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● (1530)

[*English*]

The Chair (Mr. Pat O'Brien (London—Fanshawe, Lib.)): Order, please.

I would like to call to order the thirteenth meeting of the Standing Committee on National Defence and Veterans Affairs, continuing with our investigation into the purchase of four submarines by the Canadian government from the British military.

Today the meeting will be in two parts, There's a brief committee business item at the end, a letter that colleagues should have in front of them. We'll have to discuss that a little a later. It's being distributed. It's a letter from a gentleman, which we'll talk about later on.

Of course, as I say, we're here to continue with the study. The meeting is in two parts. First appearing, at our invitation and request, is Mr. Gerry O'Keefe.

Welcome to you, sir.

Of course, Mr. O'Keefe is a former submariner in the Canadian Navy. You will recall, colleagues, that a letter to me from the military ombudsman, Monsieur André Marin, summarizing his discussions with Mr. O'Keefe, was sent to me and circulated to this committee, and this committee subsequently approached Mr. O'Keefe about the idea of him appearing before us. He has agreed to do that. He's fully aware of our procedure. He'll make an opening statement, if he wishes, and then there will be questions from committee members. Then we'll excuse Mr. O'Keefe and go on to the second part of the meeting.

Thank you very much, sir, for joining us. We appreciate you taking the time. The floors is yours, if you'd like to make some opening comments.

Mr. Gerry O'Keefe (As Individual): In terms of opening comments, I'm here to talk about what the navy perhaps doesn't want to give you the answers to. I hope I can provide some light. I realize the focus of this group is pretty well focused on the purchase itself, the contract, how it was divided, and what was actually out there awaiting us in Barrow-in-Furness.

In terms of my background, I joined the navy January 15, 1981, and served on the O class steamer destroyer. My first ship was the *Skeena*. I joined as a marine electrician and went on to become an electrical technician. I joined submarines in 1987; I essentially joined submarines then. *Onondaga* was my main workhorse, if you like. I served between the two up until 1991, at which point in time I was posted to CFNOS, Canadian Forces Naval Operations School, where I was attached to the harbour training submarine *Olympus*. As such, I was an instructor down there, and also looking after maintenance, all that good stuff, and the training, essentially, of our submariners.

In the early nineties, because of the uncertainty with regard to the said purchase of the submarines, I strayed away from submarines for a little while and went on with the new frigates. I served with the frigate *Ville de Québec*, which is frigate 03 in terms of how she fell in, the first one being the *Halifax*, the second one was *Vancouver*, and *Ville de Québec* was 03.

I went on to do a tour with her, only to go back to submarines, which I consider my main bread and butter as such. I served on the *Onondaga* at the time we were ramping up to increase our numbers, in terms of dolphin badge wearers, that is. I took a big part of that, up until she was decommissioned, just about. My posting to the U.K. was on July 1, 2000, and I was posted to HMCS *Chicoutimi*, which is *Upholder*. As such, I was one of two electricians to actually see the submarines first-hand, and to that effect I arrived in Barrow-in-Furness on January 24, 2001, along with a group of marine engineers.

To that effect I was probably in a good position to give you some idea with regard to what the submarine looked like at that point in time, when she was up and dry and sitting on the blocks and everything else.

That said, that is my background.

I parted with the navy on account of the fact that I was involved in a submarine accident that the navy has always contended was an incident. It's something they've probably never wanted to talk to the public about, an incident that took place aboard HMCS *Ursula*, which is the third boat. She was under Royal Navy command, and Lieutenant Commander Luc Pelletier, I think, was there at the time. Yes, he was the CO, as I recall.

This was a nasty incident involving the submerged signal ejector, which I'll refer to herein as the SSE, in the motor room. I believe the majority of you have read about some of it in the papers and so on. I can assure you it was a horrifying experience, and for that I'll do my best to answer your questions with regard to that, should you have any. So if we step out of the box I'll be ready for you.

That said, I'm ready for your questions. I hope I can point you in the right direction. To me, the reason I'm here and have accepted this invitation is that I don't believe the navy is giving you the truth. Otherwise, this committee wouldn't be sitting here. In fact, the navy, in my view, is a little off course and it's time to straighten that out. If the navy doesn't want to give you those answers, perhaps I can shed some light, and the rest will be in your hands at the end of the day.

That's it. I'll take your questions.

● (1535)

The Chair: Thank you very much.

Just before we go to questions, I want to be clear. Mr. O'Keefe, you mentioned you were involved in a frightening accident on the *Ursula*. What ship is the *Ursula* now?

Mr. Gerry O'Keefe: *Ursula* went on to become HMCS *Corner Brook*.

The Chair: *Corner Brook*, I see.

Mr. Gerry O'Keefe: Of course, with the British names, we can refer to them as boat 01, 02, 03, and 04, so HMCS *Unseen*was the first one and it went on to become *Victoria*; subsequently *Unicorn* was boat 2 and it went on to become *Windsor*; *Ursula* was boat 3 and it went on to become *Corner Brook*; and finally *Upholder* , which became *Chicoutimi*.

There is a part in between the commissioning at which time she becomes a Canadian asset when she is under British command, and she's a MODUK, Ministry of Defence, U.K., asset. So actually as a Canadian national I was under Royal Navy command. I hope that answers your question.

The Chair: It does, thank you. I just wanted to be clear what that ship was called under our program.

As you noted yourself, we're not duplicating the work of the naval inquiry that is looking at the very tragic incident on the *Chicoutimi*. We're looking at the procurement program, the retrofitting, or the Canadianization, or whatever you want to call that part of it, and the training regimen—anything and everything to do with the acquisition of those subs and that program—save and except for the one specific incident on the *Chicoutimi*, which is being dealt with by a naval inquiry, as you well know.

With that, let's start a first round of seven minutes, and we start with Mr. O'Connor, please.

Mr. Gordon O'Connor (Carleton—Mississippi Mills, CPC): Mr. O'Keefe, I want to welcome you here. I know it takes a lot of fortitude, as a former navy man, to be speaking perhaps in contravention of the navy. It takes a lot of fortitude, as I say, because for years and years you're part of the organization and now you're on the outside.

My first question has to do with training. In the list of items that you've put forth to the ombudsman, you said the quality of training of crews was compromised in order to man the Victoria-class submarines. We made a visit to Halifax—just in case you don't know that—a few weeks ago and we were told that training has changed now with the new simulators, that a lot of work can be done in simulators and that it doesn't take as long in the current method of training as it did in the old days. But I wanted to get your opinion because you've said here that you believe the training was compromised. Could you explain how you believe it is compromised?

Mr. Gerry O'Keefe: The meaning of compromising to me...this is a subject that's been dear to quite a few people, including myself. I can refer to Pete Kavanaugh. Pete Kavanaugh is absolutely 100% right. He's come forward several times with the media saying you can't grow submariners on trees, and that's exactly the way it works. This business of being a submariner is not one of those where you can simply take a course, as you would in school, obtain a diploma and away you go. There are a certain number of things that one should have to do. One of these things is to complete a six-month program, and when I qualified in order to obtain my dolphin, it was under a six-month program.

I realize the navy has come a long way with regard to what we had in the past as compared to what we have now, but simulators are just that. You can simulate, make it as fast as you can, but reality occurs when you're at sea, when you actually have tonnes of pressure per square foot against the hull and you're actually doing the job; that's the whole thing.

What I meant by the term “compromising” is that on the *Onondaga*, when I was there, just before decommissioning, if you like, we were in the business of getting our numbers right up there. We in fact took a solid six-month program and we decreased it to a handful of dives, a handful of days. It was a very fast, streamlined program in order to get our numbers up. When you go from two crews and a little bit to four boats that all of a sudden we have to man...the navy was scrambling. And in terms of training concerns, they were around for the longest time, and these were put forward in terms of problem definition papers, which were put forward to Ottawa.

I hope this answers your question. It's just that being a submariner is not something you can achieve overnight, in my books; it takes years. One or two dives doesn't cut it, simply.

● (1540)

Mr. Gordon O'Connor: If I understand what you're saying, it's that it may be possible to cut the shore training by simulation, but in your opinion the trainees are not spending enough time at sea on hands-on training. Is that right?

Mr. Gerry O'Keefe: If I understand your question correctly, again, you can't beat the hands-on approach. You have to be able to get out there and do it. Unfortunately, the system failed in the sense that the navy never ramped up to the idea that we have to produce more numbers, we have to get more submariners, we have to use what we have in order to prepare for the next class of submarines.

In other words, they were caught in a situation where simply the numbers weren't there, things weren't adding up. So what do you do in that case? It's almost like running from one fire to the next. It's just like at one point in time somebody had to make a decision and the decision that was made said, let's streamline, let's cut back, let's decrease our standard, if you want. That decreases safety, is what it does ultimately. I can understand if you want to streamline very fast at the junior rates level, but when you have senior NCOs who are heads of departments, that's when it gets very dangerous. Those are the guys you rely on to keep you safe at sea and those are the guys you look upon to keep you there. So if you have heads of departments who don't clearly see the entire picture, who does that help? Nobody. In fact, it makes it extremely dangerous.

Mr. Gordon O'Connor: My next question has to do with the escape towers. You're saying that they sometimes fill with water unintentionally.

Could you explain for those of us who are not submariners—which is everybody—about these escape towers? Do they have one hatch, two hatches? How do they work?

Mr. Gerry O'Keefe: I could probably explain it. That refers to a specific fault that I saw aboard the *Windsor*. It was in the motor room itself. There was an escape tower there. Essentially, it is like a picture tube with an upper lid and a lower lid. The way the escape works is that you put on a suit, you climb inside, you plug into a STOLE charging connection that allows you to breathe. In turn, they flood the tower. Once that equalizes the outside sea pressure, the upper lid opens up. Essentially, you pop out like a cork. That's the general idea for submarine escape. There are different means to escape out of a submarine, but that's the escape tower concept.

With regard to this, this was an observation I made. I raised it as an issue because it was in the motor room. This is the place where all the power is. We're talking big voltages here. Everything is going on. You have main propulsion in that area. You have motor generator sets down below. To me, the concept of mixing electricity with water is that they simply don't mix; they don't add up. If you have water dripping over your head, there's a concern there. I raised it as an issue: is this a class problem, and what's going on with this? That was a particular fault in one area.

● (1545)

The Chair: Last question.

Mr. Gordon O'Connor: Last question.

The main tower to the top, is it normal that both hatches be open at any time, or do you always close one and go down?

Mr. Gerry O'Keefe: Are you referring to a conning tower in this case?

Mr. Gordon O'Connor: Yes. I want to know if it's normal on the conning tower to have both hatches open, or do you close one hatch, then move down the tower, then close the other hatch and open the other hatch, so you keep the area sealed from water.

Mr. Gerry O'Keefe: You are referring to a seagoing scenario, are you?

Mr. Gordon O'Connor: Yes.

Mr. Gerry O'Keefe: With the Victoria-class submarine, I would consider it extremely bad practice to leave both open. This is one case where the officer of the watch and the lookout make their way up to the surface to ensure the conning tower isn't flooded. They would actually drain the tower, if they had to, climb inside, shut one hatch and then open up the other, essentially, and make their way to the top.

Ultimately, it's one of those questions the commanding officer is responsible for and how he wants to run his boat. I'm not saying that running opened up is impossible. It is possible to do so, but it's ultimately his decision.

As an electrical technician, I can assure you I was back aft in the motor room. I didn't spend a lot of time around the control room area.

I hope this answers your question. But it's bad practice at sea, certainly.

The Chair: Thank you, Mr. O'Connor.

[*Translation*]

Mr. Claude Bachand (Saint-Jean, BQ): Thank you, Mr. Chairman.

I want to congratulate you on your courage, Mr. O'Keefe, because it takes courage to come forward as you have done. Since the outset of this investigation, committee members have all been hearing the same, well- orchestrated tune. We've heard from the admiralty, from ADMs (Material) and from a former minister. Everyone has been saying the same thing, namely that these submarines were an extraordinary bargain and that they were ready to be pressed into active service.

However, according to Mr. Marin, you beg to differ with this assessment on 23 separate points. That's very important to us. I can't believe the government went ahead and purchased these submarines only to realize after attempting to bring them up to Canadian standards that they did indeed have many defects.

I'm happy to see someone finally speak up and say that everything isn't quite as rosy as it's made out to be. In his letter, Mr. Marin mentions that you gave a statement that was recorded. Is that true?

Mr. Gerry O'Keefe: Mr. Gareth Jones, who in some ways in Mr. Marin's right-hand man, came to my house and recorded my statement on tape. I haven't listened to the tape yet, but it's an actual record of the report.

To answer you questions, I'm surprised to learn that I'm the first person to speak out. I hope others will follow my lead. I know the truth is there to uncover. As for the recent incident involving HMS Chicoutimi, it's ludicrous that the witnesses were told to keep quiet or else face disciplinary action.

There is another important issue to consider. According to one newspaper report, Members are hard pressed to find out what is going on at DND. I was troubled by this report. Personally, I know the truth, because of saw things first-hand, but the danger is very real. Danger is ever present when people act without supervision. A soldier's first duty is to tell the truth. Members need to get the facts when they request them. The lack of transparency is a problem in the Canadian Navy.

My friends asked me why I was coming to testify before the committee. They said I would be wasting my time. However, I think about Chris Saunders and about Denis Lafleur, whom I know very well. I think about the others as well, about people like Archibald McMaster who never smoked a day in his life and yet was involved in a serious accident.

This isn't the first time I've contacted the Office of the DND/ Canadian Forces Ombudsman. As noted in the report, I testified before the Ombudsman in April of 2003. I feel it was my duty to do so.

● (1550)

Mr. Claude Bachand: You're right. Besides, we attach a great deal of importance to witness statements, notably to your statement.

However, Mr. Chairman, I regret that the witnesses who have all given the same version of the events have testified in public. Today we are meeting in room 362 and only the CBC will be covering our proceedings. I'm sorry Mr. O'Keefe's testimony won't get the same media coverage as the public statements given by the admiralty, the deputy ministers and the former ministers to the effect that there weren't any problems.

You stated that in your opinion, Navy Command is trying to hide the fact that it knew the submarines had defects. Did you also admit that you feared for the safety of your fellow submariners? In your opinion, was HMS Chicoutimi seaworthy at the time of the accident?

Mr. Gerry O'Keefe: Since I wasn't on board HMS Chicoutimi at the time of the accident, I can't answer that question. My last tour of duty was aboard the famous HMS Corner Brook on July 1, 2002. That was the end of my career. I was subsequently repatriated to Canada.

Mr. Claude Bachand: Are you concerned for the safety of your fellow submariners?

Mr. Gerry O'Keefe: Absolutely. I had been concerned for quite some time. This is the second time that I've raised a number of issues with the Office of the Ombudsman. I didn't succeed the first time. This time around, I spoke with Mr. George Dowler, who gave me his card, which I have here with me. He's a special adviser and I spoke to him about these problems for five and a half hours.

Mr. Claude Bachand: Would you object to having your recorded statement tabled to the committee, after you've listened to it and confirmed that it is an accurate account of what transpired?

Mr. Gerry O'Keefe: If that's what it takes, I'll listen to the recording and then turn it over to the committee.

Mr. Claude Bachand: Mr. Chairman, does Mr. O'Keefe have your permission to table his recorded statement, if he so wishes?

The Chair: Absolutely, Mr. Bachand.

Mr. Claude Bachand: I have one last question for you, Mr. O'Keefe. You maintain that Navy Command is hiding the truth about certain defects, which would mean that you have already brought a number of problems to their attention and they've ignored them. Did I understand you correctly?

Mr. Gerry O'Keefe: Yes. Let me explain it to you this way. When I see Defence Minister Graham on the CPAC network, I don't look at him as a bad person. I look him in eye and wonder who is feeding him the information. That's what bothers me. I hear him state repeatedly that he has the assurances of the Chief of the Maritime Staff.

He makes repeated references to the Chief of the Maritime Staff. What's that all about? It means that anytime people at this level make mistakes, they cover for one another. You should be talking to the people in the trenches, to persons like myself.

Although I feel somewhat alone today in speaking out, I wanted to do so and I felt it was time for the truth to be told. Many people told me that coming here would be a waste of time and that I would have my head taken off. I may only have been a petty officer, 2nd class, but I'm here anyway.

It's time you stopped talking to the Chief of the Maritime Staff and started talking to the rank and file, to the junior ranks and senior ranks. Then you'll get some reliable information. Above all, you should talk to the technicians who contend with equipment breakdowns every five minutes. That's what you should be doing.

Mr. Claude Bachand: Thank you.

[*English*]

The Chair: Thank you, Monsieur Bachand.

To reiterate two points, this committee is unanimously attempting to have every possible meeting televised, including this one. That's our routine request. Our clerk carried that out for this meeting, as she has for every other meeting. There are an awful lot of House of Commons committee meetings taking place and we haven't been able to get a televised room for every single meeting, but that is our standard request up to this meeting, including this meeting, and it will remain our standard request.

I know all our colleagues want it that way, and the media has asked us to try to have as many of our meetings televised as possible.

I repeat what I said. You'll recall a letter was sent to me from Monsieur Marin following his staff scenario with Mr. O'Keefe. I circulated it to the committee and the committee decided to invite Mr. O'Keefe. We're happy you accepted, sir, and if you have anything else at any point to table, anything at all that you think will be useful to our study, we would ask you to do that and we would welcome receiving that information. We're here to get the facts. We all are, on both sides of the table, and any way you can help us is appreciated.

With that, I'll go to our next colleague, Mr. Blaikie, for seven minutes.

● (1555)

Hon. Bill Blaikie (Elmwood—Transcona, NDP): Thank you, Mr. Chairman, and my thanks also to Mr. O'Keefe for being here.

I know one thing for sure, we're not wasting our time talking to you, and I hope that when the work of the committee is over you won't feel that you wasted your time talking to us, because you do have a very unique contribution to make.

You started off by saying that you felt the navy basically wasn't levelling with us, wasn't telling us the whole story. If you could pick one or two things that you feel it is not telling us that we need to know in order to fulfill our mandate by looking into the acquisition of these submarines, what would you identify it is not telling us?

Mr. Gerry O'Keefe: That's a good question.

Actually, to give you a specific example, it's funny how once I again I refer to Mr. Graham, who tells the House of Commons during question period, for instance, that once again everything is fine, everything is under control, and so on.

If you permit me, I'll glance through my documents here and I may find a specific example. It's a little difficult. I'm so organized.

I'm not getting to it. I'm going to shoot from—

Hon. Bill Blaikie: You must have some sense of what it is they're not telling us about that we should know.

Mr. Gerry O'Keefe: What it is, in terms of the boats, for instance.... How can I better explain this to you? It always seems that by the time it hits the House of Commons during question period, it's been polished up and minimized. There seems to be a disconnection between what's going on in reality and what's being presented. I still feel that the navy somewhat is always diminishing. DND to me is no more now than diminished, and disguised as such.

For instance, in my particular case, as I said, there was a flood, which occurred at 200 metres, yet a briefing note was given to the minister that reflected—and if I can find it, I'll certainly bring it forth. In fact, what happened is that the ministry of national defence was briefed that there had been a material shortcoming and a small ingress of water had come in to the submarine. What I'm trying to say is that we had just suffered a bad flood. So do you see the idea of being totally disconnected?

For instance, the families received an e-mail saying the submarine had suffered a small ingress of water, making it sound like we'd just taken on a glass of water. Well, sorry, but there's a big difference between 1,500 litres of water and a glass of water. They made it sound like a leak. And the difference between a leak and a flood, I'll tell you, is a leak you have to look for and a flood comes to you very rapidly.

You see the disinformation. Rather than looking through all these papers, set them aside, if you like. This is the specific one. This is the one, probably, that I look back through my own personal experience, look inside me and say, “What's going on? How can they leave the families...?” Don't think for a second that a sailor, as soon as he gets alongside, isn't going to call his wife and say, “Guess what, honey, we just about bought it out there.” And she'll say, “What do you mean? I just received an e-mail saying you fellows were proceeding to Campbellton because of a slight ingress of water.”

Do you see what I mean by totally disconnected? How was it presented to the public? It's presented as if there was absolutely nothing wrong.

To that effect I'll even go further, if you wish to research it. Look at the specific incident I was involved in, which took place July 1, 2002. If you go back to their D-net, the navy, for months on end, always contended that nothing had happened. You see what I mean? It was like it was very minor. It was very well downplayed, and that's what I'm getting at.

I hope I answered your questions properly.

● (1600)

Hon. Bill Blaikie: I get what you mean. You're saying this is the way they've behaved in the past, and we should be wary of the same kind of behaviour in this particular incident.

You've mentioned that you worked on the electrical side of things. Certainly one of the things we've become more and more concerned about was the extent to which the wiring, particularly the insulation of wiring, may or may not have been upgraded to the extent that it should have been. Just by way of your comment about us not finding out stuff, as I've mentioned before, we've had all these high-ranking navy officers before us, and yet no one has been as forthcoming as somebody seems to have been with the media about the wiring. It's good to have someone with the electrical experience here.

There's a claim that the wiring on the HMCS*Chicoutimi* was not upgraded in the same way that it was for the other three boats. I don't know if you're familiar with this claim, but you're probably following it. You said you saw the HMCS*Chicoutimi* in July 2000. Is that what you said earlier, that when you went over in July 2000 you had a look at it?

Mr. Gerry O'Keefe: Yes. I did arrive in Barrow-in-Furness, and it's on the record, for January 24, 2001.

Hon. Bill Blaikie: You were one of the first two electricians to look at it.

Mr. Gerry O'Keefe: Yes.

Hon. Bill Blaikie: At that time, was there a sense in terms of the Canadian analysis—or for that matter even the British analysis—that this whole insulation thing was something that needed to be addressed, or were they preoccupied with other things and this was thought to be fine?

Mr. Gerry O'Keefe: To answer your question, I'd have to give you an overall view of *Upholder* as she stood. *Upholder* was essentially sitting up on the blocks by the time I got there. She was sitting outside, and as I've said so many times, I've never seen a ship or submarine looking like that in my life—and I've completed a few refits over the years. It was dirty, filthy, unseaworthy. Everything was dismantled inside of it. It looked like a dungeon essentially.

Don't get me wrong, the term “mothball“ must have been completely missed. What does “mothball” mean? In my opinion, the British mothball side of the house is that you tie it up and you go to the pub. That's the way I see it. It's not like the U.S. version, where you can establish a timeline, in time of war, to bring it up, to ramp it up to speed when you're actually going to need that ship. It was absolutely horrible. That's pretty well the answer.

In regard to more depth to the electrical, it's like anything else. If I had written down every defect I saw on board, I would have written a Sears catalogue. I'd still be there writing it. I hope this answers your question.

I'd like to go back to your previous question, because I did in fact find the paper with regard to that. I'd like to introduce this perhaps as evidence as such. It's a briefing note for the Minister of National Defence, with regard to “Sea Trials Delay of HMCS Corner Brook (HMS Ursula)”. It says in paragraph 2:

> On July 1, CORNER BROOK had an ingress of water via the after Submerged Signal Ejector. The crew responded to this emergency correctly, the submarine returned to a port in Scotland, and a preliminary investigation was conducted. The investigation concluded that there may have been a combination of operator error

—and I'll talk about that in a second—

> and material shortcomings. There were no personnel injuries and only very minor equipment damage.

Now, is this a watered down version of the facts? We know this incident took place, and this is how the Minister of National Defence —who at the time was probably Mr. McCallum—received a briefing to that effect. Obviously—

● (1605)

Hon. Bill Blaikie: Were there personal injuries?

Mr. Gerry O'Keefe: —in regard to these events, what I wrote to that effect was, "This is proof that the Minister is not being told the truth with regard to real events." I'll give that to you and you may keep that.

The Chair: Give that to the clerk.

We have to stop it there. That's well over Mr. Blaikie's time, but those were very important points that were raised, so thank you for that.

We come over to Mr. Rota, please, for seven minutes.

Mr. Anthony Rota (Nipissing—Timiskaming, Lib.): Thank you, Mr. Chair.

Welcome, Mr. O'Keefe. Thank you for being here today.

Just give me some basic facts. You joined the forces in 1981.

Mr. Gerry O'Keefe: That's correct, right here in Ottawa.

Mr. Anthony Rota: Okay, and then you joined the submariners in 1987, after going through training?

Mr. Gerry O'Keefe: That's correct, yes.

Mr. Anthony Rota: How did you feel about the training you went through back in your early days, and how does it compare to what's being done now for the people going into the same program?

Mr. Gerry O'Keefe: Once again, back in those days, it was extremely different in the sense that it was a solid six-month program. It was a program in which you had to spend time with other departments. You spent, for instance, a week with the weapons types, the weaponeers, if you want, the torpedo guys, and you spent a week with the engineers. You spent a week learning about radar, sonar. It made you a very well-rounded sailor, and it was an intense program. And when I say "intense", it was hard enough, I put it to you that way, and you had to go to sea.

In those days, I recall, we only carried something in the number of four or five trainees, so it was not like an entire ship's worth of trainees here. We were taking on four or five, because at the time you were considered a liability if you didn't have a set of dolphins on your chest. So by the time you completed your training, those dolphins meant something. For me, I was one of the lucky ones perhaps because I happened to be on a seagoing unit. To that effect, I was able to complete the program in six months.

There was one month I think I was a little behind—and don't get me wrong here—so I got assigned a "sea daddy" who essentially looked at my book and said, "All right, this is where you need to focus and this is where you're going and this is who's going to help you." And if you fell behind...I recall the XO keeping us on board late at night. This was done in the eighties.

So, yes, it meant something, and now it means virtually nothing. To me, anybody under the new program who wears dolphins, he's just a paperweight. In order to fulfill our contract to the U.K., we had to produce so many submariners. We had a contract to that effect.

Talking about the famous contract, it fell under the initial support contract. That's what it was called, because the contract as such was divided into four parts.

Mr. Anthony Rota: What is that main difference? I'm not quite clear on what the difference is between what you went through for six months and what the new recruits are going through for six months. Maybe you can clarify that. Is it because you're out in the water, actual hands-on, as opposed to in a simulator? Is that the main difference?

Mr. Gerry O'Keefe: The main difference is that you gained experience, which was what it was all about. You went to sea, you did the work, you got a number of dives under your belt. You had to put your nose into the book. You had to draw the sketches. You had to chase your systems. You had to find your valves. That what being a submariner is all about. Crawl everywhere, know your ship—that's what it was all about.

What's the most important thing to a sailor? Knowing your ship, right? Nowadays, if you ask somebody if he knows about something, he'll say, "That's not my area of expertise. Better talk to so-and-so." But back in those days, we were so well rounded that it didn't matter who you asked. If you talked to the cook, he'd tell you how to start the engines. You don't see that any more. Do you see the idea of that?

Let's say one fellow fell over. You were well rounded enough to jump in there and probably stay there for a few minutes until you could get relieved by someone else. That's what I mean by a hard-core program versus "Let's take you out to sea for an afternoon: we'll leave in the morning, we'll dive in the afternoon, we'll break later on that day, we'll have to come back home, and here are your dolphins."

● (1610)

Mr. Anthony Rota: And according to you, it's that simple to be a submariner these days?

Mr. Gerry O'Keefe: It was as simple as that. In the end, we were in a bad situation. Pete Kavanaugh has talked extensively about that, and he's 100% right. I support everything he said with regard to the great dolphin giveaway. That's exactly what it was called.

Mr. Anthony Rota: Just off to a different item, I know the myriad problems that inevitably arise when you're buying. It's a complex piece of machinery. It's a military platform. It's fairly large.

Given all the problems that have plagued the subs during the reactivation process, is it that there was this massive underestimation on the part of the U.K. and Canada? Is there something that wasn't covered? Are we trying to cover up something here? What was the real problem in getting these boats up and running?

Mr. Gerry O'Keefe: The decision to buy these submarines was definitely made higher in the food chain than I'll ever be. It was essentially Canadian naval officers who lobbied the government so hard with regard to saying, “These are the boats.”

Canada had its eyes on these submarines for 1994. You have to understand where I'm coming from. I'm not the Chief of Maritime Staff. I'm not at that level. Hence, I'm not involved in or privy to, if you want, the very decisions that concern defence. I can tell you that, yes, Canada did in fact have its eyes on them. It seems like the navy was really focused on them. That's what I'll say.

Of course, in terms of an engineering assessment, did they do one? I've never seen or heard of such a document. I can only assume somebody saw a video. I hate to say it, but maybe they sent Doogie Howser out there to assess it. I have no idea whatsoever how it was done, or knowing what we know now, what they were thinking. Do you see what I mean? It just simply doesn't add up.

Mr. Anthony Rota: You were in Great Britain, in the U.K., in July 2000. What were you doing there?

Mr. Gerry O'Keefe: If you're referring to my actual posting date —

Mr. Anthony Rota: Yes, exactly. You're an electrician. I'm just wondering if you were posted.

Mr. Gerry O'Keefe: First of all, the way it was divided, the training was divided in two parts. There was the theory or classroom side of the house, if you want. That was the first undertaking. Finally, once you completed all your exams and the dry training or classroom training, then you went to Barrow-in-Furness. Once you got to Barrow-in-Furness, that was when you started your dolphin qualification.

In my particular case, for my trade, I had to not only attain USQ—which is submarine qualification under British command, if you want, the Royal Navy side of things, because we were trained to Royal Navy standards—but then I had to do an op cert, which means operator certificate, to stand watch at the panel located in control and at the motor room machinery control console.

Mr. Anthony Rota: Maybe I'll just simplify. You weren't there actually examining the subs and seeing what was in them or working on them at all.

Mr. Gerry O'Keefe: No, but I can tell you that as soon as my training was completed...I have the date here somewhere; I usually keep pretty good notes. I completed my training in op cert—I can give you a specific date—on May 22, 2001, which means essentially I was done, I was up to par, up to standard. At that point in time, here I was, a member of *Chicoutimi's* crew as such, and what am I going to do? Do you see what I mean?

Obviously, the boat wasn't ready. The boat was dismantled. What we did was set up our office and start to get ourselves organized, ramping up toward eventually getting the submarine as such. So I had the chance to come back home.

I hope I'm answering your question.

● (1615)

The Chair: We're way over time right now, so we're going to start a second round.

Mr. O'Keefe, this is a five-minute question and answer round. The colleagues know that, but we're all in politics, and I'm just as guilty as any of them. Sometimes we want to ask a four-minute question and then you have to work in the answer. This round goes much quicker, so I'm going to encourage people to tighten up the questions and the answers, because I want to try to be fair in order to have a full second round before we excuse you and go to the second witness. I'm going to really watch the clock here. As you're coming toward the end of the five minutes, I'm going to ask you to wrap up, just in fairness to all the colleagues, so that we can get as many questions in as possible.

Mr. Casson, please, for five minutes.

Mr. Rick Casson (Lethbridge, CPC): Mr. O'Keefe, you went over in July 2000. When you were over there, what actual boats or submarines were you on? You indicated that you saw some pretty messy things, and you described it as “dirty, filthy, unseaworthy”, “a horrible dungeon”. That sounds pretty desperate to people like us. So which of these submarines were you actually on, to have a look at them?

Mr. Gerry O'Keefe: Actually I had the chance to see all four. I've worked on *Victoria*. I've worked and sailed on board the *Windsor*. In addition, I sailed on *Corner Brook*. Essentially, if you want, these three separate entities, these three separate boats, were through attached postings, but my main home was *Chicoutimi*.

In terms of the work and conditions, which are what I believe you're interested in, in this case, once again, this was to be our submarine. My first impression of it was something along the lines of, “Sweet mother of God, they want us to sail with this?” I couldn't believe it. There weren't enough parts on there to make the boat float.

Furthermore, I'll add that the fin of the submarine, which houses all your masts and so on, had to be reinforced because it was so structurally unsound that it was about to fall off. And this thing was weather-beaten. It was abandoned, essentially.

Further to that, I'll say that she was the department store. We've all heard the term “boat robbed”, right? It was extensively robbed by everybody else, so you can just imagine walking on board. At one point in time, with the problems with the hull and back-up valves—those are the diesel exhaust values—you can just imagine walking into the engine room. There were two big holes because the hull and back-up values were now gone. The Dutch breech was removed. The submarine looked like Swiss cheese. It had more holes in it than you could shake a stick at. To that effect, it was dirty.

To me, what they did was spend a lot of time in terms of getting it up to par, but the refit was extensive in that sense, to restore the aesthetics. I heard that a lot of people were happy in the end, but this is what we got at first. At first sight, you would have looked at this thing and, like I said, you would have said, no way, I'm going back home.

Mr. Rick Casson: Are you aware of the process that had been gone through then, that we had already agreed to purchase these subs in 2000? Who was effecting the repairs on them? Are you aware of that? Were we doing them? Were the British doing them? Who was paying for it, for any of these issues?

Mr. Gerry O'Keefe: I have no idea. I can't answer that question, but I can tell you what I've heard. I hate to speculate—

The Chair: I wouldn't. I think we can get that from other witnesses, and I want to encourage a colleague to use his time up here.

Mr. Rick Casson: From the time you were there in 2000—and you left in 2001—

Mr. Gerry O'Keefe: Once again, January 24, 2001, I arrived in Barrow-in-Furness, which is just for the record.

Mr. Rick Casson: —and saw them in that state, when was the actual date that you were able to sail on one of these submarines? How many years later was it?

Mr. Gerry O'Keefe: That's a good question. Once again I'll refer to my notes. I've mentioned that May 22 was when I completed my op cert training. To that effect, I came back to Canada and I was employed for the period June 11 to August 23 aboard HMCS *Victoria*. I was very curious as to the Canadianization process, and that's the line of work I got myself involved with.

Mr. Rick Casson: Were they actually being used at sea at that time?

Mr. Gerry O'Keefe: No, the *Victoria* had been tied alongside for the better part of a year. To that effect, at that point in time, the Canadianization was just getting under way. A lot of it was in part due to the fact that the contract, which as I said before was divided into four parts, was supposed to supply what we call a TDP, or technical data package. It was hard to get information to get our workforce up to speed.

● (1620)

Mr. Rick Casson: So you were aware of parts of the contract that weren't being met. Is that what you're saying?

Mr. Gerry O'Keefe: Perhaps. I can describe the four parts and give you some dates, for instance, as to how long it took.

As I mentioned, this contract was divided into four parts. In regard to the technical data package, which was part of it, I will tell you that with regard to the decision, I believe it was announced through Mr. Eggleton on 2 April 1998. I still remember that at FMF Cape Scott on 18 December 1998, there was still no package. And I have that on paper. I've kept a lot of good notes, and should you want them for the board, you can have them.

In the absence of the technical package—

The Chair: I'm going to have to interrupt you there, Mr. O'Keefe.

Mr. Casson has asked a really important question, which was if you know of parts of the contract that weren't fulfilled. If you have factual evidence to that effect, it would be very important to us and we'd ask you to table it for us so that we can work it into the study.

You're giving us some very important information. In the interests of time, I just want to encourage you to help us best by telling us what you know. We have lots of people speculating about all kinds of things, and we're going to have more hearings, but if you can tell us what you know to be the facts from your perspective, that's the best way you can assist us today.

Thanks, Mr. Casson. We'll look for the rest of that answer in writing from Mr. O'Keefe, if we can.

I'm now coming over to Mr. Bagnell, please, for five minutes.

Hon. Larry Bagnell (Yukon, Lib.): Thank you, Mr. Chair.

Thank you for coming. It's great to have an electrician here to answer a couple of electrical questions, because I'm not an electrician.

Just before I do that, I want to make sure that some things that were said earlier don't apply to all the committee members necessarily. Everyone we've talked to, whether they're in the navy or not, has said these are state of the art. I had no gag problem when we met the crew. They talked to us. We saw the repair facility. We talked to the people who turned the bolts, and we talked to people who thought their training was fantastic.

Now I'll turn to my electrical questions. Are you a journeyman electrician.

Mr. Gerry O'Keefe: No.

Hon. Larry Bagnell: Do you know if the high-voltage wires that might have shorted were over 750 volts?

Mr. Gerry O'Keefe: It's a combination of placing two batteries in parallel. That's the way it works, and the nominal voltage...an 8,800 ampere-hour battery comprises 240 cells per battery tank. There are two of them. As such, when you combine the two together you get a nominal voltage of 518. That's what I mean. That's why it's called VP, variable pressure, because as your batteries drop in capacity, that number decreases by the same amount. Does that answer your question with regard to voltage?

In terms of doubling up at the highest speed group, these banks, if you want, yes, indeed, what happens is that the voltage effectively almost doubles.

Hon. Larry Bagnell: In terms of whether we bought good or properly up-to-date subs, were the connections where the high-voltage cables were terminating with other equipment either in junction boxes or in the main high voltage distribution panels? Did these connections have proper stress cones? You know they're more likely to short where they connect, so on occasion you put stress cones there.

Mr. Gerry O'Keefe: Are you talking with regard to where they penetrate your bulkheads?

Hon. Larry Bagnell: Yes, where they join up, where the major joining is.

Mr. Gerry O'Keefe: In my opinion, the design that's on board is completely flawed. I've never agreed with it. If you look at the Oberon-class submarines, they were always—

Hon. Larry Bagnell: First, can you answer yes or no to my question? Did they have stress cones?

Mr. Gerry O'Keefe: Stress cones?

● (1625)

Hon. Larry Bagnell: They make more insulation at the connection, because that's where it's likely to short in high voltage.

Mr. Gerry O'Keefe: Once again, what I do recall seeing is exactly pretty well...I have to talk in terms of how I remember it. If you're talking about something that looks almost like where a pressure hull gland penetrates through, your main connector is right there and it's taped up. That's exactly what you're looking at. With regard to a stress cone of sorts, I'm not familiar with that term.

Hon. Larry Bagnell: You did electrical work on these boats. Or did you inspect the electrical?

Mr. Gerry O'Keefe: What it was in particular, if you're interested in *Upholder*—

Hon. Larry Bagnell: No, was the work you were doing electrical?

Mr. Gerry O'Keefe: This is going to be a long explanation, because—

The Chair: I can only give you a minute and a half.

Mr. Gerry O'Keefe: I'll try to streamline it.

In terms of what was going on in Barrow-in-Furness, the crew was excluded from doing the work. That's what I'll say about that. We had a debt, and under that debt we had some people who were looking at quality assurance.

Hon. Larry Bagnell: Okay. That's good. Thanks.

I have one more short question.

Mr. O'Connor brought up a question on the conning tower. If you were repairing a vent in one of the doors in the conning tower, would it be possible or likely that both doors might be open during such a repair?

Mr. Gerry O'Keefe: Once again, I'm an electrician. It would have been the job of the engineers. To respond correctly and adequately to your question with regard to the control of the hatches while at sea, it's strictly the responsibility of the commanding officer. It's not my area of expertise, and I'm certainly not in command. I'll leave it at that.

The Chair: Do you have a last short question or are you done?

Hon. Larry Bagnell: Quickly, again, on the work that you did on the sub, were you working on the electricity? Were you working on the wires or did you inspect the wires? As you're an electrician, I'm curious.

Mr. Gerry O'Keefe: As an electrical technician, I was second IC within the branch. It is our job to essentially operate, maintain, and repair as necessary at sea. Anything that is major in terms of repairs and overhaul is usually handled by a repair facility, which in this case would be Fleet Maintenance Facility Cape Scott. The rest was in BAE's hands in terms of the refit—or reactivation, I should say.

The Chair: Good. Thank you very much.

Monsieur Perron, s'il vous plaît, cinq minutes.

[*Translation*]

Mr. Gilles-A. Perron (Rivière-des-Mille-Îles, BQ): Good day, Mr. O'Keefe. I carefully read the report that you dictated to Mr. Gareth Jones. I was intrigued by points 6, 7 and 8 and came to this conclusion: either Mr. Jones is not an electrician, or he failed to take down the information correctly. Based on this information, I was supposed to be visiting HMS Halifax, when in fact I visited HMS Windsor.

Since I have some knowledge of electrical matters, I realized that the information you were giving wasn't false, Mr. O'Keefe. I've never been on a submarine with such poor wiring. I gather all four submarines are wired in the same manner, the reason being that submarines operate in salt water, which conducts electricity.

To answer my friend opposite, there were no stress cones in place, only rubber gaskets held together with 3M tape . We're talking about wires insulated with plastic components. I can understand why Mr. Saunders succumbed quite fast. Burning plastic emits fumes that pose a health hazard if inhaled. No plastic material is fireproof, although some is fire-resistant. When plastic materials catch fire, they burn. The flames can be extinguished. However, when plastics burn, they emit toxic fumes.

I've visited some of the vessels that navigate on the St. Lawrence Seaway and all have wiring with either copper insulation or steel sheathing.That was not the case with these submarines. I wished the government had decided not to purchase these vessels because of their electrical system. Do you agree with me on this score?

Mr. Gerry O'Keefe: I've never liked the British approach to electrical wiring. Canada must conform to CSA standards, to the Labour Code and to the Canadian Electrical Code, not to mention different pieces of legislation. All of this must be taken into account. In Great Britain, various colours are used and standards are different. Standard household current in the UK is 230 V AC with a frequency of 50 Hz. North American standards are different. I'm convinced Canadian standards are much higher.

Putting it another way, the concept is questionable. That's the word I was trying to find. I'd have to say that our standards are better. Theirs are dangerous. I hope that answers your question.

● (1630)

Mr. Gilles-A. Perron: It more or less confirms what I saw. I saw pipes going through metal. There was nothing to protect the wire running through the pipe. Any movement could cause the insulation to break down. Sparks can start to fly within five minutes. I can see why your fuses were blowing all the time. Drill two holes, add salt water and the wiring is sure to short out.

M. Gerry O'Keefe: The bulk of work to retrofit the submarines to Canadian standards involved removal of these wires. Most of the work was to be done by the ship's cabling shop in Halifax.

Mr. Gilles-A. Perron: And that work was never done?

M. Gerry O'Keefe: No. As part of the retrofit operations, some, but not all, of the wiring was replaced. Some was left untouched. However, I would have pressed harder to replace the vessel's entire electrical system. You say you wouldn't have agreed to this. Nor would I have. However, submariners were not in a position to say no. We were told to bring the vessel back. We were stuck with the existing equipment, wiring and so forth.

Mr. Gilles-A. Perron: I tried to talk to some of the crew members of HMS Chicoutimi about the wiring while I was in Halifax. No one wanted to discuss the subject. They were uncomfortable and said that if they talked, they would have problems for as long as they remained in the Navy. Are you here today because you are no longer with the navy? I'd understand if that were the case.

Mr. Gerry O'Keefe: I'd have to say that I'm here because I was guided by my conscience. When I think of Mr. Saunders...We cannot sanction what took place. This was no mere accident. It's tantamount to murder. How could it have possibly happened? MPs cannot get any real answers. I watched the television reports and came to the conclusion that I couldn't keep quiet and that I had to do something. So I called the ombudsman. It caught someone's attention. Now I'm here telling you what I know. Is there a price to pay for keeping quiet or for speaking out? I view my testimony before this committee as a positive experience. I'm trying to help you, because I witnessed the situation first- hand. It even spelled the end of my career. I too...

[*English*]

The Chair: Thank you, Monsieur Parent.

Mr. O'Keefe, I have one comment. Maybe you can help us convince some of the skeptics out there—and I won't bother to enumerate who some of the skeptics are—when they say there's no point to these hearings. We categorically reject that, that there's no point in this committee having these hearings. We make no apologies on either side of the table for having the hearings. We intend to continue to see this work through to its completion to the best of our ability. Again, I thank you for being here to help us in that.

Now, we're running short of time. I want to complete a second round, so I'm going to go to Mr. Martin and then Mrs. Hinton. We can either break at that point, because there would be one government member and one Conservative not having had their round, or we can extend the full second round, as the committee determines.

Mr. Martin, five minutes, please.

Hon. Keith Martin (Esquimalt—Juan de Fuca, Lib.): Thank you, Mr. O'Keefe, for being here today.

Sir, you said in your comments that the dolphins do not mean anything, and you were referring to the training. What is the current training for a submariner?

● (1635)

Mr. Gerry O'Keefe: I don't know what it's become. In a sense I can't respond to that today. I've been out of the picture since 2002, so perhaps that question would be better directed to the navy authorities. I've talked about what the standards were when I was there before, and I've talked about our training being in two parts when I was there, the theory part being in the south end, at HMS Collingwood, and then the rest further up north at Barrow-in-Furness.

Hon. Keith Martin: I suppose, sir, what I'm really referring to is that when you say receiving your dolphins doesn't mean anything, it's a pretty serious allegation for all those who are wearing their dolphins and have been trained in the last few years. I'm wondering, if this is the great dolphin giveaway, then what is the training you're referring to that is in such deficit? What are we failing to do?

Mr. Gerry O'Keefe: If you're trying to get me to focus specifically on what it means, I'll say that to me, when I received my dolphin, it meant something; it was hard work. I'm just trying to draw some comparison with what it is now, how fast you can obtain it. That's what I'm trying to say, and it was to that effect I referred to it as the great dolphin giveaway. I'll just further add, if you want, that it was about how easy it became as compared with what it was to actually....

It was the system's fault. It was clearly the navy's fault for not augmenting their numbers when they had the chance.

Hon. Keith Martin: What I'm really referring to, sir, is that if one says it's a dolphin giveaway, implying the training is in serious deficit, so it's essentially a giveaway of your dolphins...what I'm asking is, in your opinion, what is the training you're referring to that was such a dolphin giveaway? What was the training that somebody went through specifically? Specifically, what was that training?

Mr. Gerry O'Keefe: What was the training?

The Chair: We want to know what the shortfall of the training was.

Hon. Keith Martin: You made a statement that's quite serious. What's that based upon? What training are you referring to? What exactly does somebody go through from time zero to the end to receive the dolphin so you can say this is a dolphin giveaway? What exactly do they go through to receive those dolphins?

Mr. Gerry O'Keefe: I have to put that in context for you. Once again, we had a standard; it was a six-month standard, and we saw it being substantially decreased over the years. At one point in time they decreased it down to three months, and all of a sudden, when the Upholder decision was announced—which I have right here—the navy was in a bind. It had two crews and a little bit, so we were short. It wasn't because the system didn't know; it was because the system didn't do anything about it. Essentially, in order to receive the training, which is part of this famous contract....

Don't get me wrong, this is the same, initial contract divided into four parts, which I've talked about. The initial support contract was for training of submariners over in the U.K. In order to make it to the U.K., you had to have a set of dolphins on. What I'm trying to tell you is, when I was serving aboard the *Onondaga*, it became so easy. They took guys—senior NCOs, officers, and anyone else—to fill the holes, essentially. It's built on the REMAR list, where everybody has a position, everybody has a ticket, and everybody has an operation, skill, or trade, and to fill the holes, what they did was they just pushed in people. They just grabbed them from 280-class destroyers, tankers, and so on, put them all on there, and then put them to sea.

Hon. Keith Martin: Sir, do you know what training they went through?

Mr. Gerry O'Keefe: Yes, it was probably the same training I went through, but when I say “the same training”, it's all dependent upon the trade. A cook, for instance, would receive three weeks' worth of training as compared to the longest training, which I think belonged to one of the CSE types. I think it was their tactical text, one of them; their course was extensively long.

Do you see what I mean? That's the dry training part of it, but for the USQ, obtaining your dolphins as such, you had a certain standard to meet. That was the Royal Navy standard, but in terms of Canadian standards, it was ours that went downhill; that's what I'm trying to say. The British said, this is what you must achieve and this is what you must do; then we'll give you a USQ qualification, Upholder-trained.

The Chair: Thank you.

I'm going to finish with Mr. MacKenzie, and then we're going to take a very brief break, one or two minutes, and then we're going to go to the second part of the meeting.

Mr. MacKenzie, please.

Mr. Dave MacKenzie (Oxford, CPC): Thank you, sir.

Mr. O'Keefe, it has been made abundantly clear to us from your evidence and the report we have from the ombudsman that you're an electrician.

● (1640)

Mr. Gerry O'Keefe: I'm an electrical technician; that's right.

Mr. Dave MacKenzie: There are, I think, a total of 23 comments or shortcomings that have been highlighted by you to the ombudsman. The vast majority of those would have nothing to do with being an electrical technician. Is that fair to say?

Mr. Gerry O'Keefe: Mr. Gareth Jones came to my house; I've already mentioned that. I'll tell you honestly, we spoke for the better part of two hours. I could have talked to that man with regard to these submarines for seven days straight—

Mr. Dave MacKenzie: I appreciate that, but these are opinions of yours.

Mr. Gerry O'Keefe: What you're seeing is essentially the *Reader's Digest* condensed version of the points he thought were important to bring forth to the committee.

Mr. Dave MacKenzie: Fair enough, but they are your opinions.

Mr. Gerry O'Keefe: No, some are facts, true facts. I have them on paper. I brought all my files and I'm ready to open up the books.

Mr. Dave MacKenzie: According to the facts that I read here, when you got there, you had to buy some of your own tools.

Mr. Gerry O'Keefe: That was one of the things I had to do, absolutely.

Mr. Dave MacKenzie: Would they be tools that you needed, or tools that you would desire to have, or were there no tools?

Mr. Gerry O'Keefe: The current concept is that what we have are called rats' lockers. In there you'll find a couple of wrenches and so on. They have different drawers for different things. By no means of the imagination does that mean you have a complete technician's toolbox. There are things you're going to run into in a submarine where you need specialized tools.

What I'm trying to say is that you can carry the basic 101 electrical tool kit, but ultimately you should carry a lot more.

Mr. Dave MacKenzie: Could you requisition additional tools to meet your needs?

Mr. Gerry O'Keefe: I would have to say probably in terms of a MACR, which is a material authorization change request...wait probably three years—and it's the same as a UCR—and hopefully get a hammer in the end. It's a shame, really, but it's the truth.

Sailors are imaginative in the sense that if there's a job to be done, we're going to get out there, and if I have to pay it out of my own pocket, so be it. Obviously, it helps me. If I need a flashlight, why not? Am I spending $100 on this? No. It's just a couple of dollars. If it helps me, it helps me.

Mr. Dave MacKenzie: There are two issues that I see in here for which I would like to know how you made the determination. One, you say the submarines were too noisy and can be heard under water from a great distance. Secondly, the propulsion system that was designed for a frigate was too powerful for the size of the submarine.

What would you base those judgments on?

Mr. Gerry O'Keefe: There is a paper called a *Propulsion Power Statement*. This is part of officer training. It is in circulation. The navy is well aware of the said document I'm talking about.

Mr. Dave MacKenzie: What is it called, so that we can get a copy?

Mr. Gerry O'Keefe: It's called *Propulsion Power Statement*. In this *Propulsion Power Statement*, should the navy be so kind as to bring it out, you'll see for yourselves that at certain speed groups there are certain things that you can and cannot do. One of these things is if you ramp up to a particular speed and try to go astern, for instance, there's a chance the torque would be so intense that you could actually twist a shaft. Those are the limitations there. It's an important document to look at. As I indicated to the ombudsman, for a motor of that size that weighs 84 tonnes, it seems as if there's 60 feet of boat missing. What they've done essentially with that motor is they took it off the shelf, off one of their frigates, a design that was proven, and fired into it a submarine and said, here we go, there is your main propulsion motor.

Mr. Dave MacKenzie: The other issue, that they're too noisy and can be heard under water from a great distance, what was that based on?

Mr. Gerry O'Keefe: That's based on conversations I've had in private. I will say this to you. How you are going to get your hands on this information is, once again, that the navy will have to provide that documentation. My understanding is that it's top secret information. When you talk to different people, they will tell you, gee, we always knew these guys were coming. These submarines were written off—the noise. The information is out there. How you acquire it is up to you, essentially. You may have to put in the request through the proper channels with the navy and say, okay, we want to see this; let's verify what this is all about.

The Chair: Mr. MacKenzie, thank you.

Mr. O'Keefe, that completes our questioning for you. Again, on behalf of all committee members, I want to thank you very much for taking the time to come here. This is a very serious topic. We consider it that. We know you do. We appreciate your trying to shed some light on this for us. Again, thank you very much. We wish you all the best as you go forward.

We're going to take a very brief break, a couple of minutes. We are then going to shift to phase two, where we will hear from departmental people who will address the same concerns we just spoke to.

Thank you very much.

We'll reconvene in about two minutes.

● _____ (Pause) _____

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● (1645)

The Chair: I would like to reconvene the thirteenth meeting of the Standing Committee on National Defence and Veterans Affairs.

We will welcome now from the Department of National Defence, Captain Williamson, project manager, submarine capability life extension. Welcome to you, sir. I know you were here for Mr. O'Keefe's testimony.

Do you wish to make some brief opening comments? Then I know the committee will have questions for you.

● (1650)

Capt(N) M.F. Williamson (Project Manager, Submarine Capability Life Extension, Department of National Defence): I have some opening comments.

My name is Captain Mike Williamson. As a career submariner, I've served in Oberon-class submarines throughout the 1980s, prior to assuming a number of staff positions ashore in Halifax and later in Ottawa in support of both surface warship and submarine development.

Once the decision was taken in 1998 to acquire the Upholder-class submarines from Great Britain, I moved to northwest England to serve as the United Kingdom detachment commander, where I oversaw the training and support arrangements for the Canadian crews. The Canadian detachment also witnessed the reactivation work on these submarines in preparation for their transfer to Canada.

I returned in 2001 to Ottawa, where I've since been employed as the project manager for the submarine capability life extension project, as the overall project surrounding the delivery of the submarines is known. As you know, this project also encompasses provision of shore trainers, initial spares, a technical data package, and conversion of specific equipment, also known as Canadianization.

You've heard comments from previous witnesses on the requirement for Canada to operate submarines. Development of these requirements is the responsibility of the Chief of Maritime Staff. As a representative of ADM (Materiel), the organization tasked to procure and support the military assets required by the Chief of Maritime Staff, it is outside of my field of expertise to elaborate on those requirements. Rather, I'm here to provide technical information related to the submarine procurement project.

We, of course, signed an agreement with the United Kingdom for the purchase of the British-built Upholder-class submarines, and these submarines are good vessels. They are conventional submarines. In other words, they operate using diesel-electric propulsion. Relative to other major warships, this makes them economical in terms of acquisition, operating, and personnel costs, while more importantly providing the same range of capabilities. Moreover, upon their commissioning by Great Britain, the Upholder-class submarines were recognized as well ahead of their contemporaries for their advanced level of technological innovation, particularly regarding their quiet mode of operation, which to this day remains at a level that makes them extremely difficult to detect and monitor even for the most modern surface warships and aircraft.

These characteristics, combined with improved weapons and sensors being installed as part of the Canadianization package, make the Victoria-class submarine a potent weapon that can deter opponents in situations of tension, and they can conduct sovereignty operations in our waters credibly and efficiently.

Although the reactivation and Canadianization package has been a long and complex process, the Canadian submarine service is ready and able to put these platforms to use. Having a vessel as capable as the Victoria-class submarine on each coast represents a significant contribution to Canada's increasing maritime security and defence needs.

While I don't deny there have been challenges in reactivating these submarines, I would submit to you these challenges are not uncommon in the acquisition of any major weapons system. What is often overlooked is the positive manner in which these issues have been identified, evaluated, and corrected in cooperation with our British ally. Victoria-class submarines have been doing good work on both coasts over the past year and will prove in the coming years to be an invaluable asset.

I'm here today to speak to you as a technical witness. During the last six and a half years I've talked to many of the officers and crews of these submarines. I've dealt with the United Kingdom Ministry of Defence project officials and the British Aerospace shipyard workers, and I've listened to the opinions of many submarine-experienced folks. Throughout this period, and particularly with the acceptance of each of the four submarines, I've reached the conclusion that the submarines have been delivered in compliance with the contract in a safe and seaworthy condition. We've never sacrificed safety for schedule, nor would I, as the project manager, ever accept a submarine that was unsafe or not ready for sea. Men and women who crew these vessels are among the best in navies. They are well-trained, professional individuals who take a great deal of pride in the challenging work they do.

As a final comment, I'm sure you're well aware that the issues relating to the events leading up to and including the fire on HMCS *Chicoutimi* are being investigated by the board of inquiry, and as such I'm not in a position to comment on them. We're all anxious for the board of inquiry to release its findings and implement its recommendations as required. This is a vitally important process, and I'd ask you to respect my desire not to prejudge those findings.

I'm now happy to take any questions you may have.

The Chair: Thank you, Captain Williamson.

Your caution is unnecessary. There will be no questions entertained by the chair relevant to the fire on the *Chicoutimi* today, but thank you for reminding us about the parameters of this study. The members are well aware of that.

Mr. O'Connor, for seven minutes, please.

Mr. Gordon O'Connor: Captain Williamson, I have only two questions.

One has to do with training. Since you're the project manager, you'd be aware if there was a modification in training today compared to earlier times. We keep being told that there's a different standard or something in training. I believe training can crudely be divided into shore training and sea training. So I wonder if you could tell us how changes have come about. There appear to be some submariners who are saying the training is not up to scratch.

● (1655)

Capt(N) M.F. Williamson: The training has definitely changed. Canada operated Oberon-class submarines for some 30 years. During that period, training would have been modernized and there would have been training to adapt to new fits of equipment.

When any type of training is developed, the navy or school puts together a board, and they look at what the final qualifications and final attributes of a student need to be at the end of that training. They put in place a series of classroom—shore-based and afloat—courses, hands-on training, and on-the-job training, and they have an evaluation process at the end of it. That could be a written exam, an oral exam, or a hands-on demonstration. For every piece of training, regardless of what it is, there is an input, an output, and a threshold that has to be crossed.

So, first of all, I can assure myself and the folks around the table that everyone who has been qualified to whatever standard has met a very rigid, navy-approved, peer-assessed and evaluated qualification process.

Evidently, with the new class of submarines, that training has evolved quite a lot from the Oberon days. One of the greatest assets we had with the Victoria class is the acquisition of five high-fidelity modern trainers. We do, and we are able to do, a lot more training ashore, prior to going to sea, than we were able to do before.

One of the benefits of shore-based trainers or simulators is that you can inject faults or conditions on it that are very difficult to simulate at sea. For example, you could put an emergency on a piece of equipment that you just can't do at sea. That enables the crew to be trained to react to very extreme situations. Over the number of years that we've been operating the Victoria class, I think we've seen that the crews have always responded in a very safe, professional, and timely manner. So I think we are validating the training that's required.

Mr. Gordon O'Connor: The other question has to do with the submarine itself. One of the things we've been told in Halifax and in other places is that these submarines are the best of their type, and one of the great characteristics is that they're silent.

We have an assertion here that they're too noisy and they can be heard under water from a great distance.

I don't want any decibel count or something, but which allegation is true, that these are very, very quiet submarines that essentially can't be heard, or are they noisy submarines?

Capt(N) M.F. Williamson: I really wouldn't want to respond to an allegation. I know, in the realm of fact, we've seen the secret and top secret classified reports that referred to the signature levels of Victoria-class submarines. The reports have been favourable. We've seen allied reports on the quality of these submarines. There are a lot of systems on these submarines that are advanced or next generation compared to the previous class of submarines, and they will compare favourably with submarines of this vintage and of this type.

There are systems on board that silence the equipment. There are systems that silence the hulls. There are other design characteristics that ensure that these vessels are silent in operation and difficult to detect. We have the sound range reports and the reports from our allies that demonstrate that.

The Chair: You have three minutes in this time slot, Mr. Casson.

Mr. Rick Casson: Mr. Williamson, there was an accusation earlier by the witness that indicated that in any incident that occurred in regard to these submarines, somehow when that report was sent to the minister the importance of that incident was diminished or minimized. Are you part of preparing these reports to the minister, and could you comment on that?

Capt(N) M.F. Williamson: We treat reports or notification of any incident on submarines extremely seriously, particularly when there's an ingress, or a flood, or a leak. Obviously this is investigated to ensure that the situation can't repeat itself, to ensure that the situation will not be the same across the class.

The incident that Mr. O'Keefe referred to was a flood on board HMCS *Corner Brook*on July 1. There was a technical investigation done by the Royal Navy, which was the operating authority at that time. We had a Canadian crew on board. I in fact flew over to the United Kingdom as part of this investigation.

We discussed the issue, and then, in turn, as Mr. O'Keefe says and as you know, a report was sent up to the minister. There was no attempt to downplay this. The submarine was brought alongside and it did not proceed again to sea until it was definitively proven to both Canadian and British operating authorities that the problem had been rectified.

● (1700)

Mr. Rick Casson: As regards the condition the submarines were in when we purchased them and who was responsible for repairing or paying for the repairs on issues that were discovered afterwards, can you highlight for us possibly one or two situations that have arisen on these submarines that we weren't fully aware of when we purchased them and how those deficiencies were dealt with?

Capt(N) M.F. Williamson: Okay. I think it's a multi-faceted question, but I'll try to cover as much of it as I can.

The reactivation was in accordance with the main contract between the Government of Canada and the Government of the United Kingdom. The output of this contract to us was four fully reactivated submarines to the Royal Navy standard, and we were party to the condition of the submarines from the first instance. We had our crews on board throughout all the reactivation. We were party to all the inspection process.

During the reactivation, there were many defects that came up that weren't initially envisaged, everything from shaft bearings to rudder repairs and saltwater valves, and all of this, to the greatest portion, was done at the expense of the Royal Navy, the Ministry of Defence, to rectify the defects.

Problems that arose post-acceptance then became Canada's problems as owners of the submarines. So all the defects that were discovered or that arose pre-acceptance, by and large, were to the account of the United Kingdom, and post-acceptance, after a brief period, to Canada's account.

There haven't been a great number of defects that have arisen since the acceptance that have caused us concern. Obviously a warship at sea has defects all the time. During the acceptance and sea trials process, the defects number in the hundreds. Every day the crew will go through, and everything from a missing bracket to a chipped tile, to something much more extreme like a sonar that doesn't work, gets recorded as a defect. Then, on the day of acceptance, we ensure, and it's absolutely essential, that all the defects that impact on the safety of the submarine are rectified. For ones that will cost money downstream, we park a contingency against that, and it's part of the acceptance of the submarine that there will be cash paid to us to rectify those in the future. Defects of a very minor nature are just noted. So there is very little that's not open in the process with respect to defects.

The Chair: Thank you, Mr. Casson.

[*Translation*]

You have seven minutes, Mr. Bachand.

Mr. Claude Bachand: Thank you, Mr. Chairman.

I want to thank you for coming here, Mr. WIlliamson. I understand that beginning in 1998, you commanded the Canadian unit in the UK in charge of retrofitting the submarines. Is that correct?

Capt(N) M.F. Williamson: That's correct.

Mr. Claude Bachand: You also stated that you were in charge of technical procurement. Are you an engineer by profession?

[*English*]

Capt(N) M.F. Williamson: I'm a naval engineer by profession, and I have a science background by education.

[*Translation*]

Mr. Claude Bachand: Thank you.

Now then, a number of the submarine's defects have been brought to my attention. I'd like your opinion of them. You talked about the submerged signal ejector, or SSE. You've already addressed that issue.

Some people have pointed to the submarines' insufficient fuel capacity, lamenting that they are barely able to make an Atlantic crossing. Is that an accurate statement?

Capt(N) M.F. Williamson: No, that is not true.

[*English*]

In fact, we've had three crossings of submarines: HMCS *Victoria* , HMCS *Windsor*, and HMCS *Corner Brook*. In each instance, the submarine has arrived in Halifax with between 30% and 40% fuel remaining.

● (1705)

[*Translation*]

Mr. Claude Bachand: According to some reports, there are insufficient spare parts on board should a problem arise at sea. Is that in fact the case?

[*English*]

Capt(N) M.F. Williamson: There is a split in the type of maintenance that a crew can do aboard a submarine. Simple repairs are called first-line maintenance, and to address that and to address normal operations and normal planned maintenance, there is a carried-on-board allowance for each submarine. Obviously, or maybe not obviously, it is virtually impossible to sail with 100% of the parts. The standard for this contract was that each submarine would sail with 90% by value of the parts on board, and it was noted by our allies as we accepted submarines that we met and exceeded the same standard for most vessels of this type. So there were sufficient parts on board.

Submarines and ships are related in terms of a database, and we've had incidents where the submarines themselves have supplied parts to other vessels because of the availability of parts on them.

[*Translation*]

Mr. Claude Bachand: Some people maintain that there are insufficient tools available to carry out repairs or that crew members even have to purchase their own tools to bring on board. Is that true?

[*English*]

Capt(N) M.F. Williamson: The submarines have a set defined number of parts on board, or a set amount of food, and the same thing goes for tools. Obviously there are differences in standards between the way the Royal Navy operates and the way the Canadian Navy operates. We discovered this early on in the reactivation. So we increased the parts holding and the tools holding for the various technicians on board.

Each crew, in turn, has an authority called a local procurement order, where they can go out to a local supplier of parts or specialized tools and purchase things themselves, up to a certain dollar limit, to augment their on-board holdings. Beyond that, if there are things individuals want, to personalize the way they do business, sometimes that's up to the account of the individuals. By and large, the tools required to do their jobs are provided.

[*Translation*]

Mr. Claude Bachand: We've heard a lot about the quality of the wiring. Everyone says that the British are not known for their electrical capabilities and that the vessels' wiring was mediocre at best. Would you agree with this statement?

[*English*]

Capt(N) M.F. Williamson: I'll only speak on wiring, in general, with submarines.

We operated the Oberon-class submarines for 30 years, and we became very comfortable with the operation of them. We were satisfied with their build and design. Indeed, we accomplished quite a lot with them.

The Upholder-class submarine represents, effectively, two generations beyond the Oberon class—the Trafalgar class and the Upholder class. In the development of these vessels, the British Navy introduced new procedures and standards, and we followed this development. The state of the design of the submarines was entirely to our satisfaction at the time of handover and acceptance. I don't want to talk about specific wiring, because of its relation to the board of inquiry, but there was no problem.

[*Translation*]

Mr. Claude Bachand: Also according to some reports, the escape towers—we saw them when we were in Halifax—sometimes flooded unintentionally. In other words, while the submarine was under way, the towers would suddenly flood . Has this in fact ever happened?

[*English*]

Capt(N) M.F. Williamson: As I said earlier, any time an individual raises concerns, particularly an experienced and qualified submariner, they are taken very seriously. We have looked into the issues raised by Mr. O'Keefe, particularly with the escape tower. We've spoken to the COs of the submarines and the crew, and we have found no instances of escape towers flooding up. The escape system is under a system called starred defect, i.e., you cannot sail if there is a defect with an escape system. That would have been subject to our closest scrutiny. We were unable to find any instances of an escape tower inadvertently flooding up.

[*Translation*]

Mr. Claude Bachand: It's also been reported that the hull and back up valves are not equipped with flow meters. True or false?

[*English*]

Capt(N) M.F. Williamson: The systems that require flow metres, which is probably an element of the basic design.... On head-flow metres in the systems, where they were not required or not normally found, there were none. Again, this is one of those comments we checked into, and it was difficult to find an occasion or a basis when this was evident.

[*Translation*]

Mr. Claude Bachand: An interesting fact was reported with respect to training. Apparently, training was provided in two stages. Some submariners were trained according to the old method, that is to say they underwent several months of training to become skilled in various areas. I even heard that the cook knew as much as the vessel's mechanical officer. This story was also recounted to us when we visited the submarine. We were told that crew members could work various jobs and that occasionally, positions were rotated.

Others claim that according to the new school of training, since submariners need to be qualified very quickly in order to go to the UK, some stages of the training were skipped. Dolphin badges were apparently given to persons who had not fully qualified. Was that in fact the case?

[*English*]

Capt(N) M.F. Williamson: As I said earlier, qualifications are outlined as the requirements for what an individual must achieve. He must go through steps to achieve those qualifications. This standard of training has evolved over the 30 years we've operated Oberon-class submarines and in the intervening years between the Oberons and the Upholders. Indeed, even today, there are changes done to the training.

In the old days, cooks were probably skilled at operating all the systems on submarines. Over the years of operating Oberons, we found this was time that was not well invested; there were other folks who could better benefit from the training, so training has evolved.

With respect to any kind of an awarding of a qualification without a person having met a set and approved standard, that can't happen. There are tests, oral exams, qualifications, and check lists. It's not a laissez-faire system. It's a system that is well defined. It applies right across the Canadian Forces with any type of training or qualifications.

● (1710)

The Chair: Thank you.

Merci, Monsieur Bachand.

Mr. Blaikie is next, please, for seven minutes.

Hon. Bill Blaikie: Thank you , Mr. Chairman.

It seems to me there's a disagreement between Mr. O'Keefe and yourself, representing the navy, as to the sufficiency of the current training regime. You call it evolution, and I guess he calls it devolution, in the sense that he feels the training has been cut short.

The thing that interested me about what he had to say—and again, this is something that has not come up—was he kept referring to the contract between Canada and the United Kingdom, and the fact that we had to produce, as part of the contract—not in our own interests but as part of the contract, and he said this twice—a certain number of submariners. Presumably that was by a certain date because—correct me if I'm wrong—it was part of the contract that they would train beyond a certain level. We would send them people with dolphins, but these people had to have the dolphins in order to receive this next level of training on the Upholder-class or Victoria-class submarines—depending on whether you're using British or Canadian terminology.

Perhaps you could explain that to us. Unless I missed it somewhere before, it was news to the committee that it was part of the contract. Again, we keep learning more about the contract. We learned that things we thought were there weren't there, and then we learned that things were there that we didn't know were there. This is one of the things that is news, in the sense that in order to fulfill our terms of the contract we had to produce so many submariners, so many people with their dolphins, by a certain time. That may have created pressure on the Canadian navy to produce those dolphins as part of the contract. Could you shed some light on that?

Capt(N) M.F. Williamson: Certainly.

There were several contracts. One was the main contract between the Government of Canada and the Government of the United Kingdom for the provision of the submarines. For the shore-based trainers there was a second data package—on-board spares. There was another contract called the initial support contract with British Aerospace. That provided shore-based spares, and it provided us our office space in the United Kingdom. It also provided courses.

The courses specified in the contract were to convert Oberon-qualified submariners to Victoria-class submariners. We wanted to ensure that all the submariners who were to operate the equipment on board the Upholder class or the Victoria class and take them to sea knew how that equipment operated, the specifics of that vessel, and all the emergency operating procedures. This training was delivered under contract by British Aerospace Systems, and they in turn subcontracted it to the Royal Navy training authority to do conversion courses. I think there were some 46 different types of courses. Depending on whether a chap was a cook or an engineer, he was directed to take a variety of courses to give him the qualification level he had.

We contracted them to deliver sufficient training for four full crews of submariners, and then we had extra training seats, which we gave to folks in shore positions and folks in the engineering authority. So we contracted them to train us, and the only provision was that those who would be going to sea on the submarines had previously been qualified as dolphin wearers. So everyone who was put on this course was a Canadian dolphin wearer.

Hon. Bill Blaikie: Where were they trained? Were they trained in Halifax?

● (1715)

Capt(N) M.F. Williamson: They were trained on the Oberon system.

Hon. Bill Blaikie: It was on the Oberon training system, not on the system we saw in Halifax with the simulators, because that's an Upholder simulator.

Capt(N) M.F. Williamson: That's right, and the initial cadre of training took place between about 1998 and 2001.

Hon. Bill Blaikie: So this notion that somehow the training has been shortened because now we have these wonderful simulators, that's really not part of it. The training Mr. O'Keefe was referring to in the great dolphin giveaway, as he calls it, existed prior to the receipt of these simulators. Pursuant to the contract, people were being given their Victoria-class training in the U.K. at that time, not in Halifax. What were we doing with all this stuff in Halifax? I presume that was a later stage.

Capt(N) M.F. Williamson: Right. The simulators weren't shipped and set up in Halifax until 2003, so all the training prior to that would have been done either in the United Kingdom, converting Oberon-class submariners to Victoria-class submariners, or in Canada in the first instance as Oberon-class submariners.

Hon. Bill Blaikie: So the training they were doing in the U.K. as part of the contract was training that would have—

Capt(N) M.F. Williamson: —converted them to Oberon—

Hon. Bill Blaikie: But they would have had these simulators there?

Capt(N) M.F. Williamson: That's right. They had to arrive as dolphin-wearing submariners before they could undergo the training in the United Kingdom.

Hon. Bill Blaikie: I have one last question.

One of the things I've asked about before is that it still seems odd to me that the submarine would have proceeded to Canada without escort. I wonder why that was. In my understanding, and I could be wrong, the earlier submarines did have some kind of escort, or did they all cross by themselves?

Capt(N) M.F. Williamson: All submarines, at the moment of acceptance, were safe and operationally seagoing submarines.

Hon. Bill Blaikie: I don't quarrel with that. I just wonder why—

Capt(N) M.F. Williamson: There's no original requirement. To submariners—

Hon. Bill Blaikie: Did the others have escorts?

Capt(N) M.F. Williamson: Submarines generally operate as independents.

Hon. Bill Blaikie: No, but on their way home. They were not yet Canadianized; there were still things that needed to be done to them.

Capt(N) M.F. Williamson: No, they were seaworthy, effective submarines—

Hon. Bill Blaikie: Fair enough.

Capt(N) M.F. Williamson: And they had no escorts.

Hon. Bill Blaikie: None of them?

Capt(N) M.F. Williamson: The first three submarines had no escorts.

Hon. Bill Blaikie: No escorts. At one point I got the impression that the earlier ones did.

Capt(N) M.F. Williamson: No, they have an escort during sea trials. There's a thing called the deep dive, and that's the first instance where the submarine proceeds to its maximum diving depth. It's common in the British Navy and in the Canadian Navy that during that portion of the sea trials, for some 24 hours, there is an escort present. Beyond that, there is no escort.

Hon. Bill Blaikie: Had the *Chicoutimi*already done that before it headed for home?

Capt(N) M.F. Williamson: Yes, it had.

Hon. Bill Blaikie: It had that deep dive.

Capt(N) M.F. Williamson: It had completed all of its sea trials.

Hon. Bill Blaikie: All right.

The Chair: Thank you very much, Mr. Blaikie.

Now, Mr. Bagnell, please, for seven minutes.

Hon. Larry Bagnell: Thank you, Captain, for coming. I appreciate it.

The previous witness had this document from the ombudsman, which you probably must have, with 23 concerns. A number have actually been refuted by some excellent questions from Mr. MacKenzie, Mr. Bachand, Mr. O'Connor, Mr. Blaikie, and myself. There were a lot of contradictions, etc., in the testimony, which I'm sure everyone in the room has picked up on. Nevertheless, these are serious concerns, or would be serious concerns, if they were true.

I wonder if you could endeavour to have the navy give us a written response to the 23 concerns. You've already refuted a number of them, when Mr. Bachand asked the questions. But could they give us a response on each of those 23 concerns, so I don't have to ask all of those questions? Would you be able to get those back to us?

Capt(N) M.F. Williamson: I think we could take that question away.

Hon. Larry Bagnell: That would be great.

You were over in Britain at the time the repair was going on. The British, along with our sailors, had to be on the ships for the tests and the refurbishing and everything. That was a substantial cost to Britain. You may not know the exact dollar figure, but I'm sure you probably know more than anyone in this room what type of ballpark figure it might have cost Great Britain to refurbish the submarines out of mothballing, or whatever, back to use.

Do you have any idea what that might have cost? I know it just made it a better deal for us.

Capt(N) M.F. Williamson: No, I don't know the figure. I would be speculating if I guessed at it.

Hon. Larry Bagnell: But it would be substantial? They spent a lot of time, I assume, with both repair people and crews on testing.

Capt(N) M.F. Williamson: It would have been a significant number, but as to what "significant" would mean in terms of a refit, I wouldn't want to speculate on that.

● (1720)

Hon. Larry Bagnell: Do you have an idea roughly of how long it took?

Capt(N) M.F. Williamson: The initial plan was to have the first two submarines delivered in 2000 and the next two in 2001, that is to say, at six-month intervals. They quickly discovered that the amount of work required for the submarines to reach an acceptable standard was more substantial. When they found an issue with one submarine, the correction to that problem was applied to the follow-on submarines, so with each submarine, the task became greater and greater for them. The reactivation period was longer than they would have wanted. The reactivation period was longer than we would have wanted, but we never sacrificed safety for schedule. We accepted the boats, and indeed they turned them over, only when the submarines were ready.

Hon. Larry Bagnell: The amount of money they spent just adds to the good deal we got.

I had some wiring questions, but our last person said he was not a journeyman electrician and couldn't answer them. I assume you're not an electrician, but do you have any comments on the wiring, either before we got the boats, when we got the boats, during the retrofit, or anything we've done subsequently until today?

Capt(N) M.F. Williamson: I'll make a general statement that there are a series of tests and trials and a set of specifications that have to be met to accept a submarine. Only when those are done, and the systems are proven seaworthy and operational, do we accept a vessel. No system received more scrutiny than any other system.

If I say anything more, I would again be drifting into the—

The Chair: With respect, Captain Williamson, unless the question is specifically about the wiring on the *Chicoutimi*, we expect you to answer the question, please.

Capt(N) M.F. Williamson: All right.

The tests and trials that were done on wiring, piping, hatches, hulls or sonar were laid out as tests and trials in the contract. It was laid out in tests and trials between the Canadian government and the British government. All the tests and trials passed or met the specifications before the submarines were accepted.

Hon. Larry Bagnell: Nevertheless, we've done some recent upgrades on wiring, have we not?

Capt(N) M.F. Williamson: There have been some changes to some aspects of the wiring on the submarines we have.

Hon. Larry Bagnell: To go back to the conning tower, I don't know how the air filtration system works in state-of-the-art submarines. Would it be possible that both hatches might be open in the conning tower to get better air, if you happened to be on the surface, and increase air circulation to make it more pleasant?

Part two of the question is this. Would it be possible that the doors would be open to make it easier to repair a vent in one of the doors?

Capt(N) M.F. Williamson: Again, this question is very close to the types of issues that the board of inquiry is looking into, and I really shouldn't speculate.

The Chair: Stay away from the *Chicoutimi* and speak to the wiring on the other submarines. That's a valid question, and we want an answer.

Hon. Larry Bagnell: You may not have this now, but could you endeavour to get an answer on how the wiring was protected on high voltage cables at the terminals where they join? The last chap didn't know what I was talking about, but could you get back to me on that protection?

Capt(N) M.F. Williamson: Sure. We could take that question to the navy on all the specifications available. Absolutely.

Hon. Larry Bagnell: Great.

The Chair: You have one minute, Mr. Bagnell.

Hon. Larry Bagnell: That's fine. Thank you.

The Chair: Is there anybody else?

In that case, Captain Williamson, I missed your answer to Mr. Bagnell's request that someone enumerate in writing a response to the 23 concerns in the letter to me. Did you indicate that?

Capt(N) M.F. Williamson: Right. We'll take that question away.

● (1725)

The Chair: All right. We would appreciate your tabling that with the committee clerk. We understand you're under time commitments, but could we emphasize that it would be helpful to us as soon as possible.

We'll go to a second round of five minutes. I'll start with Mr. MacKenzie, please.

Mr. Dave MacKenzie: Thank you.

Captain, I really appreciate your being here, because there are a number of issues that you have clarified for us, and some of it is stuff from the past. It's nice to have you back.

The issue about propulsion will certainly be answered.

I noticed that the previous witness had opinions on a number of things, but obviously, some of that would have exceeded his expertise on the submarine. Given what you know about the submarine and the roles of the people on it, I assume that would be fairly accurate.

Capt(N) M.F. Williamson: I can address the question of propulsion right now. These submarines have a very powerful main motor. They are very capable and able submarines, and propelling from full speed ahead in the fastest group to full speed astern with an instantaneous change is something to be avoided.

Mr. O'Keefe spoke of a propulsion power statement, and that is indeed a physical and procedural limitation to prevent damage and limit the torque. We've raised this issue with a number of commanding officers of submarines. They say they want to have all the power available to them at all times so they can do their jobs. But it's not really a limitation to have power available, it's how you operate with that power.

Mr. Dave MacKenzie: Fair enough.

I have a couple of other issues. One of them is a Treasury Board ruling that a certain number of personnel in Halifax, a specified number, are paid submariner wages onshore and would be involved in training as instructors.

Capt(N) M.F. Williamson: There are special allowances provided to various folks in the Canadian Forces depending on their specialty and where they operate. There's a submarine allowance and a submarine specialty allowance that is payable. I'm not up to speed on the limitations on who gets it. It's not geographically limited necessarily. There is a cap on it, but that's outside my area of expertise.

Mr. Dave MacKenzie: Okay. That's fair enough.

I have one last question, and if it's outside of it, that's fine.

Would we have been better perhaps to have asked that those submarines be delivered to Canadian soil before we took possession of them?

Capt(N) M.F. Williamson: The reactivation of the submarines in the contract was written in such a way that the vast majority of items that arose during a reactivation were covered at their expense under their contract. A way of looking at it is that we had them at a fixed price, and being party to the acceptance of those submarines, we were able to dictate or influence what condition they were in before they were delivered. As Mr. O'Keefe said, he was on board the submarine for almost four years before we accepted it. This was a wonderful opportunity for us to be on the boats to see them all the way through, to see the problems that arose, and to see how they were rectified before we accepted them.

I think the way we did it was the correct way.

The Chair: Thank you.

Two minutes, Mr. Casson.

Mr. Rick Casson: You're in charge of the submarine capability life extension program, which is how they describe it. How long is it going to be—and perhaps you cannot answer this publicly—before these submarines are at their maximum capability so they can do what they were designed to do: to go out, to be quiet, to seek, to hunt, to destroy, all of those things?

Capt(N) M.F. Williamson: That's a fair question.

When the submarines were accepted from the United Kingdom they were in a seaworthy, “safe to go to sea” state.

What we do with them in Canada is we then Canadianize them. We change the weapons control system. We add some electronic warfare. We do some upgrading and changing of the radios to Canadian standards. That puts them in a physical condition. Beyond that we have to go out and get the crews certified to operate all the new equipment and then the submarine has to be trained to its peak.

This is an evolving time limit, based on when the maintenance is completed, when the Canadianization is done. I don't have the specific date. I believe it's around 2007 or 2008—I could be wrong—when we start to see the Victoria class in its full operational status.

Mr. Rick Casson: When you answered the question earlier, you indicated that when you ran across a deficiency in these boats after they were taken over by us, you were able to make a list and appropriate some money toward that, and that was then relayed back to the British and they picked that up.

Is there a technical term for that? Is there a list of these deficiencies? Can we get an idea of how much money has been spent by them on issues that arose after we took over?

Capt(N) M.F. Williamson: Yes, we have those documents. They've been previously requested by Mr. O'Connor, and the department is in the process of getting those documents delivered.

Mr. Rick Casson: Do you have any idea when those documents, Mr. Chairman or Mr. Williamson, will arrive? We have been waiting a while.

The Chair: Do you have any idea?

● (1730)

Capt(N) M.F. Williamson: No.

The Chair: I think I can tell the members that Wednesday's meeting is an organizational meeting, and hopefully we can have some information at that point, or at least an idea of an answer to your question, Mr. Casson.

Thank you very much.

Mr. Martin, please, for five minutes.

Hon. Keith Martin: Thank you, Captain Williamson, for being here today.

We heard from Mr. O'Keefe multiple, it would appear to be, anecdotes, opinions that were basically proven to be wrong.

Would you agree that a good chunk of his testimony and most of the 21 complaints here are based, at the best, on old information and are not really relevant to the submarines of today?

Capt(N) M.F. Williamson: Some of his complaints were based on old information. Some of his complaints were taken at face value and were investigated and were found to be sound. On his concerns about the incident with the submerged signal injector, when 1,500 litres of sea water came in and around him, I could only agree with him that it must have been a traumatic experience. We immediately took steps to make sure that didn't happen again.

Some of the information with respect to facts on fuel remaining, for example, have been proven over the experience of many submarines not to be well-founded, and we're coming from a better position where we have access to all the data, the real time, from all the boats, and that's a position where perhaps he's not as able to comment with the same amount of background knowledge.

I wouldn't really want to characterize his comments as one thing or another. We take all comments seriously.

Hon. Keith Martin: Of course. I wasn't suggesting anything other than that, but most of the comments that were there have basically been answered and responded to.

Capt(N) M.F. Williamson: Yes, they have. All of his questions have been investigated.

Hon. Keith Martin: On the comment he made about the range of the subs, he said the subs were barely able to make the Atlantic crossing.

The subs' range is well within the Atlantic crossing.

Capt(N) M.F. Williamson: Yes, and as I said earlier, they arrived with 40% to 45% of their fuel remaining.

Hon. Keith Martin: Okay.

On the comment he made about the—

Capt(N) M.F. Williamson: I would just like to put that in perspective. The old class of submarines was designed in a different era. They had a different operating profile and they had different types of fuels.

It's the same with his comments about food. In the old days we had an operating profile that was different, and the fueling, the food, and the systems on board reflected that.

Modern submarine ops have different demands and these submarines are built to these different standards, and there would be differences in a comparison between what an Oberon-class submarine could do as compared to a Victoria-class submarine. In many other categories, in most other categories, in fact, the Victoria-class submarine compares much more favourably, in sound, in speed, and so on.

Hon. Keith Martin: That reflects the operational differences between them, the operational requirements of the two subs' classifications.

Capt(N) M.F. Williamson: That's correct.

Hon. Keith Martin: He also mentioned about the great dolphin giveaway, and I just want to reiterate the fact that, in your opinion, there's absolutely no way that any sub would ever be allowed out, given the green light to make a transatlantic crossing on its own, without that sub being perfectly and completely seaworthy.

Capt(N) M.F. Williamson: A submarine cannot leave port unless it has the required critical manning on board, and the required critical manning of submarines is qualified dolphin-wearing crew members.

Hon. Keith Martin: While those standards may be different from the time of Mr. O'Keefe, when he went through, those differences do not actually translate to an inability to actually operate on the subs. In other words, the competency of the individuals on those subs, engaging on a maiden voyage, is more than sufficient to man that sub across the ocean.

Capt(N) M.F. Williamson: I would say that would be the case.

Standards are well documented, well understood, well developed, and, as I say, the navy goes into an in-depth process to qualify what training is required for any position, and to fulfill that position you have to meet those training qualifications.

Hon. Keith Martin: This is my last comment.

Mr. O'Keefe said, and I quote, “These subs were written off by the Brits, presumably.” That was not the case at all.

Capt(N) M.F. Williamson: The history of the Upholder class was this. During the United Kingdom's defence review they had some budget restrictions and they had a choice of operating their nuclear-powered fleet or their diesel-electric fleet, and because the nuclear-powered fleet formed part of their crucial deterrent force, they decided to stick with that force. The submarines were put in a period of custody, care, and maintenance in the British Aerospace shipyard for four years. During that time engines were put into preservation, dried-out air was run through the submarines to reduce the effects of salt and corrosion, critical items of planned maintenance or corrective maintenance were done, and it was after this that the reactivation picked up. There was never a case of dropping and ignoring the submarines.

● (1735)

Hon. Keith Martin: So the Brits did not mothball this class of subs because they were defective. They mothballed them because they were moving to have their entire subfleet nuclear.

Capt(N) M.F. Williamson: The Royal Navy entered into contract with British industry, British Aerospace, to maintain these submarines in a condition during this period of custody, care, and maintenance, which was the time between when the boats were taken out of service by the Royal Navy and the time of the deal.

The Chair: Thank you, Mr. Martin.

Monsieur Perron, s'il vous plaît, pour cinq minutes.

[*Translation*]

Mr. Gilles-A. Perron: Thank you.

Is it standard procedure to find surface-mounted electrical wires insulated with plastic, especially in a submarine?

[*English*]

Capt(N) M.F. Williamson: The wiring aboard submarines, both in the Oberon class, the Victoria class, and in submarines of other navies I have toured, is much in the same configuration as on our current class, and indeed it is the same thing with surface warships as well. You'll find the same layout.

[*Translation*]

Mr. Gilles-A. Perron: So then, you say there's nothing unusual or unsafe about using plastic insulating material, when it's a known fact that burning plastic emits toxic fumes that may pose a health hazard. This is normal for the navy.

[*English*]

Capt(N) M.F. Williamson: I am unable to comment on the specific insulating properties of the wires on board the submarine. I know the specifications are generally in accordance with what one finds on board ships.

[*Translation*]

Mr. Gilles-A. Perron: Based on my experience—and as a maritime engineer, you should know this as well—without exception plastic always emits toxic fumes when it burns. Moreover, no plastic material is fireproof. However, some plastic material is fire-resistant, which means that it stops burning when the flames are extinguished. However, all plastic material emits toxic fumes.

[*English*]

Capt(N) M.F. Williamson: Modern submarines are designed with systems to allow the crew to respond to emergencies such as fires; there are systems to protect the crew in incidents such as fires; and the boats are designed to minimize external impact—you talked about mechanical protecting of cables. By and large, that is the system under which the Victoria Class was built, and that's the way the Canadian government will operate it.

These submarines are designed to generally accepted practices among NATO and allied navies, and these submarines are equally as capable and equally as well designed and well built as any operated by our allies. It is the same thing for the electrical system, the propulsion system, and the ballasting system.

[*Translation*]

Mr. Gilles-A. Perron: In that case, why was most of the wiring, except for a few circuits, replaced as part of the Canadianization process?

[*English*]

Capt(N) M.F. Williamson: The Canadianization period was a project designed to change the things that needed to be changed. We had to ensure that the Victoria-class submarine could operate our modern torpedo. We had to change the communications equipment —the radios—to meet Canadian cryptological interface requirements. It was the same thing with the electronic warfare equipment.

With respect to mechanical systems required during Canadianization, we changed those things that were needed to bring the submarines up to a Canadian standard. That included some extra escape stores and some changing of wiring to add domestic 120-volt plugs, but the rest of the systems met our standards and did not require changing.

● (1740)

[*Translation*]

Mr. Gilles-A. Perron: I think you should pay special attention to points 6, 7 and 8 in Mr. O'Keefe's report, because given my better-than-average knowledge of electricity, I would be hard pressed to board a submarine like the HMS Windsor. For example, all of the wires could easily be cut with a knife or hatchet, because they are surface-mounted and accessible to everyone, besides which they are insulated with plastic materials.

[*English*]

Capt(N) M.F. Williamson: All of the systems in a submarine, like all of the systems on a warship, are live at all times, with the exception of weapons. That is to say that any crew member could operate a system or open a valve or flip a switch. That's the way a warship is designed. Systems are exposed so that if there is battle damage you can respond to it directly; if there's a problem you can get to it quickly. In warships we don't hide systems behind panels. We don't necessarily hide systems behind coverings. We have them exposed so that we can operate them and maintain them—so we can use them. That's the way vessels are built, or the way warships are built, and a submarine is no different.

The electrical concerns raised by Mr. O'Keefe were examined by folks far more trained and qualified in this specific area than I am. I work for the assistant deputy minister of materiel. Under his organization there's a director general of maritime equipment program management, and there are experts in electrical wiring and plumbing and piping and systems. They're the folks who evaluate these systems and determine whether or not they've met the specifications.

I turn to them to give me a ruling or a judgment or a recommendation. I don't make those myself. In all of these cases, for systems that require expert opinion we seek expert opinion.

The Chair: Merci, Monsieur Perron.

I'll just recall that Captain Williamson has undertaken to table with the committee an enumerated response, point by point, to Mr. O'Keefe's concerns as expressed in the letter from Monsieur Marin.

Are we through? I think we've concluded.

One final question goes to Mr. Bagnell.

Hon. Larry Bagnell: It is just related to the briefing note Mr. O'Keefe presented. You articulated very well that he said it said “leak”, but it was really a flood. It was neither: it said “ingress”, which could be any amount. That was fine; there was no problem there.

But he suggested—not in the 23 points—that the boat was seconds away from not being able to surface. Was that the same conclusion the navy came to after, as you said, you investigated the situation?

Capt(N) M.F. Williamson: There are two ways for a submarine to get to the surface. One is for it to propel itself, i.e., steer to the surface and drive; the other is to increase the buoyancy of the submarine so that it pops back to the surface. In the case of any flood, there's a well-established emergency operating procedure, in which case you do both of those things: you go full speed towards the surface and you empty the submarine of all weight ballast, through air, to get to the surface.

In the case of the incident Mr. O'Keefe talks about, there was a period of time when the ingress of water knocked out one of the electric motors. The propulsion stopped for a number of seconds, but the ballast was still carrying it, and there was upward momentum to the surface. It reached the surface in less than a minute.

We've taken statements from those who were there, particularly recently. Although there was concern among crew members—any time you get water in a submarine, there is concern—they were also relying on the training they had received and the general robust design of these submarines to get them back to the surface.

I don't want to diminish the emotions that anyone would experience when water comes into a submarine. That would be terrifying to me. We've had many incidents throughout the past 30 or 40 years of operating submarines. In this case, the submarine did return safely to the surface, a technical investigation was undertaken, and problems were found and problems were rectified. Then the boat went back to sea.

Hon. Larry Bagnell: Are you saying it wasn't seconds away from not being able to surface?

Capt(N) M.F. Williamson: No. Our conversations with folks indicate that the submarine was well on its way to the surface and it reached the surface.

Hon. Larry Bagnell: If the water had destroyed a lot of electrical systems, is there still enough electricity, in pumps or something, to empty that ballast—the water in the torpedo tubes and other areas—to get to the surface?

● (1745)

Capt(N) M.F. Williamson: Every situation will be different. By immediately emptying the ballast tanks of water, you would make the submarine positively buoyant and it would head to the surface. In submarine dynamics, you have to have more weight going out than coming in. If the weight of water coming in is more than the weight of water going out, then you're going to have a problem and the submarine is going to sink.

This, in submarining, is called “critical hole size”, and in these submarines it's a particular hole size. Any system that can present a hole in a hull—an opening or a valve that's beyond this critical hole size—is always given a much higher level of scrutiny, and there are emergency operating procedures that are instituted around any of these openings that have critical hole size, such as a torpedo tube.

Hon. Larry Bagnell: I know, but my question was just whether there is enough electricity to force the—

Capt(N) M.F. Williamson: Well, I'm coming to that.

The buoyancy will always overcome the effect of not being able to propel. To get to the surface, you rely on them both. It's called “belts and braces”. You have backup upon backup. The buoyancy alone, as long as the water coming in is less than the water going out, will get you to the surface, regardless of the electrical state of the submarine.

Hon. Larry Bagnell: So you can get the water out without electricity?

Capt(N) M.F. Williamson: Obviously, if you're neutrally buoyant, or the submarine is slightly heavy because of a flood, you will want to have—the other side of the coin—the electrical propulsion to get you there. You want to get there by any means: propel yourself to the surface or go positively buoyant. In this case, the submarine was both—positively buoyant and propelling to the surface—with the exception of the brief gap when it lost the power.

This wasn't a case where the submarine was too heavy to get to the surface and could only propel, or vice versa. This submarine, in this instance, was going to the surface.

The Chair: Okay. Thank you very much.

Captain Williamson, thank you very much for joining us. I know it's not the easiest type of situation for you to be in, following some of the testimony of the earlier witness, who's obviously had some difficult experiences and has raised some important points. We appreciate your being here sharing your expertise with us. We look forward to the tabling that you've indicated will be forthcoming. Thank you very much for joining us today.

Committee members, given that we're over our time, I think we'll leave the matter of the letter until Wednesday's meeting. I'll just recall for you, we're going to be having a regrouping meeting, if you will. We're going to review with the researchers the testimony we've had to date. They're going to indicate a few options we may want to consider about how we proceed now for the rest of this study.

I think we're going to want to have that meeting in camera, given its nature. That will be Wednesday.

Thank you very much. The meeting is adjourned.

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