because we are not willing to take that risk for that little benefit.

As for the Eagle Spirit, you know, that's not in our neighbourhood, so it doesn't directly affect us. And we have the position of we don't like other people, communities, trying to tell us what we should or shouldn't do in our backyard, so as a general rule we don't comment on anybody else doing what they want to do in their backyard.

Senator Dasko: Are you going to use referendums on Bill C-48, for example?

Mr. Germuth: That was a council decision, and we've had no other calls for any other referendums or plebiscites. LNG is clearly, you know, a win-win no matter what, and the reason LNG is so supported, I believe, is because it's the product. Right? It's the product in the pipeline, it's the product in the ship. There is so little risk should a disaster happen, or should an accident happen, let's say.

So we have absolutely no proposals and no inclination to have any other plebiscites at this time.

Senator Dasko: Thank you.

The Chair: Do you know if there is less risk with LNG products than there is with oil tankers?

Mr. Germuth: Yes, 100 per cent.

The Chair: How do you know that?

Mr. Germuth: Well, it's the simple nature of the product. If an LNG tanker happens to hit a rock and leak, it dissipates into the air. If it's in a crude oil tanker, it's persistent oil. It's extremely difficult to clean up, if you can clean it up at all. It's not recoverable.

The Chair: So it couldn't blow up?

Mr. Germuth: Pardon me?

The Chair: It couldn't blow up?

Mr. Germuth: LNG could. It's very unlikely that that would happen.

The Chair: About the same as an oil tanker, I would think?

Mr. Germuth: Catching fire, it will, possibly, but it's the environmental risk when it leaks out. Let's just say there are no flames if it leaks out. I haven't heard of too many oil tankers blowing up, but I've heard of oil spills, and so, as the District of Kitimat, with the Douglas Channel, we're not willing to take that risk.

And clearly the plebiscite, of course, was symbolic. We couldn't stop the federal government; if the federal government was going to say this project is coming no matter what, fair enough. But we at least felt it proper to at least poll our residents and see what the general feeling was so that council could take a position to represent our citizens.

Senator Smith: Just sort of a magic-wand question, maybe, for the three of you, beside Philip.

If you had to give one piece of advice to Indigenous leaders and/or government and/or our committee on this particular issue of Bill C-48, and you may have each an individual recommendation, what would that recommendation be to Indigenous leaders, people, the citizens, local government, and even ourselves? What would be your advice?

Ms. Ackerman: Well, thank you for that question. Being a politician, I have way more than just one, but I'll try and trim it down.

In our region, we have an area known as the Muskwa-Kechika Management Area. It is a significantly large area, larger than some of our provinces in Canada, and it's known as the "Serengeti of the North." It actually includes several provincial parks. It does not exclude the opportunity to do industry development, but any industry development in that area must reach higher standards.

And our world-class regulators challenge our industries to reach those higher expectations, and they can do it. The beauty is that it is innovation created by Canadians, and that intellectual property creates a knowledge economy that we can then share globally. We have the ability to do this.

Senator Smith: Mr. Ross?

Mr. Ross: Well, that's a question. You know what, I think I covered what I would advise; to open up the discussion to more than just what Bill C-48 is proposing. Because, let's face it, we're only thinking about Alberta product coming to B.C. and going to Asia. That's all we're talking about. But I don't see any conversation talking about our competitors, United States in particular. I don't see any conversations about the foreign influence money that is coming in and basically guiding our mentality toward our own resources.

I mean, we talked a little bit about the risk. I now that the product actually has different behaviours when it hits the water, but when we're talking about risk, we're actually talking about the regulatory framework that is put in place to eliminate risk. And I don't see that regulatory framework being any different whether you're shipping oil or LNG.

In fact, in today's environment, the political environment, I expect that the government would see that we have to put extra protections when we're talking about oil just because of the sensitivity of the politics about this, which is what the government is trying to do. The OPP was there. It had First Nations engagement. It still has First Nations engagement today; they're talking about implementing that.

And at the end of the day, though, I really think Bill C-48 is singling out one single industry and treating them unfairly, without actually considering the same standards being applied to other industries and jurisdictions.

The Chair: Thank you. Senator Smith, you had another question?

Senator Smith: Not another question, but there was another answer. I just wanted to get some sense.

Mr. Bumstead: I really would like to preface my statement here, that this is our backyard. I was born and raised, my bride and I were born and raised, in the Peace River country. Not at all costs. Not at all risks. We want it done effectively, responsibly, on behalf of our community. This is our backyard, so we want it to be done right. We want it to be done safely.

And so, for me, what we've done, and if there's a message here in terms of how we're working collaboratively together to build community, is there are three pillars. And Ellis Ross

has talked about some of them for his community. And, to me, that's resonated for us, working with our Treaty Eight neighbours. It's building community; it's health, education, and economic opportunities.

And we've signed relationship agreements with our Treaty Eight neighbours about that, working together, collaboratively, talking about how can we work together to help build healthy communities, staying within the fence of health education and economic opportunities?

Respect our differences, and we do have differences, not at all costs, but health, education, and economic opportunities are common for all of us to build a healthy community. And, for me, that's the way we think we can move forward in the communication on collaboration, together, to build the opportunities that we need to for healthy communities.

Senator Cormier: Thank you, Mr. Chair. I have two questions. Ms. Ackerman, you said that communities must understand the industry, so my first question is: What should the industry do, then, to help the communities understand their challenges?

I mean, we're talking about consultation. We're talking about government that should consult more, but what is the industry really doing to help communities understand their challenges and goals, and the measures that they're putting forward?

That's my first question. And the second one is concerning one of you said that First Nations could be involved in monitoring. There was a proposal that there should be a First Nations intervention centre, and the federal government didn't accept that proposal. So would you have some comments on that? Do you think it could be useful, to have that? It means that First Nations could be involved in monitoring, in intervention, also, when spills happen.

So if you could speak on those two issues. Thank you.

Ms. Ackerman: Thank you for that question, and I'll speak to the first one, about community understanding and what we did.

We didn't rely on the industry to educate us. We educated ourselves. We sought those who understand; in this particular case it was hydroelectric dams, and how they are built. The United Nations had a world commission on dams, and we began there. And we reached out to other communities across Canada that have had dams built in their backyards.

So we educated ourselves, and then took the binders of the environmental impact statements made by the proponent and went through those with a fine-toothed comb and pulled out how we thought our community would be impacted, according to our official community plan, which we are legislated by law to have.

Mr. Ross: The monitoring issue was not my idea; it was actually put to me by a band member who opposed LNG and oil, but he offered this to me as a way to get us to accept these products more openly.

And what it was, was this technology that was being used in the Harbour of Vancouver. And you can buy this technology, and I proposed to my counsel that we buy the software and hardware and we set it up down on Douglas Channel.

Now, the beauty of this is all we're doing is monitoring it, but if we worked in partnership with Transport Canada and the Coast Guard, we could be another set of eyes. Because, let's face it, we're the ones on the coast. We're the ones watching. And we've actually been watching tankers come up our territory for the last 60 years. They've been carrying pulp and paper products, they've been carrying aluminum products, they've been carrying bauxite, and we've been trying to fight the environmental issues for the last 60 years. So instead of fighting it, we thought how could we become part of it?

And the beauty of this was that we could actually employ, 24 hours around the clock, somebody to sit there and watch and know exactly what ship was coming in, what they were carrying, where they came from, and what direction they're heading. And if something really happened, or was going to happen, we could notify the Coast Guard in real time and say, "In 10 minutes, this tanker is going to hit a rock." That actually happened in Kitimat about six years ago.

By the time it happened, we'd have it all documented on our computer and our software and our hardware, and we could submit that as evidence, but we're not regulators. All we are is just another set of eyes, and we work in cooperation with the federal government.

This was a good idea. It wasn't my idea. And at the time, we had the money, as a band, to invest, but my band turned it down so I turned around to Transport Canada, the Coast Guard, on could we strike a partnership and develop this, and you guys could have my village as a base. So if anything happens, you could come into my community, set up your incident command, coordinate with B.C., and we could all interact on this together. In the meantime, we all learn how to respond to spills. But in the interest of safety, let's mitigate as much as we can, and let's include all of us in this.

Unfortunately, that didn't get very far.

Senator Patterson: Thank you, Mr. Chair. I'd like to ask Mr. Ross, we've heard some strong voices in support of Bill C-48, but we've also heard from Indigenous leaders who would like to take advantage of the opportunities presented by energy exports to a hungry market in Asia. One of those you are familiar with, of course, is Eagle Spirit. We also heard just today from the Nisga'a, and there are other Aboriginal leaders who would like to see something go forward.

I think politics is the art of compromise, in my experience, and I'm wondering how you would react to an amendment to Bill C-48 that would slightly lower the northern extent of the moratorium area to allow ports like one on the Nisga'a lands, a new or an improved port at Stewart, B.C., which we heard about this morning, and perhaps Grassy Point, which we were told is the safest harbour on the west coast.

What would you think about an amendment that would slightly adjust the northern boundary of the moratorium area to allow Indigenous-led projects with rights holders to have an

opportunity to move forward while excluding much of the rest of the coast? What would you think of an amendment like that?

Mr. Ross: That would be a fairly surgical amendment. I don't know how difficult that would be to get through the House of Commons, but you raise an interesting point, politics being the art of compromise.

LNG was opposed by a number of Coastal First Nations, and my band, that had the terminal, the pipeline tanker situated in our territory, could see the opposition from our neighbouring communities, and we could see that government and industry were failing at addressing their interests.

So what we did is we went to these communities and asked them point blank: "What's your problem? What is going to solve this?" And the two communities in question said outright, and they were honest, "We have 80 per cent unemployment. We have no contracts. We have nothing. We're living in poverty, and the company has offered us nothing."

So from that perspective, what my council decided was saying, "Look, we're going to give part of our benefit to our neighbouring bands under our umbrella, so the company doesn't have to expend any more money and the government doesn't have to get involved."

So in two different situations, we offered one band a guaranteed contract limit of \$25 million. We also gave our neighbours to the north unfettered access to contracts for the right-of-way for the pipeline. And our band didn't say a word. They just said, no, give it to them. There's no point in our band being successful when our neighbours are living in poverty, when we have all this wealth.

So my point is, we're talking a lot about reconciliation and how do we lift First Nations up out of poverty and out of their social issues, but there's a responsibility here too, in my mind, that First Nations have to each other. Like, we like to work in isolation of each other. That's why we have overlap problems. But if we get away from all of our differences and look at what we have in common, we're all suffering from poverty.

In that breath, I think what you said is pretty true. There is compromise to be made, and that's part of the art of politics. And that is mainly why LNG was so successful, not along the pipeline route only, but along the Coastal First Nations as well, because they were included.

The Chair: Thank you very much, Mr. Ellis. You're a wise man. I wish that the rest of the country could adopt your principles.

I was getting to the fact that it's important for people to think of somebody else besides themselves, and I think that's a wise lesson that we all have to learn.

So much appreciated to all of you.

For our second panel this afternoon we are pleased to welcome, from Chunih Consulting, Mr. Martin Louie, the president; and from the National Coalition of Chiefs, Mr. Roy Jones, Jr., the chief; and from the Wet'suwet'en Matrilineal Coalition, Ms. Theresa Tait Day, president.

Martin Louie, President, Chunih Consulting: Good afternoon, guests, and chiefs of the Tsimshian and Kitselan homeland, and members of the Senate.

I don't usually read; it usually comes from here.

The Chair: You can say it anyway you want. We're fine.

Mr. Louie: First off, I'd like to thank the Tsimshian and Kitselan people for having the Senate, the Canadian government, to carry out such an important task that was put before them. And I don't envy you; I'll tell you that much right now. It's something that government themselves should have taken care of a long time ago.

My name is Chenni (ph). I was given that as a child. That's my hereditary name. A lot of my colleagues know me as Martin Louie, and they know me as Enbridge Slayer. I was the one who sort of worked to take Enbridge out, not because I didn't want progress. I needed a place where Aboriginal people can have proper equity to any project that comes onto their land, and revenue-sharing, and to ensure the safety of the environment. That's the only two things I went after Enbridge for.

One of the most important things that I did with Enbridge was ask them to move their line out of the major waterways of British Columbia. There were five major waterways that they had to move their projects, their pipelines, away from.

They didn't bother doing that because, actually, the orders that they take come from governments, Canada, regulatory standards. And that's basically what I want to talk about.

I'm going to apologize up front for things I'm going to say, because it's the truth, and we have to know the truth of our past to actually move forward. And the truth is that the Delgamuukw and Tsilhqot'in court cases, the Delgamuukw, the decision was delivered December 5, 1997. The Tsilhqot'in decision, June 26, 2014. These are the two most important decisions that were ever made in Canada.

These decisions should have invoked changes on our land, our relationships, and how business is carried out, how our resources are developed in our country. And because of this decision that was made by the courts of Canada and B.C., we ended up with a governing structure that has two tiers governing us, the way I look at it. It's an Aboriginal structure of governance, and Canada.

So the court says what you have to do to get consent is you need to speak to us properly. You cannot develop a consultation process that is going to affect our ability to make changes to the laws, your laws. And that's what is happening.

After 22 years in B.C., the Indigenous relationship with government still remains legal. So anything we do, we have to go through a legal channel to change it. And if we're part of Canada, I don't see why we have to do these things.

In history, mankind set social, political, and economic stages by conquering in one form or another. Today, you look around the world, the countries are still in positions of conquer, but it's not for land, it's for economy.

Much of where we came from, the colonial process that we came from, is still in play today, and that's what keeps us separated as Indigenous people and the governments. This colonial process that is in place has to change, to benefit the future of our children, all of our children.

There are ways that we can be able to carry these changes together, and it has to be, in our minds, as Indigenous people, we look at our laws as we have to come to a consensus process in our law. And we don't vote for this or vote for that in our laws. We bring the problem on the table, in our house, and we deal with it, and we do not leave until everybody is satisfied with how the position is going to be taken. That's how we deal with our laws, through our laws.

And our laws that we have are more common sense-driven. And the task that you guys have right now is to try to figure out how to get the economy going again. It's simple. We know the damages that might happen, or could happen, the risk that we're going to take. We all have to take it, all of us. If we're going to have a better place for our children in Canada, and show the world that we can work together, we have to get rid of this process, this colonial process. It just keeps us in a legal framework that lawyers, consultants, environmental consultants, are the only ones who are benefiting right now.

The Chair: We're getting close; we're at about eight minutes.

Mr. Louie: There were no changes in those court changes, never, and there were no places to change. Everybody says they're going to change it. Environmental people say they're going to do it. The consultants say they're going to do it, and we're still in the same spot, 22 years now. Not one change that happened in our country.

And all the ministers, from both the federal and provincial, all have this mandate to work through this reconciliation. And you need to understand our laws and our people in order for you to understand how we can reach reconciliation, how we can, together in partnership, build a different country for everybody's benefit. And we have to work towards that together. We cannot leave anybody out, and that's where the problem is. We don't vote on things. When we vote on things we get like the people on the street out there; one votes for the other, and votes for the other, and there's no consensus. My way or no way at all, and that's it.

The Chair: Okay, thank you. I've got Mr. Jones.

Roy Jones Jr., Chief, National Coalition of Chiefs: Good afternoon. I want to quote somebody before I start. I want to quote one of our previous panel in a newspaper that was handed out a couple of years ago, a news story that was done a couple of years ago:

“It's a lifestyle of poverty and welfare and suicide,' said Ross. 'These poverty skills are well-honed. They're passed on to the next generation. In my mind, I've got no choice. I've got to try something. If it makes an impact for my people and they can continue down this path of poverty, that's my fault. They elected me to do something about their future, full responsibility. It's not B.C.'s fault, it's not Canada's fault, it's on me.”

And that's quoted from a newspaper for an interview they did with Ellis Ross, our MLA here.

I want to acknowledge the Tsimshian Nation and the Nisga'a. My wife is from the Nisga'a Nation, or her lineage comes from Mianch and I'm always comfortable up in this country.

My potlatch name is Chikel (ph), aka Roy Jones, Jr. Today, I'm here in the interest of the National Coalition of Chiefs, supported by the Modern Miracle Network, who is funded by industry.

The goal of the National Coalition of Chiefs is to defeat poverty on reserves, and we ask what would Bill C-48 do for the north coast? How would people benefit from this bill depriving us from opportunities associated with hydrocarbons?

I've been a captain on the B.C. coast for 30 years of my life. I was very fortunate; I grew up in an industry, in the fishing industry. A young man came to me one day, and he said, “You've got no respect for the ocean.” And when I was finished sitting down with him and discussing oil and gas and tanker traffic, what's going on out in the world, he had a turn of events in his life and sits beside me today, asking me questions about how are we going to do this, how are the jobs going to work for us.

I started working for Enbridge in May of 2015, at the very big expense to my reputation among my people. It was very bitter. I learned a lot about shipping, cargo, and human nature. It was a valuable lesson in my life.

I'm a guy who worked for Enbridge at the time, and I had my daughter down in Standing Rock protesting the pipelines down there, my youngest daughter. And she came home one day, and she said, “Dad, I just came from Standing Rock. Tell me about what you're doing.”

When I was through with her, she asked me one question: “How do you sleep at night?”

And I said I take sleeping pills. Cannabis is legal now, and when I was 15, I smoked pot for the first time. It put me to sleep. And when I was 66, I smoked pot probably for the fourth or fifth time, and it put me to sleep. So it helps me sleep at night.

So having given you a little reflection on me right now, I lived a high life in the fishing industry. Two weeks ago I was out food fishing for halibut, and I got four halibut and did really well. And I have nothing but respect for our oceans.

Now, in the time I started working with Enbridge, I started a research project. They hired us, and our job was to tell people we worked for Enbridge. So I said, “I have to tell people more than that. I'm a hereditary chief; I can't just say I'm working for Enbridge.” So in 1969, I

worked in Kitimat, loading big ships with aluminum. In 1972, I loaded paper on ships in Port Edward. And in 1976, I bought a boat, and in 1977 it was my first year as captain of my own vessel, and I was a captain for 22 years of a private boat owner. That ended 21 years ago because of the fishing industry downturn.

In that time, I followed one year by running a tugboat for a corporation out of Seattle.

I come with a vast amount of coastal experience. I've fished from the mouth of the Nass River, all the way down to the Washington border. I've fished in Hawaii. I've travelled the coastline and learned a lot about the Eastern Pacific coastline travelling in the southern United States. I've been on the east coast, so I know what you're talking about when we have to compare things.

But one of the things I did in the shipping here, I could not only study things that were going on on the north coast of British Columbia; I had to take a look at what was going on around the world. Now, starting with Valdez, last year 8.6 billion gallons of crude oil came down the B.C. coast, from Valdez to the Lower 48. They're planning 8.6 billion gallons again this year. By 2021, with the exploration going on in ANWR, which is the Arctic National Wildlife Refuge in Alaska, they anticipate that all four loading ports in Valdez will be working topping off at about 21 billion gallons by 2021.

These are the numbers that are coming from the Prince William Sound Advisory Council, citizen's advisory council, which I can get on the phone and get any information I want from them at any time.

This poses a major risk to our B.C. coast already. This is why we ask what is C-48 going to do for us. We are talking about world-class protection for the B.C. coast, and yet we've got nothing. When we're sitting there waiting for the contracts to come out for the tugboats to protect the west coast of British Columbia, and pick up the newspaper and find out it was given to a Halifax company, that really turns your crank on the west coast, as an Aboriginal person.

Now, through this research, too, I've done the research on the English Channel, the Strait of Gibraltar, the Suez Canal, the Panama Canal, the Milan Strait, the Singapore Strait, and the Strait of Juan de Fuca, as well as Dixon Entrance. The unique thing about these places is they all have shipping lanes, major shipping lanes.

The Chair: We're at about seven minutes.

Mr. Jones: How much time do I have?

The Chair: You have no time, so wrap it up.

Mr. Jones: Okay. Anyway, this compares in there, in the northwest, we have absolutely minimal traffic and, if we added another thousand ships to the shipping lanes of the north coast, then it would bring an absolutely -- and we would call on industry to ensure that we had the vessels to protect our waters.

This is why we ask what would Bill C-48 do for us, because right now the opening remarks were related around poverty in our community, and none of us are any different. And as in anything, drugs and alcohol, Aboriginal and non-Aboriginal are suffering the same fate, and that comes with poverty. Thank you.

The Chair: Thank you. Ms. Tait Day.

Theresa Tait Day, President, Wet'suwet'en Matrilineal Coalition: Thank you, senators, for this opportunity. It's nice to see you, again, senator. And, Senator Patterson, I was in Ottawa and had the pleasure of meeting you, too, there.

I would like to acknowledge the territory of the Tsimshian people and the Coastal First Nations people who live along the coast. I want to acknowledge that the coastal people, with their lands and their water, are no different. We see those two things as the same, and we want to recognize that, to begin with.

I'd like to take you back a little bit in history as well, just a little bit, just to frame the question. Because I think part of our problem that we're facing right now in Canada is the issues that Indigenous people and non are grappling with, and that is what my colleagues have already touched upon. It comes from the 1763 Royal Proclamation. That proclamation was the first treaty with Canada, and Canada at that time and Indigenous people said we would live side by side together with respect, peace, and friendship. And the resources that we had as Indigenous people were to be used and shared.

And as we went along in history, that did not happen. As you know, Indigenous people were put on the reserves and forced into assimilation and residential schools, and so forth, and as a result of all of that we have now had since 150 years of poverty in First Nations communities.

We all know that. Senators, I'm sure you're aware of the history, but I point this out because I think that one thing that is really prevalent in our country is the fact that Indigenous Peoples, although the court cases, the Delgamuukw and Tsilhqot'in court cases, although they have made some strides, we are still in a place where Indigenous people are taking crumbs from the table, from our own resources.

And I heard one distinguished Indigenous person from the Algonkian say that, "Take back all of the money that you have given Indigenous people. Take it all back, but give us our land back, and then we could use that."

The point of it is, as my colleagues have mentioned, Indigenous people have been suffering in poverty since the enactment of the Indian Act and the residential school system, the laws that have impeded Indigenous people from self-determination. And self-determination is something that, when Indigenous people are involved in the decision-making, that is something that we can work towards together, Indigenous and non, working to get the best result with what we have.

Now, I am the president of the Wet'suwet'en Matrilineal Coalition. And, as you know, the Wet'suwet'en have recently been in the news against the LNG project going to Kitimat, and I want to say that this is indicative of the fact that our historical oppression continues to raise its

head in the community. When our community are 95 per cent living in poverty, under \$175 a month on welfare, nobody can live on that, and as a result you have a downward spiral. That's a reality in our communities.

And so the Wet'suwet'en Matrilineal Coalition was formed by hereditary chiefs, hereditary house chiefs, community at large, who want to see an economic benefit from the natural resources that are attached to our lands. And because all of us Indigenous people are connected in the north, wherever we go, we have a relationship, and so we have this relationship to each other which has been colonized to the extent where we are not all on equal footing in the communities.

And as a result of that, there is a lot of infighting that goes on, because people don't understand what is at stake. So the Wet'suwet'en Matrilineal Coalition took it upon itself to educate the people, to educate our members about the LNG. We have actually gone to see the fracking; we've actually gone to see the grey water used by the Fort St. John community to use as fracking. We are also involved with looking at the downstream.

Why do we agree with LNG and why do we agree with natural gas going to China is because it's the lesser of the two evils, we think. We want to see natural gas get to China because of the pollution that is being foisted upon our country by China, the CO² emissions and so forth.

And we also looked at what is the alternative to gas, and we found that the shipping of natural gas through the pipelines was the safest way. It dissipated in the air. There was no chance of explosion. And we also heard from Indigenous people across the country saying to Enbridge, "Change the pipeline. They've been in the ground too long; that's why there's a problem there."

Industry needs to listen, and government needs to follow that, the lead of Indigenous people.

I want to say that because, as Indigenous people, because the land is unceded and that means it hasn't been sold, we haven't been killed off, we are still here, and we want to go back to that Royal Proclamation of friendship, peace, sharing, but it hasn't been an equitable sharing arrangement with Indigenous people at all.

So we are at the stage now, as Indigenous people, we want to have equity in the decision-making process. We want to be able to have equity into these projects that are coming about, so that we can buy into these projects, we can have an equity stake, yet we cannot get a loan guarantee from the Government of Canada to have an equity into these projects.

The Chair: You're almost out of time.

Ms. Tait Day: What else did I want to say? We also looked at, if we did not have gas or oil, we would have to have 102 Site C dams to deal with the CO² emissions, so that we could get to that target rate of zero CO² emissions in the atmosphere. So that's not acceptable, because we don't want to kill off all the animals, and we don't want to destroy the land. So we did our research and we said that this is the better alternative, but as the Wet'suwet'en Matrilineal Coalition president, when we worked with the natural gas, all of our people were working on the

line. They actually were able to change the way that the pipeline went around sensitive areas and, if there was enough funding for Indigenous people to be a part of the delivery of a project, equal partnership, we would be in a better position.

Because, right now, as it stands, we're only taking crumbs from the table. Thank you, senators.

The Chair: Thank you very much. Well, you all got about the same time, which was way more than anybody else got. So thank you very much.

You know, if there's one thing that we have heard about -- and we've heard a lot; we've had a really good day and a half of hearings -- is the consulting process, which has befuddled me, and I still don't quite understand what it means. And as senators, we hear that on almost every bill that in some way infringes onto Aboriginal rights or Aboriginal property. We hear about the consulting process failing, and so nobody ever gets it right, but nobody quite knows what it is.

So I'm going to quickly ask if you could sort of tell us what a good consulting process would be. What does it mean to you? And maybe that would help us, because we sure don't, obviously, get it.

Ms. Tait Day: I could start.

The Chair: We'll have to be crisp on the answers.

Ms. Tait Day: Okay. So, I've thought about it, and I think what it comes down to is that, if you're looking at Indigenous people's input, then it's Indigenous people's vision and voice that must go forward. And I think that that needs to be supported by government and industry, because they're the ones that are going to be driving this.

And, remember, it's unceded territory, so whatever comes from Indigenous people is important, to be heard and led by Indigenous people. So the resources need to be there, a loan guarantee needs to be there. Those kinds of things need to happen so that we're driving the economy, as well.

Mr. Jones: For me, the consulting process to me is about education. There's a number of things where we're involved is involving Coastal. You heard all the fears and, when I spoke in Calgary last year, that's the very thing I talked about, the fear that people face in coastal British Columbia.

I'm not a big fan of oil and gas. I'm not a big fan of tankers. They're real, they live out there today, and the way I look at it is we're like a baby in a winter storm without a diaper. And we have to be very, very cautious about how we approach this because, on the north coast, we are virtually unprotected from any disaster.

When I looked at Prince William Sound and the way they've operated, I was up there in 1996, and there was absolutely no sign of oil unless you got on the beach and started digging

around to get it up, but oil always seems to manage to go back to where it comes from, no matter where you put it.

But consultation, education, is the very key to moving forward. And the reason I say this, and some of the things that I wrote down here, is when you're consulting with a group of people, you're better to go into ballot versus put your hand up, because you'll get a better answer that way.

The other thing is education on things for marine aspects of moving products across the ocean is education people on what the IMO, the International Marine Organization, is and what it does. And a lot of people are drawing blanks on me just saying that in the room. These are the things that have to be done.

There has to be an education from the drop of oil into the well into the ship, and beyond. That's the real key to it, because I'll tell you some of the human nature things I ran into. I was called the Village Clown, and shit like that, and the guy who was doing it, his twin sister was loading the pipeline to the other end to get it to the coast. So that's the kind of human nature you run into when you're in a small community.

The Chair: Mr. Martin Louie, do you have anything to add?

Mr. Louie: Yes. It's, I guess, projects. Every project that's going to be developed, we're usually the last ones to hear about it. And been then the consultation process is right out the door.

If any project is going to happen in our traditional land, we need to know up front. I'll give you a good example, is that it's a mining, New Gold Mine, just south of Prince George, somewhere around there. Anyways, they went as far as just about ready to build the mine itself, until it came to Nadleh, where I come from, and they wanted to offer some revenue sharing just because they figured I might go and protest whatever we were going to protest, and I told them, "Yes, I'll talk about revenue sharing as soon as you agree on our water policies."

Being a chief, I developed a water policy that was for the mine right next door to us. It polluted the water so bad, and we weren't consulted about how it was put in, how it works. But I told the company, if you can abide by this water policy, then we can talk.

Because the consultation part of it, it has to happen prior to permits. They have to come to us, asking us for permission. Then we go and sit with you guys, and we'll say, "How can we do this? How can we do this in a safe way together?" It has to be between you and us. It can't be you, and you, and you. It has to be you and us, the consultation part of it.

Because we're left out. From the point of starting any project, we're left out, right at the beginning.

Senator Simons: Thank you very much. My question is for Mr. Jones.

One of the things that's really disturbed me over the course of all the testimony we've heard here and in Ottawa is I had not realized how lacking we were in marine response capacity along this coastline. And one of the things that really concerns me is, in terms of C-48, that the government might pat itself on the back, say, "We've banned the big tankers," and not invest the money that we clearly need to do that marine response.

That said, when we were in Prince Rupert yesterday, we had a witness who became very angry at the suggestion that Indigenous people should be involved in that response and asked why were we expecting them to put themselves at risk to deal with toxic cleanup, that that shouldn't be a duty that they took on.

So I'm just wondering about what you think about what is actually required to have the appropriate cleanup response close enough that it can actually function in a timely way, even if we don't have oil tankers, even if it's just to deal with things like the Queen of the North and the Nathan E. Stewart?

Mr. Jones: Yes, that's a really good question because the English Channel, the strait there, you know, those places have first-class response vessels at their disposal. And one of the things that -- you posed a very good question -- in a meeting with Transport Canada in my early days of research, one of the captains looked at me and asked me a question: Why are you worried about oil and gas?

And I said, "It's going to muck up our beach and kill our food."

And he said, "Well, there are 67 vessels going by Haida Gwaii a week. Any one of those vessels can kill all you people, so you guys have to think about things like that."

And, you know, when it comes to coastal response, if Canada makes the commitment to put a first-class response system in, we are ready to do it, because we've already done the research, we've got ships designed, our tugboats designed with Robert Allen Ltd. in Vancouver ready to go. But where we fell short was the money, and arbitrarily handing out a \$67-million contract to a company in Halifax, like I said earlier, was a real burn to the west coast people.

But the other issue around that is our communication levels were down because, once the people went against Enbridge and found out there was a number of us working for Enbridge, they put us on the outside.

I was the head navigator for the Simushir incident. I told the Haida people around the table, and the Coast Guard people, that that line was going to tighten up on the Simushir at 5:30 tomorrow night, as soon as I found out how fast the tugboat was going when it left Prince Rupert. I'm a coastal navigator, and I know what I'm talking about.

The sad part is, in our Haida community, all us skipper were slammed on the outside for our vision of working with Enbridge, and our whole purpose of working for Enbridge at the time was for coastal protection.

Senator Miville-Dechêne: I just have a small question for Ms. Theresa Tait Day. Could you explain to me what is the Matrilineal Coalition? Because, you know, I've listened to you and it's very interesting, so what is that?

Ms. Tait Day: Yes, I would be happy to do that. The Wet'suwet'en Matrilineal Coalition formed as a response to the need for our nation to become aware of natural gas and the pipeline. We found that very little information was trickling down through the engagement with Trans Canada. They did engage with the bands, but the Wet'suwet'en Matrilineal Coalition is made up of hereditary chiefs --

Senator Miville-Dechêne: Women?

Ms. Tait Day: Women and men, as well.

Senator Miville-Dechêne: Ah, men are in it?

Ms. Tait Day: Yes. So Wet'suwet'en and the coastal people in northwest B.C., along with Haida, are a matrilineal society. All of our children follow our clan -- so I'm a Frog Clan, and my traditional name is Weyhaleit (ph), which means "Far Seer," and so all of my children would become Frog member of that clan, and so forth.

And we have a system, and we have a geographic territory. You know about the Delgamuukw decision; our people took that to court. And since that time, we have not been able to access any resources. Like I say, crumbs from the table is an understatement. It's just not something we have benefited from, but the rest of Canada has, because we don't have the resources.

For over 150 years, our people wanted one cent a tree, from the manufacturing of that tree as it went through the process. We wanted to get that one cent. We never did get it until the Supreme Court decision, Delgamuukw. We still haven't got that one cent a tree.

Senator Miville-Dechêne: Thank you for your explanation.

Senator Dasko: Thank you. Actually, that was one of my questions, but I have another one, and this is a question I asked one of the panels this morning, as well.

We have to make a decision in the Senate very, very soon. There's not a lot of time left to deliberate, and our choices are, essentially as a Senate committee, defeat, turn this bill down, accept it, or amend it, change it.

So can I ask each of you which of those -- I think I know that one of them is off the table -- but I'd like to ask you what of those options do you think we should do? And if you're going to say amendment, please say what you would amend. Thank you.

Ms. Tait Day: So I would say amendment, and I would ask this question, because we as a coalition have gone around the block about this question. What do we do, and how do we become involved? What is our place?

And so we came up with this question of, well, can they amend Bill C-48 to go back to the drawing board, in effect, to look at how oil is shipped, for example? Can they not put oil in pods, and put them on the tankers? So that, in the event that there is a hole in the ship, that it's not going to drain out of the ship. It's going to be protected by these pods, like pods of milk, if you will, in a plastic container so that, if the ship goes down, you can always retrieve these pods.

It's that kind of innovative thinking that needs to be talked about. So I would say let's amend it and go back to the drawing board, and then have industry look at alternative ways of shipping.

We do have to get it to market. I would be in favour of it for this reason also. Because recently we had education from Vivian Krause. Vivian Krause is a person who has looked at following the money and how the Rockefeller Foundation has managed to land-lock oil and gas in this country. And it is costing us, the taxpayers, \$2.2 billion in the money that we're putting out for gas alone in this country. So we're subsidizing the U.S. because they have land-locked oil and gas from it going to China.

So for those reasons, because we want to get our natural gas to China to mitigate the problems with the pollution that we're facing there, that's my yes and no.

Mr. Jones: Yes. For me, number one, this would be the only moratorium in the world, if it was put forward. And, number two, personally, amendments would work, excluding them from places like Douglas Channel. In the research that I did from Kitimat to a relief spot off Langara Island, northwest coast of Haida Gwaii, was 258 nautical miles, and I proposed Nausauga, which would be 118 nautical miles to the same point.

And when we look at the Robert Allan report on the Strait of Juan de Fuca, 25,000 ships a year go in there every year. It's 10 nautical miles across the Strait of Juan de Fuca and 10 nautical miles across the Singapore Strait, but the Singapore Strait gets 70,000 ships a year.

So I don't think amendment would work, but the other part of it is we have to be mindful that it's a safer option than the Strait of Juan de Fuca. And if a ship wrecked in Sherringham Point, which is in the southwest corner of Vancouver Island, we're 111 nautical miles from that point. We would be still affected by the oil.

So there's no safe place in B.C., if it happens down there.

The Chair: Mr. Louie? So does that mean you're opposed to it, or you're for it? I'm not quite sure.

Mr. Jones: No, the bill is not going to help the coast of British Columbia, period.

The Chair: Thank you. Mr. Louie?

Mr. Louie: I guess we're at a point where I've been trying, even before the first reading, I've been trying to say that we need to get the Aboriginal people involved so we don't get into a situation like this.

And amending it, I don't know how it's going to make quite a lot of difference, unless you amend it in our house. And talking about our house is how we do business. If you can amend it according to that process, then we'll know that it's safe, and we'll know that it's equitable, and we'll know that everybody will benefit.

That's the only thing I can say.

The Chair: Thank you very much. Senator Patterson.

Senator Patterson: Thank you, Mr. Chair, and thank you, witnesses. It's great to see Mr. Jones and Ms. Tait again.

Mr. Jones, I'm very impressed with your sailing experience and your fishing experience in all parts of the world. You mentioned corridors, that these areas, sensitive areas, have corridors, if I understood you right. Could you tell us how these corridors work, and whether that could be an option for the north coast to improve safety?

Mr. Jones: Yes. Whether we have tankers or not, those corridors should be in place all over British Columbia. Right now, in the Strait of Juan de Fuca, which is shared by the United States of America and Canada, there is a shipping corridor. It runs and it splits in the Harrow Strait to go down to Puget Sound, and it also goes right into Vancouver Harbour.

If you look at a chart of Vancouver Harbour, you'll see the shipping corridor is very clear there. And, believe me, it is a dangerous place for a small vessel, and I own a 66-foot boat; I've actually owned two of them. But at the same time, you have marine traffic and everything there, and they really -- the communication systems with marine traffic and the corridors do work for the major ships that do transit the areas. They are very well laid out and very well monitored.

And Vancouver being the metropolis it is and the size of the harbour, it has 12,500 boats going into the Greater Vancouver Area. Ships in the Greater Vancouver Area, they have a lot of -- they have all the tugboats and the facilities to ensure that they can mitigate any risk working together to ensure the safety of transportation of any kind of products that come out of there, whether they be oils, powders, or organic peroxides and stuff, which is a large family of very dangerous cargo.

Senator Gagné: Thank you. Actually, that was the question I wanted to ask, about the corridors.

One of the things, though, that was said by Mr. Veldman, who is a specialist in international hydrotechnical consultant in pipelines, mines, and infrastructure, and he was a witness in March in Ottawa, and he was saying that, if oil tankers were allowed to come to port on the west coast, actually, you would probably be able to support the marine response capacity, and that it would probably be safer. That comes from that witness.

I just wanted your comments on that, Mr. Jones.

Comment [1]: <https://sencanada.ca/en/Committees/TRCM/NoticeOfMeeting/517861/42-1>

Mr. Jones: Yes. One of the things that would work, though, is having community advisory involvement. When you're talking about the weather on the northwest coast, we have some really bad days out there, believe me. You know, when you can see a 60-foot boat just about standing on end or a wave breaking over your deck, it's a pretty scary situation. But when you're dealing with a large ship full of fluid, no matter what it is, or powders, whatever it is, those boats are designed. They don't look good when they're moving across the ocean.

But I think a community involvement in developing regulations would allow industry and government to move forward more comfortably, and allow the community more comfort about what's going on. Because once you break away from the Dixon Entrance and get out into the Pacific Ocean, it's a whole different story. You have a fair amount of protection in Dixon Entrance, but you also have one of the greatest food-valued areas of the Haida people, both in the United States and in Canada, involved in that area. So if anything happens there, we have to be involved. There is no leaving us on the sideline, zero.

But the sad part of it now is we need education now for our younger people. As you heard in the Prince Rupert session yesterday, our fishermen are 65 average age in most communities. I'm 67, and my fishing partner is 64, and there are no kids following us. And all I'm doing is food fishing, so we're losing touch with the ocean, and that's disastrous for something to happen in my lifetime as a leader and an employer in our community.

Senator MacDonald: Thank you, Chair. Thanks to all three of you; it's been a great discussion. I think I'll direct my questions to Mr. Jones. I have to tell you something. I grew up in a house, with a kitchen table that was full of people like you. On my father's side, they all sailed for a living, captains, merchant captains, captains in the Coast Guard and the DFO. A lot of fishing on my mother's side, too, but the big difference in them, more drownings on my mother's side. Fishing was always a more dangerous profession.

You talked about you know this coast and you know how to respond to problems. And Senator Simons brought it up, but I want to pursue it a bit about spill response units.

I don't see any reason why industry can't be leaned on, if industry wants to come in here and put pipelines in or export product, why industry can't be more involved in setting up these spill response units.

Do we need more spill response units along this coast anyway, and where should they be? And secondly, and I know you know what this is, compulsory pilotage areas. Do we have enough compulsory pilotage areas on the coast here? Should there be more?

Mr. Jones: Okay. For the spill response areas, there's no reason why we cannot follow the model of our regional advisory councils of both Cook Inlet and Prince William Sound. That would be a real valuable lesson to learn from the people with the greatest experience.

For the pilotage, for large oil-laden tankers that will be moving around the coastline, I believe we would have to see some pilotage extended out to beyond where they normally are now. Because right now, they're all regulated to the surf line, which is three miles offshore, and it

would be no problem to extend it to where it would be a release, say 60 miles off the mainland, to the Pacific Ocean. Those things are doable. They could be doable.

But the other thing that happened in my time with Enbridge, they gave us \$213 million to develop spill response, too, and we had 32 First Nations involved in Enbridge. We were in the process of signing the 33rd when Mr. Trudeau made his announcement on November 19, 2016, and said that the Great Bear Rainforest is no place for tankers and the Douglas Channel is no place for tankers.

That specific thing, saying the Douglas Channel, Kitimat was not the port. And this is something I said to Enbridge two months after I worked for them. I delivered them a letter saying that Kitimat is not the port, and it came with two maps and the distances to tanker release in the routes, and why.

And when I spoke at the JRP in 2012, that was my very thing. My concern was about the route, so the pilotages are very important, and we have to ensure that maximum measures are put in place to ensure the safety of our oceans and our ports and our coastlines.

Ms. Tait Day: If I could just add to that, we've had several discussions about this, as well, and one of the suggestions that came was that there should be a billion-dollar bond put on the companies that are using the coast ways, so that Indigenous people have access to that.

Again, we don't want to have a situation of giving -- like, it's important that, as a relationship with Indigenous people, that there is an equal relationship, so that you're not giving away little pieces piecemeal. You know, we need to have control of the coast and, in order to do that, we need the funding to make sure that that's going to happen.

The Chair: We have one question from Senator Cormier, and then we'll finish this session.

Senator Cormier: Thank you, Mr. Chair. My question will follow Senator Dakso's question around amendment, because, of course, we will have to decide on this bill pretty soon.

I was wondering, and I asked that question before, considering the lack of consultation -- we talked about it -- that First Nations should have been there at the beginning of this whole process, and considering the technology evolution, there are going to be changes, new technologies, do you think that, if there were a periodic revision obligation included in the act, that that could help to continue the conversation, the consultation process, with First Nations?

Because, I mean, government would have to periodically revisit the act. So I would like to hear you on that one.

Ms. Tait Day: Again, I think what would satisfy Indigenous people is the recognition of their right to self-determination. And in that recognition is the right to manage the lands, and to manage the lands along with industry and government.

So it's flipping that idea on its head, where the Aboriginal Indigenous is the leader and you are the supporter. So that's how I would answer.

The Chair: Please, both of you. We'll end it that way.

Mr. Louie: Yes, I just need to add to that. In the amendment, and you talk about the bonds, you talk about everything like that, and time limit is one of the things that I was really interested in, because in any project it should be revisited no matter what. Even the legislation has to be done, because technology does take over. It's going to take over. There's no doubt about it. We've got electric cars running around out there; I don't know how much longer we'll need gas and oil.

It needs to be amended but revisited every few years, to see how effective it was, or whether it was effective, or whether it wasn't, and redo it again. It has to be open, because things do change. People do change. It has to be for the better of Canada.

Senator MacDonald: Just one quick remark for the captain. My uncles, when it comes to getting to sleep, their drug of choice was always dark rum. That was their preference.

The Chair: Mr. Jones, would you like to answer Senator Cormier's question?

Mr. Jones: Yes. The consultation process has to be in integral part of moving forward. I mean, you know, depending on which way this bill goes, you guys may say, "Okay, we're going to go with the moratorium, we're shutting her down." There's no need for consultation.

It's pretty much like when we talk about the Eagle Spirit concept of an energy corridor. When I reviewed that and studied what they were doing with it, it was absolutely brilliant. You know, you could put redundancy systems into that wherever there are sensitive areas to ensure that anything that happens in that area would be contained. It was just absolutely brilliant.

Because it has to be the same way when it reaches tidewater and beyond. We have to make sure that the facilities that we need when this ship leaves this port are there to ensure the safe departure of a laden ship, no matter what's on it.

The Chair: Thank you very much, witnesses. That was most interesting.

In the spirit of reconciliation, Senator Miville-Dechéne will chair the next session.

Senator Julie Miville-Dechéne (*Deputy Chair*) in the chair.

The Deputy Chair: I am deputy chair of this committee, Senator Miville-Dechéne, and I will chair this part of the hearing.

We are pleased to welcome, from SkeenaWild Conservation Trust, Greg Knox, executive director; from The North Matters, Mr. Steven Simons; from the Raincoast Conservation Foundation, Mr. Kyle Artelle, research scientist; and from Douglas Channel Watch, Mr. Dave Shannon, retired engineer.

Thank you for attending our meeting. We will now hear from witnesses, starting from the left to the right. And I am asking each of you to speak for five minutes, because if you are too long we won't have time for answers. Thank you very much.

Greg Knox, Executive Director, SkeenaWild Conservation Trust: Thank you very much, senators, for allowing me to speak. I know it was last-minute, and I have done my best to get my presentation together on short notice.

My name is Greg Knox, and I have lived in this area for almost 20 years, and the reason I moved here is because the area is pretty special in terms of the wilderness opportunities it offers and the cultures that exist here in terms of indigenous cultures and the communities; they're wonderful communities to live in.

I moved here and I am raising a family here, and this is now my home. I also, about 12 years ago, became the executive director of SkeenaWild Conservation Trust. We're a salmon conservation organization that was put together by people in the region who care about the wild rivers, and the fish, and the sustainability of our communities.

As I mentioned, this area is quite unique, and that's what drew me here, but it is unique on a global scale. The Skeena is one of the last large intact salmon watersheds in the world. It's a place where people from all over the world come to fish and enjoy the outdoors. We have the largest, physically by size, salmon in the world, world-record caught Chinook salmon, steelhead, Coho salmon, and it is just a Mecca for sport fishing.

It is also, of course, important for Indigenous cultures, as you've heard, and it supports a large industry, about \$110-million industry, every year.

It is also the region of the Great Bear Rainforest. And that over many years was protected because of the unique values in the Great Bear Rainforest. It's a large, intact, coastal temperate rainforest which, if you imagine a tropical rainforest, it has similar incredibly important ecological values and supports really, really rich diversity of species, and so do the marine system surrounding it.

And that is what makes it so unique, is because it's not only these terrestrial systems, these land systems, where we have incredible rainforest, but also the marine system interacts with that. And the salmon that enter the rivers actually deliver nutrients back upstream and enrich the trees and other organisms upriver, so it's a really unique system on the Earth.

The area is also extremely rugged. If you can imagine the country of Canada, it's vast and diverse, and we have a lot of rugged places and remote places, but this particular region is really remote. I mean, if we were to ask anyone if you can think of a really rugged place, this would be one of them for sure. The coast mountain range is very steep, with high mountains up to over 10,000 feet high. Lots of snow, glaciers, it's very difficult terrain, extremely difficult terrain.

And then, of course, the marine system off our coast is known for heavy storms and is considered one of the stormiest seaways in the world, especially Hecate Strait. And so this place, the ruggedness and remoteness, mean that it is particularly at risk because of the

challenges that come with both navigation and pipelines or rail, but also because of the weather and the remoteness of getting out there if something happens. In the winter, trying to get access to a pipeline that's broken is extremely difficult in this terrain. Getting out on the coast in the winter is also extremely difficult.

What's at risk? Well, 3 to 10 million salmon in the Skeena return every year to this particular watershed, this river that flows past us here. There are also tens of millions more salmon in the Great Bear Rainforest that feed the system, that feed these rich commercial and First Nations sport fisheries. Over \$400 million alone in economic value from the north and central coast to commercial fisheries, and many hundreds of millions more in tourism and recreation.

This area is not only, of course, we talk a lot about the tankers because it's a tanker bill, but it's also at risk from the transport of oil through pipelines and potentially by rail. And this isn't an abstract idea. You know, just north of here in Prince William Sound, we saw the Exxon Valdez run aground 30 years ago and the devastation that that brought. Fisheries were shut down for a long time. It took two decades to get compensation for those communities up there. All species were heavily impacted; 2,000 sea otters were killed; 300 harbour seals; 40 per cent of two pods of killer whales were decimated; a quarter million seabirds were killed; beaches were coated and contaminated.

There is still oil there; you just have to dig a few inches under the surface, and there is still oil there. Fifteen thousand kilometres of coastline were impacted from that spill.

So those are the sorts of concerns that we are bringing forward here as communities who depend on the ocean, depend on these rivers for the health of our communities and the health of our lives, our quality of lives. This is where we take our children in our spare time.

The Deputy Chair: You are approaching minute five, so if you conclude.

Mr. Knox: Okay, so the biggest problem is we just can't clean it up; 15 per cent isn't good enough. That's world class; 15 per cent is world class, and that leaves 85 per cent or more of the oil in the water. That just isn't good enough.

And the question is, you know, we hear a lot about safety, but if things are so safe why do these accidents keep happening? They keep happening, and we talk all about the technical fixes that we can have to prevent spills, but these things just keep happening.

Climate is change is real. We're seeing it here in the Skeena. I won't go too more into that, but it is, and it's really devastating to our salmon and to our communities. And this region has fought for this tanker ban for 40 years, and there was an informal tanker ban in place for a long time, still is, and our communities have a history of standing up because this place is incredibly special to us, and we're not going anywhere. We're going to be here for a long time.

The Deputy Chair: Thank you very much, Mr. Knox.

Mr. Simons, now.

Steven Simons, The North Matters: Good afternoon. My name is Steven Simons, and I am here representing the citizens' association The North Matters.

Before I start, I wish to thank the senators for providing citizens the opportunity to speak to Bill C-48. It's an important consultation, and I'm sure that it's attracted many voices and points of view.

The North Matters is a grassroots citizens' movement started in Kitimat, B.C., by a group of motivated and concerned local citizens, and their mission statement is "Building Strength in Northern Communities by Aligning and Creating Opportunities for its Residents."

The group was originally formed in response to an LNG project proposed to be built in the vicinity of Kitimat, and this original group of citizens was concerned by what seemed like an overwhelming amount of negative information and obstructions --

The Deputy Chair: Mr. Simons, sorry, could you slow down for the translation? Because we are translating it.

Mr. Simons: You bet. The original group of citizens was concerned by what seemed like an overwhelming amount of negative information and obstructionist activity aimed at the proposal by special interests. And that activity seemed out of proportion to what overwhelming vocal support, so they took it upon themselves to research and learn the pros and cons of the proposed development, and they worked to understand the real risks and real benefit in context to local, national, and global realities.

What they discovered was a number of the negative assertions attributed to industry were simply not true. The organization also recognized a trend where many of the same organizations protesting the LNG proposal protest nearly every natural resource proposal using the same negative rhetoric.

The North Matters itself takes a balanced approach to objectively researching and reviewing development opportunities, and a key objective for the organization is to make advocacy and social license decisions based on fact and objectivity, not fear and emotion.

And that is a tall task, quite frankly, trying to sort fact from fiction, with so much information out there and in an extremely polarized setting surrounding natural resource topics. In the case of LNG, The North Matters and the citizens were able to make informed decisions once they were able to debunk rhetoric; from all sides, I'll add.

This local involvement serves as a powerful lesson in objective local decision-making, and Bill C-48 risks eliminating that local-level decision making. And if the experience with researching LNG is any example, it serves as a model for local input, and local research, and local decision-making.

Citizens are, in fact, capable of making these decisions, and Bill C-48 represents a risk to that democracy.

The northwest is currently experiencing ardent anti-development obstructionism aimed at the coastal gasoline pipeline, and we believe that, if this bill passes, it elevates the risk of that anti-development action evolving to include the LNG and other resource shipping.

Bill C-48 is also an extreme reaction to the politicized, polarizing, and positional sensationalism brought by public relations campaigns of powerful anti-resource activists.

Regular citizens are just now starting to find their voice. We are doing our own research in order to make favourable or unfavourable decisions on any proposals, and we are working to include others through new awareness programs like "Together for LNG," which brings together labour groups, grassroots citizens, civic politicians, First Nations, and small businesses.

This committee is facing what The North Matters has faced in trying to sort incoming information, and you're going to hear a lot of positional arguments, I'm sure, through your travels. Many of them are based on rhetorical hyperbole or extreme exaggeration of risks. And extreme exaggeration of the risks is something that Greenpeace has recently admitted is a common practice that is intended to be a purely illustrative and subjective opinion of their position, and it is not intended to be taken literally.

Unfortunately, part of problem is people do take some of that information literally, and many of the anti-development arguments try to position anyone interested in economic development as anti-environment, and that's just not true.

The professional-level anti-development activists have become experts at maintaining a high degree of social anxiety on many of these issues, and what we have learned is that they have made a business out of protests, with paid positions and operating budgets. Their demands have become insatiable and uncompromising, with each campaign asking for more and more.

The Deputy Chair: You're almost done, because you're at five minutes, now. So you have to conclude.

Mr. Simons: Oh, sure. If previous anti-development campaigns are any indication of what we can expect going forward, then we can expect these activist organizations to turn their efforts towards LNG shipping next, and that's a concern for the community.

Legislation like Bill C-48 is too permanent of an approach to what amounts to a reactive social anxiety of modern resource development. It's extreme government overreach, in our opinion, that risks permanently removing our own right to local decisions.

And maybe I'll leave it at that. Thank you.

The Deputy Chair: Thank you so much, Mr. Simons.

Mr. Kyle Artelle, you have the floor.

Kyle Artelle, Research Scientist, Raincoast Conservation Foundation: Thank you very much to the standing committee for the invitation to speak before you today. My name is Dr.

Kyle Artelle. I'm a research scientist at the Raincoast Conservation Foundation and a postdoctoral fellow and instructor at the University of Victoria.

I study resource use by wildlife and by people, with a focus specifically on the coast. I live in Haida territory, in the village of Bella Bella. I am also here in place of Raincoast's senior scientist, Dr. Paul Paquette, who regrets he could not attend today.

Today, I am going to talk about two aspects that point to the necessity of Bill C-48. Firstly, the globally significant ecological richness of this region; and secondly, the very real risks that petroleum transport brings to it.

This is an area with an impressive diversity of species and with iconic ecosystems, such as kelp forests, eelgrass meadows, and estuaries that rival the productivity of tropical rainforests. It's an area where the land and sea are closely connected, where marine nutrients and, unfortunately, pollutants find their way easily into terrestrial systems.

A couple of examples: Spawning salmon and herring feed communities of predators, such as wolves and bears. They feed communities of scavengers and even fertilize coastal plant communities.

This biological richness also supports and has been supported by people who have lived here in high densities since time immemorial. However, the ecosystems here, despite being naturally resilient, are vulnerable to industrial activities. In 2017, my colleague Misty MacDuffee presented three scientific studies to the House of Commons committee on this bill.

These studies described firstly areas of exceptionally high marine mammal abundance throughout this region; secondly, that all of B.C.'s marine mammals are vulnerable to oil spills, but with killer whales, Steller sea lions, and sea otters being particularly vulnerable; and thirdly, that marine birds across this region are similarly vulnerable.

Misty also described the expanded cumulative effects that increased marine traffic would bring, including increased underwater noise and physical disturbance of boats themselves, and increased risk of ship strikes, especially to whales.

In addition to these scientific studies, I have seen firsthand the risk this coast already faces from existing marine transport. In 2016 the Nathan E. Stewart, an articulated tug barge petroleum vessel, ran aground. Thankfully, the barge was empty, but the tugboat spilled over 100,000 litres of fuel into Qvuqvai, a place of central importance to the Haida Nation that, until this spill, supported, among other things, the bulk of the nation's clam harvesting economy.

I worked as an observer in the aftermath of this spill, and that experience made it clear how effective containment and cleanup are nearly impossible in this environment once accidents happen. And this spill would be considered minor by most metrics, based on the volume that was spilled and that diesel is less persistent than heavier oils. But the consequences have been considerable; the clam harvest is still closed there today, and the effects on inherent rights and title are ongoing.

One year after this spill, history almost repeated, this time with the Nathan E. Stewart's replacement, the Jake Shearer. Its barge broke free in heavy seas and drifted to within less than a kilometre from Gosling Rocks before its crewmembers managed to drop its anchor. This time, the barge was fully loaded with fuels.

So these two incidents make abundantly clear the lack of preparedness for risks of current marine traffic, let alone those of increased tankers. And the risks here are not just ecological, but are deeply tied to people.

For just a small sampling of this, a couple of weeks ago, the harvest of herring spawn, which is of considerable cultural and economic importance wrapped up in Haislaq territory. Just last weekend, the yearly sputc ceremony happened in Bella Coola, Nuxalk territory, welcoming eulachon back to the river. Right now, edible seaweed is growing on intertidal rocks throughout the region, with harvesting beginning in the weeks ahead, and salmon season is just about to begin, and the list goes on. All of these species are deeply tied to people and economies up and down the coast, and all are at potential risk from spills.

There is a rich opportunity now to sustain and restore a truly resilient region that supports people, ecosystems, and economies alike. And although this area has certainly faced pressures over the past couple of centuries, unlike many coastal regions in the world, it still retains most of its species and intactness, and there is a strong potential for restoring what has been recently lost.

We are already seeing some of that with the ongoing recovery of many nearly-lost species, such as large whales and sea otters, and with the resurgence of Indigenous governance and stewardship throughout the area, which contribute enormously to the resilience of people and ecosystems alike.

Bill C-48 is not enough by itself to safeguard this area, but it is an important step in the right direction. Thank you.

The Deputy Chair: You are exactly five minutes, bravo.

Now we will hear from Dave Shannon.

Dave Shannon, P. Eng. Retired, Douglas Channel Watch: I am not going to do that well. So you have my speaking notes; I may miss some points. There are seven of them; I will try to cover the ones I think are most important, and you can ask questions on the speaking notes any time you like.

Thank you for the opportunity to speak to you today. My name is Dave Shannon. I represent Douglas Channel Watch, a grassroots citizens' group in Kitimat. Our group was formed in 2009 due to concerns about the proposed Northern Gateway Energy project. I was one of three from our group who registered as interveners to oppose the project at the NAV joint review panel in 2010. Subject to 209 conditions, the Conservative government at the time decided to approve the project in 2012, but following this approval, impassioned and concerned citizens of the community appealed to Kitimat's city council to conduct a plebiscite of Kitimat residents to measure the will of the community on the project.

In 2014, the plebiscite was held, and a 58-per cent majority of voters chose to vote oppose Northern Gateway. Details of the plebiscite are given in my attachment, number 1, and CBC news coverage at the time is given in the link in the speaking notes I have provided.

In 2017, Mayor Philip Germuth, on behalf of city council, sent a letter in support of Bill C-48; see attachment 2, please.

Alaska Oil shipments, I'd like to spend a bit of time on that. Some senators on the committee have asked, with the exception of the Exxon Valdez oil spill in 1989, why has Alaska been shipping oil to southern states successfully for years?

The Jones Act applies to goods shipped between the U.S. ports and stipulates the ships are to be built, owned, and operated by U.S. citizens or permanent residents.

The act has existed in various forms since World War II. Its provision requires that tankers are built in the U.S. and have English-speaking crews. This avoids language and cultural problems between pilot and master, and response organizations if, or when, problems arise. Attachment 3 shows what can happen when human error collides with cultural language barriers and affects vital communication at a time in a marine oil spill.

Because Jones Act tankers are registered and flagged in the U.S., litigation confusion after a shipping incident, common with ships carrying foreign flags of convenience, is avoided.

The Trans-Alaska ConocoPhillips Endeavor-class tankers constructed since 1990 use dual modal redundancy safety features, which include two independent engines, power trains, and navigation systems. If one propulsion mode fails, the other one takes over. Low-speed manoeuvrability is enhanced, with a twin-powered train and two skegs. Endeavor-class tankers have 3 metres between hulls, compared to the IML standard of 2 metres. This provides additional breach protection and ease of inspection.

B.C. north coasts will not have the luxury of this level of safety assurance for crude oil tankers.

Compared to Kitimat, the route from Valdez to the open ocean is very short, straight, wide, and uncomplicated, with lane separation for arriving and departing tankers. The Trans-Alaska Pipeline system tankers have easily observed Canada's voluntary tanker exclusion zone since 1985; please see the maps I have shown in attachment 4 for detail of that.

Double-hulled tankers are not foolproof; in fact, in the first 10 years of this century, there have been 10 tanker spills, one a year. And a picture is shown in attachment 5 of the Eagle Otome suffering a breach of both hulls after a collision with the barge Dixie Vengeance. The spill was 1.7 million litres of crude near Port Arthur, Texas.

I'll skip corrosion, but you can ask me questions if you like.

Why should the north coast of B.C. be given special consideration? The moratorium zone contains the Great Bear Rainforest, the largest remaining untouched temperate rainforest in the world, and deserves our protection.

Weather on the north coast is notorious for rapidly forming weather bombs that occur without warning. An Environment Canada report notes that Hecate Strait is known as the fourth most dangerous body of water in the world. There are records of monstrous events, such as in 1968 when a drilling rig, Sedco 135f, recorded seas south of Cape St. James near Haida Gwaii building from 3 metres to 18 metres in just eight hours; reference to these sources are given in my speaking notes.

North coast sea conditions varied. Large, maximum, and significant waves occur very close to shore; in fact, closer than they do on the east coast. I have the source for that if you want it. This makes transferring pilots to and from west coast tankers very risky, especially during hurricane-force winds, which are not uncommon in the region.

Compared to ports in New Brunswick and Newfoundland, Kitimat's route to the open sea is far more complex, confined, and at least 10 times longer than those of the eastern ports.

The Deputy Chair: Mr. Shannon, you will have to conclude soon because your five minutes is over.

Mr. Shannon: Thank you. So why not open a special corridor in the proposed zone from Kitimat, Port Simpson, or Prince Rupert? Northern Gateway looked at this. They looked at a dozen potential ports, and they ruled most of them out because of unstable geology for the pipelines.

Pipelines are a very important feature when you think of a port. In fact, two natural gas pipelines in the Skeena River region have recently been damaged by landslides; there have been four since 1974. So Northern Gateway's decision to avoid this region is a wise one. Comparative maps on section 7 and more than 40 incidents are shown in my attachment 8.

Thank you very much for your time. I hope you approve Bill C-48.

The Deputy Chair: Well, we are studying it. Thank you everybody for trying very hard to stick within the five minutes. We have your attachments, and thank you also for all of that. We have maps, and we love maps.

Senator Cormier: Thank you, Madam Chair. So my first question is for Dr. Artelle, and it concerns the idea of a corridor, because, you know, some witnesses suggest that it could be a good compromise. I would like to hear what you think about that idea and where it should be located, so that's my first question for you.

My second question is for Mr. Knox. I would like to know more about economic development, you know, in terms of the salmon industry, in terms of tourism, market, and stuff, because I want to understand better what are the economic opportunities for your region.

Mr. Artelle: Thank you. In terms of a corridor, the specifics of where one should be if there were one, is beyond my expertise. But I think it is worth noting that oil wouldn't respect a corridor. If anything were to happen in any corridor, Raincoast did an analysis a few years ago where they looked at the footprint of a spill of the magnitude of the Exxon Valdez, how far that would spread, and it would cover most of coastal B.C., in fact, if it happened.

So I think it would just be important to realize that you can take mitigations and reduce risk to a certain point; you're never going to reduce it to zero. And if an incident were to happen in a corridor, that could very quickly reach the places that I've talked about today and impact the kinds of systems that I have described.

The Deputy Chair: Mr. Knox?

Mr. Knox: Yes, thank you for the question. As I mentioned, Skeena salmon specifically generate about \$100 million a year, and that's a combination of commercial, sport fishing, and tourism. I think some of your presenters this morning mentioned that there are a lot more benefits that came to First Nations communities which you can't quantify by money.

But there is a lot of opportunities. Right now, although we are seeing some downturns in the commercial fishing industry, we are seeing more and more people interested in sport fishing. And more and more people are interested in the tourism aspects of the region, coming and seeing salmon and seeing these amazing First Nations cultures which were developed because the salmon were here. It was such a rich food source that these incredible cultures were developed on our west coast based on having that food source. And so a lot of people are interested in seeing that culture, coming here, seeing Indigenous communities, fishing for salmon, and managing salmon. And we are seeing more and more of that all the time.

Senator Cormier: Thank you.

The Deputy Chair: Can I just ask you one more little detail? Do you have an idea of the percentage of commercial fishing that is done by the Aboriginal people around the Skeena River versus the non-Aboriginal people?

Mr. Knox: Yes. The percentage of commercial fisherman that are Indigenous is really high. I don't have the exact figure, but my guess is that it's probably well over 80 per cent.

The Deputy Chair: Thank you. Senator Tkachuk?

Senator Tkachuk: Welcome. I just have a couple questions. I noticed, Mr. Knox, your organization is called the Raincoast Conservation Trust. Is that correct? Who is that? That's Mr. Artelle? Okay. And, Mr. Simons is the Citizens' Association of the North. And Mr. Knox, what is Mr. Knox called?

Mr. Knox: It's the SkeenaWild Conservation Trust.

Senator Tkachuk: There are a lot of groups around. Could you tell me, Mr. Knox and Mr. Artelle, and I'll get to Mr. Simons as well, what kind of organizations are they? Do you have memberships? How are you funded? Who supports you? What are your jobs there?

Mr. Knox: I am the executive director, so I have a board of trustees, and they give me direction. They are responsible. They are legally bound to our trust agreement, which is we are a registered charity in Canada, registered to do salmon conservation work in this region of British Columbia.

Senator Tkachuk: So how do you get cash?

Mr. Knox: How do we get cash? Mostly from foundations, a mixture of Canadian and U.S. foundations; also individuals. A lot of individuals in the region support us, local businesses, and it really comes in all sorts of forms.

Senator Tkachuk: How much money do you get Americans?

Mr. Knox: We get probably about 70 per cent from U.S. foundations.

Senator Tkachuk: Seventy per cent from U.S. foundations? And how many people work there?

Mr. Knox: At our organization? Well we have a mixture of eight full- and part-time people.

Senator Tkachuk: How many full-time and how many part-time?

Mr. Knox: We have five full-time, three part-time.

Senator Tkachuk: And what about you, Mr. Artelle? How do you get funded?

Mr. Artelle: Raincoast is a science-based conservation organization. It's a bit of a unique model, where the vast majority of us get our funding academically, and myself included. So, my funding to date has been almost entirely through Canada. Through Vanier Fellowship and CIRC scholarships, et cetera. That stands for the majority of especially scientists among the organization. There's a small administrative staff.

I don't know the details of the funding, I do biology, but it is a mix of a foundations and partnerships with Environment Canada, Parks Canada, and some foundations. I think there is some American in there, but my understanding is that it is primarily Canadian.

Senator Tkachuk: Is this your job? Do you work there? Or do you work at the university, and you're funded there? Does anybody work at this organization?

Mr. Artelle: There is a small sort of administrative staff. I think there are three full-time folks on, sort of, the administrative side. The vast majority of us work through university. So I'm a postdoctoral fellow, is where my income comes from, and I'm an instructor at the University of Victoria, and that research ties into the work that Raincoast does.

So we do peer-reviewed research, scientific research, that informs our positions on different subjects.

Senator Tkachuk: Americans help, though? How much money do the Americans give you a year? Or do you know?

Mr. Artelle: Me?

Senator Tkachuk: Well, your organization.

Mr. Artelle: So like I said, I don't know the details. I know it's a minority; I don't know the details. I could find that and report back, if that would be helpful.

Senator Tkachuk: That would be helpful.

Mr. Artelle: Zero dollars to me though.

Senator Tkachuk: That's good. I'll get back to the others after.

Senator Gagné: Well, I was going to ask the same questions, so I can ask Mr. Simons, first of all, what is The North Matters?

Mr. Simons: What is The North Matters?

Senator Gagné: Yes.

Mr. Simons: It's a registered society. It was started by volunteers in Kitimat, registered just about a year ago actually, I think, either this month or last month. It's run by volunteers. Their fundraising is done locally, contributions by businesses or by individuals.

Again, like I said, run by volunteers. Memberships are \$25 to join up and be a member of that.

Senator Gagné: It's all volunteers? No employees?

Mr. Simons: No employees, no. There's no money to have employees.

Senator Gagné: So, how does your organization or your association go about sorting fact from fiction? Doing all the work you are doing right now?

Mr. Simons: A lot of research and personal time.

Senator Gagné: And who are your sources?

Mr. Simons: All kinds of sources. We spend time using the Internet, talking with companies.

One of the things that the organization undertook was to sit down with the proponents specifically, for the LNG project for instance, and ask very specific questions about the benefits to the community, what might be the risks to the community, bring some concerns forward, have them answer, and set up quarterly, kind of, reporting to sit down with the company and say: Okay, you've made these commitments, we have given you social license, show us the progress. We want to see some measurable progress and we want to see the benefits come to fruition in the community.

Senator Gagné: Just if I may, Bill C-48 does not ban projects and pipelines like the LNG. And your presentation was mostly LNG experiences, so I was just wondering how?

Mr. Simons: Right. A good deal of our research has also highlighted that there are very powerful activist organizations operating in British Columbia. Again, following some of Vivian Krause's research, we know the paper trail and the funding that has been attributed to anti-development campaigns. Those campaigns continue to grow and evolve, and the risk with C-48 is that it's the thin end of the wedge. You know, what's next? And is, you know, targeting of LNG the next campaign?

Quite frankly, from personal experience, I have worked up and down the coast myself in resource operations, and in the 1990's as a logger, we saw the coastal rainforest campaign, again, funded, you know, primarily Greenpeace, Sierra Club, and Forest Ethics, which is now Stand. earth, very active in these campaigns as well, foreign-funded as well, put a lot of our logging communities out of work.

And what started out as small areas being put off-limits, grew to being like the Great Bear Rainforest, which ranges from the Alaska panhandle to Vancouver Island.

So, I guess the question is, when is enough enough? And what we're saying is, yes, we understand people's concerns when it comes to these projects, and they are fair concerns. The place for those concerns is in a regulatory process and in formal discussions, where you can have objective answers put forward.

Senator Gagné: So are you for or against Bill C-48?

Mr. Simons: Oh, against it. Absolutely, it's a sledgehammer approach to a perceived risk.

Senator MacDonald: I thank all of you for being here. I always like talking to engineers; I think I'll speak to you, Mr. Shannon.

I'm looking at your report here, and the first thing I want to ask you is most of your report here deals with the movement of heavy oil. What's your position on the export LNG from Kitimat? Do you have a problem with that?

Mr. Shannon: No, I don't have a problem with the export of LNG from Kitimat. What bothers me about LNG is the fact that it's fracked. So I'm also conscious of the world's need to get our carbon footprint down and the amount of methane look from a fracked well is, you know,

a tonne of methane is worth anywhere from 50 to 80 tonnes of carbon dioxide when you put it in the atmosphere. So that's the only drawback I find with LNG, myself.

Senator MacDonald: But you have no problem with exporting LNG through Kitimat?

Mr. Shannon: No, not per se.

Senator MacDonald: In principle. Going through your arguments here, double-hulled tankers are not foolproof. Well, of course they are not. Nothing is foolproof; we know that. I have great faith in good engineering though, I must say that.

You mentioned, compared to oil ports in New Brunswick and Newfoundland, Kitimat's route to the open sea is far more complex. You never mentioned the fact that there are refineries in Quebec, though; in Montreal and Quebec. That's a pretty long route, through ice lane waters. You don't have that here.

Mr. Shannon: I don't have map. I haven't looked at that. I can't say. I was looking at the east coast ports that have been mentioned so far.

Senator MacDonald: Most of the petroleum that goes through our water actually goes to inland in the refineries. Right? Through Nova Scotia waters, up the St. Lawrence estuary.

I was never a big fan of putting heavy petroleum through Kitimat when there are better options available, and I guess that's my question for you. We can put men on the moon. We can build a pipeline down the stem of Alaska 50 years ago, from the Beaufort Sea, right there, right down through Alaska. Do you really think we don't have the engineering that's capable of putting a corridor through to the west coast, so that the west coast can share in some of the minor risk that we share on the east coast?

We manage 283 million metric tonnes of heavy petroleum every year. You have 6 million, and it's all in the lower mainland. We had a captain here who is a part of the Aboriginal community here, and he has great faith in the ability to manage oil on this coast. So I'm just curious about your response to that.

Mr. Shannon: Well, I have to get back to Enbridge's calculation of oil spill risk on the marine. They've estimated a return period for an oil spill on either one of the north or south routes from Kitimat to the open ocean of 350 years. Now, on the face of it, it sounds like pretty good odds, but when you look at the numbers statistically in another manner, that 350-year return period for a 5 million liter spill means that you could see one in the first 40 years. So you have an 11 per cent chance; that's the number, an 11 per cent chance.

That's using the numbers they provide, from Det Norske Veritas evaluation of the course. This is a Norwegian firm that looked at typically tankers and other likelihood of spills, lost power, et cetera.

So I think an 11 per cent chance of 5 million liters in the north coast waters for marine shipping to be unacceptable, personally.

The Deputy Chair: Senator, can we go to the other question, and you will be on the second round. We'll have time, probably, for a second round. Thank you. Senator Simons?

Senator Simons: Thank you. It's nice to have another Simons in the room, but my question is not for you. My question is actually for Mr. Shannon.

I'm really interested in what you've told us about the Jones Act, and I wonder if you could tell us how the American legislation compares to what the Canadian framework is.

And then my second question, if we have time: Some people have suggested to us that Stewart, a port in Nisga'a territory, might be a better option for a potential corridor, and I wondered if you knew anything about the geotechnicals of that part of B.C.

But I want to start with the Jones Act.

Mr. Shannon: The Jones Act tankers, because they are built in the U.S., they are notoriously expensive to build. And, in fact, John McCain when he was alive was trying to kill the subject. It's an old act, but John McCain was opposed to the fact that these ships cost so much, and they were more than was needed, he thought.

They are safe because of their redundant safety features, and I think it would be a wise way to ship oil, if you wanted to, from risky ports.

Senator Simons: But how do Canadian laws compare?

Mr. Shannon: I'm not familiar with that.

Senator Simons: Then I guess the other question is about Stewart, if you know anything about the geotechnical for that part of the coast.

Mr. Shannon: Again, I'm relying on Northern Gateway's evaluation of the Mylor Peninsula, which is nearby that, and they were very worried about putting oil pipelines horizontally directional drilled under all the water courses they had to cross. They were frightened that it wouldn't be feasible to do economically, to be sure of safety on that section. So all of the ports except Kitimat were ruled out for reasons of geotech on pipelines.

Senator Simons: Grassy Narrows, as well?

Mr. Shannon: Yes.

Senator Simons: I have to say, in a world in which somebody could actually drive their tanker into the Golden Gate Bridge, that's a thing in your pictures here. Oh sorry, not the Golden Gate, the Oakland Bay Bridge. It's a pretty big bridge. I mean, how does something like that happen?

Mr. Shannon: Well, there was an NTS piece of investigation of that. It was a container ship, it wasn't a tanker. It was the Cosco Yoko -- no, do you have the name?

Senator Simons: Yes, so it was the Cosco Busan.

Mr. Shannon: Cosco Busan, yes.

Senator Simons: I see. So, because that was a container ship, it wasn't covered by the Jones Act?

Mr. Shannon: That's right. It wasn't the Jones Act because there were Chinese crew on board, there was a pilot handling the trip. He misunderstood, medication was involved, there were a lot of issues with that incident.

Senator Patterson: Thank you Madam Chair. I'm going to try and get in three quick questions.

Mr. Simons, you've basically said that Bill C-48, if I understood you right, is undemocratic because it takes away the right of citizens to participate in environmental reviews that would otherwise take place with regard to these projects prohibited under the bill.

There's a new, very comprehensive environmental legislative package before the Senate now, Bill C-69, and it's been hailed by environmentalists as better than anything before, more rigorous, it involves full consultation, there's a chapter on Indigenous people, and section 22 sets out 20-plus interests that need to be engaged.

Are you thinking that we have a perfectly good environmental review process in Canada that would take care of local input and impacts rather than the sledgehammer blow of an act?

Mr. Simons: Well, I think what I'm trying to say is there are many concerns. And we hear them here, obviously, and from many communities. But the place to address those concerns is through an environmental assessment process, where you can hear those concerns and put it upon the proponent to answer them or not. When you get to the end of that process, you can make a determination whether it happens or it doesn't happen.

Bill C-48 is a leftover, is what remains of the Northern Gateway campaign. It was a political platform promise in the federal Liberal platform. And I sat here and listened to MLA Ellis Ross talk about separating politics from good governance, and Bill C-48 in our view is a political reaction as opposed to good governance, which would put these very questions in front of a review process that takes it to a place where you can make an objective determination of yes or no.

You folks have probably been legislators for a long time, and I've worked in that area as well. I'm actually a former bureaucrat. I spent 12 years in the B.C. government, in the area of resource regulation and legislation. Once something is enacted, it's very hard to undo. So there's a permanence to Bill C-48, and that's why I mention it as a sledgehammer approach to answering risk questions.

The Deputy Chair: Just keep your answers a little shorter, because the senator has two other questions.

Senator Patterson: I'll try to be very brief, Madame Chair. Thank you.

Dr. Artelle, I understand you're a scientist and you're not involved with the administration of the Raincoast Conservation Foundation. You think there was some funding from U.S. funds.

You were going to respond to the senator. I just want to tell you that Vivian Krause has revealed that the Raincoast Conservation Foundation was part of the Tar Sands campaign aimed at land-locking Canadian oil. The foundation received funding from 2010 to 2014 from Tides Canada and the Tides Foundation, and \$1.1 million U.S. from the Gordon and Betty Moore Foundation from 2003 to 2018. So, that information would be important for the committee to have, if you would.

And finally, Mr. Shannon, one thing struck me, and there was no footnote.

The Deputy Chair: Would you like to answer that question? Maybe we should give Mr. Artelle a chance to answer.

Mr. Artelle: Yes. I think it would be incumbent to have the full financial details, not Vivian Krause's assessment of them. I don't deal with the finances, but I think that that characterization should be backed up with the evidence of the actual financial, if folks want to evaluate that, and I'd be happy to share that. I'd be happy to follow up with that. Will do, you bet.

Senator Patterson: Very quickly, Mr. Shannon, you talked about the difficulty of transferring pilots in high winds in the northwest coast.

Today, we got another presentation from a witness that 99.97 per cent of pilotage in the Pacific coast is incident-free. You didn't have a footnote for your reference. Are you saying that pilots can't make it on the boats at times? And what's your authority for that statement, please?

Mr. Shannon: It's only anecdotal. I knew a pilot of a helicopter who used to deliver pilots to ships, and he said in rough weather it was very difficult to do that, quite risky for them to descend the line and get on board in heavy seas, strong winds. They get on board in Triple Island, near the west coast, and they also get on board at Pine Island, near Vancouver Island. So there are two places, as far as I'm aware, of where pilots join ships, and get off as well.

I'd like to make another comment on Vivian Krause's concept of landlocked oil from Alberta. There are two oil refinery proposals for Kitimat which would take oil from Alberta and convert it into finished product, which would be okay to ship through Kitimat via Bill C-48. Bill C-48 does not negate those two opportunities; I just wanted to make that clear.

I know I ruled it out as far as a port for persistent oils; that's what Bill C-48 is built on, not refined products. There are products like gasoline, diesel, light oils; those kind of things are still shippable, let's put it that way, from Kitimat.

Senator Patterson: Thank you.

Senator Cormier: Thank you, Madam Chair. My question is around funding, again. I just want to know, tell us, if you are receiving money from the United States, does it link you to any kind of ideology or activities or specific mandates?

Because there is that perception, and we have to be clear on this, so I would like to have your straight answers on that. Thank you.

Mr. Knox: I can start, if you like. No, that's not legal under U.S. charitable laws. So they can't tell us what to do. We apply for funding to do work on stuff and we get money to do that. They don't oversee any of that. Then we report out at the end. It's illegal for them to do that.

Number two is, most of these foundations that we get money from are based in the U.S., but they're international companies. They're companies that Canadians invest in. Most of you have computers. You have Intel chips in there. You know, these companies make lots of stuff, they sell it around the world, and they give money back to charities all over the world, including in Canada. And some of them happen to care about salmon conservation.

As I mentioned earlier, this is one of the last best places in the world. We have the largest salmon in the world; we have some of the healthiest salmon populations. That's why these companies invest here, that's why these foundations invest here. It's not because of some conspiracy theory that an oil lobbyist has created like Vivian Krause.

Senator Cormier: Thank you. If you could answer, but I'm thinking that some foundations have specific criteria to give money, and that could mean specific activities, specific visions. So yes, please?

Mr. Artelle: Just to echo, it is a little bit of a red herring, I think, this line of argument. And a little bit of an ironic one, given that the proponents for these generally have international funding, but that's just a general comment. I'm going to answer the question if you'd let me, please.

The Deputy Chair: Yes, Mr. Artelle. Please answer it, and maybe the room, this is a hearing so let's hear our witnesses. Thank you.

Mr. Artelle: Thank you. In terms of my own process, I'm subject to peer review in the research that I do. And so, in that, you have to be fully transparent. And that is one way of definitely weighing the evidence, where your biases are evaluated. Where, if you do research, it's subjected to anonymous peer review, and if you are trying to sell something, trying to spin something that the evidence doesn't support, that's exactly what the peer review system was set up to address. This is not perfect, but it's one of the best systems for assessing evidence and assessing for bias.

So, in my own case, I don't get American funding, period. But if I did, I would not be able to give a message that this imaginary American funder would want me to give, because it would not pass through peer review. There is a built-in system to prevent against that kind of bias in the sciences.

Senator Cormier: Thank you, sir.

Mr. Knox: I would just add that, you know, I don't understand why this line of question is specific to conservation organizations. What about the oil and gas lobby? Where do they get their money? How much money do they spend in Ottawa every year?

The Deputy Chair: I think Senator Tkachuk has another question.

Senator Tkachuk: I have another question on that. We're asking the questions here; you are coming here and you're making your case. So we're asking you where you got your money from, and we ask that of everybody.

What I'm interested in is, are you interested in the east coast? Do you do work in any other coast besides British Columbia? We haven't heard any information about any of that. Or do you just focus here on the west coast? Because it seems, on the west coast, all these groups are all located here. We don't hear about them on the east coast that much. We don't hear about them in the States that much. We hear about them all here.

Mr. Knox: I work specifically in British Columbia, but mostly in northwestern British Columbia. And the reason I work here is because I care about this place, and I care about what my kids and family have in the future. And it's special to a lot of people, as you've heard over the last two days.

Senator Tkachuk: We all do, we all care about that.

The Deputy Chair: So is there another question on that delicate topic? No? We're fine?

Gentlemen, thank you very much. I would like to thank our witnesses for appearing before the committee this afternoon.

Senator David Tkachuk (*Chair*) in the chair.

The Chair: Thank you, Senator Miville-Dechéne. On our next panel this afternoon we are pleased to welcome, from HARBO Technologies Ltd., Mr. Colin Doylend, senior advisor for Canada; from the International Ship-Owners Alliance of Canada, Mr. Oscar de Gouveia Pinto, director; and as an individual, Mr. Stan Bowles, director, Chamber of Shipping of British Columbia. Thank you for attending. We will now hear from the witnesses. We'll start with Mr. Bowles.

Stan Bowles, Director, Chamber of Shipping of British Columbia, as an individual:
Good afternoon, Mr. Chair and members of the committee.

As a Director of the Chamber of Shipping, I very much appreciate the opportunity to discuss the important technical details of tanker operations in view of the proposed moratorium on petroleum-based exports and related concerns to tanker traffic as outlined in Bill C-48.

My career has spanned more than 50 years, and I possess Canadian and British Class 1 Unlimited Master Mariners Certificates of Competence and Level 1 and 2 endorsements for oil, chemical, and gas.

I have had command at sea and served with the federal government in Ottawa and Vancouver, where I was manager of Pollution Prevention/Dangerous Goods, Western Region, ship safety, and a marine investigator with the Transportation Safety Board.

I was OPI Western for the Council of Canadian Ministers on the Environment, the CCME, and vice-chair of the Pacific Regional Advisory Council on Pollution Prevention and Preparedness. Under the International Institute of Marine Surveyors, I have authored five bulk liquid modules under the HND Program.

I am a former Chemical Distribution Institute and SIRE inspector and a class surveyor with ClassNK, the Japanese Clarification Society. This allowed me to inspect and certify tankers to meet rigorous vetting, port, and flag state requirements.

As a loading master for TransMountain/Kinder Morgan, I was on the front line, ensuring Aframax tankers met the operational controls during cargo transfers to prevent pollution and boast a 100 per cent safe operation with a zero pollution record.

Tanker safety and control of shipboard operations is paramount. Chemical and product carriers are at the top of the food chain. They require all personnel to operate at a heightened level of awareness, and tankers have significant pollution control measures over and above bulk carriers.

A day in the life of the executive team on tankers must conform to rigid controls set out in the company Safety Management Systems, or the SMS. All operations are related to known or perceived risks. Industry best practices are under constant review, promoting continuous improvement and self-assessment, the core elements within the Tanker Management Self-Assessment Scheme applied by the Oil/Chemical Majors through the Oil Companies International Marine Forum, or OCIMF, and other organisations such as Intertanko. Effectively, all tankers applying the company SMS rigidly, and subjected to a port state, flag state or a vetting, will achieve a clean report.

There have been no pollution incidents involving tankers on the west coast of Canada.

The Exxon Valdez incident 30 years ago evokes a great deal of emotion. For the industry, it was a game changer. She was a single-hulled tanker operating without the available technology, navigational aids, tug escorts, and response capability that is seen today in areas where these ships operate.

Since 2003, all tankers, including chemical and product carriers, have been mandated to be double-hulled as a result of agreements between administrations, the International Convention for the Prevention of Pollution from Ships, otherwise known as MARPOL, or OPA'90, the US Oil Pollution Act.

Double-hulling effectively protects the cargo during low-impact incidents. During a major incident, the tank size and subdivisions limit a calculated outflow of cargo, thereby minimizing loss, depending on the vessel's draft and disposition.

Chemical carriers must also conform to construction requirements dictating their survival capability in relation to the types of cargoes they are certified to carry that are listed in the Certificate of Fitness. International conventions and protocols lay down these parameters. Cargo containment is also addressed with respect to the deleterious nature of the particular cargo.

The master is required to complete cargo record books; oil record books; and conduct crude oil washing consistent with the procedures and arrangements manuals. These indicate precisely where and what cargo has been loaded; its in-transit care and control; where it was discharged; and how it was cleaned prior to loading the next cargo. Atmospheric control is also critical under MARPOL Annex VI.

The tanker exclusion zone has been in place since the late 1970s to mitigate risks in the wake of the Alaska pipeline development. The so-called TAP tankers have transited B.C. waters without incident and continue to do so, carrying Alaskan crude to many ports south of the 49th parallel.

Should this legislation pass, a comprehensive risk assessment of shipping in northern B.C. should be conducted within five years. The Minister of Transport should be tasked to review the feasibility of establishing particularly sensitive sea areas, or PSSAs, designated through the IMO.

A PSSA designation combines IMO protective measures and Canada's marine safety standards, such as ship routing, reporting requirements, and areas to be avoided. PSSAs are supported by science and adaptable depending on the environment and would leverage initiatives such as marine protected area network planning, proactive vessel management, and the Oceans Protection Plan. The voyage of all vessels is thoroughly planned and executed.

For many years, I have been associated with chemical and product tankers operating in the Pacific Trade Lane. There have been no incidents. The ships are predominately stainless steel and built in Japan to the highest classification rules.

The days of substandard tanker operations have long gone. Both Transport Canada and the U.S. Coast Guard ensure, through rigorous inspection regimes, that weak links are quickly addressed.

In closing, the protection of the environment is paramount. Every tanker master is acutely aware, and throughout the voyage ensures that all operations are monitored and logged so that, when challenged, he can prove the ship is being operated within the myriad of regulations and that, morally, he is a good steward of his assigned role. Thank you.

The Chair: Thank you.

Mr. Doylend.

Colin Doylend, Senior Advisor (Canada), HARBO Technologies Ltd.: Thank you very much for having me today. My name is Colin Doylend, and I'm here on behalf of HARBO Technologies, a company that has developed first-response technology to contain oil spills in minutes, saving time, money, and the environment.

First, I want to acknowledge that we are here today on the unceded land of the Tsimshian Nation. Thank you to them. It is an honour to be here in front of you today and to provide additional information concerning the deliberation of Bill C-48. I am here today to share with you how oil tankers and all other shipping or marine traffic can reduce the damage from oil spills, fuel leaks, and other similar accidents in these waters; in fact, all Canadian waters.

HARBO has developed the world's lightest, smallest, and most effective oil spill first response system that stops the spread of oil immediately. While the federal government is doing its part by deploying large booms operated by specialized teams in a small number of strategic locations around the coast, HARBO's system is designed to be deployed closer to every spill, for example on all commercial vessels, docks, marinas, ferries, tugs, fish boats, naval vessels, and pleasure craft. And, of course, on oil tankers. All it takes is two people with just two hours of training and HARBO's system can be in the water working to contain a spill.

Using a health care analogy, the federal government is currently buying ambulances and hiring paramedics; HARBO is offering AEDs which can be used by anyone. Compared to traditional booms, HARBO's system is one fifteenth the weight and deployable in a fraction of the time using a craft as small as a lifeboat or in some cases no craft at all.

I want to show you the actual boom. This is it.

Senator Simons: We don't usually get show and tell.

Mr. Doylend: This is 50 pounds. It carries 80 feet worth of boom, and being able to do that is unheard of in the oil spill response industry. So just to give you a measure of the ability to deploy.

The power of this product, as you can see, is in its ease of use and lightweight, compact nature which allows for rapid deployment from vessels of opportunity. It can be stored near, and on, high-risk waterways to enable immediate response and containment. Really, it presents an opportunity for rapid response along the 28,000 kilometres of B.C.'s scared coast. HARBO's system has been tested at OHMSETT, the world's premier oil spill response research facility, and is being used in several ports globally, including Santos and Rotterdam.

Over the past four years, the coast has experienced a number of oil spill events that could have been contained much faster using HARBO's system. Just to mention a few, the M/V Marathassa English Bay in 2015.

In 2016, we're all familiar with the Nathan E. Stewart, the tug that ran aground. It took a long time to bring the required resources to this remote area. HARBO's booms could have been easily and much more quickly transported. Critical areas of marine harvesting could have been

immediately protected, with traditional ocean knowledge being used for deployment of preventative booming rather than hours later.

Just in February 2018, HMCS Calgary, a federal asset, spilled 10,000 litres of fuel between Nanoose and Boundary Pass. I can't imagine a more qualified group of marine professionals than our Navy to be able to easily deploy HARBO's technology.

On August 14, 2018, another tug in the Fraser River capsized and spilled some fuel. Like most, this tug had no containment system on board and the spread of oil was contained much quicker than usual because the company's headquarters was close by with a cache of spill supplies at the ready.

Currently, oil spills in the Port of Vancouver must be responded to within six hours, and the targets in other parts of Canada's Pacific waters are 12, 18, or even 72. These times were established in 1995 under the Canada Shipping Act and reflected the technology available in the early 1990s. It's time to lower these times.

And don't just take our word for it. In February of this year, the report of the National Energy Board made it a condition that oil spills must be responded to within two hours in Vancouver's harbour and within six hours for the remainder of the Salish Sea. Even these can be improved upon. And, of course, they must apply on the entire coast.

As you undoubtedly know very well, cutting response times can mean the difference between a minor ecological disaster costing hundreds of thousands of dollars and a major disaster costing hundreds of millions. I even suggest that, within two hours, spilled oil can reach the shoreline. Response time means the difference between minor public criticism of the responsible party and significant loss of faith by consumers, residents, and taxpayers, to say nothing of the resulting lawsuits and payouts.

In Canada, while marine oil spill response is federally led, all respond is local. We keep relearning that lesson. There is an opportunity to get this right. The marine risk is there. All that is needed is leadership on marine response that is community- and Indigenous-focused. Like the Senate Standing Committee on Fisheries did, noting that "every minute matters" in the SAR report, we just need to have a light shone on the good work that is done on all our coasts every day by ordinary Canadians who are prepared to do extraordinary things. We just need to give them the tools and the equipment. Canada needs to be ocean strong, and it can be. HARBO is proud to be a new addition to Canada's ocean toolbox on marine response. Thank you, and I'd be pleased to answer any of your questions.

The Chair: Thank you very much.

Mr. de Gouveia Pinto.

Oscar de Gouveia Pinto, Director, International Ship-Owners Alliance of Canada Inc.: Thank you. Good afternoon, Mr. Chair, and members of the committee. I appreciate the opportunity to offer my technical overview of safe tanker and ship operations.

I have more than 22 years' deep sea sailing experience, most of this as a captain on large oil tankers, and around 27 years in shore-based managerial and leadership positions. I have experience in all aspects of tanker standards, day-to-day safe operations, and management.

I am currently the director of a company managing a fleet of tankers trading globally. I am here today as director and chair of the International Ship Owners Alliance of Canada, or ISAC, representing a group of international ship owners, operating various types of vessels, in British Columbia.

I am also the current chair for the North American panel of Intertanko, an international and well-respected association of international tanker owners and operators, with a total of around 342 members, representing 75 per cent of the global tanker fleet.

Oil tankers have been moving cargoes safely in Canada and around the world, be it in the bio-diverse waters of the Bay of Fundy, the coast of Newfoundland, and the Great Lakes. All of these waters share meteorological and other challenges comparable to the northern B.C. coast.

So how does our industry provide confidence to Canadians and Indigenous communities that tankers are operated safely?

Tankers have an excellent safety record in relation to the volume of oil transported across the globe. This is achieved by the multiple layers of oversight.

Safe tanker operations start with the International Maritime Organization, or IMO, setting robust construction and pollution prevention standards through international conventions. Since the grounding of Exxon Valdez, the IMO has mandated all tankers to have double-hull structures, providing an extra protective barrier between the oil cargo tanks and the sea and therefore increased protection against accidental pollution.

In addition to IMO standards, there are industry standards over and above the national regulations. Some of the more important and relevant to the industry are the International Safety Guide for Oil Tankers and Terminals, or ISGOTT; mooring and mooring equipment guidelines; Tanker Management and Self-Assessment, TMSA; an audited maximum rest period record to prevent crew fatigue; and semi-annual inspections and audits undertaken by company superintendents.

To ensure compliance with the International Safety Management Code, ISM, and tanker safe operations, all the major oil companies, referred to as Oil Companies International Marine Forum, OCIMF, established a Ship Inspection Report Program system of reports called the SIRE.

These inspections are carried out by qualified inspectors who inspect the entire spectrum of tanker systems, including crew experience, qualifications, and competency. A typical inspection undertaken only during discharge operations runs for 10 hours, witnessing the actual tanker operations and emergency response preparedness.

This program establishes a uniform ship inspection report checked against a comprehensive vessel inspection questionnaire, VIQ, a copy of which I will submit to the committee for reference.

These inspection reports are logged in one central database, and must be done once every six months. All deficiencies observed as a result of such an inspection have to be addressed within 14 days. Oil companies access the database to screen tankers against such inspection, prior to permitting any tanker to carry their cargoes.

Additionally, there are classification societies' annual safety and construction inspections and Port State Control Inspections.

Canada has recently mandated every tanker calling Canadian ports shall be inspected by Transport Canada at least once every year, and every time on its first visit to a Canadian port. The tanker master must report any equipment deficiency prior entry into port.

Tankers are equipped with critical equipment redundancies such as independently powered double steering motors, double radars, double electronic navigation systems, or ECDIS, an emergency generator which is required to automatically kick within a maximum of 45 seconds, and an emergency battery bank providing instant power to critical navigation equipment in the event of a major power failure, to ensure that the ship can maintain navigation and steering control. Such redundancies are just to name a few.

A report of 2015 by the Fraser Institute called "Energy Transportation and Tanker Safety in Canada" states in its opening summary: "A review of tanker safety in Canada and abroad shows that tankers are a highly reliable and increasingly safe way of transporting oil. There has never been a significant spill of crude oil in Canadian waters despite tens of thousands of transits on the east and west coasts."

With such oversight and redundancies provided, all Canadians can rest assured that today's tankers are technically safe and sound, competently manned and operated, continuing to influence safer operation in protecting the environment and support the safe transportation of our oil resources for the economic benefit of all Canadians.

It must also be recognized that there is no moratorium specifically to restrict the movement of oil tankers in any known maritime jurisdiction in the world.

As a matter of factual record, there is no known record of any pollution from a self-propelled tanker incident along the entire B.C. coast. Should this legislation be passed, it should task the Minister of Transport to explore establishing a Particularly Sensitive Sea Area, PSSA, through the International Maritime Organization, and also include a clause mandating a comprehensive risk assessment on the north coast of B.C. within five years.

I thank you for the opportunity to speak here today, and I welcome any questions you may have.

The Chair: Thank you very much.

Senator Simons: Thank you very much, Mr. Chair. I'm going to direct my question to Mr. Pinto and Mr. Bowles.

We've heard lots of conflicting testimony so far about the safety of ocean tankers. We had a witness in Ottawa who told us that the waves here are unusually strong and that they could unscrew the bolts that hold the tankers together.

We had a witness earlier today who provided us with documentation that said that transporting petrochemicals and oil, they were particularly corrosive and that they could corrode the tankers from the inside.

And we had another witness who suggested that maybe we could put the oil inside pods instead of having it sort of rolling around loose in the tanker.

So I don't know if you could address some of those safety concerns or ideas that we've heard.

And then the other question I had, a previous witness was just speaking about the Jones Act, which I now understand the Americans can really only have because it governs transport from one part of the United States to another.

We would be dealing with tanker traffic here on the west coast presumably that was not all Canadian-flagged. There would be tankers coming from Asia. How would we have assurance that the Canadian government would be able to regulate the safety of foreign-flagged tankers that were coming in and out of these ports?

Mr. Bowles: All very good questions. Where do I start?

Senator Simons: Can a tanker come apart?

Mr. Bowles: No. Since the Glukauf, which was the first ship to carry oil, since then, a long, long time ago, basically after the First World War you saw riveted ships. I guess that's what the witness was -- they have all but disappeared. In fact, I don't know, Oscar, if there was even a riveted ship that's ever built now. So no, it's not going to come undone at the seams.

Secondly, for product and chemical tankers, the reason why those ships were built to such high standards, and the majority of them are stainless steel, is that it is recognized that a lot of these products are corrosive, like sulphuric acid, caustic. These products need proper containment. So either you have a stainless steel ship or you have a coated ship. And those coatings are impervious to those products.

Mr. de Gouveia Pinto: Very good questions, there. Thank you very much. And I would say, expanding on what Stan has already said, all ships that carry crude oils, they have coatings. The ballast tanks are coated, and they go through an inspection program, a condition assessment program, surveys every five years, which goes to the extent of measuring the thicknesses, the corrosion levels, everything. Those are documented, and if they fall below a minimum specification of the standards, the plates have to be replaced.

So there are mitigation mechanisms in place to combat corrosion.

Tankers being undone, I've never heard of that one. That's the first time. But, well, what can you say?

On comparing Jones Act ships with the international tankers, as I mentioned, all tankers go through a very stringent vetting process by the oil makers. This book here gives details, which I will give the committee for reference, the extent of inspection that the tanker undergoes during a cargo transfer operation, right from communication skills, crew competency, everything is checked during the transfer operation, and that is lodged in a central database which is assessed by all oil makers. So before a tanker is offered to carry any cargo, another oil company would screen that database and ask if that deficiency was rectified, ask for further explanation, so that is covered from there.

Senator Simons: So the inspection isn't just of the physical boat. It's of the crew competency, crew training.

Mr. de Gouveia Pinto: Absolutely.

Senator Simons: Language barriers.

Mr. de Gouveia Pinto: Language barriers, the way the records are maintained, passage planning. They go to the extent of witnessing the passage. They download video recordings, like the black box of an aircraft, which records the happenings on the bridge of the ship. All that is downloaded and sent for review, and those review results are sent to the company to see how the bridge team functions on board a tanker.

So the enhancements for safety have gone well beyond the year of the Exxon Valdez.

The Chair: Senator Smith.

Senator Smith: Thank you, Mr. Chair. Maybe a question for Mr. Pinto and Mr. Bowles.

In the end of your report you said, should this legislation be passed, the Minister of Transport should explore establishing a particularly sensitive sea area through the International Maritime Organization and mandating a comprehensive risk assessment on the north coast of B.C. within five years.

So the definition of a particularly sensitive sea area, is that a corridor? Or what is that?

Mr. de Gouveia Pinto: A PSSA is established through the IMO. The IMO has a criteria guideline to establish a PSSA. For example, I can tell you that the sensitive area of Great Barrier Reef in Australia has a PSSA. So the PSSA monitors the criteria required for those sensitive areas, and it also establishes the routes that a tanker should go through, and also what additional equipment is required on a tanker to transit through those areas.

Senator Smith: So this covers the whole area. It's not just part of the area.

Mr. de Gouveia Pinto: No.

Senator Smith: I was just trying to think of one of the options that we've talked about initially, is having a corridor concept, and I thought there could be some relationship to that. But you're saying the whole area, and then do a review after five years. Is that correct?

Mr. de Gouveia Pinto: Yes. The thing is, if you go along that route, I would recommend that you establish a PSSA through the IMO which has very defined guidelines on the criteria required for the PSSA. And that could recommend also additional routes or corridors, as you mentioned, which would be traffic separation lanes.

So those corridors, traffic separation lanes, are not to prevent oil spills, but establish a disciplined flow of traffic to prevent collisions. And that could be monitored and enhanced by shoal traffic radars, just like an air traffic control.

So there are those resources in place.

Senator Smith: I'm good for now. I'll come back in the second round.

Senator Cormier: Mr. Doyle, if I read well the press release, you launched your spill-blocking system exactly one year ago: April 17, 2018. So congratulations for that.

I would like to know, how did it perform since you launched it, and can you give us some examples and some situations, in what context it was used and how it performed?

Mr. Doyle: Definitely, sir. Thank you for the question. There was a spill in the Port of Rotterdam. It was an oil terminal in Rotterdam, which is one of the largest ports in Europe, and our team at HARBO was called in, flew in from Israel with 1,000 feet of boom, and deployed it with two people in less than an hour. A secondary containment. It wasn't the first response, because it wasn't set up to be first response, but they saw the benefits of deploying it for secondary containment, because that's, you know, regular boom technology hasn't changed over the last many years. This is one of the first innovations, in curtain boom technology.

So just the fact that you're able to pick it up at that length of boom and easily deploy it, and connect it using the universal connectors, and deploy it off a small craft, allows so many different scenarios to take place in terms of containment of a spill event.

Senator Cormier: So that's the only occasion it was used?

Mr. Doyle: We've had a number of other, smaller occasions, but that's the one most of note. We've done quite a bit of testing. I have to say that we'd like to do more real-life examples, but I also don't want to do more real-life examples.

And so we've done the testing at OMSET in the United States, at the facility there, as best we can. That test went over 48 hours; we had a 100-foot boom with 1 tonne of oil inside that boom, with quite a bunch of wave action, and no losses whatsoever in heavy oil.

We want to do more tests. We've been talking to NRCan. We've just been talking to Minister Wilkinson about doing more in-depth discussions about what might be possible in terms of working with his colleagues at the Coast Guard. We've demoed with Western Canada Marine Response twice now, and so it takes a while to do a paradigm shift in terms of how you look at oil spill response.

You know, when I said the analogy of ambulances and paramedics versus AEDs, that's very much the case right now in every mindset, is in paramedics and ambulances, and we're trying to change that to get people to go, no, there's a better chance.

Even AEDs in this province aren't fully accepted in every single public building. That needs to change, too, and we think the same of oil spills.

Senator MacDonald: I thank all the witnesses. You're all great witnesses; it's great to have you here.

Canada is a country with great respect for the rule of law, and we have to have respect for the rule of law. Of course, master mariners often find themselves sailing in international waters, or vice versa. Master mariners from other countries sail into our waters.

When it comes to international law and our international treaty obligations, where does this proposed law fit? Does this law contravene our international treaty obligations in any way? Perhaps, Mr. Bowles, I'll send that to you first.

Mr. Bowles: The bill, in my opinion, has some contentious issues with anchorage. One clause is the right of free passage. If you take the example of the Umnak Strait up in the Aleutians, this is contested by the Alaskan government, but it keeps coming back to that international convention.

So as far as anchoring is concerned, and under the bill with regard to unloading or loading, an anchorage may impact that convention.

Senator MacDonald: And what should our response be, legally? Or what would our response be, legally? Wouldn't we have to respond and rescind it?

Mr. Bowles: Well, that may all be taken up within the PSSA. That might all be involved in proactive vessel management. It may be involved in the protected areas that are being mandated through OPP.

So I don't think we're quite there yet.

Mr. de Gouveia Pinto: I agree with Stan. I think that's the way that I would say that.

Senator MacDonald: Thank you.

Senator Dasko: Mr. Pinto, were you ever a captain of an oil tanker? You were?

Mr. de Gouveia Pinto: Yes, I was. For decades.

Senator Dasko: I wasn't sure about the oil tanker. So it's wonderful to have you here. I was just thinking earlier, a couple of months ago how wonderful it would be to have a captain of an oil tanker here.

Senator Patterson: We have two of them. Two of them here today.

Senator Dasko: Yes, yes. And I never did get around to asking the Chair or the Vice Chair because so much was going on. I thought it was absolutely great to have all of you here, but especially the captain of an oil tanker.

However, my question is quite pointed. Do I understand from all of the testimony from all of you here today that, because of advanced technology, and because of regulation, advanced regulation, regulation that covers many aspects, it covers the way the tankers themselves are treated and equipped and examined, and so on, and because of government regulation, should I understand, because of these factors, that you don't think we need this bill, for those reason?

Can I ask each one of you to answer that, just very specifically? Anyway, it's wonderful to have you here.

Mr. de Gouveia Pinto: Well, technological improvements and safety enhancements are inherent components of every business activity, be it the automobile industry, aviation, everything. And they do get a lot of press, media coverage, to bring it to the public perception.

Likewise, the marine industry has improved technology, advanced in leaps and bounds, and unfortunately the public perception has not caught on with that. So from that point of view, ships today are technologically safe and sound. I feel confident. I love the coastline and I love the waters around here as much as any other Canadian, and I feel confident today to be able to say that a tanker manager, the risk of doing business on a tanker, is very, very safe.

To give you facts and figures, in the 1970s decade, the volume of oil spilled in relation to the volume of oil carried, in the 1970s there was about a 56.6 per cent volume of oil spilled. In the 1980s and 1990s, it stayed between 19 and 20 per cent. So you will notice in the 1990s, so after Exxon Valdez, and in the decade of the 2000s, the relative volume of oil spill is as low as 3.7 per cent. So you'll see that's a very precipitous downside on the volume of oil over four decades; it carries only 3.7 per cent.

So that shows the safety that the tankers are inherent in their operation, as well as the mere fact is stated that the entire B.C. coast has not had a tanker oil spill since factual records. There is no record at all, and there is so much tonnage of oil tankers on the B.C. coast.

Senator Dasko: Mr. Doyle and Mr. Bowles, is this legislation not necessary? Is it overreach? Is it simply needed at all? Does it serve any purpose, given these considerations, from your point of view?

Mr. Bowles: It's a very good question, because I believe that, for what Oscar has said, the regulations and the management of ships has changed so dramatically, and the fact that we all now, all countries that are signatory to the IMO conventions, are very aware of the environment

being the paramount. But in tankers, they operate at that heightened level, where you have to abide by these regulations, and you have to abide by the controls that are put in front of you, as a ship's master.

So as I'm approaching the Juan de Fuca Strait, it's not just the fact that I'm entering a traffic separation scheme. It's the fact that I've gone through all of this other pre-work, through vetting, applying the regulations, with all of the technology that we have in place, with the pilots that we have on the coast, I feel very comfortable that these ships are very safe.

Senator Dasko: Mr. Doyle, does the bill ever reach? Is it needed? Is there any value in it at all, from your point of view?

Mr. Doyle: Thank you. Very good questions, to the heart of the matter. Simply, tankers haven't spilled, as these gentlemen have said, on the B.C. coast, but we still have oil spills that have disastrous effects, and we're talking about the risk to our shores.

It's not to say that something could or could not happen with regard to tankers themselves, but we're talking about responsibility for our shared waters, and right now I don't see our response organizations responding in a time before oil hits the shore, and that's what we're trying to stop.

I had a conversation with Suncor's fleet director just yesterday, in fact, that they will do everything they can to make sure oil never hits the water. That is their job as a captain of a ship, and that's their responsibility. But if it does, that obligation, that responsibility, lies within the regime that is set, and that regime still has oil hit the shores.

So until you answer that question and fully address the same risks that they've addressed on board the ship and by virtue of the ship, I can't give you an answer if you're over-reaching or not, because I don't want to see, or my child, I don't want to see my child see oil hit the shore, if by that time we're still consuming oil.

That's the heart of the matter for me.

Senator Dasko: Thank you.

Mr. de Gouveia Pinto: Mr. Chair, may I just say to conclude that I would say, in short, no government should consider banning economic activity. It should consider boosting responsible activity.

Senator Patterson: Thank you, Mr. Chair. I'd like to ask a couple of questions, if possible; the first to Mr. Bowles. We are very fortunate to have you two, with your, well, almost 100 years of experience being masters.

We've heard that Bill C-48 was described as kind of a crude sledgehammer approach which excludes communities from participating in environmental reviews and, worse, won't do anything about the single-hulled vessels that are causing all the problems that we've heard about on the west coast.

But there was a much more flexible option available to Minister Garneau, and that is the PSSA. And it's working on the Great Barrier Reef, and it involves this wonderful organization, the IMO, which achieves international collaboration to high standards.

So could you explain a bit more, Mr. Bowles, about how the PSSA will allow more flexibility and a more holistic approach than Bill C-48 represents?

Mr. Bowles: Good question, excellent question. I think the whole aspect of PSSAs in relation to what Canada is doing already, modifying it, in other words it lays down the core parameters of applying a PSSA, but then we in Canada incorporate all our marine safety standards, our routing systems, it can only enhance the direction, the routing, that tankers take.

So if we have a PSSA that is put in place in a particular area, then the routing may be affected for that tanker, that tanker traffic. And there may be things such as enhanced radar, there may be escort tug availability, dual pilots, there's a whole host of things that Canada can do to raise the level of the PSSA.

But I would say, if the PSSA is put in place, it's a far better mechanism, through the IMO, than what you term as a sledgehammer approach to basically killing economy.

Senator Patterson: We've heard a lot about marine spill response capability, the absence of this on the north coast, but we have it on the south coast of British Columbia and also in Atlantic Canada.

Can you tell us how that works? Do I understand that that's all paid for by industry, so if you have no industry, then you have no ability to pay for a marine response on the north coast?

Mr. Bowles: Well, effectively, yes, because that's how it's paid for, by industry. So if you don't have any industry and you don't have a transportation network with ships, you don't have a system.

Senator Patterson: I had one more quick one, if I may.

So Bill C-48 actually will prejudice, will work against, the establishment of marine spill capability on the north coast. But my question would be for Mr. Doyle. We've heard, without any substantiation, that oil spills, only 3 per cent of an oil spill can be cleaned up. We heard that in Prince Rupert. And I think the evidence was that the most that can be cleaned up is 15 per cent. This was repeated today in our hearing, without substantiation.

You're in the business. Can you shed some light on that, how effective cleanup can be? Is it only 3 per cent?

Mr. Doyle: I've heard the typical industry rate ranges from 3 to 15, but it all depends on your response time. How spread out has that initial spill reached? You mentioned the Cosco Busan; in six hours, it had basically spread out throughout the whole bay, or an even shorter timeline than that. I think I've got a report on that.

So the quicker you respond, the quicker you contain, the easier it is to clean up.

And actually I wanted to work with NRCan to confirm that that's, in fact, the case, because the properties of the oil, as well, if contained closer together as quickly as possible, they maintain the property of oil, of what we heard, that it doesn't drop as quickly as if it was spread out more.

And so the less of an area you have to clean up, the better chance you have to clean up more of it. It's as simple as that.

Our current regulations, our current technology out there, it doesn't contain quickly, and so their cleanup is not about containment and then cleanup; it's just about cleanup, and then trying to contain as large as several hectares of ocean, if not larger.

That's why you have such dismal recovery rates. We need to change that paradigm, on any spill. Oil tankers or anything on the water, if you have oil in your vessel, you have the responsibility to be able to contain that oil, just like we would treat a land-based spill. Any tanker truck, or what do you want to call it, has the ability to contain. They have spill kits to do their best to contain, maybe not the best all the time, but let's just do better.

Senator Miville-Dechêne: So it is true that it's from 3 to 15 per cent recovery?

Mr. Doyle: I've heard that those are the typical rates, because of the experiences of response organizations and the way they're currently set up.

The Chair: I've got a question for Mr. Pinto. You mentioned that, if the bill is passed, there should be a risk assessment done in five years. Shouldn't it be the other way around? Has there not been a risk assessment done before this bill was even drawn up?

Mr. de Gouveia Pinto: There has been, I understand, senator -- thank you for this question - there has been a risk assessment already done. I understand, during the Northern Gateway Pipeline in 2013, I'm not sure of the year, there was a risk assessment where industry engaged expertise from the industry here, and there were simulations done on this passage on adverse weather conditions and severe weather conditions; then it was followed by pilot assessments, B.C. coast pilots, who said that a VLCC could come through the Douglas Channel very safely, without any incident.

And there is a document led by Transport Canada which substantiates that, so there is a risk assessment, but it could go beyond that if need be.

The Chair: So this is the corporate risk assessment, done by Gateway?

Mr. de Gouveia Pinto: No, government --

The Chair: And then the government did one after? Just to make it clear.

Mr. de Gouveia Pinto: Government took the input and participated, was a participant together with industry in this thing.

The Chair: Very good. It would be nice to get hold of that.

That was done in 2013. So why, if the bill is passed, would we want to do another one?

Mr. de Gouveia Pinto: You could expand on that to go beyond that with PSSA. So if you do establish a PSSA, then you would have a risk assessment done beyond what is done to see the ecological balance and all the damage that could happen. So you would have a more comprehensive risk assessment done to that.

The Chair: Thanks so much.

Senator Smith: I'm finished.

The Chair: Oh, are you done? Senator Patterson took --

Senator Smith: He just did a great job.

The Chair: He hogged it all up. Senator Simons, and then Senator Gagné. Senator Simons, you've had a kick at the cat, so I'll ask Senator Gagné to go first, and then you can go.

Senator MacDonald: In Saskatchewan, they kick at cats.

The Chair: Yeah, we kick cats.

Senator Gagné: I'm from Manitoba. I'm very gentle.

It's just a follow-up question for Mr. Doyle. Have you tested the equipment in different weather conditions, severe weather conditions? Is that simulated? It's done in a lab? Could you expand on that, please?

Mr. Doyle: Excellent question. First off, I want to say that this is a complement to existing regimes. We're not replacing anything; we're just adding to the ability to make their job easier, just like an AED does.

So the other one is our system is better than nothing, no matter what weather system is out there. It's meant to move with the water, so by the nature of it, it should slow down the spread of oil regardless. The issue is, is it safe to deploy for the staff who are deploying it in that weather system they're currently experiencing?

We would love to do more testing. It is very difficult to do that testing; in fact, that's why I reached out to NRCan, because we'd like to do more of that testing. We're doing that and reaching out to requisite agencies around the world, and different institutions.

Again, this technology is coming out of Israel. And so we are looking to continue to innovate this innovative technology, and to test it and to show the results of what that testing is, because that's what our goal is.

But I can tell you right now that, if it's safe to deploy and if they can deploy it safely, then it will be better than nothing that's currently there.

Senator Gagné: Thank you.

Senator Simons: I just had a question that we haven't touched on much in our hearings. Witnesses we heard yesterday mentioned that they're not just afraid of oil spills, but that they're also worried about ship strikes and disruption to whale pods. And I'm just wondering if there is anything on these new generation tankers that allows them to avoid whale pods, or to keep the horn so the whales get out of the way. I'm thinking about old-fashioned trains and cow catches.

I don't know if there's any technological answer to the concerns, which I think are legitimate, raised by people along the coast, that the tankers don't just pose a risk from oil spills, but from disruption of wildlife.

Mr. Bowles: Bringing in the echo program is always a very good question. It shows that the shipping industry, regardless of whether it's tankers or whether it's container ships, or whatever, is working very, very hard to reduce whale strike. And that's not just the orcas; that's all the other crustaceans that we have, or the cetaceans that we have.

Senator Simons: You can run over crustaceans, that's okay.

Mr. Bowles: Yes. Effectively what the industry is trying to do is reduce the speed to cut down on the risk of whale strike, to have systems in place where we know where those whales are at that particular time and the pilots will take evasive action, and technology has moved ahead with the underwater noise that ships produce. They have what they call boss cap fins that reduce the noise level of the propeller. And, of course, ships are getting quieter. They're making the engines a lot quieter; they're bedding them on composite materials to cut down that noise.

But it's all going to take time. Companies such as the one I work for is in a 22-build ship program right now, and it's looking very, very carefully at all of these new technologies to take into account those items such as the echo program are trying to deliver.

Senator Patterson: I just think it's so great that we have masters of oil tankers here, and I'd like to ask one of you about the risk involved with coming ashore.

I believe that large -- what are they called -- VLCCs on the open water can't be blown around with wind or waves. They're very large, strong vessels. But what about coming into a port? What do you do to mitigate risk there?

We've talked about ports on this coast, Grassy Point, Prince Rupert, Stewart. Can you tell us a bit about what you can do to mitigate risk when you're getting into port?

Mr. de Gouveia Pinto: Thank you, senator. That's a very good observation and a good question.

I was a master of a VLCC, so I think I've got some experience in berthing of VLCCs, because I was a master of a VLCC.

It starts with, before coming to port, the resources are there to guide the ship. The berth configuration, the tugs, the currents, all this will be available to you in your passage planning. Then, before you come into port, you have a pilot and master exchange, where you discuss what the plan for mooring is going to be. So you will know how many tugs, has it got enough sufficient horsepower, what type of mooring, what is the berth configuration, how would the ship's head lie in relation to the currents and tides. You would have a complete assessment of the weather situation for the next couple of days, before you do that.

So you have an intimate exchange of all this information with the pilot, and then you also supplement it with the number of tugs. So when you come in just off the berth, there will be tugs exchanging information with the pilot, taking orders from the pilot, but the master stays responsible because he is the most familiar with his vessel, how the vessel responds, the speed of approach.

There are logs there on the ship which will give you the speed of approach to the berth, so you are in control at all times in the conditions, the wind speed, the wind directions. So all those enhancements are there at your disposal to see that you berth safely.

The Chair: Thank you. I've got a couple of announcements before we say goodbye to our witnesses. A reminder to senators that our flight is at 7:20. It takes about 10 minutes to get to the airport; taxi is the best route. You can either call it yourself or gather in the lobby, and we'll try and get some taxis around 6:00 or around there.

We will next meet, as you know, in Edmonton on April 30, and on May 1 in Regina.

I'd like to thank our witnesses for appearing before the committee this afternoon. It's been a pleasure to hear from so many individuals over the last two days, in Prince Rupert and in Terrace. It's been enjoyable for us, and we have learned a lot.

(The committee adjourned.)