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Chair: Mr. Ken McDonald



Standing Committee on Fisheries and Oceans

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• (1105)

[English]

The Chair (Mr. Ken McDonald (Avalon, Lib.)): Good morning, everyone. I call this meeting to order.

Welcome to meeting number 15 of the House of Commons Standing Committee on Fisheries and Oceans.

Pursuant to Standing Order 108(2) and the motion adopted on January 20, 2022, the committee is resuming its study of marine cargo container spills. This meeting is taking place in a hybrid format, pursuant to the House order of November 25, 2021.

Interpretation services are available for this meeting. Please inform me immediately if interpretation is lost and we'll ensure that it is restored before resuming. The "raise hand" feature at the bottom of the screen can be used at any time if you wish to speak or alert the chair. When you are ready to speak, click on the microphone icon to activate your mike. Please speak slowly and clearly. When you are not speaking, your mike should be on mute. I would remind you that all comments by members and witnesses should be addressed through the chair.

I'd also like to remind all participants that screenshots or taking photos of your screen is not permitted.

I would now like to welcome our first panel of witnesses. From the Canadian Transportation Accident Investigation and Safety Board, we have Kathleen Fox, chair; André Lapointe, chief operating officer; and Clifford Harvey, director of marine investigations. We will now go to whoever is speaking from that group.

I want to welcome our members who are attending by Zoom.

I also want to wish Mr. Perkins a quick recovery from his recent diagnosis. I don't know if he's doing that for our benefit, to let us know that he is sick, or if he's really coughing.

We'll now go to our first speaker, for five minutes or less, please.

Ms. Kathleen Fox (Chair, Canadian Transportation Accident Investigation and Safety Board): Thank you, Mr. Chair.

I will be the only person speaking for the TSB until we get to the question period.

Good morning, Mr. Chair and members. Thank you very much for inviting the Transportation Safety Board of Canada to discuss the important topic of marine safety and, specifically, cargo container spills.

[Translation]

Our mandate, and our sole purpose, is to advance transportation safety in the air, marine, pipeline and rail modes that are under federal jurisdiction by conducting independent investigations, identifying safety deficiencies, causes and contributing factors—

[English]

The Chair: Ms. Fox, we have to stop for a minute because we're not getting any translation.

Could you start from the beginning, please, so that everybody can hear it in the language of their choice? We'll start the clock again.

Ms. Kathleen Fox: Mr. Chair and members, good morning. Thank you for inviting the Transportation Safety Board of Canada to discuss the important topic of marine safety and, specifically, cargo container spills.

[Translation]

Our mandate, and our sole purpose, is to advance transportation safety in the air, marine, pipeline and rail modes that are under federal jurisdiction by conducting independent investigations, identifying safety deficiencies, causes and contributing factors, making recommendations, and publishing reports.

[English]

The issue before the committee today is related to the loss of marine cargo at sea. There have been four occurrences in Canada of lost cargo containers reported to the TSB in the last 10 years, including the Malta-flagged *Zim Kingston*. The TSB is currently investigating the October 2021 fire on that vessel, which occurred not far from Victoria, B.C. Initial indications were that the fire broke out after damage to containers on the deck that contained dangerous goods. As this is an ongoing investigation, we're not able to comment on the details, other than to say that it is in the examination and analysis phase.

There is significant attention being paid internationally to the issue of cargo container losses after a few notable incidents. For example, two separate investigations were launched into the January 2019 occurrence when the Panamanian-flagged MSC *Zoe* lost 342 containers in severe weather while transiting the Wadden Sea between Germany and the Netherlands. At that time, it was the second-highest number of containers lost overboard in heavy weather. It has since become the fourth largest, after the Japanese-flagged *One Apus* lost 1,816 containers in 2020 and the Danish-flagged *Maersk Essen* lost 750 in 2021, both in the mid-Pacific Ocean.

The International Maritime Organization has the issue of “loss of shipping containers” as one of many maritime safety issues it's tracking. The TSB participates in the IMO's working group on casualty investigations, and we expect to be able to share lessons learned with that group once our work on the *Zim Kingston* investigation is complete. The TSB also participates in the Marine Accident Investigators' International Forum, a network of investigation bodies that discuss lessons learned in casualty investigation. We have received support from peer agencies in the early stages of the *Zim Kingston* investigation.

• (1110)

[Translation]

More broadly, marine safety continues to be top of mind for the TSB. We are in the process of updating the TSB's watchlist, which outlines the key issues that need to be addressed to make Canada's transportation system even safer.

The current watchlist includes one marine-specific issue: commercial fishing safety. It has been on the TSB watchlist since its inception in 2010. Every year, however, the same safety deficiencies on board fishing vessels continue to put at risk the lives of thousands of Canadian fish harvesters and the livelihoods of their families and communities. Fishing continues to be one of the most dangerous professions in Canada. There were eight fishing-related fatalities in 2021, just under the five-year average of 10 fatalities.

Other multi-modal watchlist issues also affect marine safety including fatigue management in vessel operations, safety management and regulatory surveillance.

[English]

Since the TSB's creation in 1990, the board has issued 159 marine-related recommendations to regulators and the marine industry. As of September 2021, 86.8% of the responses to these marine recommendations have received the board's highest rating of “fully satisfactory”. However, there is still much that can be done to improve marine safety, especially with respect to the issues that underpin our watch-list.

We're currently in the process of completing our annual reassessments for outstanding recommendations. The results will be available on our website in the coming weeks and will also help inform the next TSB watch-list, which we will publish later this year.

Thank you, Mr. Chair. We're now ready to answer your questions.

The Chair: Thank you, Ms. Fox. That was right on time, actually; it was perfect timing.

We'll now go to questions, of course, from the members.

We'll go to Mr. Arnold first, for six minutes or less, please.

Mr. Mel Arnold (North Okanagan—Shuswap, CPC): Thank you, Mr. Chair.

Thank you for your presentation this morning. Could you tell us when the Canadian Coast Guard was first aware of the issue with the *Zim Kingston*?

Ms. Kathleen Fox: Mr. Chair, I'll refer that question to Mr. Harvey, who is the director of marine investigations. I will remind the committee, though, that there are limited details we can provide at this time, given the ongoing nature of the investigation.

Mr. Clifford Harvey (Director, Marine Investigations, Canadian Transportation Accident Investigation and Safety Board): Thank you, Ms. Fox.

I will comment that the Transportation Safety Board was notified of the occurrence on October 21 when the *Zim Kingston* first lost containers. Subsequently—

Mr. Mel Arnold: My question was, when was the Coast Guard first aware of the situation?

Mr. Clifford Harvey: Mr. Chair, I don't have that information. That's a question that's perhaps best directed towards the Canadian Coast Guard.

Mr. Mel Arnold: Your—

Ms. Kathleen Fox: If I may just add, these are the sorts of timelines that we create as part of a sequence of events as we conduct our investigation, and it would be part of the final report when it's published.

Mr. Mel Arnold: You have that information, but you can't share it with this committee today.

Ms. Kathleen Fox: I don't have the details, and Mr. Harvey may not have the details in his hands. That's why we suggest that the question go to the Coast Guard; however, the answer to the question will be part of the investigation and will be part of the final report. It's part of the sequence of events.

Mr. Mel Arnold: Thank you.

Can you tell us what volume of the hazardous material or chemicals in the two lost containers has not been recovered?

Ms. Kathleen Fox: Go ahead, Mr. Harvey.

Mr. Clifford Harvey: Again, those are details that are part of the ongoing investigation about the contents of those lost containers overboard.

Mr. Mel Arnold: Danaos is the corporation that owns the *Zim Kingston*. Can you tell us how much Danaos paid for cleanup related to the incident, and is the Government of Canada holding additional funds from Danaos for the cleanup?

Ms. Kathleen Fox: Mr. Chair, again, with due respect to the committee members, there's a lot of detailed information that is being asked about that investigation, which is an ongoing investigation. We may not have the details at hand, or we're not at liberty to release the details at this time because it is part of an ongoing investigation. Some of that data needs to be validated before we're prepared to release it publicly.

• (1115)

Mr. Mel Arnold: I really question, with respect to you as well, what we may be able to obtain as committee members today if you cannot speak about the investigation because it is ongoing.

What was being done by the vessel's crew or federal resources to prevent escalation, such as the containers and chemicals catching fire, during the two days between October 21 and October 23?

Ms. Kathleen Fox: Mr. Chair, unless Mr. Harvey has specific information he can provide, that is part of the ongoing investigation.

I don't mean to repeat it, but I'm going to have to. We can talk generally about cargo spills, how we conduct investigations and what information we may have about what's going on internationally, but when it comes to the specifics of an ongoing investigation, there are a lot of details that we cannot share at this time until we validate them.

Mr. Mel Arnold: Thank you.

I'll try to be a little more general, then. In your opinion, are there deficiencies in the government's response capabilities to incidents such as the *Zim Kingston*? Have there been lessons learned to improve future responses?

Ms. Kathleen Fox: Mr. Chair, this is the first investigation we're conducting that is specific to a cargo loss. The reason we're investigating is the subsequent fire. We have seen three other occurrences in the last 10 years related to cargo losses, but it is a fairly rare occurrence in Canada, and we did not conduct a full investigation with public reports in those cases because they didn't meet the criteria that we use under our policy on occurrence classification.

I think we'll be in a better position to address your questions once we've completed our investigation, but we're still in the very early stages, as I said.

Mr. Mel Arnold: Thank you.

Are you going to be able to identify gaps in the response plan and program of the government? If so, it looks like it will be after this committee has completed its study.

Ms. Kathleen Fox: Mr. Chair, what I can tell you is that, in any marine occurrence, we do look at the initial response, and there are other marine occurrences where we've looked at the initial environmental response. I'll give you the example of *Nathan E. Stewart* in 2016.

We typically look at the timelines for the arrival of first responders and the initial environmental cleanup. We typically go in the 24- to 72-hour range, depending on the occurrence. We have identified issues in the past, but not specifically related to cargo containers going overboard. That would be part of this investigation.

The Chair: You have 30 seconds.

Mr. Mel Arnold: Thank you.

You mentioned that this was the first time you've investigated a container spill, only because there was a fire involved. Is that correct? Did you not investigate those other container spills?

Ms. Kathleen Fox: As I mentioned in my opening remarks, four other container spills that we're aware of were reported to TSB in the last 10 years. All of these occurrences are assessed and it's determined what level of investigation is going to be done. We collect some data and then we archive that. We report on it in our statistics that we report on monthly and then again annually.

In this case, the initiating factor for the investigation of the *Zim Kingston* was the fire. However, of course we'll look at the preceding factors that led to the fire. As I indicated, one of those was the ignition of dangerous goods that were in some of those containers.

The Chair: Thank you, Mr. Hardie.

Actually, Mr. Hardie, you're up next. Thank you, Mr. Arnold. I don't know which one of you will feel insulted by that comment, but you can straighten that out yourselves.

We'll now go to Mr. Hardie for six minutes or less, please.

Mr. Ken Hardie (Fleetwood—Port Kells, Lib.): Mel has better hair. I'm sorry. I have to say it.

Ms. Fox, I've always particularly valued your appearance in front of this committee because you have a pretty good grasp on the history of issues, as well as the one in question. I respect the fact that there's not a lot you can tell us about what's being discovered in this situation.

I'll probably just lift it up to the 30,000- to 50,000-foot view and get some general ideas from you.

First of all, it was because the fire put the vessel at risk. Was that really the trigger that brought in the TSB to this particular incident?

• (1120)

Ms. Kathleen Fox: The investigation was launched under the authority of Mr. Harvey as the director of investigations for marine, so I'd ask him to respond, please.

Mr. Clifford Harvey: Thank you, Ms. Fox and thank you, Mr. Chair.

Yes, when we received notification of the occurrence, we looked at the circumstances surrounding it. We looked at the fire and we assessed the occurrence. We decided to deploy and start gathering information to undertake the investigation.

Mr. Ken Hardie: Generally speaking, do you try to keep up to date on worldwide incidents where containers are lost and the vessel itself might have been rendered unstable because of shifting loads?

Ms. Kathleen Fox: Mr. Harvey can perhaps speak to what's happening at the international level and our involvement there.

Mr. Clifford Harvey: Thank you, Ms. Fox.

Mr. Chair, as Ms. Fox mentioned in her opening remarks, we are actively participating with our international partners at the International Maritime Organization and through our work at the Marine Accident Investigators' International Forum as well. We're closely following examples or cases of other container losses worldwide. We're looking at what underlying factors are there as well. We're sharing lessons learned with our international partners and actually, at times, going into in-depth studies in the work that other organizations or administrations may do in accordance with investigations they conduct.

Mr. Ken Hardie: Bad weather is not unusual, even in the Pacific. Would the TSB be aware of any incident where perhaps containers weren't lost, but the loads had shifted and it was basically a close call and a vessel limps into Vancouver harbour with its containers all askew? Would you be made aware of situations where we may have had a close call?

Ms. Kathleen Fox: It is a reportable occurrence.

Mr. Harvey, go ahead.

Mr. Clifford Harvey: Thank you, Ms. Fox.

Mr. Chair, yes, it is a reportable occurrence. I don't have those statistics in front of me right now, but I can certainly review our data and provide that information to the committee, should it be desired.

Mr. Ken Hardie: We'd appreciate that very much.

Obviously, we saw the loss of containers, but one would suspect that there have been many more close calls. Where there are close calls, either in our jurisdiction or in others, is data gathered on what caused it? We can always point to weather, etc., but I'm thinking more of the resilience of the vessel and its cargo to bad weather and whether or not the systems are adequate to keep the cargo and the vessel safe.

Is there any kind of international gathering of data leading to recommendations on that issue?

Mr. Clifford Harvey: Mr. Chair, I can speak in generalities on the information that is being gathered. I can report that when it comes down to the actual cargo-securing mechanisms on board these container vessels, they use a twist-lock system or another mechanism that secures the cargo to the vessel and secures the cargo containers to each other.

These vessels work on very tight schedules. Oftentimes, we've seen internationally that there have been maintenance issues with the securing mechanisms. However, I can also say that the cargo, when it's secured on board, is secured in accordance with the cargo safety manual that is approved by the flag state of the vessel, and done in accordance with an assessment of the stability of the vessel.

Mr. Ken Hardie: What about the actual loading of the vessel? Are you aware of best practices in terms of where things go? For instance, somebody was telling me the other day that they don't like to put flammable materials below deck, because that could be an issue. So if they can't go below deck, where do they go?

Is there consideration toward stacking things in such a way that if something were to be lost, it would do the least possible damage

to the environment? Are you aware of any considerations, any discussions, any findings or recommendations on that?

Ms. Kathleen Fox: Go ahead, Cliff.

Mr. Clifford Harvey: Thank you, Ms. Fox.

In regard to the stowage on board, there are international regulations and codes with best practices and laws that govern that. It is covered in SOLAS, or the safety of life at sea convention. Chapter VI of SOLAS refers to the securement of cargo on board. There is also an international code for safe containers, which deals with the construction of containers. The International Maritime Dangerous Goods Code deals with how the dangerous goods are loaded in containers and also with how they are stored on board with the other containers.

• (1125)

The Chair: Thank you, Mr. Hardie.

We'll go to Madame Desbiens for six minutes or less, please.

[*Translation*]

Mrs. Caroline Desbiens (Beauport—Côte-de-Beaupré—Île d'Orléans—Charlevoix, BQ): Thank you, Mr. Chair.

Thank you to the witnesses as well. We are always very glad to have their insight.

My questions are more general, so the witnesses should be able to raise issues they feel are more important.

Given the dangerous situations that can arise involving ships, containers and crews, do you think the Canadian Coast Guard and Fisheries and Oceans Canada have sufficient physical and human resources to respond to an emergency such as a marine spill?

Do you think they have everything they need to respond in emergencies? Are there things that need improving?

Ms. Kathleen Fox: I don't want to speak for the Canadian Coast Guard or Fisheries and Oceans Canada. From our experience in conducting other investigations—including the one into the sinking of the *Nathan E. Stewart*—we found that the response was quite timely but that there was some confusion around the role of the centralized command system.

We issued findings with respect to risk. For instance, if a coordinated and comprehensive evaluation of the response to an environmental spill is not conducted, there is a risk that shortfalls will go unidentified by the response groups as a whole, resulting in a missed opportunity to improve Canada's spill response regime.

As for the *M/V ZIM Kingston* cargo container spill, we will be examining the incident, but it's too soon to comment.

Mrs. Caroline Desbiens: Thank you.

Since you brought up communication, I'd like to talk about the lack of free-flowing communication, which can lead to confusion.

Specifically, I'd like to talk about communication in both official languages. Most French-speaking captains have a good understanding of English, but not always. I know captains who don't speak English very well.

Would you say French-speaking captains receive the same communications? Does the information flow as quickly and spontaneously?

Ms. Kathleen Fox: I don't have enough information on that to answer your question.

I should point out that the crews of most of the foreign vessels entering Canada are made up of people from different countries, so English isn't necessarily their first language.

I'm not sure whether Mr. Harvey has anything more to say about that. He has worked for the Canadian Coast Guard and Transport Canada.

I can't comment, because we don't have enough data to answer the question.

Mrs. Caroline Desbiens: The Desgagnés fleet operates on the St. Lawrence River, for example, and its crew is French-speaking. The vessels travel all the way up to the far north.

Ms. Kathleen Fox: Mr. Harvey, do you have any information on that?

[English]

Mr. Clifford Harvey: Thank you, Ms. Fox and Mr. Chair.

I'll address the question in English, if that's okay.

The communication protocols on board the vessel are generally undertaken in English, and the communication is undertaken in English between vessels and vessel traffic control. However, it's my understanding as well that this communication can be undertaken in the second official language, as the member posed that question. That would be at the marine communications and traffic services centre with the Canadian Coast Guard.

• (1130)

[Translation]

Mrs. Caroline Desbiens: In your view, then, it shouldn't be a problem for a French-speaking captain who operates a vessel in the Desgagnés fleet to have access to service in French in the event of an emergency or complications.

Ms. Kathleen Fox: As Mr. Harvey said, it should be possible to undertake communication in French, but we don't have any information to indicate whether it has been a problem in the past. I don't want to give an opinion on the matter without any supporting evidence.

Mrs. Caroline Desbiens: Very well.

Thank you to both of the witnesses.

Thank you, Mr. Chair.

[English]

The Chair: Thank you for that.

We'll now go to Ms. Barron for six minutes or less, please.

Ms. Lisa Marie Barron (Nanaimo—Ladysmith, NDP): Thank you, Chair.

Thank you to our witnesses for being here today.

I have a few questions here. The first one is for Ms. Fox, or whoever Ms. Fox feels would be best suited.

I'm happy to hear that there is an investigation happening around the *Zim Kingston*, as you mentioned. Perhaps this is following a little more on Mr. Arnold's question, but you'd mentioned that this investigation was happening specifically because of the fire. I'm wondering if you could clarify what criteria need to be met for you to conduct an investigation? What happens when those criteria aren't met? What happens from there?

Ms. Kathleen Fox: I can speak, Mr. Chair, generally to that question.

We have a policy on occurrence classification, which is available on our website, but which we're happy to table with the committee. It outlines the things we look at. In particular, our role is to advance transportation safety. I do have the statistics in front of me, and in 2021 there were about 214 marine accidents and another 860 or so marine incidents. We're talking about close to 1,200 occurrences. We can't investigate every one, nor does every one warrant the use of limited resources to conduct a full investigation with a public report.

What we look at is, what do we know about the occurrence? Is it something that we're already watching through our watch-list? Is it something that we know is of interest from an international perspective? Was there loss of life? Was there significant property or environmental damage? There's a series of criteria that the directors of investigations use in all four modes to determine which of the many, many occurrences that are reported to us warrant a full investigation. Within that, there's an initial scoping of the investigation to determine the different lines of inquiry that we're going to look at.

The TSB was certainly aware from the time this vessel was encountering difficulties, and then the subsequent fire, and then we had to wait until it was safe to board the vessel. Certainly, this was an example of one that we felt warranted a full investigation and public report.

Ms. Lisa Marie Barron: Could you clarify what happens, then, if the incident that's reported to you doesn't meet the criteria? What are the next steps?

Ms. Kathleen Fox: The follow-up on that is simply that.... We get between 3,500 and 4,000 occurrences reported to us per year in all modes. All of those occurrences are assessed, documented and analyzed to determine if we're going to deploy a team, and then, once we've deployed, what level of investigation we are going to do. We have various levels of investigation, from fact-based, which is a level four, to a major investigation, which is a level two.

All of the occurrences that have been reported to us are assessed, documented and reported in our statistics. If we see a flurry of a similar type of occurrences, for example, we could use them to inform a future investigation.

Ms. Lisa Marie Barron: Thank you.

You mentioned that over the last 10 years, there were four others that were investigated. Can you clarify—you don't need to go into detail, but briefly—what those four incidents were?

• (1135)

Ms. Kathleen Fox: There were four. I'm talking specifically, Mr. Chair, about incidents where cargo went overboard, as opposed to cargo shifting, because one of our reportable occurrences is cargo shift or cargo loss.

In terms of cargo loss, there were four occurrences. The most recent one was in December 2021. The *North Arm Tempest* reported having lost three cargo containers overboard while in the Strait of Georgia. Of course, there's the *Zim Kingston*, which we are investigating. Of the other two, one occurred in 2016. It was the *Hanjin Seattle*, which reported losing 35 containers overboard in severe weather about eight miles south of Cape Beale, British Columbia. In 2014, there was a barge, the *Southeast Provider*, that was under tow by the *Pacific Titan* and lost 28 containers overboard while transiting the Queen Charlotte Islands.

Three of those four were what we call class 5 occurrences. They were reported to us, and we assessed them and documented them, but we didn't pursue the investigations further. The *Zim Kingston* is the first one we're doing a full investigation of, with a public report.

Ms. Lisa Marie Barron: Based on the level of investigation that was conducted on the other three incidents, were there any lessons learned that you can share with the committee today?

Ms. Kathleen Fox: I don't have any details beyond that. Each one is unique in terms of the circumstances.

This particular occurrence will give us an opportunity to look back at some of those and look at what's happening in other marine jurisdictions to see if there's any commonality among any of these occurrences and any lessons that can be learned.

Ms. Lisa Marie Barron: One thing that comes up over and over again is the need for a coordinated response and to have an integrated response plan when spills occur. Have you done any investigation around any gaps in jurisdiction? Have you seen in your work any ways in which the response plan has not been as effective as it could have been if there had been a more integrated response plan in place, including first nations, those on the ground and so on?

Ms. Kathleen Fox: Mr. Harvey, I don't know if you can reference any in your memory.

In my memory, the one that comes to mind is the grounding and subsequent sinking of the *Nathan E. Stewart* off Bella Bella in 2016. We took a very close look at the incident response. We made a number of findings about the need for a comprehensive and coordinated response, as well as a follow-up, following the response, to ensure that the lessons learned are operationalized and institutionalized for future emergency responses.

The Chair: Thank you, Ms. Barron.

We'll now go to Mr. Zimmer for five minutes or less, please.

Mr. Bob Zimmer (Prince George—Peace River—Northern Rockies, CPC): Thank you, Mr. Chair.

I'll start off with a simple question. What is the success rate of container ships in general, as opposed to trips that are made with

incident or loss of cargo, etc.? What is the percentage of successful trips versus unsuccessful trips?

Ms. Kathleen Fox: Go ahead, Mr. Harvey.

Mr. Clifford Harvey: Thank you, Ms. Fox.

Mr. Chair, there were statistics released by the World Shipping Council, which identified that for an annual period around 2017, approximately 625 million containers were shipped worldwide. Of those containers that were shipped worldwide, the percentage that they calculated were lost outside of catastrophic events—which would be the complete loss of a vessel—was in the factor of 0.0006% or potentially around 2,000 or 2,500 containers annually.

Mr. Bob Zimmer: Thank you for that. I think it paints a picture that there are a lot of successful trips as opposed to accidents.

Ms. Fox, I'm going to ask you a question that relates to what my colleague Mr. Arnold said previously when he asked you some questions. I think you referred to some recommendations and said that 86.8% had been responded to affirmatively.

Ms. Kathleen Fox: Yes, Mr. Chair. I was referring to the number of marine recommendations that the Transportation Safety Board has issued since we were created back in 1990. We've issued 159 marine-related recommendations and those are to the regulator, Transport Canada, the Department of Fisheries and Oceans and other change agents. Of those 159, 86.8% of the responses for the marine recommendations have received our highest rating of fully satisfactory.

• (1140)

Mr. Bob Zimmer: What happened to the other ones? What kind of recommendations have you made that haven't been received or haven't been adopted? Can you give us a general comment on that? We have about three minutes here.

Ms. Kathleen Fox: In fact, other recommendations have been outstanding, some of them even since the 1990s, related to marine. A lot of them right now are focused on fishing safety, relating, for example, to the carriage of life-saving appliances, stability assessments for smaller and mid-sized fishing vessels, and fatigue management training for watchkeepers. As a result of the *Nathan E. Stewart* grounding and sinking off the coast of B.C., we issued two relating to fatigue management and fatigue training for watchkeepers, who are regulated by the marine personnel regulations.

We ask the change agent—typically it's Transport Canada or it could be DFO—every year to update us on the progress they're making on actioning those recommendations. We assess that action and then we publish it on our website. We're just about to publish the latest reassessment exercise in the coming weeks.

Mr. Bob Zimmer: Are you confident that the remaining 13%—it was at 86.8%, so about 13%—are going to be addressed in the future by the actions within the department?

Ms. Kathleen Fox: In some cases, the regulator may not agree with the recommendation and we may agree to disagree, Mr. Chair, but we always track them. If we feel that the residual risk is sufficient, we keep them active. If we feel the residual risk is lower but we're not ready to close the recommendation until it's fully satisfactory we may make it dormant, but we always follow up on an annual basis.

Some of them are harder to implement than others, because there may be resistance from the industry or there may be costs involved, but we continue to pursue those and highlight them in any investigations where the same issues resurface.

Mr. Bob Zimmer: All I would say in finishing is that I know my colleague Mr. Perkins is concerned about marine safety and maybe this makes the case for a longer discussion about what still needs to be done. We care about our anglers and our fishers out there, that they're safe and that they get home at night and return to their families. Maybe, again, we'll talk about that in the future.

Thanks for your testimony today. That's all I have.

The Chair: Thank you, Mr. Zimmer.

We'll now go to Mr. Kelloway for five minutes or less, please.

Mr. Mike Kelloway (Cape Breton—Canso, Lib.): Thanks, Mr. Chair.

Hello to our witnesses, and hello to colleagues.

I have two questions. One is focused on incorporating indigenous knowledge into response plans and one is around the polluter pays principle. I want to stay on that as I did with the last series of witnesses last week.

We've heard from the Canadian Coast Guard that they benefit tremendously from collaborating and incorporating indigenous knowledge in their unified command centre. I think they said it's an important collaboration. With your expertise, the Transportation Safety Board has investigated many incidents and accidents across Canada and no doubt you've seen how collaborating with indigenous communities can lead to better outcomes.

I'm wondering if you could—and this is for any of you—provide us some other examples where all levels of government, including indigenous governments and communities, worked together to provide the best possible response to a marine cargo incident or any other such incident.

Ms. Kathleen Fox: Thank you, Mr. Chair.

I can speak to the incidents. How comprehensive the response was and whether all levels of government were involved may be for others to judge. Certainly, during the loss of the B.C. ferry *Queen of the North* in 2006, it was the local community in Hartley Bay that played a significant role in recovering and helping to aid the passengers who were able to get off that vessel prior to the sinking. Unfortunately, two souls were lost and presumed drowned.

Then there was the *Leviathan II* off the coast of Tofino. I may be wrong on the year, but I think it was 2015. That was a whaling vessel that capsized as a result of a severe encounter with a wave. Again, it was the local community that, first of all, identified that

the vessel had gone down and then went out and recovered many of the passengers and crew who had ended up in the water.

Then, of course, when the *Nathan E. Stewart* went down, spilling 110,000 litres of diesel fuel, the local community of the Heiltsuk First Nation went out and helped with the environmental response.

• (1145)

Mr. Mike Kelloway: Thanks, Ms. Fox.

Do any other of the witnesses want to add to that? I'm going to take the silence as a no.

My second question is around the polluter pays principle. I asked a couple of questions in the last block of witnesses last week. We've heard from witnesses that under the Wrecked, Abandoned or Hazardous Vessels Act and the Marine Liability Act, the polluter is liable for losses or damages caused by pollution from a ship.

I'm wondering if you could provide this committee with any further recommendations on how these pieces of legislation, in your view, could protect Canadians from incurring the costs associated with environmental incidents.

Ms. Kathleen Fox: I'm going to ask Mr. Harvey to address that.

I will say that we use the word “recommendation” very carefully because it's a board recommendation, and I'm certainly not in a position to make any recommendations with respect to that.

Mr. Mike Kelloway: Perhaps you have some suggestions.

Ms. Kathleen Fox: Again, I will wait to see what comes out of this particular investigation.

Mr. Clifford Harvey: Thank you, Ms. Fox, and thank you, Mr. Chair.

I don't really have anything to add beyond, as mentioned, the polluter pays principle. I know there are international conventions governing the recovery or the response to pollution as well, and they're incorporated into Canadian law and responded to by the federal departments responsible.

Mr. Mike Kelloway: Okay. I think I have about 40 seconds left. I'm going to try it from a different angle.

Could you expand on how this type of legislation not only holds polluters accountable but also helps prevent incidents like the *Zim Kingston* incident from happening again?

Ms. Kathleen Fox: I think I'll answer that one, Mr. Chair.

The role that Parliament has carved out for us is very clear. It's to investigate safety, transportation safety and those things that will make marine safety and the other modes better for all. We really limit ourselves to those sorts of discussions, as opposed to commenting on other legislation that is beyond our jurisdiction, our mandate or our expertise.

Mr. Mike Kelloway: Thank you, Chair.

The Chair: Thank you, Mr. Kelloway.

We'll now go to Madame Desbiens for two and a half minutes or less, please.

[*Translation*]

Mrs. Caroline Desbiens: Thank you, Mr. Chair.

I had some questions about the accident that occurred off the western bank of the St. Lawrence River. Clearly, it's a large waterway that is deeply affected by the eddies originating from the estuary. Many ships need to be guided by pilots because some spots are obviously dangerous, especially around where I live, Île-aux-Coudres, in Charlevoix. The passage is very difficult for outside vessels that are not familiar with the sea there. My grandfather was a schooner captain, and he knew the river like the back of his hand, unlike the crews of foreign ships. What worries me is that the accident that occurred out west could happen to us as well.

Do you know how many incidents and accidents have occurred in recent years between the Gulf of St. Lawrence and Quebec City, for example?

Have you documented any major incidents?

[*English*]

Ms. Kathleen Fox: Mr. Harvey, can you take that, please?

Mr. Clifford Harvey: Mr. Chair, I'm trying to think about incidents where we would have discussed the shipping currents in the St. Lawrence. I know that the Transportation Safety Board undertook an extensive class 1 investigation into pilotage issues in 1995. A lot of those recommendations were addressed since that time; however, the use of pilots on international vessels sailing into the St. Lawrence continues as well. We continue to look at cases where bridge resource management between the pilots and the ship's crew on board is undertaken in a way that communicates the intentions of the pilot and the vessel's master fluently and together in one, so it's easily understood between both parties.

• (1150)

The Chair: Thank you.

Madame Desbiens, there are only about 12 seconds left, so there's hardly time for a question, let alone an answer.

We'll now go to Ms. Barron for two and a half minutes or less, please.

Ms. Lisa Marie Barron: Thank you, Chair.

The thing I'm trying to wrap my head around.... Perhaps, Ms. Fox, you can help to clarify. What I'm hearing from you is that your work is specific to safety, investigating safety. Does that expand to environmental safety? For example, I'm thinking about the debris that's falling into our oceans, the Styrofoam and the toxic substances that are in the ocean and the impacts on our marine environment, and of course on humans as a result. I'm wondering, how black and white is investigating safety? Can you expand on that? Does it include environmental safety issues to our planet and to all those who live on this planet?

Ms. Kathleen Fox: The short answer, Mr. Chair, is that the mandate that Parliament has given us in the CTAISB Act is to advance transportation safety in the four federally regulated modes of transport: air, rail, marine and pipeline. So no, we don't investigate en-

vironmental incidents, except to the extent that they were caused by a transportation occurrence.

Certainly, if a train derails and spills dangerous goods, as was the case in the tragedy in Lac-Mégantic, or if a ship has an occurrence and either, as in this case, loses cargo or, as in other cases, grounds or sinks, then for the environmental consequences of that, we'll document what we know and we'll document the initial response to it in terms of the first 12, 24, 36, 48 hours. But beyond that, in terms of the actual cleanup and so on, that is outside of our mandate, because our mandate is really focused on what happened—

Ms. Lisa Marie Barron: Okay.

Ms. Kathleen Fox: —to cause the environmental damage and how the initial response was handled to minimize the consequences to people and property.

Ms. Lisa Marie Barron: Thank you, Ms. Fox. I'm sorry to interrupt you. I just want to try to get my last question in quickly here.

Is there any work done, through your work, alongside others to ensure that...? I know Mr. Kelloway was speaking a little bit about the polluter's responsibility. The information that you're acquiring through these investigations... Do you collaborate with others to ensure that polluters are held responsible, with this really important information that is being acquired through your investigations?

Ms. Kathleen Fox: Again, the short answer is that the TSB cannot attribute blame or determine civil or criminal liability, so we have to stay outside of that realm.

The Chair: Thank you, Ms. Barron.

We'll now go to Mr. Small for five minutes or less, please.

Mr. Clifford Small (Coast of Bays—Central—Notre Dame, CPC): Thank you, Mr. Chair, and thank you to our witnesses for coming out today to take part in this very important study.

It's well known that masters on these container vessels are coming under increased commercial pressure and having to operate within very tight schedules, and often their schedule for the ships could be laid out months ahead of time. These ships are travelling in heavy seas sometimes. Do you think the masters are being placed under too much pressure? Could this be one of the reasons why these ships are sailing into heavy weather when they could be holding back in safer quadrants with no storms?

Maybe Mr. Harvey could respond.

Ms. Kathleen Fox: Maybe I'll step in first.

Mr. Chair, again, we can't form an opinion unless we investigate something. We have investigated, for example, issues relating to fatigue of watchkeepers and made recommendations with respect to that, but to make a general comment about whether masters are subject to certain pressures or not is not something we could generalize unless we had the evidence through our investigations to support it.

Mr. Clifford Small: Okay. We'll get specific. We'll go right to the *Zim Kingston*.

In this case, do you think the master was under significant commercial pressure to arrive on time? Have you investigated that yet?

• (1155)

Ms. Kathleen Fox: Go ahead, Mr. Harvey.

Mr. Clifford Harvey: Thank you, Ms. Fox.

As you mentioned earlier, this is an ongoing investigation and it wouldn't be prudent for us to discuss specifics around the *Zim Kingston* at this time.

Perhaps I could answer your question in terms of the transportation system right now. I mentioned earlier the number of containers that are shipped worldwide. I read a figure that says 80% or 90% of the goods exchanged worldwide are shipped around the world, and a lot of this is by these container ships.

You mentioned rough weather as well. There is rough weather that could be incurred by the vessel, but there are phenomena that occur when the vessel is sailing in what we would consider relatively calm seas when the stability of the vessel can still be affected and the stresses that are incurred in securing the cargo are exceeded, and not just generally through a violent storm.

Mr. Clifford Small: Based on your previous investigations of incidents such as this, what have you found to be the number one cause for the spilling of containers into the ocean?

Ms. Kathleen Fox: Go ahead, Mr. Harvey.

Mr. Clifford Harvey: Thank you, Mr. Chair.

As Ms. Fox identified earlier, the investigation that the Transportation Accident Investigation and Safety Board has undertaken into lost containers over the last 10 years has not been significant. However, we are looking at lessons learned, or the cause and contributing factors identified by international occurrences.

As I mentioned earlier, oftentimes the stresses that are undergone by the lashing mechanisms on board these container vessels are exceeded. Sometimes the stability of the vessel is compromised, either in inclement weather or through synchronization with the wave period or the rolling motion of the vessel, which can cause the vessel to heel over and to exert forces on these containers.

It's been documented, as well, that there is potentially improper loading of these containers when it comes to the weight. That's being addressed at the international body. There's also the condition or the maintenance of the securing arrangements on board the vessel. These are generally things that are seen coming out of the investigations internationally.

Mr. Clifford Small: Who determines the maximum allowable height of container stacking? I guess it has to do with the size of the vessel as well.

Who is responsible for making that judgment or that regulation?

Mr. Clifford Harvey: The stability of the container vessel is assessed and the amount of cargo that the vessel can carry is documented in the cargo securing manual. This manual is approved by the flag or by the country of the vessel, and it is done in accordance

with international standards. This is then provided to the crew and to the shippers for adherence, or to review the loading of the vessel to make sure it is in accordance with the approved cargo securing manual.

Mr. Clifford Small: Thank you, Mr. Harvey.

The Chair: Thank you, Mr. Small.

We'll now go to Mr. Hardie for five minutes or less, to fill up our first hour.

Mr. Ken Hardie: Thank you, Mr. Chair. I was hoping to get one last question in, so this should be fairly short.

Mr. Harvey, you mentioned international standards. Who in Canada contributes our input to the international standards?

To Mr. Small's question about stacking, where things are stored on the vessel, the securing mechanisms, their efficacy and the safety of mariners, who in Canada—what body—contributes our input to the international standards?

Ms. Kathleen Fox: Go ahead.

Mr. Clifford Harvey: The lead department in Canada for interaction with the International Maritime Organization in these effects is Transport Canada. They're the regulator of federal shipping.

The Chair: Thank you for that, Mr. Hardie. It gives us a bit of extra time now to make sure we can complete our second hour.

In closing our first hour, I'd like to thank the witnesses from the transportation sector for—

A Voice: [*Inaudible—Editor*]

The Chair: What's that? We could probably clew out and get the full hour in now and the next one, too.

All right, I'll allow a question.

• (1200)

Mr. Mel Arnold: Thank you. I just have a closing question.

Ms. Fox, you mentioned how the board's number of investigations has been limited because of your limited resources.

Has the board's annual funding had any substantial increases since the oceans protection plan was announced in 2016, or has it basically been inflation and typical increases?

Ms. Kathleen Fox: In the interest of time, I'll just say we did receive a top-up of our budget about three years ago to deal with a gap that had built up over the years, primarily due to salary increases without budget increases.

Again, we are adequately resourced for the types of investigations that we do, and we have the provision to go to Parliament for extra funding if we do not, but we did not get any specific extra funding as a result of the oceans protection plan.

The Chair: Thank you again, Ms. Fox, Mr. Harvey and Mr. Lapointe, for your participation here in committee today. I'm sure the information you provided will help in our final report on this particular study.

We'll recess for a moment now before we switch over to the second panel, to make sure our witnesses are sound-checked and the interpretation is working okay.

Thank you again.

• (1200) _____ (Pause) _____

• (1203)

The Chair: We're back.

We'll welcome our witnesses for the second hour of our testimony today. From the Tla-o-qui-aht First Nation, we have Josh Temple, coordinator, environmental sustainability; and Terry Dorward, project coordinator, tribal parks.

We'll now hear opening remarks from Mr. Dorward for five minutes or less.

Go ahead when you're ready.

Mr. Terry Dorward (Project Coordinator, Tribal Parks, Tla-o-qui-aht First Nation): Good day, Mr. Chair and esteemed members of the committee.

My name is Terry Dorward.

[*Witness spoke in Nuu-chah-nulth and provided the following text:*]

Uu-claw-shish Seit-Cha E-stuck ShiKk Tla-o-qui-aht.

[*Witness provided the following translation:*]

Hello, my name is Seit-cha, one who swims in the water, and I am from Tla-o-qui-aht.

[*English*]

I live on the west coast of what is now called Vancouver Island. The lands and waters in Tla-o-qui-aht territory are vulnerable to marine pollution because of their geographic location and geological composition.

With the industrialization of the waters around us, longshore drift—the prevailing movement of the water—constantly brings marine debris onto our shores, debris that threatens the sensitive soft sediment shorelines with plastic, metal and hydrocarbon pollution. We know this pollution settles into these sediments, which accumulate and threaten marine life for years. We say “marine life” in these rooms, but most of us here know that life to be salmon, clams, herring, crab and more.

On the west coast of Vancouver Island, there is a vibrant and sustainable model of collaboration occurring. Since 2017, work has been done by the Tla-o-qui-aht First Nation, in partnership with local NGOs and communities, to build our collective capacity to manage our shared resources and respond to the growing challenges we face. More recently, Tla-o-qui-aht and local NGOs have successfully worked in partnership and coordination with federal and provincial governments to address these threats. These efforts have resulted in the cleaning of over 400 kilometres of shoreline, the removal of 100 derelict vessels and the dismantling of abandoned aquaculture sites along the west coast of Vancouver Island.

This work has been vital to revitalizing marine environments within Tla-o-qui-aht territory.

Central to these efforts has been the focus on building the already incredible capacity of the Tla-o-qui-aht Nation and communities to respond to these challenges. Doing so has deepened the conversations around climate change and other environmental issues, conversations that have occurred within our nation for a very long time.

I bring this up to highlight that this coordinated approach is both applicable and scalable to meet the needs of other marine issues, including threats from marine cargo container spills. I want you to know that we already have systems in place, and we have taken care to develop these methods over the past years and over the lifetime of the Tla-o-qui-aht peoples.

We know that Tla-o-qui-aht peoples are stewards. We have within our communities and our collaborations baseline environmental information. This looks like on-the-ground monitoring and reporting by guardians and NGOs. We also have multi-generational local knowledge of marine conditions, environments and capacities to assist with response planning and implementation.

Stewardship is not a new practice, but new industrial ways of ensuring that our territory is taken care of have been developed in partnership with NGOs and partners. This means we have a shelf-ready environmental remediation framework that is informed by stewardship goals and relies on established protocols. We have successful methods to collectively address local environmental issues such as marine debris, derelict vessels and marine remediation that can be scaled.

We have developed and continue to develop a skilled workforce through tailored environmental training. Tla-o-qui-aht members and coastal first nations along the west coast of Vancouver Island have received training on marine remediation, and NGOs have benefited from the shared knowledge and protocols to complete marine spill response work safely and appropriately together. With this knowledge, we have tailored OHS protocols and training targeted to safety in the marine environment.

We know this approach works here on the west coast of Vancouver Island. We also know it works elsewhere in direct response to marine incident response. Similar to the approach taken on the north shore in Haida Gwaii, we can move forward to adopt a shared and inclusive approach to marine incident response. This approach includes inclusive and equitable decision-making, which means recognizing and including all affected territorial boundaries and impacted governments. The balance of power is key to supporting consensus decision-making towards common goals.

• (1205)

We have shared responsibilities for marine resources. This is a human problem. This is not a Vancouver Island problem, a Tla-o-qui-aht problem or a B.C. problem. We are all responsible for and dependent upon these diverse coastal and marine ecological systems for our social, cultural and commercial ways of being. They must be taken care of and made a priority.

In light of what we know here and our practices that have succeeded for time out of mind, I ask that these resources and contributions be matched by the federal and provincial governments in two specific ways.

First, we require direct research, specifically for the west coast, and a commitment to a disaster plan and emergency preparedness that includes risk assessment and vulnerability studies specific to coastal communities. All of this must be informed by those with the most knowledge and understanding of the coastal waters, vulnerable ecosystems and community capacities.

Second, we require direct funding to build response capacity for coastal first nations, and to provide emergency training and response materials to first nation communities who are best positioned to be the first responders in the event of a spill. We know we can safely and effectively mobilize to reduce response times and mitigate the challenges of bringing in distant federal response agencies like Transport Canada, the Coast Guard and external contractors.

I've stated previously that these requests are not just for the benefit of Tla-o-qui-aht, Vancouver Island, coastal first nations or B.C. Spill responses, marine disasters and loss of life likely affect all of us.

I hope I've spoken to the reality today and uplifted the future reality of what collaboration and adequate resources can look like.

I'd like to pass it over to my colleague, Captain Josh Temple, for his introduction.

Thank you.

• (1210)

The Chair: I'm sorry, but we've gone well over the five minutes allotted for the opening statement. We'll hopefully get something out during questions that will come your way.

We'll now go to Mr. Arnold for six minutes or less, please.

Mr. Mel Arnold: Thank you for appearing before the committee today. This is all a very important consideration in your territory.

You mentioned that you already have response systems in place and that you have received training. Do you have formal agreements with the federal or provincial governments for the work you perform on these responses?

Mr. Terry Dorward: Yes, we do.

Mr. Mel Arnold: Do you have formal agreements so that if your members go out to respond, there's compensation or coordination with the appropriate groups in the provincial or federal governments?

Mr. Terry Dorward: I will pass it over to my friend and colleague, Captain Josh Temple.

Mr. Josh Temple (Coordinator, Environmental Sustainability, Tla-o-qui-aht First Nation): Thank you very much, Terry. I can handle that for sure.

Good morning, Mr. Chair and esteemed members of the committee.

As you know, my name is Josh Temple. I'm calling in from the unceded and unsundered lands of the Tk'emlúps te Secwépemc Nation in what is now known as Kamloops, British Columbia.

I appear before you today in my role as coordinator of environmental sustainability for the Tla-o-qui-aht Nation. I've also appeared before the committee in my role as executive director of the Coastal Restoration Society, Canada's largest environmental remediation organization that is focused on supporting first nations and provincial and federal governments in their environmental stewardship goals. I humbly wear both of these hats before you today.

As a captain and professional mariner, I've garnered a lifetime of global maritime experience related to maritime—

Mr. Mel Arnold: Excuse me, was this to be your formal introduction?

It's my questioning time here, so perhaps if we get through the questions, you can continue with your presentation.

I was asking if the Tla-o-qui-aht have formal agreements in place and if there is compensation for members who take part. How are those arrangements laid out?

Mr. Josh Temple: Thank you, Mr. Arnold. I apologize. I was getting to that. I was almost done my introduction.

I'm not aware of any formal agreements that Tla-o-qui-aht or any members of Clayoquot Sound might have with the federal government. However, we have performed many initiatives directly related to spill response and recovery of anthropogenic debris directly related to container spill recovery over the years, which has been funded under contract by the provincial and federal governments.

Mr. Mel Arnold: Those have been in response to spills, but have you stepped in prior to that, for the sake of time, to begin these responses, and then sought agreements or compensation or resources afterwards? How has that process worked out?

Mr. Josh Temple: That's a great question. It has happened both ways. Sometimes, in the absence of a more formalized framework or emergency response structure that would allocate funding or resources to support an emergency response to anthropogenic debris related to container spills, etc., we do step in and become proactive. In other instances, there's debris that continues to wash in from a variety of international and domestic sources. It continues to wash in from the *Zim Kingston* spill.

In those instances, we'll work with either the provincial or the federal government to propose a collaborative approach for ongoing spill response and recovery, as well as for recycling and disposal initiatives that are pertinent to those recovery efforts and that have allocated funding mechanisms, either through direct contract awards through the procurement system, or through funds like the ghost gear fund, the "clean coast, clean waters" fund, which was recently done through a provincial initiative, or a variety of other initiatives that are put out by Transport Canada, the Coast Guard or the Department of Fisheries and Oceans.

• (1215)

Mr. Mel Arnold: Thank you for that.

Mr. Dorward, you mentioned that you're looking for matching resources for risk assessments but also direct funding to build response capacity. Would that be along the lines of permanent structures and facilities and regular staffed facilities as well? Can you elaborate a little bit more on that?

Mr. Terry Dorward: Yes. We're working on a shoestring budget out here. We're not funded in a long way. Long-term funding is required to sustain response frameworks. We have a long way to go in terms of infrastructure. We need to build capacity and training and implement recovery efforts.

Mr. Mel Arnold: Mr. Chair, I think that's all I have for now. Thank you.

The Chair: Thank you, Mr. Arnold.

We'll now go to Mr. Hardie.

You have six minutes or less, please.

Mr. Ken Hardie: Thank you, Mr. Chair.

Thank you to our witnesses.

I wanted to see if you had any reflections on the *Nathan E. Stewart* incident. I know that was something that was more in the Heiltsuk territory, but I recall that at the time there was criticism that the agencies that responded to the oil spill didn't call in or rely on traditional or indigenous knowledge or expertise.

Mr. Dorward, was that your observation as well? Can you refresh us as to what happened there?

Mr. Terry Dorward: Of course, we don't have a direct line of communication when this type of stuff happens. That fuel spill on the central coast could easily have happened along WCVI. Coastal indigenous networks are often the first responders. You know, we need training. We need equipment to respond to these emergency situations.

Mr. Ken Hardie: The actual concern at the time was that there was local knowledge that could have mitigated the amount of damage done, but it wasn't relied on.

Mr. Dorward, you spoke of training and said that there has been some training conducted. Who develops the training, and who delivers it?

Mr. Terry Dorward: Well, we've been working with Josh Temple. As coastal indigenous people, we're often geographically positioned to respond. We need to work with WCMRC, coastal NGOs like Josh's team and the Coast Guard.

Mr. Ken Hardie: Has any training been offered to you through the Kitsilano Coast Guard base? That was one thing that we counted on as a good development, first of all to keep that base open, but secondly to use that facility to train first responders up and down the coast. Has your community benefited at all from that?

Mr. Terry Dorward: It has not yet. We'd like to participate in a coastwide framework of first responders. That's a framework that we need to see implemented.

• (1220)

Mr. Ken Hardie: That leads me to the question I have had for many of our witnesses so far, and that is on coordination. We're impressed by the number of different groups, many of them NGOs, that want to step in and help with cleanup or response to disasters, and each of them is clamouring for a small budget to make their activities work and worthwhile, but I am always suspicious that there is not a lot of coordination, that one hand doesn't know what the other is doing, and that we could be duplicating efforts or leaving gaps.

Is that your experience, literally being on the ground and on the water?

Mr. Terry Dorward: Yes, it definitely has been.

Communications are improving, but we need to bolster the collaboration among government, first nations and NGOs. This takes dedicated funding, and we'd like to see the government come to the table with some long-term funding. Without long-term funding, the framework will collapse.

Mr. Ken Hardie: When there is an incident—a transport truck tips over or a train derails—you can tell in an instant what's in the car or in the tank, or whatever load the truck or the train is carrying, because there are markings there that allow emergency responders to know exactly what they're dealing with when they arrive on the scene. In fact, they would know before they get there.

Does the same apply? For instance, when the *Zim Kingston* encountered its difficulties, would you have been able to find out what was on that ship, regardless of what might have been lost overboard? Would that give you a sense of what you might have to deal with? Is that kind of detail available to you?

Mr. Terry Dorward: We need to treat all these spills with the highest priority. That way, we are proactive in our response plans. Treating all spills as a high priority ensures that we are prepared with an adequate response.

Mr. Ken Hardie: I have a quick question. That's similar to what we were dealing with in the early days of the pandemic, when there was a lack of personal protective gear.

When you're out to clean up a beach or a piece of shoreline, it would help to know what you're likely to encounter. Would you have the protective gear to keep everybody safe when they're dealing with potentially dangerous material?

Mr. Terry Dorward: Spill response equipment is highly specialized and ensures that the protection is there.

Mr. Ken Hardie: Do you have enough of that?

Mr. Terry Dorward: We don't have adequate equipment yet, and we need to acquire it for sure.

The Chair: Thank you, Mr. Hardie.

We'll now go to Madame Desbiens for six minutes or less.

Go ahead, please.

[Translation]

Mrs. Caroline Desbiens: Thank you, Mr. Chair.

In 2019, a total of 13 indigenous communities across Canada were chosen as host communities for a pilot project to create, test and assess an emergency information and response system.

To your knowledge, Mr. Dorward, was your community one of the 13 pilot host communities?

Did any communities in Quebec take part in the pilot? What were the results of the pilot?

Let's start with the first question. Was your community one of the 13 pilot host communities?

[English]

Mr. Terry Dorward: Not to my knowledge, no.

[Translation]

Mrs. Caroline Desbiens: In that case, Mr. Temple, you can have the few minutes I have left to say what you weren't able to say earlier.

Mr. Josh Temple: Thank you, Mrs. Desbiens.

[English]

I apologize if I didn't say your name correctly. French is not my first language, but I like to try when I have the opportunity.

Maybe I'll just jump back in.

We've had the privilege of speaking before at this committee.

As a captain and professional mariner, I've garnered a lifetime of global maritime experience related to marine industrial activities. In my role with the Coastal Restoration Society, I've subsequently understood how these marine-related industries impact our shared marine environments.

Showing up with Mr. Dorward and the Tla-o-qui-aht Nation today, our goal here is to try to encourage the committee to hold themselves and our government accountable to continuing to expand this opportunity of collaboration between not only nations, but NGOs and governments across all of Canada's coasts, not just in British Columbia. We have the largest coastline in all the world, as we know. That's something to be incredibly proud of, but it also comes with a lot of weight and responsibility.

We know, from tens of thousands of years of traditional first nations stewardship of these coasts, that a collaborative approach to long-term environmental sustainability is possible. We've thrown a wrench into the works with these large-scale anthropogenic spills. We need to now bring in more of a western perspective to deal with that specific anthropogenic debris and petroleum-based products,

and nest that within traditional first nations stewardship, collaborative values and historical approaches.

If we can endeavour to collectively achieve a framework of collaboration that brings first nations more to the forefront of these response, recovery and processing frameworks, we're going to return to a methodology that had been in place for tens of thousands of years. By the way, it was very effective at overall shared environmental stewardship values.

I'm happy to continue to support Terry and the Tla-o-qui-aht nation in this work. As director of the Coastal Restoration Society, I would say that our overall coastal collaboration on both the Pacific and Atlantic coasts with coastal first nations, and the projects that we've successfully implemented throughout the years, are evidence of this framework being highly successful, and something that we can implement on a much broader scale.

Thank you.

• (1225)

The Chair: Thank you.

We'll now go on to Ms. Barron for six minutes or less, please.

Ms. Lisa Marie Barron: Thank you, Chair.

Thank you to Mr. Dorward and Captain Temple for being here today. It's so great to have you here to share your thoughts around what has occurred with container spills.

Mr. Dorward, I appreciate your speaking to the fact that this is a human problem. It's a really good perspective for us to take, that this is not an issue specific to coastal communities along the west coast in light of the *Zim Kingston*, but a human problem across Canada and the world.

In light of your being here today, Mr. Dorward, I'm wondering if you could speak a bit more to your experience as a Tla-o-qui-aht member of when the *Zim Kingston* spill occurred. Were you contacted in a timely manner? What did that look like? Perhaps you can expand a bit on the communications that occurred in light of the spill.

Mr. Terry Dorward: Yes. Thank you for that.

The debris spills are, of course, a human problem—thank you for recognizing that—but they are also an environmental and wildlife problem.

Communication has been inadequate for the *Zim Kingston* spill. We did get messages sent from the Coast Guard. We do have a mosquito fleet that goes out. It's very under budget. The contractor for Danaos has not implemented any recovery frameworks that meaningfully involve first nations. That's something we need to do. That needs to change. We need to get there.

Ms. Lisa Marie Barron: Thank you.

How long did it take for you to be contacted initially, in the wake of the spill?

Mr. Terry Dorward: It took over a month.

Ms. Lisa Marie Barron: We have touched on, and Mr. Hardie was speaking to, the importance of collaboration. Can you expand a bit on that?

Can you provide some examples of whom you feel you're collaborating well with, if there is anybody, and perhaps some of those at the table that you feel you would benefit from having stronger collaborations with in order to respond more effectively when spills like this occur?

• (1230)

Mr. Terry Dorward: Of course, I would say the Coastal Restoration Society, DFO, Transport Canada and provincial ministries like the Ministry of the Environment and FLNRO. They have all worked with us on successful projects in the past.

Ms. Lisa Marie Barron: Thank you.

I'm trying to understand a little bit better. Could you speak perhaps specifically to your experience with communications with the contractor who was hired to take on the work? How have your communications been with the contractor who's trying to do the cleanup? How have your communications been with the Coast Guard as debris continues to wash up on the shore? Could you elaborate a little bit on that?

Mr. Terry Dorward: Danaos has not done well in communication. The Coast Guard has issued messages through regular statements, but our involvement still needs some work.

Ms. Lisa Marie Barron: Thank you.

I think you've already highlighted this, but I'm trying to understand your thoughts on having a really strong, integrated response plan that includes first nations taking on that stewardship role that you spoke so well to. How do you feel having an integrated response plan in place, in which all of these players are effectively communicating, would help to eliminate the damages that occur from these spills?

Mr. Terry Dorward: I'd like to know if that even exists and, if so, how we become a part of that. If it does exist, we're not seeing it implemented on the WCVI.

Ms. Lisa Marie Barron: Thank you.

I have one final question, although I don't know how much time I have left. I think about how important it is to have first nations involved right from the outset and how much more effective this spill response could have been if we had that in place. In light of these spills, could you speak a little bit to the importance of having those on the ground who understand the land?

Mr. Terry Dorward: Yes. First nations, of course, were the original stewards of these lands. We're a natural choice to lead any recovery effort. We can go into areas where most people can't. We understand the coastal community. Relying on first nations should be the primary goal.

The Chair: Thank you, Ms. Barron.

We'll now go to Mr. Zimmer for five minutes or less.

Go ahead, please.

Mr. Bob Zimmer: Thank you, Mr. Dorward. Is that the proper way to pronounce your name?

Mr. Terry Dorward: It's the same as "forward" but with a D.

Mr. Bob Zimmer: That's perfect. Thanks.

I have just a couple of questions. Who do you think is responsible for, first of all, a plan or response to a spill? We're talking here about container spills today, but just generally, who do you think is responsible if spills are to occur in waters close to your community? Whose ultimate responsibility is that?

Mr. Terry Dorward: I definitely think it's federal, the Coast Guard.

Mr. Bob Zimmer: I would agree with you.

Mr. Terry Dorward: As indigenous people, we still have an ancient responsibility to ensure the well-being of the environment. Even though we don't have a lot of funds, we get out there and do what we can.

Mr. Bob Zimmer: The reason I ask it that way is that we just went through a study about the flood response in the Fraser Valley and we saw a bunch of volunteers use their own boats and their own gas to really help fix what the response was. What actually really happened was a volunteer effort in essence. They weren't compensated or anything else.

Getting back to my question, though, when we asked the Department of Fisheries and Oceans whose responsibility it was, they kind of shrugged their shoulders and said, "Well, we issued a bunch of permits." That's all they did. It was really just partially getting out of the way of the people who actually did the work.

If the responsibility belongs to the federal government, I guess I'm a little bit alarmed based on the questions my colleague Mr. Arnold asked you. If you haven't been compensated for some of your cleanup efforts, that kind of begs the question of whether there is a plan in the first place. It causes some doubt around whether there is a plan or not, because I would have assumed that you would have been part of that response plan in your area. If there was a container spill, I thought you would have been consulted and told, "Hey, we want you to be part of this program."

Are you aware of whether there's any plan like that in place in your community?

• (1235)

Mr. Terry Dorward: Government is stepping up to support these efforts, but we need to improve these collaborations. We're encouraged by these preliminary efforts, but much more needs to be achieved.

I could pass it off to my colleague Josh Temple.

Mr. Bob Zimmer: Mr. Dorward, I'm going to keep asking you, if you don't mind.

I'm familiar with the oil and gas sector. I'm up in northeastern B.C., not in a coastal community, but I'm very aware of spill responses and what's necessary. Typically, if there's an oil spill, there's a stash of equipment that community members can utilize to contain the spill. It's the equipment you refer to, and it's very specialized.

Do you have specialized equipment like that in your area that you can access and utilize, even on a voluntary basis, that's bought by the Department of Fisheries and Oceans but that you can use?

Mr. Terry Dorward: Putting equipment into remote first nation communities like Tla-o-qui-aht makes obvious sense. We have—

Mr. Bob Zimmer: Is it there now, though?

Is that equipment currently accessible to you, or is it not there yet?

Mr. Terry Dorward: It's very limited. We need to expand the inventory immediately.

Mr. Bob Zimmer: Mr. Dorward, in the last couple of comments I'll make, I would be very curious if you could submit to the committee what equipment you would need in order to respond if you did indeed have a spill in your area. I think it would be a good perspective for us to have, because I agree with you that you're the ones who know that coastline better than anybody and you'd best respond to it too. Please explain what kind of plan you would put in place, if you could. If you could draw it up yourself, what would it look like? Please submit that to the committee, if you could, and we'll see where that goes.

Thanks for your testimony today.

Mr. Terry Dorward: Thank you.

We'd be happy to submit a fulsome response plan, including inventory and personnel requirements. Let us know how to send it to you.

Mr. Bob Zimmer: You can send it to our chair or the clerk, and they will distribute it to all of us here.

Thank you.

The Chair: Thank you, Mr. Zimmer.

We will go to Mr. Hanley for five minutes or less, please.

Mr. Brendan Hanley (Yukon, Lib.): Thank you, Mr. Chair.

Thank you, Mr. Dorward and Captain Temple, for participating and for your really interesting testimony today.

I have a few questions, mostly for you, Mr. Dorward, but feel free to defer to Mr. Temple if necessary.

You refer to the constant incoming of debris, and I'm wondering how much debris is identifiable related to a specific incident, and how much is not obviously known. In other words, maybe elaborate on how constant that is and how relatable it is to specific incidents.

Mr. Terry Dorward: International debris washes in from across the Pacific, and the *Zim Kingston* debris washes in daily.

Josh, do you have...? There are over three million pounds that have arrived in Clayoquot Sound so far.

● (1240)

Mr. Josh Temple: I can jump in quickly, Terry, to give a few more metrics on that.

Since 2017, in partnership with the Tla-o-qui-aht Nation, the Coastal Restoration Society removed over three million pounds of anthropogenic debris from the waters of Clayoquot Sound alone.

This amount is increasing exponentially every year as we become the inevitable end of the line for most of the debris washing across the Pacific.

Since the *Zim Kingston* spill, we've seen a daily influx of debris like Yeti coolers, yoga mats, exercise equipment and children's bicycle helmets, which we're reporting to the Coast Guard on a daily basis. Surveys have been under way, recovery efforts have been under way, but the volume of this debris that is exactly attributable to the *Zim Kingston* continues to wash in.

So far, the recovery and survey efforts that we've undertaken in partnership with the Tla-o-qui-aht Nation and other nations across Clayoquot Sound have not been supported by either Danaos, the owner of the *Zim Kingston*, or the Amix Group, the contractor that's been hired by Danaos to support these recovery efforts.

We really need to see a concerted response and a long-term plan to recover the debris from the over 100 containers that are still missing and presumed to be sunk along the waters of the west coast of Vancouver Island, most of which, as indicated by the volume of debris reaching the shores of Tla-o-qui-aht territory in Clayoquot Sound, seems to be nearby.

That's one of the things we'd like the committee to take away from this presentation today, that we need to encourage both the shipowner and the contractor, Amix Group, to direct a lot more resources and funding to the survey and recovery efforts along the west coast of Vancouver Island.

Mr. Brendan Hanley: Thank you, Mr. Temple.

That brings up a whole lot of other questions. One of them, I guess, goes back to the polluter pays question and whether that is adequately implemented and followed. What more needs to happen to reinforce that?

Mr. Terry Dorward: We're unaware of the metrics of these agreements.

Mr. Brendan Hanley: Mr. Temple, do you want to add to that?

Mr. Josh Temple: I'm not aware of the intimate metrics involved in those polluter pays agreements. Certainly, because we're constantly looking for adequate funding, I would anticipate that the details of those agreements aren't providing sufficient liquidity to support large-scale recovery efforts when a situation like the *Zim Kingston* happens.

Groups like the Coastal Restoration Society, first nations and others up and down the west coast of Vancouver Island have been crying for adequate funding and capacity support to perform the surveys and the recovery of this material since it happened. Although I'm unaware of the details of those agreements or any levies or fines that might come as a result of these incidents, I would assume that they're not sufficient if everybody along the coast clearly indicates that the resources are not adequate at this time.

Mr. Brendan Hanley: Thank you.

The Chair: Thank you, Mr. Hanley. You're right on the five-minute mark.

We'll now go to Madame Desbiens for two and a half minutes, please.

[Translation]

Mrs. Caroline Desbiens: Thank you, Mr. Chair.

Mr. Dorward, what would you recommend to foster better co-operation among departments, non-governmental organizations, provinces, territories, municipalities and indigenous communities? Perhaps it would be appropriate to introduce a plan or set of instructions that stakeholders would have to strictly follow. What would be your top recommendation?

[English]

Mr. Terry Dorward: In forming an official committee or a task force, you need to develop and implement a framework for a type of spill recovery.

• (1245)

[Translation]

Mrs. Caroline Desbiens: You are recommending a task force with representation from all the stakeholders. You think a group like that should leverage everyone's expertise to develop a plan that would apply consistently to all of the emergency response stakeholders. Is that correct?

[English]

Mr. Terry Dorward: Yes, absolutely. First nations, NGOs and government would have to collaborate to develop and implement an effective framework.

[Translation]

Mrs. Caroline Desbiens: Obviously, funding would be needed to follow through on the task force's recommendations.

[English]

Mr. Terry Dorward: Yes.

[Translation]

Mrs. Caroline Desbiens: Thank you, Mr. Chair.

I'm having a coughing spell, so I'll have to leave it there.

[English]

The Chair: Thank you.

We'll now go to Ms. Barron for two and a half minutes or less, please.

Ms. Lisa Marie Barron: Thank you, Chair, and thank you, Mr. Dorward and Captain Temple.

I'm wondering, Captain Temple, if you can speak a little bit more about the debris.

Thank you for giving us some perspective on the amount and the items that are being washed up on shore from the *Zim Kingston* spill. I'm wondering if you can expand a little bit on what you have seen. Perhaps Mr. Dorward might be able to respond to this as well.

What happens when debris washes up on the coast, as far as your process goes?

Mr. Josh Temple: That's an excellent question. Obviously, these containers are packed with marketable goods. Most of them are petroleum-based products. When these containers fall off the ship and sink to the ocean floor, it doesn't take long before the tidal action or the wave action of the ocean bangs these containers around. Corrosion occurs. Damage occurs to the container doors. They begin to break open, releasing the contents of these containers. Because they're petroleum-based, most of them do float, and due to our geographical location here along the west coast of Vancouver Island, they wind up along our shores.

Anybody who's been to Tofino or Long Beach, where Terry is calling in from today, can attest to the power of the waves that affect and impact the near-shore habitat. When you have these plastic products that then get carried in by the ocean currents and the weather systems and reach the shorelines, those waves and logs and rocks and everything that interacts in those near-shore habitats begin to break down these products into microplastics.

In their larger form, they're entanglement risks. They're risks to vessel strikes or wildlife entanglement, especially whales and other cetaceans or pinnipeds. When they start to break down in the near-shore environment into the microplastic level, they are then ingested by a multitude of species.

Ms. Lisa Marie Barron: Thank you, Captain Temple.

I so appreciate all this information. It's so important. It's clear that the information you're providing coincides with that of other witnesses who have come forward as well, so I appreciate that information. If you could send it in written form, that would be really helpful. I just want to make sure I'm using my time to ask another question as well.

I'm wondering if you—

The Chair: Actually, Ms. Barron, your time is up.

Ms. Lisa Marie Barron: Oh, I missed it. Thanks so much.

If you could provide that in writing, that would be great.

Thank you.

The Chair: We'll now go to Mr. Small for five minutes or less, please.

Mr. Clifford Small: Thank you, Mr. Chair.

Thanks to the witnesses for coming to our committee today for this very important study.

On March 29, we had Mr. Henderson, the deputy commissioner of operations for the Canadian Coast Guard, here at committee. He told us that a fundamental part of the Coast Guard's response plan is "direct and immediate communication with affected first nations".

Mr. Dorward, you were just asked by my colleague Ms. Barron how quickly first nations were brought into this process. Am I right that you said you were notified a month later or something? Did you say that?

Mr. Terry Dorward: Josh, could you answer that, please?

• (1250)

Mr. Josh Temple: Absolutely, Terry.

Yes, communication was not immediate from the shipper. It was reported immediately to the Coast Guard, and communications came in through the Coast Guard almost immediately. But when we were speaking of the lack of communication that took almost a month, that was the contractor, Amix Group, who was brought on by Danaos, the shipowner, who has shown, in our opinion, considerably inadequate abilities to communicate with local first nations or groups that are experts in these types of survey and recovery efforts.

Mr. Clifford Small: Okay. I'm sorry. I misunderstood that.

How would you assess the timeliness of the Canadian Coast Guard's communication with affected first nations and coastal communities during the MV *Zim Kingston* incident, as well as for marine emergencies in general?

Mr. Josh Temple: I would highly support the effectiveness of the Coast Guard's communication abilities. They have done a fantastic job of keeping not only indigenous but also non-indigenous peoples along the coast exceptionally well informed through consistent releases and updates.

It's the Province of British Columbia as well. It hasn't been just the Coast Guard. Both the province and the Coast Guard have issued regular reports and have been extremely accessible by email or phone when any updates or information was sought by either our group or others along the coast.

Mr. Clifford Small: Do you have any recommendations or suggestions for improving the collaboration between the federal departments and agencies, NGOs, provincial and territorial agencies, municipalities and indigenous communities? Do you have anything to offer up on that?

Mr. Josh Temple: The only caveat I would say in this instance, as we are speaking of the *Zim Kingston*, is that the buck has sort of been passed over to the contractor hired by Danaos, the shipowner. Amix Group, the contractor, has been charged with the survey and recovery efforts. I think we need to focus more on bringing that control back to the federal or provincial governments, because, as is evident from this instance, Amix Group has not done an adequate job of communicating, delivering or developing the type of survey or recovery efforts required for an incident of this scale. The buck needs to get back into the hands of the federal or provincial governments.

I'd like to turn it over to Terry for his comments on that as well.

Mr. Terry Dorward: We definitely need more support, but we do get a lot of information, which comes in from the Coast Guard, as Josh mentioned. We want to get to a place where we can collectively work together. First nations need to be taking leadership roles.

Mr. Clifford Small: How should the federal government ensure that adequate compensation for marine debris spills is available for affected coastal communities and responders?

Mr. Josh Temple: That speaks to the results of what a task force, a dedicated working group or committee would provide. First, you have to identify what the larger regional capacity needs are in terms of support and funding, and then you can provide accurate metrics on exactly what that dollar figure and capacity support look like. However, we have to do the work first to identify what the broader-scale situation currently is and how we proceed to respond to that going forward.

Mr. Clifford Small: Thank you very much.

The Chair: Thank you, Mr. Small.

We'll now go to Mr. Hardie for five minutes or less to finish up.

Mr. Ken Hardie: Thank you, Mr. Chair.

Again, thank you to the witnesses for some really valuable background on this.

Mr. Dorward, can you comment, on behalf of your community and perhaps more broadly on behalf of communities up and down the coast, on the quality and reliability of the communications network—i.e., cellphone coverage and broadband Internet access?

Mr. Terry Dorward: It's very poor. There are a lot of spotty areas. First nation connectivity is improving, but it still needs a lot of work. There are a lot of dead zones, even on Vancouver Island, and of course on the remote islands. It's very spotty.

• (1255)

Mr. Ken Hardie: I would imagine along the west coast particularly it would be a challenge.

In terms of the actual capacity of your community to respond, give us an idea of how many times in an average year you'd be asked to respond to an incident.

Mr. Terry Dorward: Our community has received ongoing and annual training. We don't send people out if they're not trained up. We work almost year-round on coastal restoration projects.

Mr. Ken Hardie: Then, really, it's kind of a continuous exercise. It's not that you'll go for a couple of months and all of a sudden you get two or three calls for service like the fire department does or something like that.

I was interested in the challenge of maintaining some sort of continuity of experience and expertise in the community. People come and go. You'll train somebody up and then they'll leave or they're no longer available. Does that also represent a challenge for your ability to respond?

Mr. Terry Dorward: Our people are some of the most technically capable. Debris comes in every day; it's a daily issue. Long-term jobs in this capacity are much needed in the environmental industry. Industry keeps people in community.

Long-term funding will help keep people in place. We tend to lose folks when there's only limited funding. We train them up and then they're gone because of funding.

Mr. Ken Hardie: Captain Temple, I will use the term "plume of debris" from an incident. Does that change according to the season? Are there some seasons when it's less likely that it's going to end up at your front door? Are the currents pretty much consistent year-round?

Mr. Josh Temple: That's a great question, Mr. Hardie.

The currents and the prevailing weather are pretty consistent year-round. Obviously, in the wintertime, the prevalence and the severity of storms increase the volume of debris that comes across the Pacific Ocean. Certainly, by springtime and early summer, we see the largest aggregate of debris because of that winter season.

Notwithstanding incidents like the *Zim Kingston*, which could increase exponentially the volume of debris that comes in at any time of year—but without an incident like the *Zim Kingston* occurring—spring and early summer are when we tend to see the largest aggregate of debris.

Mr. Ken Hardie: Mr. Dorward was asked for his thoughts or recommendations. Captain Temple, do you have any recommendations?

I asked questions about cellphone and, particularly, Internet coverage, because one would think that an Internet-based system where

you could actually see or have reported to you the distribution of debris from an incident might be very valuable, so that perhaps you could be ready before it hits the beach.

Mr. Josh Temple: Yes, absolutely. Any of us who have worked in emergency response in any endeavour can attest to how important effective and real-time communication is to be able to develop and implement a very efficient working response plan. Efficiency means we're going to save money and we're going to keep people safer.

One of the goals of whatever task force or working group could potentially be developed here is ensuring that we have the infrastructure and the framework across the coast to be able to deliver that effective communication. That means cell and Internet coverage throughout these remote first nations and non-indigenous communities.

The Chair: Thank you, Mr. Hardie.

That concludes our rounds of questioning for today's committee meeting. I want to say thank you to Mr. Dorward and Mr. Temple for appearing before the committee today and sharing their knowledge with us as we do this particular study.

I want to say thank you to our interpretation team, the clerk, the analysts and our multimedia people who made it possible for us to have this meeting, as well as our own staff for serving us so well throughout the day and weeks.

The meeting is adjourned. Enjoy your day.

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