Ottawa Light Rail Commission

James O'Shea
on Thursday, April 28, 2022

77 King Street West, Suite 2020
Toronto, Ontario M5K 1A1

neesonsreporting.com | 416.413.7755

OTTAWA LIGHT RAIL COMMISSION

ALSTOM TRANSPORT CANADA - JAMES O'SHEA

APRIL 28, 2022

--- Held via Zoom Videoconferencing, with all participants attending remotely, on the 28th day of April, 2022, 1:04 p.m. to 3:51 p.m.

COMMISSION COUNSEL:

Christine Mainville, Co-Lead Counsel Member

Fraser Harland, Litigation Counsel Member

PARTICIPANT:

James O'Shea, Alstom Transport Canada Inc.

ALSO PRESENT:

Judith Caputo, Stenographer/Transcriptionist

Benjamin Bilgen, Virtual Technician

INDEX OF EXHIBITS

NUMBER/DESCRIPTION PAGE NO.

(None).

* * The following is a list of documents undertaken to be produced or other items to be followed up * *

INDEX OF UNDERTAKINGS

The documents to be produced are noted by U/T and appear on the following pages: (None).

-- Upon commencing at 1:04 p.m.

JAMES O'SHEA: AFFIRMED.

CHRISTINE MAINVILLE: Mr. O'Shea, the purpose of today's interview is to obtain your evidence under oath or solemn declaration for use of the Commission's Public Hearings.

This will be a collaborative interview, such that my co-counsel Mr. Fraser Harland is here, may intervene to ask certain questions.

If time permits -- well, normally I would say your counsel will ask follow-up questions at the end of the interview. As we've discussed, you're not represented here today.

This interview is being transcribed, and the Commission intends to enter the transcript into evidence at the Commission's Public Hearings, either at the hearings or by way of procedural order before the hearing is commenced.

The transcript will be posted to the Commission's public website, along with any corrections made to it after it is entered into evidence.

The transcript, along with any corrections later made to it, will be shared with

the Commission's participants and their counsel on a confidential basis before being entered into evidence.

You will be given an opportunity to review your transcript and correct any typos or other errors before the transcript is shared with the participants or entered into evidence. Any non-typographical corrections made will be appended to the transcript.

Pursuant to Section 33 (6) of the Public Inquiries ATC 2009: A witness at an inquiry shall be deemed to have objected to answer any question asked of him or her upon the ground that his or her answer may tend to incriminate the witness, or may tend to establish his or her liability to civil proceedings at the instance of the Crown or of any person, and no answer given by a witness at an inquiry shall be used or be receivable in evidence against him or her in any trial or other proceedings against him or her thereafter taking place, other than a prosecution for perjury, in giving such evidence.

As required by Section 33 (7) of the ATC, you are advised that you have the right to object to answer any question under Section 5 of

the Canada Evidence ATC.

Okay?

JAMES O'SHEA: Okay.

CHRISTINE MAINVILLE:: Mr. O'Shea, can you tell us first what your involvement was in Stage 1 of Ottawa's LRT project.

JAMES O'SHEA: When you say "Stage 1", you're referring to the construction portion, is that correct?

CHRISTINE MAINVILLE: I'm referring to the Confederation Line, so Stage 2 being the extension that's currently planned and underway.

So basically the first phase of this Confederation Line. But not just the construction, the entire...

JAMES O'SHEA: My involvement began, it was like September, I want to say September 19, 2016, was my initial -- like, my first day at work there.

And so my -- I was hired because of my previous experience of other rail projects driving the test vehicle, or a production vehicle that was assigned to be the test vehicle for the duration of the commissioning test for the vehicle acceptance and other subsystems that interface with the

vehicle. And so that was my job, primarily. That's what I was told.

Other projects, we were given -- like they didn't pigeonhole you into "You're the driver". There was a whole other work as required. But on this particular project I was supposed to be the driver of the train, myself and the another fellow -- I won't mention his name -- were hired in that position.

In the beginning, there was really no driving because the schedule had slipped and they weren't ready to start the vehicle testing. And so in the beginning there was a lot of sitting around waiting for the vehicle to be ready for testing.

So typically on other projects, you do the yard area, and then you move to the main line to do testing. So I want to remember correctly here, I want to say it was later on, probably I'm thinking November'ish, we were available finally to get out to the main line.

So they had one portion of test track available to us. And that was from Blair station to Cyrville -- or no. Eventually Cyrville, and then eventually St. Laurent station.

So a little bit later we tested from

St. Laurent to Blair station, and we used one train -- I believe it was Train 2 that was our assigned test vehicle.

We had assigned test engineers from Alstom and they had a schedule of tests to perform, plus they had a schedule of vehicle enhancements to approve. You know what I'm saying?

So the vehicle goes on the track, there's a whole host of tests, but there was also enhancements they had to approve or research for implementation on the vehicle, because the train needed -- like in the transit industry, the trains are never perfect when you go to the track.

There's always research, engineering research, they do to figure out we need to adjust this, we need to change that, this works, that doesn't work, you know, prior to revenue service.

That's what the T&C testing was all about, and that's where my involvement came in.

I drove the vehicle under the instructions of the test engineers. They'd say you need to do this, you need to do that; and that's what I did.

CHRISTINE MAINVILLE: Let's just pause and back up a bit. Who were you hired by, which

company?

JAMES O'SHEA: I was hired directly by Alstom.

CHRISTINE MAINVILLE: Alstom, okay. So you're hired by Alstom in September 2016, as a driver.

JAMES O'SHEA: Yeah, test driver, say.

CHRISTINE MAINVILLE: As what, sorry?

JAMES O'SHEA: Let's say a test driver.

CHRISTINE MAINVILLE: Test driver.

JAMES O'SHEA: Okay.

CHRISTINE MAINVILLE: You mentioned you had prior experience with this. Can you talk about that?

JAMES O'SHEA: Yes, I can. This goes back a while here, but let's say in -- I'm just trying to get my dates in my mind here. Time flies here.

In 1979, I went to work for UTDC at the test track in Kingston, Ontario. They developed the driverless train technology there, i.e., the first project was Scarborough and the second project was Vancouver.

So I was involved in driving the test vehicles around the track, in Kingston, on the oval

there, for the test engineers to test all the different subsystems they were experimenting with at that time.

I was also involved as a technician in shop to help carry out vehicle retrofits and preventative maintenance on these vehicles.

So I used that as a stepping stone when they sold the system to Vancouver. I went to work in Vancouver for ten years. I did a bit of test driving there in the beginning until they got their own operations people up to speed, then they took over that.

But in the beginning in Vancouver I was a test -- I did the testing, helped out with the vehicle testing and eventually became a vehicle technician, and then I became a vehicle supervisor for ten years.

I left there in, what year was that? I left there in '94. And in '94 I took a brief stint with BC transit in the Kingston plant overseeing -- they purchased 20 vehicles I was a customer's representative on that production facility.

And from being there, I was given an opportunity by, at that time it was UTDC/Bombardier had just taken over, to go to Turkey and work on

the Ankara Light Rail Project as a test driver.

So I was a test driver for, like, two years in Turkey on that project. Then I came back to North America. I guess I came back in '98 then I took a job at Kingston at Bombardier at the O and M department, where I would be working on maintenance documents; you know what I'm saying?

That type of stuff. Maintenance support documents, rule books, workshop equipment specifications, and as required, I would go to site and help out on site and when I went to site, I found myself times again in the seat of the vehicle driving.

I went to Malaysia, and I went to Jacksonville, Florida. I went to New York Airport Mover, to name a few projects. That was my other experience prior to coming to the Ottawa project.

CHRISTINE MAINVILLE: And when you say O&M at Bombardier, I take it you mean operations and maintenance?

JAMES O'SHEA: Yes, in Kingston they had a group called total transit. They had about seven different departments. One of them was O&M and that is where I worked.

CHRISTINE MAINVILLE: And so I take it

from your answer that you had previous experience with light rail trains?

JAMES O'SHEA: That's right. And I guess one of the key factors they hired me at Alstom was because they stressed they were wanting to know if I was capable of driving the train at high speed. And for them, high speed was like 100-plus K, okay?

Because most, say, for example, the streetcar doesn't really go faster than 80 kilometers per hour. They were going to up the speed here because they needed that higher speed, I guess, to be able to increase their ridership on the extent of the system; you know what I'm saying?

That was stressed to me during the -- (indiscernible)

CHRISTINE MAINVILLE: Sorry?

JAMES O'SHEA: The high speed was stressed to me during my interview, okay, with Alstom.

CHRISTINE MAINVILLE: Oh, it was stressed to you, okay.

JAMES O'SHEA: They asked me several times that question. "Can you drive the train fast?"

CHRISTINE MAINVILLE: Is that something that most drivers wouldn't do?

JAMES O'SHEA: When you say "most drivers", I think -- I don't think any driver would have an issue with it. Like, when you're in the situation, you feel unsafe, you're not going to do it. Because you know you're dealing with a lot of -- a huge potential for catastrophe.

So I don't think there's a lot of drivers who would refuse to do it, because typically, I don't want to beat around the bush here. If you're chosen to be a test driver or drive the test vehicles you know what you're getting into.

You normally get chosen because you maybe have a higher skill set than someone who's been hired to be a revenue service driver.

A revenue service would never probably put themselves in the test seat because they're taught or trained to observe all the rules.

When you're doing T&C, sometimes the rules aren't broken, but the envelope to go past -- you know what I'm saying? To safely go past the rule is there. It's a requirement of the job. Does that make sense, what I said?

CHRISTINE MAINVILLE: Right. Well, you basically have to test it before you know it's working and the --

JAMES O'SHEA: Yeah, yeah.

CHRISTINE MAINVILLE: -- and the rules abided by.

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: Was the speed unusual, or is it uncommon for an LRT?

JAMES O'SHEA: You know, in the past, the vehicles that I worked on prior to coming here were all designed to go at test speed. So test speed, they tell you to go 100 kilometers an hour, you go 100 kilometers an hour. Because the trains during revenue service will travel at that speed; understand?

So just to use an example here, the SkyTrain in Vancouver, if it's behind schedule, will go as fast as 110 kilometers per hour. During those test periods you may be required to drive to 110 kilometers per hour.

The Ottawa vehicle is -- basically started its life as a streetcar, but became -- was put in this situation of more of a -- what's the word? You know, a higher capacity vehicle; you

know what I'm saying?

So it's a tram, but they decided to increase the speed of it because the engineering, all the people -- designers, people a lot more knowledgeable than I am, decided it could go at these speeds, it was safe to increase the speed from the original design speed.

Some of the testing that we were doing on the track out there was to increase the speed to make it go faster.

CHRISTINE MAINVILLE: Were you ever told anything about the braking implications of the speed profile?

First of all, did you ever have to do testing that required you to meet certain journey times between stations?

JAMES O'SHEA: No.

CHRISTINE MAINVILLE: Okay. And were you ever told anything about the rate at which the trains had to go between stations and the different speed profiles that --

JAMES O'SHEA: No. Because that's more of a revenue service thing. Okay, so when it comes time for, like, trial running, like you're saying trial running, whatever, by that time OC Transpo

drivers were in the seats, so I wasn't really involved in being like, I know what you mean, keeping up the schedule, making sure the schedule is maintained. I wasn't involved in that end of it. I know about it, but I wasn't involved in it.

CHRISTINE MAINVILLE: The driving that you did during testing and commissioning was in the earlier parts of the testing?

JAMES O'SHEA: That's right. It's a prerequisite to going into revenue service. So there's all these subsystems -- propulsion, braking, doors -- all these systems have to be tested to make sure that they're, they are going to meet the contractual requirements of the vehicle. So that's kind of how where I was involved.

So when I say speed test, sometimes we would go up to 80 kilometers an hour and do brake tests to see the braking distances on the train. The safe braking distances, you know what I'm saying? The braking profiles of the train.

So maybe then they would have to -- I use the word tweak or adjust the braking rates on the train to make sure that, hey, this braking rate is the acceptable braking rate.

So there's a fine line there, you don't

want to brake too hard because it makes it uncomfortable and hazardous, but you do want the train to stop in a safe distance.

CHRISTINE MAINVILLE: You say when you first arrived in September 2016 the trains weren't ready to be run. But that you started, am I right, driving in November? Was that of that same year?

JAMES O'SHEA: Yeah, yeah. I'm saying November. As I remember it, it was November. There was a period of time, I want to be careful what I say here, I'm not saying maybe the trains weren't ready but the guideway wasn't ready to accept the trains, the track space.

CHRISTINE MAINVILLE: Okay. Right.

JAMES O'SHEA: So once the track space became ready, then it was like a bit of a challenge then to get the trains through unpowered track through the yard out to the test site. So that was a bit of a challenge.

We had to use a car mover, a car shunt, to get to the test site. Once we got into the test site the car mover or shunter departed and we left the trains out there for days at a time until -- and then to move it back to the shop was a bit of a challenge.

Eventually they did get us power, from, say, from St. Laurent back to the yard. So that made our lives much easier from a testing perspective.

CHRISTINE MAINVILLE: So you said you ran train number two --

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: -- starting around then on the test tracks. Do you know what kind of testing you were doing? Were you ever involved in integration testing?

JAMES O'SHEA: How do you mean like integration? Integration is a very broad term.

CHRISTINE MAINVILLE: Yeah. The SIT testing? SIT, no?

JAMES O'SHEA: There's many acronyms here, so SIT means the long version -- are you referring to, like, the platform...

CHRISTINE MAINVILLE: Yes, effectively verifying, first of all, the integration between the trains and the signalling system.

JAMES O'SHEA: I wasn't so much involved in that testing, but I know about it, yeah.

CHRISTINE MAINVILLE: Because that

would have happened later on, is that...

JAMES O'SHEA: Yeah the main line signalling integration testing, yup. That may have been at the time maybe it was being handed over to OC Transpo to do that work --

CHRISTINE MAINVILLE: Right.

JAMES O'SHEA: -- because, as I remember it, because at that time there was a lot more track space to go to. And I know at that -- in the beginning I was hired to be a driver but then you brought more people on board the system.

And by the time that that kind of testing started to happen, I had been kind of removed from test driving and moved over -- I had been chosen, or I applied to be the vehicle maintenance supervisor.

So they kind of moved me over to into getting -- we were doing a lot of employee interviews, tools required, things like that, tool requirement lists, things like that.

So when that kind of testing rolled around it could have been that some of my other colleagues that I worked with were now in the seat doing those tests.

But I have done those tests in the past

and I could have maybe been involved with them in the yard, but it's all about like switch reservation testing, like the lights, you know what I'm saying? The lighting for the track -- you're talking about the signal lights, the traffic lights there.

CHRISTINE MAINVILLE: So when did you stop driving the -- test driving the trains.

JAMES O'SHEA: I stopped driving in, let's say 2019, I say January 2019.

CHRISTINE MAINVILLE: Okay. So from approximately November 2016 to January 2019 --

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: -- you were doing not maintenance but testing?

JAMES O'SHEA: Say that again, please.

CHRISTINE MAINVILLE: So for over two years, from approximately November 2016 to January 2019, your job is to be involved in the testing and commissioning as a driver?

JAMES O'SHEA: That's right.

CHRISTINE MAINVILLE: And you only moved to maintenance in January 2019?

JAMES O'SHEA: That's right.

CHRISTINE MAINVILLE: Okay. So you

said you didn't do the integration testing, but you knew about it then?

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: What can you tell me about that?

JAMES O'SHEA: I know that the signalling system is made by Thales, right? They were the people who installed -- it's their signals that the lighting system is -- I believe they're the manufacturer of all these light components and the signalling system.

So I have done testing for these guys in the past for other projects, but this is the first project where I encountered the traffic lights, the traffic signals.

And so, you know, the whole thing with these traffic signals is they're normally associated around a group of switches. And they will tell the driver, like, the driver has a certain colored aspect obviously got to stop before the switch. Maybe there's a manoeuvre where a train is coming the other way through the switch, so you have to drive up to these switches.

And the Thales people, normally it's the Thales engineers who perform this, they have

measurements and things they have to -- physical measurements they have to confirm are in the right occasion for stopping points or... and so, and time limits and all that sort of jazz.

On this testing on the project it's called "fouling point". "Fouling point testing" is really what it's called, is what I'm familiar with in the past.

It's all by schedule testing. So a train is coming one direction, a train is coming in another other direction. Maybe the train coming in one direction, the first train there will reserve the switch, understand?

And that will get priority on the switch. So the train coming the other way would have to come to a safe stop.

For most projects they don't use these traffic lights because they don't have drivers. It's basically a driverless system in Ottawa that has drivers on board. So they put these traffic lights on board for the drivers because the driver is ultimately the person who's required to say, oh, something is wrong here, or I feel something is wrong, EB the train. I don't want to get too carried away here.

CHRISTINE MAINVILLE: What do you know about any changes to the original plans for testing and commissioning, or particular types of testing? So were you ever given in the first place, you know, a schedule or anything like that, that ended up changing? Or were you just told to go wherever you needed to be on any given day?

JAMES O'SHEA: That's pretty much it. But you know, again, I worked on a few of these projects. And so the first casualty of these projects is the schedule. All these projects, the first casualty is the schedule.

Maybe one day we're supposed to go do propulsion testing. Maybe the propulsion engineer who's coming from Italy is stuck in an airport, so you have to fill in the gap somewhere else.

Or maybe there's -- I don't want to use the word supply chain issues -- but maybe there's components that they need to put on the train that they don't have, so you have to fill the gap in and use the time available.

So it is kind of -- yes, there is a test schedule and you're supposed to adhere to the test schedule, but it doesn't always work that way due to circumstances beyond everybody's control.

CHRISTINE MAINVILLE: Are you able to speak to whether the testing in this case was compressed or rushed in any way? Do you have any observations about that from where you stood?

JAMES O'SHEA: I didn't see any of the schedule being compressed. I just want to tell you right here. I was the test driver on the system, but I never -- I once made one special trip through the tunnel and that was all I did. I only made one trip through the tunnel.

I'm just saying that because for the testing normally, on other projects, I would have done the whole alignment numerous times, a hundred times, right? So I only made one trip through the tunnel and that was a special trip I made for a tunnel dynamic test at the university there, just as you get to university. As far as university that was it. By that time it got taken out.

So I know that we tested the heck of out the track from Blair to the yard, because that track was available to us all the time. And we actually went past the Blair to where the train station is there, the station. We were going back and forth through there a lot.

Yeah, there was -- I don't want to say

there's a compression of the schedule, but there was pressure I'm sure to do the final section to the train station -- Tremblay on down to Tunney's Pasture, but I wasn't really involved with that. I don't know.

CHRISTINE MAINVILLE: There was no ability to run the full track until quite late in the day. Would you say after you left in January 2019?

JAMES O'SHEA: That's right, yup.

CHRISTINE MAINVILLE: So, based on the system having gone into service operations in the fall of that year, are you saying that at least in past projects, or based on your experience, that would be far less time running on the track than you would normally do?

JAMES O'SHEA: I would say yes. I'll stick my neck out and say yes.

CHRISTINE MAINVILLE: How long typically before going into service would you expect the trains to be running on the full track?

JAMES O'SHEA: I would expect they'll have -- I would suggest to do -- with my past experience on other projects, there would be four months of testing involved there.

CHRISTINE MAINVILLE: Four months of running of testing --

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: -- on the full track?

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: What about how the trains were performing up until January 2019? What kind of issues were you encountering, to the extent that you were making those observations?

JAMES O'SHEA: So during the testing period, I was -- the test engineer who was on the train was there every day pretty much. They would let me do a sweep of the track, but as far as any testing goes he would have to be on train.

So yes, there was technical problems with the trains, but the test engineer there, he was a very, very competent person. He was able to troubleshoot it, do whatever it did to keep the train going for the test period.

But after a period of time, we were required to move trains on our own, as Alstom employees within the yard area into the storage sheds, primarily jockeying them back and forth to the storage sheds to allow movement of trains.

They did do testing in storage sheds and they did move trains back and forth for the production people in the main shop.

At that period of time, we had problems with, like, you know, primarily one of the big issues I remember was a high speed circuit breaker on top of the train had a timing issue. If it was cycled too many times it would shut itself off for potential overheating. So we had a high speed circuit breaker issues. That was one that sticks in my head.

Sometimes we had door issues. Like, the doors -- everything is computerized now, so every system has a computer on it. The system looked perfect mechanically, but somewhere in the control systems there would be an issue, and they would take the safe course and stop working.

As a technician driver there, the way it worked there's quite a hierarchy of who did what. I wasn't really allowed to do anything. I had to get a hold of one of the other warranty guy issues, or maybe one of the test -- what they call the vehicle test technicians and they would have to come and help us get the vehicle moving again.

There was issues there; there were

brakes that sometimes wouldn't release. We had the again, high speed circuit breaker issue. We had some door issues.

And then of course we would put up with a lot more of these anomalies -- I'll use the word anomaly, that's a good word -- as Alstom employees because our focus our interest was to get the trains tested and get them ready for our customer, OC Transpo.

But when OC Transpo, for example, we gave them a vehicle, they would be a little bit more critical of that vehicle. So if they had problems or whatever, as customers, they would say, hey, we're not using this vehicle. And it could be maybe the windshield wiper didn't work properly or could be no windshield wiper fluid or the trains were notoriously cold in the wintertime, so maybe they were cold, but there's -- am I going...

CHRISTINE MAINVILLE: No, that's fine.

You would have been gone from the driving position from this time, but did you have much opportunity to see or observe what was happening during the trial running period?

JAMES O'SHEA: Only from a maintenance perspective. I was the guy in the shop trying to

get trains, healthy trains out to them, so they could have their commitment to complete this acceptance test.

So you know it's like -- it's always a challenge in every project to do this. But this project was the biggest challenge that I experienced.

CHRISTINE MAINVILLE: How so?

JAMES O'SHEA: Just because the trains are problematic. Again, like high speed circuit breakers and doors that cause problems. There was like -- and so in the hierarchy, like I say, the warranty technicians were there to help us keep the trains going.

But, you know, you could have a healthy train in the shop, in the yard, in the shed there, but by the time it got back to the handover platform, I call it, that's where the yard driver or yard hostler, we call them, would hand the vehicle over to Ottawa, at that time the fault could be back. Or the fault could re-occur before it got on the main line and it would be back in the yard, like the yard control just sent back the car. So there was a lot of teething issues with these vehicles.

CHRISTINE MAINVILLE: Did you have a sense of why that was?

JAMES O'SHEA: I just think a lot of the subsystems hadn't been, there's a word people have used on other jobs is called "shakedown". There was no proper shakedown of the vehicles.

So I feel, this is my personal opinion, this is a Citadis vehicle. They had Citadis running in certain cities in transit. I understand it works in Tel Aviv, the same vehicle, because we had some people from Tel Aviv to give us training.

The vehicles they had in these cities was not the same vehicle we had in North America. Although the pictures look all the same, the exterior and everything, a lot of the vendors -- and I assume, I don't know, no one ever told me this -- I was not in a position to look at any contracts. But I believe there's a certain amount of Canadian content involved in the vehicles.

So the subsystems on the vehicles were of North American, primarily, subsystem providers. And the main provider in North America, who seems to have all the bases covered, is a company called "Wabtec".

So the doors may be called something,

but they are made by Wabtec. The coupler may be called something, but it's made by Wabtec. Wabtec is like the mothership company. The brakes are Wabtec, so on and so on.

So what I'm saying is, you take all these components from this vendor and say let's put that component or let's put it on the train. So they put them on the train and they all have to be integrated properly and there all has to be a proper shakedown time to make sure that these subsystems are all going to work like they're supposed to.

CHRISTINE MAINVILLE: What does a shakedown period usually look like?

JAMES O'SHEA: The shakedown period on other projects I've been on is probably you're going to get like a month before the -- at least a month before you get into, like, your trial run. You know, it shouldn't -- like, because of the construction, like I kind of touched on it before, because the construction schedule kind of slipped there, like they didn't get full access to the whole guideway to say, okay, let's send vehicles out.

The trial run period was basically more

of a shakedown period than it was a trial run period.

CHRISTINE MAINVILLE: So you were running, you said, the trains on the test track, or perhaps just the one train?

JAMES O'SHEA: We would run a couple of trains. We had a couple of test trains. Train 2, as I remember it, was the train that it was assigned for the main test vehicle.

But then there might be like -- we might have another train running adjacent to it. Maybe like, for example, if you're doing power distribution tests and the traction control testing, you might want to have two trains running just to test the power systems and things like that.

Maybe, as we say, do the -- once they got into ATC, you'd want a couple of trains running together to do the switch integration test, you know, that type of stuff. Yes, there would be two trains out there and maybe they'd have one train working on the communication testing but the train I was on was doing propulsion testing, depending what test engineer was working on the train for their subsystem.

CHRISTINE MAINVILLE: And so what's the difference -- keep going.

JAMES O'SHEA: That's it.

CHRISTINE MAINVILLE: What's the difference between the test runs that you were doing up until January 2019 and the shakedown period that would be a month before approximately a month before trial running?

Why was it the runs you did and participated in, why isn't that sufficient to shake down the issues?

JAMES O'SHEA: I'm just saying, it wasn't sufficient because the vehicles -- because the vehicles were failing.

So normally you get the shakedown period, then you say, oh, we have a game plan here. What's the game plan? Well, we need more of these, we need more spare parts of this component or spare parts of that component. Or, we need to get the technicians trained up so if this happens this is what we do.

And so you come up with a game plan to get the system going. So when you do get the trial run, at least you can say, okay, maybe you have a guy with a van with some components in it okay, get

it in the tail track at Tunney's and change this out and get it back in service. It can be a big effort but that's what it takes.

CHRISTINE MAINVILLE: Does it have anything to do with the number of trains that are running at the same time? Like, when you're doing shakedown, are you trying to have...

JAMES O'SHEA: You want to get as many out there as possible, for sure. Maybe you just want to -- other systems I work on, if everything goes well, you know, like, the Turkish project was an extremely good project.

You got the trains, like the trains are all -- first of all, all the trains are manufactured, they came on the site and they got put together. They didn't have this, I think a lot of the issues with the trains were that they were manufactured on site.

So you're taking a brand new system, a brand new train. You're hiring a bunch of people who don't even know what a transit vehicle is in their life. You hire them through a hiring agency, you give them some minimal training and next thing you know they're out on the shop floor manufacturing trains.

So it's not like the trains, for example, that I worked on at Turkey. They came from Thunder Bay, where you have a plant where you have some guys working in there 20 years doing this particular job.

So they know their job inside out. They know how to put together a vehicle properly, and so by the time it gets to the site it's completed. You just bolt it together.

They have a little shakedown track up in Thunder Bay. The train is put on the track, it shakes down, the engineers do a little pre-ship test and say, okay, this vehicle is ready to go. Then it gets disassembled and it gets sent to site.

So they didn't have this luxury in Ottawa. The vehicle just got put together there, and the production line and the shops. Okay, we've got to get this train out of there, we've got to produce, we've got to keep our manufacturing going because we have to have all these trains manufactured by a certain date.

So I think that was a big part of the issue here, is that they didn't have a proper workshop to work on the vehicles once they were manufactured. Do you understand what I'm saying?

So I'm getting carried away here. So their solution was, when Phase 2 -- they announced Phase 2, they said we have Phase 2 now, we have to build 35 more vehicles. So that took the opportunity away from the maintenance, the O&M group to have a proper shop.

So they went and built another secondary maintenance shop that was like hard to access, it didn't have all the proper floor space to work on the vehicles.

And still, I think -- I think that the fact they didn't have the big shop there really made it difficult to get the vehicles properly maintained or address the issues that we were experiencing in the yard there. Does that make sense?

CHRISTINE MAINVILLE: Yes. And I want to talk to you more in a second about the maintenance facility and the challenges there.

But in terms of vehicle manufacturing, I take it you had the opportunity to observe the MSF where the Stage 1 vehicles were manufactured.

JAMES O'SHEA: Correct, yup.

CHRISTINE MAINVILLE: And so your observations about the -- would you say suboptimal

nature of that facility are...

JAMES O'SHEA: It was a maintenance shop, so the thing is, in manufacturing of train cars, this is what I kind of learned working in Kingston there, I don't want to keep talking about Bombardier, but they learned the hard way too. Everyone seems to learn the hard way in this business.

So in Kingston they have a assembly line production. They built the Vancouver cars and a bunch of other cars that way. And Bombardier came along and said, no, that's not a good idea.

Because in this business now they talk about -- what do you call it -- delivery chain issues. There's always been delivery chain issues in the transit business. So they went to a stall building. In a stall building it allows you to do a cushion versus assembly line.

I don't know how they got paid in Ottawa, but other places I've worked you got milestone payments. So that means train five has to be at station 8 at this date to meet the milestone so that the manufacturer gets a cheque from the customer.

So in the assembly line, lots of times

the trains are in station 8, but they're just in station 8, but there's no record of what the completion is. It's just, oh, we've got it in station 8, now we get a cheque.

When you stall build, the train has to be in a certain stall. The inspectors came in and say, show me that this is done, show me that this is done, show me that this is done.

And in this particular case, the train just got pushed through, and then we had to put them in the storage shed, and then we had to move them back and forth. Sometimes I don't know how many times the trains went back and forth from the shed to the maintenance facility.

In fact, they had what they call a Railquip car shunter. It was a battery-powered machine. The intention of the design was basically move a train out of the shop so that -- that's another issue you have in maintenance shops is moving the trains in and out you need electricity to move them under traction power.

Sometimes when you're on unpowered track, there's no way to get them out so you need a method.

So they have what we call a Railquip --

in this case, the brand name, Railquip car shunter. Battery powered, remote control vehicle. It was a neat little vehicle, but it was used out of its design envelope, to push trains back and forth between the shed and the barn. And so the first one on the job site, they wore it out, it had gone back and forth so many times.

So that's my observation in production. They never had a vehicle that rolled off of the assembly line complete. And also the vehicles -- but not only that, there's other pits.

There were test pits they used to test the vehicles is where you want to get your vehicles in to do proper -- if you have problems to work on them.

So you can put power on, test the vehicle. It doesn't work, you take the power off you change the component; you know what I'm saying? Go back and forth, get the vehicle repaired, get it out.

So those pits were occupied by the manufacturing team to complete the final test assembly of the vehicles. So as an O&M group, we were never given the opportunity to get into their main shop and start doing our job properly.

Same as the wash facility, the wash facility. Every time they did a modification or an assembly process on the train, compromised environmental skin, say, for example, that had to go into the wash bay and be tested.

I don't know how to explain it, but the manufacturing group seemed to prioritize the shop space and the main shop. And it impacted, ultimately, the O&M's team's ability to do their job properly.

CHRISTINE MAINVILLE: What is the wash facility?

JAMES O'SHEA: It's called the cleaning and wash facility. So the wash facility is the facility that has a car wash in it, and has the sander, sand pumps in there. Sand pumps are for the traction. It has like a windshield washer station, filling station. It has a couple of pressure washer stations.

Typically what happens in most facilities where I've worked in the past, they call it a cleaning facility. So at nighttime -- when they go into revenue service they had to clean the trains, they had to do a heavy cleaning, I want to say every seven days, say, and they had to do a

light cleaning every day.

So you don't want a train going back out to carry passengers that has trash on the inside. The train would come in at the end of revenue service supposed to go in through the cleaning facility. The cleaning technicians get in there, clean it up, maybe there's lipstick on a seat or something, they do a light cleaning, make sure the train looks nice and then it goes from there.

Maybe the train needs sand in the traction; they do a level check. Oh, it needs sand, put sand in it. Get the traction sand ready to go. Oh, it needs windshield fluid; they put that in it.

Then it goes from there goes in the cleaning facility, the wash facility, then from there it goes into the storage yard.

CHRISTINE MAINVILLE: This is at MSF1; is that correct?

JAMES O'SHEA: Yes, that's correct.

CHRISTINE MAINVILLE: Then you talked about for the Stage 2 vehicles. Did the manufacturing of those vehicles take place at MSF1?

JAMES O'SHEA: Some of them did. Now I

know at that time, they said, okay, Alstom is going to build their manufacturing facility in Toronto. By the time I left there, they were still building Stage 2 vehicles in the building there.

But I think there's a limit on it, I'm not sure how many. I want to say 5 or 7 like that were being built there as a stopgap measure until they got the facility in Toronto completed.

CHRISTINE MAINVILLE: But you mentioned a second facility that was then used for operations and maintenance?

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: Where was that?

JAMES O'SHEA: That was built adjacent to the storage facility. It was like -- I call it the stopgap measure building there, and so it was a building that had a third of the floor capacity than the main shop.

And so they moved over -- so they made it as a temporary facility to give the manufacturing team space to finish their production.

Because not only were they building -- I say they would build a vehicle, they would leave the manufacturing facility but maybe would come

back 4 or 5 times back into that facility to get work done.

It wasn't like the vehicle just rolled out. Even though the production run was over, they were still bringing vehicles back into have further enhancements, let's say, performed, or even maybe parts or components were missing when they moved to put them together the first time and it never got put on. But that's what was going on.

CHRISTINE MAINVILLE: So that is adjacent to MSF1, correct?

JAMES O'SHEA: So there's MSF1, which is the maintenance facility. Then just adjacent to it was a storage track, the storage shed. And adjacent between the storage shed and the VIA Rail track, they built another facility.

And that track had like one test, one powered test track. It had a lathe pit and it had a flat track, a jacking track. That was like a stopgap. This is your shop for revenue service now, you know.

CHRISTINE MAINVILLE: So that was ready for revenue service in 2019?

JAMES O'SHEA: Yes.

CHRISTINE MAINVILLE: And how long

before revenue service; do you recall?

JAMES O'SHEA: It would have been, I'm thinking it would have been ready by, let's say -- when was revenue service started? It would have been ready for at least, I'd say, six months before revenue service.

CHRISTINE MAINVILLE: Okay. So in light of that, was there not --

How was the maintenance team's ability to prepare for revenue service from the perspective of the facility for now? So you had this facility before. You were able to prepare using this additional space for maintenance purposes?

JAMES O'SHEA: Yeah, and I would say, because -- this is what drove me out the door. It was difficult. I think it was an impossible task. And that's basically what I realized, was in 1984, when I worked at Vancouver SkyTrain, it was the same type of, all the pitfalls that existed there in 1984, I guess I saw them all over again happening here.

But in Vancouver, it was like five years before they straightened everything out. And then still ongoing process. There's always issues to deal with. But just to get it, like, reliable

components.

And so for the fact is, they increased their spare parts inventory to get around this until they get rid of all the components.

But I saw the same thing happen here. And I could see that they were not, like, you know, -- we just didn't have like the spare part components to change out on the vehicles. So we were constantly doing resets.

Like, you can only reset components so many times. Then I felt this extreme pressure from all the groups above me. I felt like they were looking at me, I was responsible because I couldn't get an amount of trains out the door.

But I think they sadly underestimated the amount of staff they needed. Underestimated the resources, like the maintenance resources that they needed, and they underestimated the spare parts that they were going to need.

CHRISTINE MAINVILLE: When you say "they", do you mean Alstom?

JAMES O'SHEA: Alstom, yeah.

CHRISTINE MAINVILLE: So you thought you were underresourced for the maintenance piece?

JAMES O'SHEA: Definitely, yeah.

CHRISTINE MAINVILLE: And you didn't have sufficient spare parts to make -- to do regular maintenance and repairs?

JAMES O'SHEA: That's right, yup.

CHRISTINE MAINVILLE: Okay. And do you know why that was? Why there were issues with the spares?

JAMES O'SHEA: I think it was because they used statistics from other projects that said, oh, this is a Citadis vehicle, this is what works in other projects. This is what's going to work here.

That's what I believed. But I have no proof of that. That's just what I feel.

CHRISTINE MAINVILLE: Why would it not be what would work here?

JAMES O'SHEA: As I kind of explained a little earlier, the vendor they used on other components in say, Tel Aviv or Paris where these other Citadis vehicles are working are different vendors that are on this project.

So lots of times the components these vendors made are the first time they've ever built these components, right?

CHRISTINE MAINVILLE: So it's new, they

had to recalculate or reassess what it would be needed and you think it was miscalculated?

JAMES O'SHEA: That's right, yeah.

And also, too, I'm not going to pick on Alstom. They treated me good. Although I wasn't happy, I left there, I was very stressed out. I don't want to get into personalities. That's not what this is about.

The thing is Alstom is a big brother company. Everything they do is computerized. So you know, the technicians, for example, they all carry iPads so everything they do is on an iPad.

Alstom is big on collecting data. They told us in the beginning that they needed this data so that they can analyze what was going on in the project.

So I'm reading into that, that they didn't really know how reliable -- they didn't know how reliable, good or bad, how the system was going to work.

And so in the beginning we had problems with our communication of these iPads, like the whole maintenance program is on the iPad and the guys weren't getting the data into the iPads. They said we're in the new shop, we couldn't get

communication from the new shop back to the main shop where the antennas were. So that was a challenge right there, in the beginning.

So I'm just saying, moving from the main shop over to the satellite shop, until they were losing all this data so started getting, I don't want to use the word "beat up", but they started telling us, hey, we need this data because we need to see where our reliability slope is going, you know.

CHRISTINE MAINVILLE: And there were challenges obtaining this data?

JAMES O'SHEA: There was challenges not obtaining it, but reporting it in the beginning.

It took a while to get like -- for us to get the system working. They used SAP, you know, SAP the world famous system. And then OC Transpo had -- or RTG, they had their own system and the two systems didn't talk to each other.

So it was a real challenge there. Like, can you imagine? I don't know whether they thought of this or didn't think of this. But the two companies' maintenance systems didn't even talk to each other.

CHRISTINE MAINVILLE: You mean RTM and

Alstom, you mean?

JAMES O'SHEA: Let's say -- I say RTG. RTG and Ottawa's system, they communicated to each other. But the Alstom system was a stand-alone system. It didn't communicate with -- so, for example, at the control centre, at OC Transpo the main line control centre there was an online fault of some sort on the train, it didn't automatically come into Alstom's maintenance system and say, oh, train 22 has this fault, blah, blah, blah.

No. You had to go constantly monitor the system. I forget the name of it, it's another acronym.

CHRISTINE MAINVILLE: Is it IMIRS?

JAMES O'SHEA: Yes, IMIRS system. And Alstom SAPs didn't talk to each other. We had to go into IMIRS system, find the fault on the IMIRS system and close the fault on the IMIRS system.

First I had to get the technician go on to his iPad there and raise the fault, close the fault. Then I'd have to go into the IMIRS system, get on the IMIRS system, close that fault there on the IMIRS system, and I think I had -- there was some sort of link there with a number of a work order, whatever, close that.

Then, when that got closed then, by the time I'm doing this. The train sitting in the storage shed it's rolling around the track to get to the handover and I'm trying to get this paperwork closed off.

Because the driver got on board from OC Transpo and the paperwork wasn't closed, the train didn't move until it did. You know, what I'm saying? That was the challenge there.

CHRISTINE MAINVILLE: How much ability was there to prepare ahead of revenue service in this regard? So how the systems worked?

Can you walk me through what was done ahead of revenue service to prepare?

JAMES O'SHEA: Well, at nighttime at the end of the shift -- well, the trains come out in the lots. So like any system, there's trains, we call them "dogs". They're always causing you problems.

But anyways, you had to bring the trains out based upon the requirement for their inspections, so an inspection is based upon how many kilometers they travel. So you're looking right away, okay, first reduction, you want this train period it's due for -- let's say a 50 K

inspection.

So you want that train out at the beginning of the shift because again you're planning your shift schedules with your employees. Oh, we have eight technicians getting on at 8 o'clock. We need three of them to do a 50 K inspection on this train.

You want that train sitting there when the technician comes into the lunchroom. Joe and Bill go work on that train there and do that inspection.

If everything is working properly, there's plenty of time. That train comes in at first reduction, which is after afternoon peak, let's say like 7 o'clock in the evening. The guys are on ten-hour shifts; the union wants them on ten-hour shifts.

They had plenty of time to get the -- might take two guys three hours to do that inspection. You might have four of those inspections before the next day's service.

And the other vehicles would have light inspections. The guys would go through them and make sure everything was, you know, I hope I'm not rambling here but everything is done by kilometers

traveled.

But to complicate that you get what you call dog trains, trains that just have problematic issues all the time. Maybe it's a door issue. Maybe it has a compromised wire in the system somewhere giving faults and nobody can figure it out. These can go on weeks at a time for certain trains.

So these are trains, say, for example, the control centre down in OC Transpo says that's train 24, those bloody doors again. I'm not giving them this train that needs a 50K inspection, because it's working too good right now.

You give them that train 22, because we want to get it out of here. It's not doing anything but causing us problems. You understand what I'm saying? That's what you have to do.

As long as your trains are reliable, you have plenty of time to get trains prepared for revenue service the next day. But again, if the trains are having all these other teething issues, you can never get to that stage.

Does that make sense what I'm saying?

CHRISTINE MAINVILLE: Yes. But I take it you mean for service any given day, could you

talk to when operations started at the very beginning? So September 2019, when the trains started to run for the first time and service the public?

JAMES O'SHEA: I think the trains worked pretty good, not pretty good, I'm not saying they worked pretty good. Compared to my experience on other projects, the trains are not quite perfect, but not quite as reliable as maybe other projects I worked on. But they were not too far off at that time. They were pretty good.

But I think as we started getting into revenue service, it started to degrade. Okay? And I think it was because the new components that be were on the train were getting, you know, they're getting cycled. They're getting used.

And then they they're developing what I call, pardon the expression, "infantile mortality". In other words, some components will last five years; other components fail, after two weeks they fail. Some components like they fail as they go along because they get used, you know.

CHRISTINE MAINVILLE: Was there a sufficient ability to do preventative maintenance from your perspective?

JAMES O'SHEA: I'm going to say no.

I'm going to say, no, because the satellite shop there, just didn't have that -- the technicians and me as the supervisor and my fellow supervisors, we just didn't have that ability.

And plus, once we got going there, then again, the manufacturing group seemed to be like the golden haired boys at Alstom. They came over and started occupying one of our tracks because they needed to do some sort of bogie retrofit there.

That was about the time I left because I just had to say to myself, this is a no-win situation here, you know.

CHRISTINE MAINVILLE: Right. The priority was not given to maintenance. It was the retrofits and the manufacturing?

JAMES O'SHEA: Manufacturing seemed to be calling the shots; that's what I observed.

CHRISTINE MAINVILLE: And would that -- would the ability to do more preventative maintenance have prevented some of these issues you identified with the components failing and these infant mortality issues?

JAMES O'SHEA: I believe so, yes. I

believe that had we had a proper shop, with the realistic amount of -- I don't want to use the word manpower -- people power there, I think we could have did it. It could have been done.

Again, I'm looking back at Vancouver in 1986 there. It went into service two weeks early, in December '85, and by summer of '86, Expo '86 there, there was big problems with the trains.

But you know what? They came up with the ante'd up the cash and hired probably, I'm guessing, 15 extra employees, temporary employees help to come in with the maintenance.

Because they again, I've seen the same issues there, they have there. Plus they had spare part issues, also. But this helped to get the trains in. To get them measured on availability, right, and particularly in Ottawa they get penalized for availability.

And back in the day in Vancouver they didn't get penalized for availability because the Province owned the system; they couldn't penalize themselves. But they worked hard, because nobody wants a failure, to make it work, and I don't know that with all the different players on this system --

Like the City of Ottawa, or OC Transpo, they're like sort of removed. I didn't see much involvement from these guys other than OC Transpo was operating the trains and operating the one control centre, the main line control centre.

So it was up to RTG and OC Transpo to work together to solve these issues. I think that's where it started to fall apart there.

CHRISTINE MAINVILLE: Okay. I just want to follow up on a couple of points.

Given that you had the second facility by revenue service, so the expansion, the facility adjacent to the storage facility, why is it that that was not sufficient for maintenance? Are you saying that the manufacturing also encroached on that second facility?

JAMES O'SHEA: They did.

CHRISTINE MAINVILLE: Okay. And were given priority also in that --

JAMES O'SHEA: I wouldn't say they were given priority. We still had to make revenue service. Say, for example, in that auxiliary track we had one power track. So you need the power track to do -- when you do an inspection you need the power track because there's certain part of the

inspection that is powered down. And there's a certain part of the inspection that's completed with the power on, okay?

And so you need that track to do that. But we had one track. So the design for the system included two powered tracks. And all of a sudden now, you don't need two power tracks; you only need one.

So it was very hard to -- you're just zooming the trains in and out. Plus, then they brought in another car shunter. We needed the car shunter to shunt the vehicle out of the track, because there was unpowered portion of the track.

Anyhow, we needed the two shunting vehicles but the shunting vehicles were preoccupied doing wash tests or water tests for the manufacturing; or they were busy moving other positioning vehicles.

So every day we had a train move list, right. The train move list was to accommodate people. So we had a group of employees, i.e., maintenance employees moving vehicles around for the production group. So we lost resources there.

CHRISTINE MAINVILLE: All right.

JAMES O'SHEA: I don't want to get too

carried away here, there's a lot of things I don't know about what happened.

For example, this is a driverless system. So the train is supposed to be stored in the storage yard, perfectly healthy train is in the storage yard.

If you want to move it to the maintenance shop or wanted to move it to the handover position it's supposed to be done in the control room with by someone with a keyboard. They do the magic command, the train moves magically out to the transition spot or it moves to the maintenance spot.

In actual fact, the two run through powered test pits were to be ATC trains moving driverlessly into the shop there, which is great. It's fantastic. But at some point along the way, because of the announcement of Phase 2, they lost the ability to move the trains under ATC control from the maintenance facility from the storage facility.

And I don't know why this happened, but it had something to do with the train control system. People felt that it was now vulnerable to be switches moving in the wrong direction or

something. For whatever reason, I don't know, they took that ability to move trains driverless from the storage facility away from us.

And we, Alstom, my group maintenance decided to go -- they were asked to by RTG if they would be willing to hire employees to drive the trains manually.

What happened that driving the trains manual morphed now into these guys upgrading the shunting vehicles. So it was a very difficult train movement situation. You know what I'm saying?

CHRISTINE MAINVILLE: Yeah, because the yard was not automated.

JAMES O'SHEA: The yard was no longer automated. So what happened is the task scope creep. Our scope creep.

So in the beginning we're supposed to do this job, the next thing this job morphed into this job. A job probably five times than what we expected it to be. And as a supervisor I was the guy -- and my other, there were 2 or 3 other supervisors, we had to deal with this. We had to manage these guys. So it was a full-time job just managing the trains going back and forth.

CHRISTINE MAINVILLE: And did the -- sorry. Did the staffing situation increase at all over time, or improve?

JAMES O'SHEA: No, no. Well, maybe it did after I left there, I don't think they would have had a choice.

But they were increasing the staff somewhat. Again, I was hired initially, I did a lot of interviews with my manager. And I want to say we use the word "director" under his -- and so we were attempting to go and hire the best people we could hire as technicians.

And in the public we advertised around, we interviewed people from other transit agencies. We interviewed people from within the shop, the Alstom shop. But we didn't necessarily go higher.

There is there's an expectation by the Alstom employees in the shop they were going to be given jobs when it came time for revenue service. But a lot of these guys in the shop who had these expectations didn't have the technical expertise to do the job. Okay?

But what happened was, eventually, once there was seemed to be like my director there, who I guess he saw the handwriting on the wall there.

I think he tried to keep the -- to give -- what's the word here? To persuade or to demonstrate to the Alstom upper managers at Alstom North America, that, hey, we've got issues here. But they didn't really want to hear them.

Eventually what happened was, he went off about six months stress leave and eventually he went back to France. And so that particular time I was really heartbroken because I knew that I could see that he was the guy that we needed there to forward our cause there.

And after he left, it seemed like manufacturing was now kind of moving to be in charge of the situation.

So, to get to the point of my story. At that time the hiring of technicians to go into the shop in the period when manufacturing was influencing some of the employees to get hired from the maintenance, the production shop into the O&M group.

And I don't think that some of these guys were bringing the best skill set with them. Does that make sense?

CHRISTINE MAINVILLE: Yes. And who was your supervisor?

JAMES O'SHEA: Who was my supervisor?

CHRISTINE MAINVILLE: Yes. Who left?

JAMES O'SHEA: Oh that was -- his last name was Houssin, Alban Houssin. Now, Houssin sounds Middle Eastern, but he's not. He's a French guy.

CHRISTINE MAINVILLE: Who else did you report to?

JAMES O'SHEA: I reported to a guy by the name of -- my immediate manager was -- I should know it like the back of my hand; he was a good guy I liked him. He was a really good guy.

You know, we were in the same camp. We had the same idea how things were going there, but fortunately for me, I could retire and he couldn't. So he was stuck there. I'm just looking on my phone here so I can get his name here.

His last name is Hossein. His first name, I can't remember.

CHRISTINE MAINVILLE: That's fine. So those were your main counterparts at Alstom?

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: And then did you work with Richard France at all?

JAMES O'SHEA: Richard France?

CHRISTINE MAINVILLE: Yes.

JAMES O'SHEA: Yes, I did, yeah.

CHRISTINE MAINVILLE: So was he a superior?

JAMES O'SHEA: He replaced Alban.

CHRISTINE MAINVILLE: Okay, got it so you had the opportunity to work with him for a little while?

JAMES O'SHEA: He was my boss, yeah, yeah.

CHRISTINE MAINVILLE: And then what about RTM? I think you said you referred to them as RTG. But the people in charge of, also in charge of maintenance.

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: Who were your counterparts there, or did you have much interaction?

JAMES O'SHEA: I didn't really have a counterpart. You probably know this but the guy who seemed to be the guy in charge there was Tom Pate? Did you know Tom?

CHRISTINE MAINVILLE: I know the name.

JAMES O'SHEA: Unfortunately, I found out Tom passed away here about five weeks ago, a

month ago. But Tom was like the guy for RTM. Actually he's an old Bombardier employee from Toronto from the bi-levels. He came to Ottawa years ago to work on the first OC train and ended up there, you say, for RTM.

So he was like kind of like, he wasn't the guy in charge, because Tom was there, Tom was like a manager. So say he had a director. Tom's director changed about 3 or 4 times since I was there. It seemed to be a big turnover position.

But Tom was sort of the steady Eddie guy there. Tom was the guy in charge of the -- he was supposed to be in charge of the maintenance. Guys like the fixed facility maintenance. And he was in charge of the operations people, and the control room.

CHRISTINE MAINVILLE: Right. So you knew about this division of responsibilities as between Alstom and RTM?

JAMES O'SHEA: That's right, yup.

CHRISTINE MAINVILLE: But you didn't interface much with them?

JAMES O'SHEA: I had to, yes, I did because again, some of the issues we were having there, I talked about the cleaning facility there.

So the cleaning facility has fixed facility -- has machinery in there that is used by Alstom, but it was supposed to be maintained by RTM.

And I feel that we had issues with getting RTM guys to fix it. Because just the -- it just didn't get done.

And so lots of times as Alstom we were in there poking our fingers in the stuff; if we didn't do it, it wouldn't work. So the car wash is problematic. Sometimes it had problems and we had to get cars washed. We're supposed to wash cars every day.

But if you pick the phone up and call RTM for help, there was nobody available. Or they said, oh, you guys can look at it. You know what I'm saying? It didn't seem to be -- I don't know what the contract said who was to fix what. All I know is RTM was supposed to be there to help us fix it and it didn't happen. We were in there poking our fingers in to, say, get the car washed.

We had a 2,000-litre, don't quote me here, either 200 litre or 2,000 litre but it was a large tank that held windshield washer fluid to top up the windshield washer; you pull the hose from

the wall open the cap up and fill up the windshield washer tank.

But you couldn't, nobody knew where to buy windshield washer fluid in bulk. We had to handbomb in 45 gallon drums of windshield washer fluid and pump it by hand into pails and pour it in. A job that should have taken one minute, it ends up taking ten minutes. Things like that.

The sand pumps, they didn't work properly, they weren't placed in the proper position. If you want to get sand in the train, you have to put sand in one side, take the train out, do a loop, and bring it back in so the train is facing the other side and fill it.

So all these little scenarios impacted your ability to get train service ready for revenue service. You know what I'm saying?

CHRISTINE MAINVILLE: When you say "revenue service" do you mean --

JAMES O'SHEA: When I say --

CHRISTINE MAINVILLE: Is that in 2019, or do you mean for service every day?

JAMES O'SHEA: Service every day.

CHRISTINE MAINVILLE: Okay, that's what I thought.

And correct me if I'm wrong, but I think you suggested that there didn't seem to be any appetite for staffing you guys up at the higher levels of Alstom?

JAMES O'SHEA: I don't know. That was my feeling. I don't know what their feelings were up there.

CHRISTINE MAINVILLE: Okay. But it didn't happen?

JAMES O'SHEA: See, part of my stress level there, too, was that every weekend we tried -- it was unionized, I'm not saying good, bad or otherwise. I'm saying it was unionized.

Part of the union requests in the beginning because it was a lovey-dovey situation there in the beginning was -- I'm sure it is it still is now. The thing was because the bus guys work ten-hour shifts, they wanted Alstom to accommodate ten-hour shifts for their guys. I was the guy put in charge of creating the schedule.

I'm going to tell you, ten-hour shift and Alstom put roadblocks in the way, too, like they wanted you -- the employees had to work 40 hours a week. So with a ten-hour shift in a 40-hour pay period it's impossible; you can't do

it.

You have to say he worked 44 hours this we can and he worked 36 hours that week. But I couldn't do that. It was like, you know, a roadblock in my way. So I created this really crazy schedule that accommodated everybody.

But they also wanted us to accommodate the people for all weekends to try to get them as much weekends off as you can. But that's impossible. We tried to accommodate them, but that's impossible.

Every weekend I'd be on the phone. I'd be told we need overtime this weekend. Every weekend I'm telling guys to come in and work over time. This is how we accommodated the shortage of staff.

This was okay in the beginning but every weekend so it goes by seniority. The top seniority guys never wanted to work. The one guy had a wedding he had to go through every weekend, or a funeral every other weekend.

So I ended up calling the bottom 4 guys I'd have to go through the schedule and say these 3 guys are off. I'd call up and say I need you to come and work this weekend. Well, I can't -- one

guy had like -- custody issues with his kid, he had to take his kid.

According to the contract, you can force the junior guys. I am forcing these guys to come to work all the time.

CHRISTINE MAINVILLE: Can I ask you, though, was part of the issue that you couldn't find enough staff? Couldn't find enough qualified people to take on the job? Or you didn't have the opportunity really to interview to staff up more than you were?

JAMES O'SHEA: It was the latter there.

CHRISTINE MAINVILLE: Okay. It's not like you couldn't find people?

JAMES O'SHEA: In the beginning, I did interviews. But at some point in time when the new regime came in, I was taken off interviews. And they said, no, you don't do interviews anymore.

So because I know from other places when you're in a union environment; I created a sort of -- you know a questionnaire. You sit down, ask employees all the same questions. You do a score at the end and say, oh, look. This guy got 80 and this guy got 60. That type of thing.

After a while, again, I felt there's

pressure, whatever -- not pressure, but it seemed like the golden haired boys were the manufacturing guys.

All of a sudden, forget the interviews. We're just taking these guys here and get those guys in there. That started to happen at the end when I was leaving there.

When you're the supervisor you need a guy who is capable, you have to train, you need a guy who is capable to make it go. If the guy is only capable maybe working on inspections and checking outboxes -- anyway, I'm just venting now that's all.

CHRISTINE MAINVILLE: It's not like you had positions to fill that you couldn't fill; you didn't have those positions?

JAMES O'SHEA: Yeah, I didn't have the authority to do that.

CHRISTINE MAINVILLE: Okay. We usually take a break let's just go off record for a minute.

-- OFF THE RECORD DISCUSSION --

-- RECESS TAKEN AT 2:32 --

-- UPON RESUMING AT 2:45 --

CHRISTINE MAINVILLE: You spoke a little bit, Mr. O'Shea, about penalties and

deductions. Did that have anything to do with -- just so I'm clear -- with what was prioritized as it related to maintenance, as opposed to retrofits and other work that needed to be done to make vehicles available?

JAMES O'SHEA: Not that I know of. I mean, in my position it was just get the vehicles out. As far as the relationship between that, no. Not that I know of. I can't answer that.

CHRISTINE MAINVILLE: Okay. I just want to know if you had an opportunity to understand whether the people who worked on the train manufacturing, for Alstom, whether they had similar concerns than you did about the maintenance facility, or the MSF, for train assembly and train production?

So you know you gave us your perspective on the suitability of the MSF for that work and I wonder whether you had any understanding of whether that was shared by the people actually manufacturing the trains and the engineers?

JAMES O'SHEA: I'm going to say that there was a culture of keep your mouth shut, don't complain about anything. And so there was like -- in my opinion.

They had Randstad Employment Agency there. So if you seemed to be a little bit of a loose mouth there in that regard, you would find yourself down the road.

I'm just saying like, I'm sure those guys maybe had those thoughts, but they didn't voice them to me.

CHRISTINE MAINVILLE: Okay. And how did Alstom, the Alstom manufacturing side of things coordinate with the Alstom maintenance side of things? How did that interface work?

JAMES O'SHEA: I'm sure they had their meetings with whoever the plant manager there, or production manager, or his representatives and say, we need these trains in, we need these trains out. So that would go to basically on-shift. They had a designated move coordinator, okay.

So then he would -- that would then get sent to our group -- they started having, which was good, daily meetings and they'd have a train move sheet. We need these trains in we need those trains out.

Sometimes there would be ten trains to move in and out sometimes it was three it was a coordinated in that regard. We started doing so

much we started getting a little better at communicating it because there was some issues along the way, you have to appreciate.

So then we'd have to get trains in and out. Sometimes that didn't happen for several reasons. So our guys would go have the train list and say, oh, the train is ready at this time. They might go there at 2:30 in the morning. They should be ready, and they weren't ready because the guys would still be working on it. And they'd have to wait, things like that.

Also before we'd move the train, we'd have to get a clearance, the guy, the train move, the guy responsible would have to sign off and say "This train is ready to be moved". Then we'd move it.

Because in the past we'd move a train and maybe there would be a piece of equipment that wasn't closed up properly and something would get damaged, the fingers would start pointing back and forth saying whose fault it was. So that's how it worked.

CHRISTINE MAINVILLE: Would you say the two groups operated kind of as different entities? Or was it --

JAMES O'SHEA: I don't know what it was like on the upper ladder. But I think at my level, my communications with the guy the train coordinator, we tried to work together as a team.

I think we both had our jobs to do; we both had our priorities. At the end of the day we kind of respected each other and tried to help each other out. I don't know what it was like higher up the ladder, I wasn't, you know --

CHRISTINE MAINVILLE: At your level there was a flow of information in terms of if you needed to share information, that was -- there were no obstacles to that.

JAMES O'SHEA: For example, manufacturing was in charge of warranty. So during revenue, or during that run up there, warranty had their group of technicians who in a pinch. The train wasn't working properly; they were the ones to go there and do the troubleshooting.

So I was responsible to pick up the phone there and call them and say, hey, Joe -- even though he didn't report to me, he reported to some manager on the production side. I'd be picking up the phone calling him and saying, hey, let's go.

But they were responsible to make the

schedule for whatever employee in that test group was working on at a particular time slot. I just looked at the slot and said, oh, tonight it's Joe. Oh, Joe, I need you to go here. But they had their own schedule too.

CHRISTINE MAINVILLE: What about Thales? Would you ever need to communicate with Thales directly if there were issues related to the signalling system, for instance?

JAMES O'SHEA: No. No. Thales maybe -- you see, the signalling system -- don't forget, there's part of the signalling systems on the train.

So, yes, maybe if there was an issue with the signalling system on the train, I would pick -- I might be responsible for picking the phone up and getting hold of the Thales technician.

Or that may be warranty's responsibility for getting hold of the Thales technician because technically Thales reports to the warranty guys. You know that's the flow of command.

CHRISTINE MAINVILLE: So is that the same for OLRT-C or who you may perhaps see as RTG in materials of -- let's say there were issues with

the infrastructure that neither Alstom or Thales built in terms of the warranty?

JAMES O'SHEA: Well if it was RTG, no that would be our responsibility to get a hold of RTM, to look after any equipment stuff. We wouldn't be going to the warranty guys there.

CHRISTINE MAINVILLE: RTM would deal with it, okay?

JAMES O'SHEA: RTM, well, yes.

CHRISTINE MAINVILLE: And what about OC Transpo as the operator? What's that interface like?

JAMES O'SHEA: That was mostly one way. So they're our customer and so the trains would roll to the handover position, the driver would get on board. The driver thought the vehicle was dirty, or the driver thought there was some issues with the train that he didn't like. Again, one of the big issues was the trains can be cold.

Or the trains, maybe the radio didn't work and he could say, hey, I'm not taking this train and walk away. That was the extent was, you know, that was about it.

CHRISTINE MAINVILLE: And what about when there were incidents, failures or events, how

would that...

JAMES O'SHEA: I never really had to deal with that. I didn't have to really deal with anything past the transition or the handover platform. Anything on the OC Transpo side was -- they kind of dealt with. Or it would have been dealt with warranty guys at that point who reported to their person, you know.

But I, you know, it was kind of a grey area there with the warranty guys. But it was just like -- it was normal failure activities I'd be involved.

But if it was something very peculiar like maybe the train's doors open up where they shouldn't open up, then that would be warranty people dealing with Thales or whoever, the technician whatever to go deal with that problem. That was sort of a special event.

CHRISTINE MAINVILLE: Even in terms of immediate troubleshooting? Like you wouldn't attend --

JAMES O'SHEA: First of all, if I'm a supervisor on duty, and those doors opened up somewhere other than a platform, I would just say -- I wouldn't go near it. I wouldn't touch

anything because you could affect the investigative investigation. So typically a train like that would get put somewhere and put a tape around it and quarantine that train because it's a very serious thing of that nature. That's just an example, you know.

CHRISTINE MAINVILLE: Okay. What about, did you encounter issues with the switches?

JAMES O'SHEA: I never had issues with the switches. But during T&C, I wouldn't call them "issues" I would call them just dealing with the switches.

In the beginning it was still a T&C zone, so I know a bit about these switches because I was involved from way back when, back in my test days with the same switch.

It's a hydraulic switch, it takes a little bit of a skill set to understand how they open, how they lock and unlock, okay?

It's a hydraulic switch, and they use them because they're faster than your normal switch. When you're doing ATC movements, every second counts sort of thing on a driverless system. I'm saying "driverless".

So during the construction phase, the

switches didn't work. We used to have to hand crank them. So typically they're supposed to be in the control room. Push the buttons and make the switches work. But that link wasn't connected yet.

So during T&C we had to hand crank them. I don't believe a switch ever worked from the control room the whole time I was there. But I believe the controls would have had to be performed from the OC Transpo control room.

So we had the yard control, duplication of services there. OC Transpo has the main line control room. RTM had the yard. So the yard switches control were controlled by them and the main line was controlled by OC Transpo. So I don't ever remember OC Transpo moving main line switches when I was there.

What would happen is, we would hand crank them all the time. So you hand crank them, and if they don't lock, so what you do is, you take a mechanical device and you lock them.

So as long as that switch was in that -- sometimes you'd have to move the train across, get it across, go unlock the switches. Crank them back and locked them in the safe position.

But that was a cumbersome job, but

that's what T&C was all about. You asked about my T&C duties? A lot of that was out there hand cranking switches, too. That was part of my duties as a train test driver.

CHRISTINE MAINVILLE: Just for the benefit of the transcript, T&C meaning "testing and commissioning"?

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: So you didn't encounter issues with the switches during or after revenue service? That means after September 2019 when the trains are in service.

JAMES O'SHEA: I didn't have much exposure to them after that.

CHRISTINE MAINVILLE: Did you encounter any challenges with coordinating incident responses as between the various teams that perhaps had to respond?

JAMES O'SHEA: No there was never any issue. Like if I had an issue I would go to the construction guys, like they had their T&C group or their T&C coordinators. If there was an issue I just called the T&C coordinator and those guys would bend over backwards to come and investigate. That's their job.

Everybody was very safety conscious, you know. I'm not saying anybody there was unsafe at all. But the thing is, if there was a safety issue during T&C, I'd call the T&C coordinator. They'd be there in a flash to see what was going on.

CHRISTINE MAINVILLE: Not during testing and commissioning but during service operations?

JAMES O'SHEA: I want to -- I don't remember any issues. Only issue I can remember during T&C I commented earlier if there was a door open, other than off the platform.

So I was on that night, so basically I said I did what I did. I had them -- we brought the train back to the maintenance facility, we put -- first thing I did was call the guy the first manager I got a hold of, said this is what the issue is. I quarantined it and no one was on board that train.

That was one example. All of the safety people were notified of that. When it got into revenue service it was now an OC Transpo safety issue and RTG issue and a Alstom safety issue, and all three of those safety officers would

be involved in the investigation.

CHRISTINE MAINVILLE: Okay. Did the people at Alstom maintenance so with you have all the information it needed to do its work?

JAMES O'SHEA: We had what we needed to know. To say, for example, the in-depth knowledge of the vehicles was given to the warranty team. So there was like let's say ten technicians on the warranty team.

What we needed was, as supervisor, I couldn't ask one of my technicians to go and fix -- like go into laptop level and start looking at the diagnostics. We couldn't do that at our level, in most cases. Maybe a few cases, but not in most cases.

So I was dependent on the warranty technicians to go to that level.

CHRISTINE MAINVILLE: So you never required information, for instance, from OC Transpo that you couldn't access?

JAMES O'SHEA: No. Because I wasn't at that level. Like I never had any direct involvement with OC Transpo. That was over my head.

CHRISTINE MAINVILLE: And what about

when operations started in the fall of 2019? In terms of preparedness and the plans you needed, and the information you needed about the system, was everything in place? Or was it -- were there pieces missing, information you needed that you didn't have?

JAMES O'SHEA: I believe everything was in place at that time that we felt we needed.

CHRISTINE MAINVILLE: Okay.

JAMES O'SHEA: Okay?

CHRISTINE MAINVILLE: And can you tell me a bit more about the preparation for operations? So in the late summer, leading into revenue service in September 2019, what is being done at Alstom maintenance from a training perspective, and planning?

JAMES O'SHEA: Well we had the training people come in -- like there was different sub-equipment vendors, for example, the wheel lathe vendor, the jacking system vendor, the hydraulic support equipment vendors, they came in and did training. There was training by the vehicle overview guys, like, you know, our guys would go into training and they would get like an overview training.

But the idea was, it was a line replaceable unit type train. If there was a brake issue, you change out the whole brake thing, you know.

And it could be maybe we had a train that always had a brake issue they'd make a decision rather than us guys fix it, because it's no good for revenue service, get it taken over to the other shop and have the production guys change it; that kind of thing.

But I think we, in general, we knew what we needed -- we had adequate training before we got into service, you know. I just think that our big issue was not having the part resources. And maybe the number of adequately trained technicians, you know.

CHRISTINE MAINVILLE: Right. And were you adequately told, did you think, what to expect in terms of, you know, once everything went into service, did you have an expectation, or a realistic expectation you think looking back, at what would be needed to be fully prepared?

JAMES O'SHEA: I think it was my own expectations based upon what I saw on other projects. I think a lot of the people on this

project had rose colored glasses on. I think they felt that, hey, it's going to work. Yeah they built the trains, okay, next Saturday we're going to start carrying passengers, turn the key, let's go.

To me it's like a very complicated beast, this thing, and I know from other projects, it just doesn't work that way. So I could see the amount of spare parts we had; it was not adequate. Maybe we had enough of these components, but there wasn't enough -- I don't think experience or data to show what components are going to be needed or not, you know.

They needed -- they almost needed a warranty technician on every vehicle with a laptop there so if there was an issue they can quickly be there to get the train mobile again, but that wasn't there. It didn't exist.

CHRISTINE MAINVILLE: And I'm understanding that you knew from your own experience that there would be, you know, pressures on maintenance, that you expected that it wouldn't necessarily be a smooth run, right?

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: But were you ever

told that from, you know, your superiors? Was it --

JAMES O'SHEA: No, no.

CHRISTINE MAINVILLE: -- was it ever, "Be ready, there's going to be a lot of challenges"?

JAMES O'SHEA: No.

CHRISTINE MAINVILLE: And so would you say ultimately that you guys were not fully ready for revenue service availability?

JAMES O'SHEA: Yes, we weren't ready.

CHRISTINE MAINVILLE: Do you know if RTM was ready, or you wouldn't be able to speak to that?

JAMES O'SHEA: I can't really speak to that. I know that they had, they seemed to have employee turnover problems there so...

CHRISTINE MAINVILLE: Was there ever any understanding or discussion about the fact that Alstom wouldn't get prepared until a certain point in time for maintenance activities because of when their contractual obligations kicked in?

Like was there ever any indication to you that, you know, we're not going to start getting ready in respect of X, Y, or Z, because

under the contract, our work doesn't start until the RSA date or anything like that?

JAMES O'SHEA: I would say, yes. That was like, I believe, the demise of Alban. Because Alban was saying -- Alban didn't -- they wanted Alban to leave. He never told me this but I believe they wanted Alban to start taking more ownership of the vehicles for their worthiness, you know, what I'm saying? Road worthiness.

But he was reluctant to do that and he dragged his feet because I think he felt that he couldn't -- that they weren't ready. So Alban wanted the vehicle that was ready for revenue service.

And so during the T&C we were identifying problems. And so I know that Alban was having, he said he was starting a little hit list of things that we encountered along the way that he was using to say, hey, we'll take control over the vehicle -- I'm just assuming this -- when these issues are resolved.

But like I said, he left the project. So I know after Alban left, then they brought in some more manager types to say, okay, let's go. We've got to start doing this. We've got to start,

you know, maintaining these vehicles.

CHRISTINE MAINVILLE: So you're saying -- your impression was that it was at his level, he was what, project manager?

JAMES O'SHEA: Alban was like, I want to say he was going to be the director, O&M maintenance director, okay?

CHRISTINE MAINVILLE: Okay.

JAMES O'SHEA: I knew the word "director". He was hired in advance. He could've been vice-president, they have these different terms, I'm not sure what his term was.

But Alban was in charge of the O&M Ottawa site there. So he had wayside manager, he had a vehicle manager, then they all had supervisors and so on and so on.

In the beginning that was the hierarchy tree, the but then once they started running into problems and started parachuting these other so-called knowledgeable people on the project, or people of higher authority on to the project to be there, to go to meetings, I guess, I don't know.

CHRISTINE MAINVILLE: You're saying, your impression was at his level, he didn't want to do certain things in terms of maintenance on the

trains because he didn't think they were ready?

JAMES O'SHEA: Not that they were ready. Well, not to be ready, but they had issues; you know what I'm saying?

Like, for example, the track brakes. I was driving, they iced up, it wouldn't work, the track brakes. So I identified it to him.

I said, oh, Alban, by the way, this is what I observed. He said, yes, we have to identify that on our punchlist.

Things like that, he was reluctant -- he didn't want to inherit issues that he didn't create, I guess that's the word.

CHRISTINE MAINVILLE: And is this prior to service operations beginning?

JAMES O'SHEA: Oh, yes, yes. This would be -- I'm trying to think when he left there, I think it was summertime that the guy there, the top -- one of the top fellow there, he came from France and he met with I think the Mayor at the time so he had a meeting with us all.

So that's when Alban left. I'm not sure what was said, or what happened. After he came to visit, Alban was gone.

And I think there was -- I believe that

the construction group, or the RTG construction group, maybe that side of the group were complaining of, the people had direct involvement with the vehicles, like the testing and commissioning group, their managers and stuff were unhappy with Alban because they wanted Alban to take on more responsibility.

They felt that he should have taken on more responsibility. And so I think there was overall unhappiness with Alban on the job site. But I think Alban had grounds not to. Because he knew it was going to be difficult to have a reliable vehicle when it came time -- at that time Alban started seeing the handwriting on the wall.

CHRISTINE MAINVILLE: And you don't know whether that was reported up from Alban upwards? Whether those concerns were elevated within Alstom or beyond?

JAMES O'SHEA: I'm sure within Alstom. But I think it caused Alban his position or maybe Alban chose to say, hey, count me out.

CHRISTINE MAINVILLE: Right. Do you recall issues with the City or people working for the City putting in a lot of work orders and that creating challenges for Alstom maintenance?

JAMES O'SHEA: Not when I was there.

CHRISTINE MAINVILLE: Even during the trial running?

JAMES O'SHEA: When you say the City of Ottawa or OC Transpo?

CHRISTINE MAINVILLE: Either.

JAMES O'SHEA: Again, OC Transpo has their IMIRS system so that was their work order system. So, yes, they were fully in control of that system. They could put in any kind of, there's bubble gum on that seat or whatever.

The cab is cold, whatever. They had carte blanche to write whatever work order they wanted to write.

Sometimes a lot of the work orders were fictitious work orders or duplicates, but you had to deal with them. It was a bit of a frustration.

CHRISTINE MAINVILLE: What do you mean by fictitious?

JAMES O'SHEA: Well, it could mean that it was like something they thought was a fault, but it wasn't a fault.

CHRISTINE MAINVILLE: Were there issues with how they labelled or ranked the issue in terms of a safety issue?

JAMES O'SHEA: I think that was clearly defined. There were certain faults, they were reported, they were considered like, I want to say a show stopper. In other words I couldn't send a vehicle out with this fault on it, it had to be attended to before the vehicle could go.

It could be like maybe -- like there's a passenger doors for example. It could be that -- I can't remember what the number is, but you could have only -- let's say worst case scenario, two passengers doors isolated on the train. If you have three doors isolated, the train couldn't go to service.

So in a situation like that we had to get at least 1 or 2 doors working. You can let the train go out with one door but it would go to service and you might see a ticket come up. Look, door number two, it's out of service, but there might already be a ticket on that door, that type of thing.

You know there were certain faults that had to be -- the train had to be cleaned or it wouldn't be accepted. What it was is, because RTM's control centre had visibility on the reporting system, they could say, look it's still

got this system here. We're not sending it.

Because if they send it and OC Transpo would just send it back.

CHRISTINE MAINVILLE: Do you recall some issues with work orders being put in in respect of nuisance alarms?

JAMES O'SHEA: Yeah. I can't -- yes, there was nuisance alarms, and I can't really remember what they were. Sometimes they were created by the passengers, too. But I'm trying to think. I can't think of any -- I know there was nuisance alarms, but I just can't think of any off the top of my head here.

CHRISTINE MAINVILLE: So early on in terms of either trial running or very early into revenue service availability, do you recall whether any of these issues created some backlog in the system?

JAMES O'SHEA: Oh yeah. There was a lot of work orders created every day. That was a big part of my job, like a big time-consuming part of my job. I was reluctant or slow to getting on to the system. Basically I tell you I was overwhelmed there.

I had about ten different duties I had

to do. But I had to go into there -- log on to their system and go through this and constantly be clearing it. Because there would be, sometimes like, you know, there was hundreds of outstanding -- of work orders or reports that came out of the Ottawa control centre there.

And I'm not saying they were all justified. A lot of them were maybe, like I say, duplicates, there might be like five reports for the same thing, you know.

It wasn't always the case but that was the case sometimes.

CHRISTINE MAINVILLE: And did that issue subside at any --

JAMES O'SHEA: Not when I left, it was still there.

CHRISTINE MAINVILLE: Did you feel unwarranted work orders were being placed, was that really what the crux of it was?

JAMES O'SHEA: Yeah, yeah. If that is what you want to say, yeah.

CHRISTINE MAINVILLE: Well, I don't want to say anything.

JAMES O'SHEA: Okay, okay. The way you phrased it is correct, yes.

CHRISTINE MAINVILLE: Okay. Would you say that there was a lack of a sense of urgency on the part of Alstom maintenance in terms of the work that had to be done?

JAMES O'SHEA: Absolutely not. I mean everybody felt the urgency. That was felt there for sure.

CHRISTINE MAINVILLE: In terms of responding to incidents or issues or just maintenance generally?

JAMES O'SHEA: Maybe that was perception, but in my case, I would say, no. It could be that I just didn't have resources to put on it, you know.

CHRISTINE MAINVILLE: Yeah.

JAMES O'SHEA: So you had to say, oh it's revenue service. We need two more vehicles, so you send the vehicle.

I got in trouble a couple of times because I sent out vehicles that had alarms that it wasn't supposed to go to service because of those alarms. Or I heard about it.

CHRISTINE MAINVILLE: Do you know whether you had a good sense of when the revenues were going into operation leading up to it?

JAMES O'SHEA: I'm not sure what you mean.

CHRISTINE MAINVILLE: Did you know the date for service operations to begin? Like how far --

JAMES O'SHEA: Oh, yeah.

CHRISTINE MAINVILLE: -- how far in advance?

JAMES O'SHEA: They had to pass their trial run. So they're having difficulty to pass their trial run, so the date kept getting shifted and shifted based upon that. We all knew when trial run was completed it would go directly into service.

CHRISTINE MAINVILLE: Okay.

JAMES O'SHEA: I'm just thinking about a nuisance alarm. For example you might get a train, it was called in, I think I remember one that said there was urine on the floor or something like that.

So it would get shipped back to the shed. By the time it gets to the shed there the cleaner goes out to clean it he can't find it because it's dried up, or it was actually pop dropped on the floor. That might be an example of

a nuisance trip there.

But even so, if there was a nuisance trip. Say for example, if there was more than spilled pop on the floor you're supposed to be able to barricade the train and isolate the car and keep it in service. Something like that shouldn't have came out in the first place, you know, that kind of thing.

CHRISTINE MAINVILLE: Do you have any information about why there were fewer cars, vehicles made available for revenue service than originally planned?

JAMES O'SHEA: I don't. But I can only assume it was spare parts.

CHRISTINE MAINVILLE: Okay. In terms of the trains going down from 15 to 13; do you have a recollection of that?

JAMES O'SHEA: I was gone by that time, but I know winter probably had something to do with it too. Like I can't say -- again, like Ottawa has a very severe winter. This is just my opinion, but I don't think that this was the best suited car for winter application, you know. That is my opinion.

CHRISTINE MAINVILLE: And which part of the car makes it less suitable from your

perspective?

JAMES O'SHEA: I think it was prone to like -- when I was there, I observed like the brakes, the track brakes icing up. So a track brake is a safety system. So they would ice up and they wouldn't apply. So in the emergency braking situation, the train overspeeds, the computer says, you're going too fast, it EBs, the track brakes come down, they would ice up.

When we were there, before the driver moved the train out of the shed, he'd have to do a walk around check. And one of them was just check the track brakes to make sure they were free. In the wintertime, they would ice up.

Also the outboard hydraulic brake would ice up. Because it sits on the outside, it's under the skirt there and the ice would pack in there. Sometimes they'd come in, they'd just be packed with ice, you know.

The only way to get the ice off of it was to move them in a warm environment, let them warm up and let the ice come off. If you can leave them in the tunnel overnight or something but I don't know what the ultimate solution is there. So I think things like that.

Plus, I don't know, I wasn't there when they went down to 13, but I can tell you it was predictable because I believe a lot of it was spare parts issues.

CHRISTINE MAINVILLE: You mentioned EBs when talking about the ice on the track. Are you saying the situation led to greater application of the emergency brake?

JAMES O'SHEA: No. It's just that if -- at anytime the train is in a place where it's not supposed to be, it EBs. Or thinks it's going to be in a place it's not supposed to be, it EBs.

For example, you have a train that has a -- its propulsions systems have failed, so you have a motor that's out, so you lose a bit of your braking, your electrical braking there of the train now more stress is put on the hydraulic brake system.

Maybe you're coming down the hill, maybe you've got a bunch of passengers on there. Maybe the sanders aren't working properly on the train that gives the track the braking effort. All of a sudden it starts to move in a situation where it thinks, hey, you're not stopping in time here, it's time to EB, so all the brakes come on. And

the track brakes come down and it stops the train as quick as possible.

So what I'm saying is that these track brakes sometimes were icing up. So it's a winter condition. I think when these, as I remember, I just know what I saw on the news there, when they started having reduced inventory availability I think it was in the wintertime, right? When it really showed its ugly head.

So I believe the failure of these components or whatever components they were, or systems were related to snow and ice, cold weather.

CHRISTINE MAINVILLE: Do you know what kind of winter testing was done in -- on the tracks in real winter conditions?

JAMES O'SHEA: It's telling me my battery is low here. Just a second.

(Brief pause in the proceedings).

CHRISTINE MAINVILLE: We can go off record.

-- OFF THE RECORD DISCUSSION --

JAMES O'SHEA: There was really no way of testing. They sent one vehicle to the national research laboratory for a static deep freeze test, that's about the only real, if you want to say

winter testing, that I know of.

CHRISTINE MAINVILLE: Did you have the opportunity to drive the trains in the winter?

JAMES O'SHEA: Yes.

CHRISTINE MAINVILLE: But you wouldn't call that a -- they weren't tests focused on winter conditions; is that my understanding?

JAMES O'SHEA: As far as -- no, no.

The trains, we drove them in the snow there, sometimes when the snow got too deep. We weren't supposed to drive them through ex-amount of snow, say, whatever say four inches, because they said there was a risk of derailment.

If there was more than snow of four inches on the tracks we had to go out there somehow and get the snow off the track there. That was part of the issue too, really. They didn't really have a clear method to remove the snow off the track.

So they had a machine they bought, it's called a regulator. This came under RTM there, it didn't really work properly, because no one like -- you had to be out of the loop down the train at a rapid rate of speed that you can clear the snow in a timely manner. So this machine couldn't do that

and it didn't really move the snow so well.

That was a downfall, too. No one thought about how to get the snow off the track in Ottawa.

CHRISTINE MAINVILLE: Were you involved in some of the issues with the switch heaters?

JAMES O'SHEA: I knew about the switch heaters. I brought it to people's attention, but that was kind -- I don't want to sound like an expert here, but there was no real method to report any of this stuff.

So other projects where I used to work, they had what they call an "observation ticket". Anybody in the organization can write an observation ticket when they saw something that wasn't right.

There was no system in this project for that. So if I saw something, I could tell somebody in the hallway, I could write somebody an e-mail; that was the end of it. There was no formal process.

CHRISTINE MAINVILLE: You can tell someone where?

JAMES O'SHEA: In the hallway. "Oh, by the way, these switch heaters are no good", which I

did. And I brought it to people's attention because they had forced air heaters.

In Vancouver they have -- in the wintertime, not that they really get winter up there but when the switch heaters are working you can spit on them and they would sizzle.

On these ones here, they have like air blowing out of some electric heater. There would be snow in the switches and we'd complain about it. Well, those guys had so many issues, they just didn't want to hear about it; as far as they were concerned.

Then they had yard switches, which were natural gas fired switches. They had all these natural gas fired switches in the yard, which to me is like -- anyways...

CHRISTINE MAINVILLE: When you say "These guys didn't want to hear about it", who are you referencing?

JAMES O'SHEA: I'm referencing like our first line of contact was with the consortium, T&C group and the T&C test guys.

CHRISTINE MAINVILLE: Testing and commissioning, okay?

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: Within Alstom or RTM?

JAMES O'SHEA: No, RTG.

CHRISTINE MAINVILLE: RTG. Okay.

So when you say if there was a system for observation tickets, at what level would that be? It would not only be for at, for instance, in a project like this one. But also --

JAMES O'SHEA: It would be project light. Because again everything here, everything is done computerized. No one picks up a pen and writes anything anymore. The observation would be what system you'd put switch there.

Again, I'm talking about projects where there's like say two groups. There would be like, you know, I don't want to keep mentioning their names, but Bombardier and SNC-Lavalin they were -- they work together on a project. They're the two groups.

So the observation ticket would get written and go to the appropriate quality assurance group and then get sorted from there. On this project there were so many different groups involved, you know.

CHRISTINE MAINVILLE: Not enough

coordination between all of them?

JAMES O'SHEA: That's my observation. Don't know if that's true or not.

Again, there was no system to report things that you were -- and it could be that, again, it could be like again the word is erroneous or fictitious. I might think something is wrong, but it's not wrong. But at least you have the ability to write that document.

CHRISTINE MAINVILLE: And just so I'm clear on your observations with respect to the switch heaters, what did you believe was not working? Were they just not working properly?

JAMES O'SHEA: They weren't adequate enough. They didn't put enough heat out. You have these big long switches, the main line switches they're blowing warm air down the switch. You get a really cold day with the snow blowing; they just couldn't keep up.

CHRISTINE MAINVILLE: Are you able to say whether any of the issues that you may have observed on the system could have had to do or be linked to integration issues between the signalling system and the trains?

JAMES O'SHEA: I don't know that. I

can't say that. But, you know, the thing with the switches, getting back to the switches here. It is a fail-safe system.

So if the switch -- snow packs in between the switch, the switch doesn't close. So then the switch goes disturbed. Then the signal light on the side of the track should say -- it has a certain colour aspect, that's there.

First of all the train is running under ATC control, the ATC system should stop the train on its own. So to me, the only reason for the yellow aspect there is for the -- in case they want to drive the train to end.

So to me even though, yes, the switches had snow issues, but it's a fail-safe system in most cases.

CHRISTINE MAINVILLE: During the trial running phase, am I right that the goal is to reproduce or recreate the real conditions of revenue service?

JAMES O'SHEA: It's supposed to demonstrate reliability. You're demonstrating reliability is what you're doing, really.

CHRISTINE MAINVILLE: Okay. And do you know whether one aspect on of that was maintenance?

JAMES O'SHEA: Yes, it was. Yes, it was. Because, you know, they had a third party watch group there, ex-Long Island railway guys. They were there looking at documents and checking to see that maintenance was done, yup.

CHRISTINE MAINVILLE: Were you involved in that at all as part of the maintenance team?

JAMES O'SHEA: To the degree if one of them said, hey, I saw this. Or, I observed that, you know, that's the extent of it.

CHRISTINE MAINVILLE: Okay. Do you know how maintenance performed during trial running?

JAMES O'SHEA: No, I don't. I was never -- I don't think it was perfect, that's for sure.

CHRISTINE MAINVILLE: You don't think it was, you said?

JAMES O'SHEA: No.

CHRISTINE MAINVILLE: You don't know whether it was a --

JAMES O'SHEA: I was never shown the graphs, you know. This is how you perform there, this is how you didn't perform.

CHRISTINE MAINVILLE: You talked about

or you briefly mentioned earlier how trains never perform when they first go on the track. Do you have experience in particular with new systems, new trains, new tracks, like in this case, and what's required in those circumstances to effectively de bug the system?

JAMES O'SHEA: Lots of engineering and vendor support, you know. The vendors are typically on the job there, you know. Normally there's a two-year warranty period on these things. So if there's issues, then the equipment vendor is typically on-site to support the equipment.

Whether he does the work, or the technicians do the work, but they're there to see firsthand, you know, what the issues are and deal with the issues.

CHRISTINE MAINVILLE: Do you know if there's usually a soft start or progressive start to operations?

JAMES O'SHEA: Maybe there is. Not that I've been involved, not that it's a bad idea.

CHRISTINE MAINVILLE: Do you think any of the maintenance challenges caused safety issues?

JAMES O'SHEA: I don't believe that -- I believe the vehicle -- it's so fail-safe that the

answer is no. I can't think of any real maintenance issues that caused safety concerns.

CHRISTINE MAINVILLE: You think they would have caused reliability concerns?

JAMES O'SHEA: Yes.

CHRISTINE MAINVILLE: And do you think -- well, what's your view on -- and you've given us some observations on this. But in terms of root causes of the breakdowns and derailments that the OLRT faced, I know you were gone by the two derailments on the main line.

But do you have a view of whether that may have been mostly related to maintenance issues, or other types of issues?

JAMES O'SHEA: I was involved with two there, and they were both a result of a combination of finger trouble and operator misreading the switch. So the first one, the very first one we had there, the operator assumed the switch was going to be in the one position, but I believe the person setting the switch set it in the wrong position.

So the driver didn't read the switch and he pulled up to it and he went through it and he derailed. That's what caused that one.

CHRISTINE MAINVILLE: You mean in the yard, derailment in the yard.

JAMES O'SHEA: Yup. And there was another one in the yard that was a similar situation as well. The dryer failed to read the switch.

CHRISTINE MAINVILLE: But you left in 2020?

JAMES O'SHEA: Yeah. I don't know what happened on the main there, I wasn't -- but you know I've been involved in like at the end of the day -- I've got a few incidents against me on that project there.

At the end of the day, the driver has got to take responsibility, in most cases, for causing the incident, you know. That's just my opinion. I don't know what the equipment failure was, if there was equipment failure.

Once the train comes off the track everyone wants to run around and point the finger at somebody else. Nine times out of ten -- I've never seen a derailment yet where the driver or somebody in the control room didn't cause it -- or a combination of.

CHRISTINE MAINVILLE: Right now are you

referencing one or both of the derailments on the main line that happened in 2021?

JAMES O'SHEA: I don't know what happened there, but I'm saying yes. Because I've seen enough derailments on main line tracks, and end of the day it was a combination -- if the control room puts the switch in the wrong position it's the driver is ultimately responsible to ensure how as he comes up there, oh, look, the switch is in the wrong position. Stop the train.

If he feels he was hard done by it he needs to write an incident report on the control room.

Nine times out of ten, the guys in the control room come out unscathed. It goes on the driver.

CHRISTINE MAINVILLE: What were your observations of the level of preparedness and experience that OC Transpo as the operator had?

JAMES O'SHEA: I think they did an incredible job. Because they had, I don't know how many guys in training there, and they were -- I was quite impressed with the fact that they were very disciplined with their training, and how they instilled in the employees to follow the rules, you

know.

If the employee would like -- one time I think an employee went probably about three feet past his target point, the guy was disciplined and suspended and the whole bit, so they didn't screw around there. I think they did a good job.

If you get how many drivers, a hundred drivers, statistically sooner or later something is going to happen.

CHRISTINE MAINVILLE: So you're saying, they seemed ready to you, they were well prepared to operate the system. But nevertheless, there could be a contributing operational error --

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: -- that may have --

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: -- contributed to the derailment?

JAMES O'SHEA: I'm sure you've never sat in the train if you go in there and sit in the train and you go up and down the track all day long. Pretty soon, you go over the switch, you don't even remember going over top of it. And you scratch your head and say, wow, I wonder if that

switch was in the right position?

Like you get mesmerized when you get out there in a revenue service situation, going up and down the track all day.

CHRISTINE MAINVILLE: You left Alstom in October of 2020?

JAMES O'SHEA: Pardon me now.

CHRISTINE MAINVILLE: You left in October.

JAMES O'SHEA: September, October somewhere in there.

CHRISTINE MAINVILLE: I think you said earlier it was an impossible task that drove you out the door?

JAMES O'SHEA: Yeah.

CHRISTINE MAINVILLE: Can you clarify that a little bit?

JAMES O'SHEA: I just didn't like the way things were going there. My workload was incredible. I counted up here; I had ten different tasks I had to deal with during the day.

CHRISTINE MAINVILLE: Do you know who replaced you?

JAMES O'SHEA: There were several guys. There was only about four guys in there already as

my colleagues there. So when I started there I was supposed to be the sole guy and I wasn't even called a supervisor. I was a called a maintenance coordinator or something. So the maintenance coordinator guy, he just sits at the computer all day long and enters data.

So they had a computer workload. And what happened was I had looked after the payroll system there for a while, which was a nightmare, like a computerized system. And it was taken away from us, because we had too much to do.

And they said, oh, by the way, you guys' supervisors are taking it back. I just said, I didn't sign on to be a data entry clerk. I felt the job was like a data entry clerk.

And the workloads were -- like the idea was, the guys carry a iPad and, you know, before he came to work he loaded his iPad, this is your task. He comes to work, looks at the iPad, oh, I have to do this now. That's how it was supposed to work there. I found that difficult to deal with. Especially the guy didn't show up, you've given this guy this work to do and he's not there or late or whatever.

So I just -- the workload was -- and

things were going badly from availability perspective, and like the phone calls are ringing like, you should do this. You should do that. And how come you didn't make service?

I felt like it was all being heaped on us guys at the bottom there, like we were the ones that -- that's how I felt anyways, that we were the ones that were the root cause of the issue.

And so I was like, at an age I just said, I did this in 1986, whatever it was, for five years. I'm not going to do it again.

CHRISTINE MAINVILLE: Was there a high level of turnover?

JAMES O'SHEA: I don't think -- well, I left -- no, there wasn't a high rate of turnover.

CHRISTINE MAINVILLE: Okay. And you never got any understanding of why the people higher up at Alstom didn't bring in more people or resources?

JAMES O'SHEA: No. I think they were in denial up until probably when all of a sudden they went from allegedly 17 vehicles per service every day, they were down to 13.

When I was there, I could make 13 trains every day; it wasn't an issue. The issue

was to get 16 and 17 out, you know, so why it dropped that low, I don't know.

But the thing is, it was a tough assignment. And in fairness to Alstom, they did offer me an alternate position. They asked me to stay, could find another job for me whatever, whatever.

I just lost faith in the project there and decided I didn't need the stress anymore and I left there. Like, I was working 12 hours a day. And I was working ten-hour shifts, too. For a ten-hour shift is actually a 12-hour shift, you know.

CHRISTINE MAINVILLE: Do you know who was supposed to supply the spare parts that -- you talked about missing spare parts. Do you know who was supposed to --

JAMES O'SHEA: That would have been Alstom. That would have been Alstom's responsibilities. They would have to establish the spare parts list. Typically other projects I've been on that's a contract deliverable, you have established spare parts list.

CHRISTINE MAINVILLE: It's a contract deliverable but it's internal to Alstom?

JAMES O'SHEA: Well, other projects it would be the customer has a representative who says, okay, they review the spare parts list and agree or disagree.

At the end of the day, the customer, in this case it's better for him for those guys to miss their target every day. That way he gets penalized, you know.

CHRISTINE MAINVILLE: Sorry, explain that. Who are you --

JAMES O'SHEA: This is a cynical opinion of mine, okay?

CHRISTINE MAINVILLE: Who are you referencing first of all when you say "the customer".

JAMES O'SHEA: Let's say whoever pays the bills, OC Transpo or Ottawa. If the revenue service is down, say one car short every day, that goes to their advantage. They still carry passengers, but they get to penalize the consortium. It's the consortium's responsibility so they have the numbers up, so they make their revenues every month or whatever they get paid.

I don't know who decided on the spare parts list. Most cases where I've been in the

past, it's always the customer who hires experts to look at the contract deliverables and say, hey, we think you're a bit light on the spare parts, you know.

CHRISTINE MAINVILLE: I just want to make sure I understand that last point.

Why would the City be looking at what spare parts -- if Alstom doesn't have enough spare parts as they're required under the contract, they can be penalized?

JAMES O'SHEA: No. What I'm saying is, in other projects there's not this consortium deal whose got the long-term contract. Most places where I've worked in the past, it was like the customer was the owner or the operator.

And it was those people who decided that when they contract, parts of the contract, if you look under the vehicle, they'll have all these statistics or requirements. There will be like a spares -- normally there's like a spares contract deliverable issue.

So it would say you have to have 25 brake actuators, you have to have X-number of door motors, so on and so on.

The thing is, it's up to -- it was always up to the customer to have -- hire an

expert, a consultant to come in and review these documents and say -- somebody who brought some experience from other projects can say, oh, look. They have 25 door motors, that's an adequate amount. That's what I'm trying to say.

But I don't know that the City of Ottawa or whoever the customer went in at that fine detail.

CHRISTINE MAINVILLE: And do you know what capital parts are? Sorry, "capital spares"?

JAMES O'SHEA: Capital spares, I don't know what that term is. I assume capital spares are probably components that were purchased above and beyond spare parts.

CHRISTINE MAINVILLE: Right, okay.

Fraser, do you have additional questions?

FRASER HARLAND: I don't think so, Christine.

CHRISTINE MAINVILLE: Mr. O'Shea, do you think there's anything else we should know that we haven't talked about?

JAMES O'SHEA: No. I've probably said too much already.

CHRISTINE MAINVILLE: Well, we appreciate it. We can go off record then.

-- Concluded at 3:51 p.m.

REPORTER'S CERTIFICATE

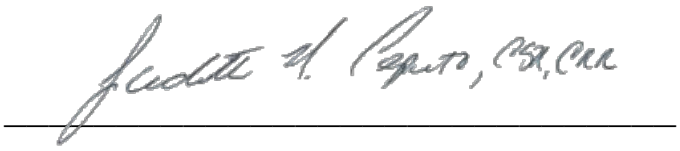
I, JUDITH M. CAPUTO, RPR, CSR, CRR, Certified Shorthand Reporter, certify;

That the foregoing proceedings were taken before me at the time and place therein set forth; at which time the interviewee was put under oath by me;

That the statements of the presenters and all comments made at the time of the meeting were recorded stenographically by me;

That the foregoing is a Certified Transcript of my shorthand notes so taken.

Dated this 29th day of April, 2022.



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