



**Public Hearing**

**Audience publique**

**Commissioner / Commissaire**

The Honourable / L'honorable  
C. William Hourigan

**VOLUME 8**

**Held at :**

Ian Scott Building  
100 Thomas More Private  
Second Floor Courtroom  
Ottawa, Ontario  
K1N 1E3

Wednesday, June 22, 2022

**Tenue à:**

Immeuble Ian Scott  
100, Thomas More Private  
Salle de cours au 2<sup>e</sup> étage  
Ottawa, Ontario  
K1N 1E3

Mercredi, le 22 juin 2022

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Chris Grisdale	Commission Counsel / Avocat de la Commission
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RTG (Rideau Transit Group General Partnership)

+

OLRTC (Ottawa Light Rail Transit Group General Partnership)

+

RTM (Rideau Transit Maintenance General Partnership)

Michael O'Brien  
James Doris

STV

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Ottawa, Ontario

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--- Upon commencing on Wednesday, June 22, 2022, at 9:00 a.m.

**THE REGISTRAR:** The hearing is now resumed. The Honourable Justice William Hourigan is presiding.

Bonjour, Monsieur. Vous êtes sur le point de témoigner à cette audience. Voulez-vous prêter serment sur un document sacré ou faire l'affirmation solennelle de dire la vérité?

**M. BERTRAND BOUTELOUP:** [...]

**LE GREFFIER:** Je ne peux pas vous entendre.

**M. BERTRAND BOUTELOUP:** L'affirmation solennelle, pardon.

**LE GREFFIER:** OK.

**--- MR. BERTRAND BOUTELOUP, SOUS AFFIRMATION SOLENNELLE:**

**LE GREFFIER:** Vous jurez que solennellement que le témoignage que vous rendrez à cette audience sera la vérité, toute la vérité, et rien que la vérité?

**M. BERTRAND BOUTELOUP:** Je le jure.

**THE REGISTRAR:** The witness has been sworn in.

**COMMISSIONER HOURIGAN:** Let's proceed.

**Me CHRISTINE MAINVILLE:** Thank you, Mr. Commissioner.

Bonjour, Monsieur Bouteloup. Vous m'entendez bien?

**M. BERTRAND BOUTELOUP:** Oui, très bien.

**Me CHRISTINE MAINVILLE:** D'accord.

**--- INTERROGATOIRE EN-CHEF PAR Me CHRISTINE MAINVILLE:**

**Me CHRISTINE MAINVILLE:** Alors, commençons par votre rôle lors de la phase 1 du projet de train léger sur rail d'Ottawa. Vous étiez le directeur de projet pour Alstom à compter de la fin 2013, c'est exact?

**M. BERTRAND BOUTELOUP:** Non, pas tout à fait. En fait, j'ai rejoint le projet à Ottawa en tant que chef de projet en 2014 jusqu'à l'été 2015, donc fin 2014 à l'été 2015, c'était la première période. Je suis rentré en France de 2015... je

1 suis rentré... pardon, excusez-moi, je suis rentré en France de 2015 à 2017, puis quand  
2 je suis revenu en 2017, en effet, je tiens la position de directeur de projet pour Alstom  
3 Transport Canada.

4 **Me CHRISTINE MAINVILLE:** D'accord. Alors, oui, j'avais compris  
5 que vous étiez... vous avez été présent pendant presque l'ensemble du projet, à  
6 l'exclusion de la phase d'approvisionnement, mais de façon plus ou moins proche selon  
7 la période de temps. C'est exact?

8 **M. BERTRAND BOUTELOUP:** C'est exact, en effet.

9 **Me CHRISTINE MAINVILLE:** Mais donc, quand vous entamez ce  
10 projet, c'est à titre de chef de projet et c'est uniquement en 2014?

11 **M. BERTRAND BOUTELOUP:** Tout à fait. J'ai commencé en, je  
12 crois, octobre-novembre 2014 en tant que chef de projet jusqu'à l'été 2015. Encore une  
13 fois, je suis rentré en France et reconnecté avec le projet en 2017, mai 2017.

14 **Me CHRISTINE MAINVILLE:** D'accord. Et puis êtes-vous toujours  
15 impliqué aujourd'hui?

16 **M. BERTRAND BOUTELOUP:** Non, j'ai quitté le Canada en fin  
17 2021 et ma dernière position en 2021 était le responsable de la supervision des projets  
18 LRT pour tout le Canada. Vous savez qu'il y a eu l'acquisition de Bombardier Transport  
19 en début 2021, dans le cadre de cette réorganisation, j'ai eu la responsabilité de  
20 l'ensemble des portefeuilles LRT qui incluaient, bien sûr, le projet d'Ottawa.

21 **Me CHRISTINE MAINVILLE:** Et aviez-vous cette position-là depuis  
22 l'entrée en service du train d'Ottawa?

23 **M. BERTRAND BOUTELOUP:** Non. Comme j'ai expliqué, j'avais  
24 différentes positions. La première, donc, j'étais chef de projet avant, en 2017, quand j'ai  
25 rejoint Alstom...

26 **Me CHRISTINE MAINVILLE:** Non mais, je vous interromps, je  
27 veux comprendre. À compter du moment où les trains sont prêts et sont mis en service,  
28 donc fin 2019, à compter de ce moment-là, est-ce que vous transitionnez?

1 **M. BERTRAND BOUTELOUP:** Alors, oui. J'ai fait des transitions,  
2 en effet, puisque le chef de projet en charge de ce projet était Arnaud Lacaze en 2018,  
3 il a démissionné, il n'est plus chez Alstom Transport, donc j'ai été de nouveau  
4 directement impliqué, puis j'ai repris un rôle de supervision des projets Canada quand  
5 son remplaçant est arrivé en mars 2019. Voilà pourquoi j'expliquais qu'il y avait eu  
6 différentes positions.

7 **Me CHRISTINE MAINVILLE:** D'accord. OK. D'accord. Et donc, une  
8 fois les trains en service, vous n'êtes pas direct... vous n'êtes pas impliqué d'abord au  
9 niveau de l'entretien ou de la maintenance, c'est exact?

10 **M. BERTRAND BOUTELOUP:** Je n'ai pas été impliqué au niveau  
11 de la maintenance avant mars 2020. Ce qui s'est passé en mars 2020, on a rassemblé  
12 les deux projets de construction des LRV et de la maintenance sous ma responsabilité  
13 en termes de projet et on a rapproché les opérations sous une autre entité Alstom avec  
14 un directeur des opérations.

15 **Me CHRISTINE MAINVILLE:** D'accord.

16 **M. BERTRAND BOUTELOUP:** Donc, j'ai été impliqué dans la  
17 maintenance entre mars 2020 et mars 2021.

18 **Me CHRISTINE MAINVILLE:** D'accord. OK. Merci. Merci. Et vous  
19 êtes ingénieur de formation, c'est exact?

20 **M. BERTRAND BOUTELOUP:** Tout à fait.

21 **Me CHRISTINE MAINVILLE:** OK. Et vous travaillez depuis  
22 longtemps pour Alstom?

23 **M. BERTRAND BOUTELOUP:** J'ai plus de 25 ans d'ancienneté  
24 chez Alstom, principalement dans les projets. J'ai rejoint Alstom Transport en 1996 en  
25 étant responsable d'un sous-système qui est le bogie, puis après, j'ai eu diverses  
26 positions dans Alstom France avec notamment le chef de projet, de certains grands  
27 projets, et voilà, avant de rejoindre le Canada.

28 **Me CHRISTINE MAINVILLE:** D'accord. Et dans votre entrevue



1 avec la Commission, vous avez identifié plusieurs défis rencontrés par Alstom et des  
2 difficultés que vous avez affirmées à ce moment-là qui auraient pu contribuer à nous  
3 amener ici aujourd'hui. Donc, je voudrais faire l'état des lieux avec vous ce matin, c'est-  
4 à-dire ce matin pour nous, peut-être pas pour vous.

5 Alors d'abord, vous avez parlé d'un setup inconnu. Vous vous  
6 souviendrez? Un setup inconnu à Ottawa, ce qui avait été un défi pour le projet. Donc,  
7 l'organisation du setup à Ottawa et au centre... à l'entrepôt MSF.

8 **M. BERTRAND BOUTELOUP:** Alors, quand vous dites « setup »,  
9 c'est le schéma industriel, que ce soit *supply chain*, que ce soit *procurement*, que ce  
10 soit l'assemblage, c'est ça dont vous voulez parler...

11 **Me CHRISTINE MAINVILLE:** Oui.

12 **M. BERTRAND BOUTELOUP:** ...je crois.

13 **Me CHRISTINE MAINVILLE:** Oui. Alors, pouvez-vous faire état  
14 de... nous faire état de ces défis-là.

15 **M. BERTRAND BOUTELOUP:** En effet, dans le cadre de ce projet,  
16 depuis la signature de ce projet, nous savons qu'il y a une contrainte de contenu  
17 canadien qui nous a forcés à établir sur le Canada un lieu d'assemblage. C'était depuis  
18 le début de ce projet, depuis qu'on a signé le projet en 2013, c'était connu. Ça nous a  
19 forcés... et d'ailleurs, on a fait la même chose dans le cadre des LRV de Toronto où il a  
20 fallu ouvrir une usine d'assemblage à Toronto pour faire l'assemblage sur le sol  
21 canadien. Donc, c'était connu. Ça a nécessité quelques transferts sachant que l'autorité  
22 de conception de ce produit était d'abord basée en France, donc ça nous a obligés à  
23 certains transferts, et ça nous a obligés à mettre une empreinte industrielle au Canada.

24 **Me CHRISTINE MAINVILLE:** Oui. Et à trouver certaines sources  
25 d'approvisionnement nord-américaines. C'est exact?

26 **M. BERTRAND BOUTELOUP:** Dans le cas de certains  
27 composants, c'est tout à fait ce que nous avons fait, oui.

28 **Me CHRISTINE MAINVILLE:** Et vous nous aviez expliqué que

1 dans un tel cas où vous changez la source d'approvisionnement, les pièces ne sont pas  
2 toujours les mêmes, donc il y a un travail de traduction à faire, il faut voir si les vendeurs  
3 sont en mesure de fabriquer les pièces et de quelle façon elles diffèrent. C'est exact?

4 **M. BERTRAND BOUTELOUP:** Tout à fait, vous avez raison. C'est  
5 bien traduit, c'est bien une traduction pour pouvoir obtenir ce que... l'objet souhaité de  
6 leur part. Il y a une phase amont qui est l'identification et la qualification du fournisseur,  
7 est-ce qu'il est capable de le faire, tout à fait, mais ça, c'est fait en amont, mais c'est en  
8 effet les différentes étapes pour valider une chaîne d'approvisionnement.

9 **Me CHRISTINE MAINVILLE:** Donc, il y avait tout un travail à faire  
10 pour Alstom, ce qui a...

11 **M. BERTRAND BOUTELOUP:** Oui.

12 **Me CHRISTINE MAINVILLE:** ...ce qui a entraîné certains défis.

13 **M. BERTRAND BOUTELOUP:** Oui, tout à fait.

14 **Me CHRISTINE MAINVILLE:** Et vous nous aviez dit que la chaîne  
15 d'approvisionnement n'était pas stable. J'aimerais comprendre ou que vous expliquiez  
16 ce que vous vouliez dire par ça.

17 **M. BERTRAND BOUTELOUP:** Pas stable, je sais pas si j'ai utilisé  
18 ce terme-là, je suis désolé si je l'ai utilisé. En fait, il s'est posé quelques  
19 questionnements, en effet. Quand on a établi cette chaîne d'approvisionnement, il y a  
20 eu... un des sujets qui a été connu et qui nous a impactés en termes de planning pour  
21 la construction de ces trains était associé à une partie que l'on achète pour le bogie où  
22 il a fallu qualifier un nouveau fournisseur et ça s'est plus ou moins bien passé, il a fallu  
23 aller voir une deuxième source au fur et à mesure. Donc, en effet, il y a eu quelques  
24 situations qui ont nécessité un plan de rattrapage.

25 **Me CHRISTINE MAINVILLE:** OK. Et les difficultés étaient liées à la  
26 qualité de la pièce?

27 **M. BERTRAND BOUTELOUP:** Sur ce cas précis, c'était la qualité  
28 de la pièce, tout à fait, qui nous a obligés à remplacer un certain nombre de pièces qui

1 étaient déjà, je dirais, assemblées sous les bogies, oui.

2 **Me CHRISTINE MAINVILLE:** Et j'imagine que ce ne serait pas un  
3 problème que vous auriez rencontré si vous aviez pu avoir eu recours à votre  
4 fournisseur habituel?

5 **M. BERTRAND BOUTELOUP:** Beaucoup moins, probablement.  
6 En fait, ça peut arriver, hein, y'a toujours des crises qualité qui peuvent arriver, mais en  
7 effet, moins probable, tout à fait, parce qu'on a un panel fournisseurs avec qui on a  
8 l'habitude de travailler, tout à fait.

9 **Me CHRISTINE MAINVILLE:** D'accord. Et j'aimerais discuter un  
10 peu avec vous des changements relatifs à la manufacture des véhicules 1 et 2 de la  
11 France aux États-Unis, et ultimement à Ottawa, pour... du moins pour ce qui est du  
12 véhicule numéro 2. Donc, on comprend que les deux véhicules au départ devaient être  
13 construits en France et testés en France au niveau des tests de validation, et  
14 ultimement... ensuite, à Hornell aux États-Unis avec les tests à Pueblo au Colorado, et  
15 en bout de ligne, est-ce que c'est exact que le premier véhicule a été manufacturé à  
16 Hornell et le second à Ottawa, c'est exact?

17 **M. BERTRAND BOUTELOUP:** Tout à fait. Ce qui a été réalisé,  
18 c'est un premier véhicule à Hornell et le reste de la production, les 33 autres pour la  
19 phase 1 et ceux de la phase 2 étaient à Ottawa, tout à fait.

20 **Me CHRISTINE MAINVILLE:** D'accord. Et j'aimerais examiner une  
21 lettre avec vous qui fait état des motivations ou du raisonnement derrière ces  
22 changements, c'est le document ALS0002338 – en anglais, *ALS0002338* –, et c'est une  
23 lettre, Monsieur Bouteloup, qui date d'avant votre arrivée sur le projet, mais vous aviez  
24 connaissance des changements qu'il y a eu, oui?

25 **--- PIÈCE No. 106**

26 ALS0002338 Letter from Alstom to OLRTC 24 June 2013

27 **M. BERTRAND BOUTELOUP:** En effet. Je ne vous ai pas reprise,  
28 les décisions étaient avant mon arrivée, en effet, mais, en effet, je peux peut-être

1 expliquer certaines motivations même si je n'étais pas dans le... bon, dans l'instance de  
2 décision à ce moment-là, tout à fait.

3 **Me CHRISTINE MAINVILLE:** Très bien. Merci. Alors on va  
4 attendre le document.

5 *ALS0002338.*

6 Je vais vous répéter le numéro du document, si ça aide :

7 *ALS0002338.*

8 Mr. Commissioner, do we have the Court Operator?

9 **COMMISSIONER HOURIGAN:** Oui. Just stand by.

10 **(COURTE PAUSE)**

11 **Me CHRISTINE MAINVILLE:** Voilà.

12 Donc, vous verrez, il s'agit d'une lettre de Alstom à monsieur

13 Turner qui travaillait pour OLRTC. Exact?

14 **M. BERTRAND BOUTELOUP:** Oui.

15 **Me CHRISTINE MAINVILLE:** (hors micro) sur la première page,

16 vous verrez que la façon dont la lettre a été écrite, on voit les commentaires de OLRTC

17 ici, la liste avec les puces, et puis ensuite on voit les réponses d'Alstom en italique.

18 Exact?

19 **M. BERTRAND BOUTELOUP:** Tout à fait. Oui.

20 **Me CHRISTINE MAINVILLE:** Alors, si on commence le dernier

21 point en bas, oui, « Activité 117 », OK. Vous voyez, on parle ici... donc, il s'agit des

22 commentaires de OLRTC :

23 « Manufacturing of train 1 in Hornell in related activity

24 218 for train 2. In the original baseline schedule,

25 manufacturing of the first two trains was committed to

26 be in France. While ORLTC does not specifically

27 oppose the movement of this manufacturing to North

28 America, we will require a written explanation as to

1 the reasoning and benefits for this move. It represents  
2 a significant departure from the base contract and  
3 therefore must be reviewed and discussed with all  
4 affected parties before it can be approved as a  
5 variation. »

6 Donc essentiellement, OLRTC demande à Alstom de justifier sa  
7 demande, exact?

8 **M. BERTRAND BOUTELOUP:** Mm-mm.

9 **Me CHRISTINE MAINVILLE:** Et puis si on va à la prochaine page,  
10 à la page 2, on voit que la réponse d'Alstom explique qu'il s'agit surtout de minimiser les  
11 risques de délais. Donc :

12 « With regard to the reasoning for the move to  
13 Hornell, these are mainly schedule risk reductions  
14 related and include... »

15 Et je veux juste aller au point c). Alors :

16 « Proximity of Hornell to Ottawa, to Ottawa site for  
17 training, the assembly of the first two LRVs protects  
18 the schedule in two ways. Firstly, the assembly  
19 staff/supervision from Ottawa can receive more  
20 extensive training in Hornell over a sustained period  
21 than it would be practical to achieve if the first two  
22 LRVs were assembled in France. Then, when  
23 assembly moves to Ottawa, a large pool of trained  
24 staff will exist in Hornell and can be quickly made  
25 available in the event that support in Ottawa is  
26 needed at any time. »

27 **M. BERTRAND BOUTELOUP:** Oui.

28 **Me CHRISTINE MAINVILLE:** Alors, si je comprends bien, Alstom

1 décrit là un avantage en deux temps. D'abord, que vous pouviez former la main-  
2 d'œuvre d'Ottawa à Hornell plus aisément, c'est exact?

3 **M. BERTRAND BOUTELOUP:** Oui.

4 **Me CHRISTINE MAINVILLE:** Et auprès, j'imagine, d'une main-  
5 d'œuvre déjà qualifiée à Hornell qui est un centre déjà établi d'Alstom.

6 **M. BERTRAND BOUTELOUP:** Tout à fait.

7 **Me CHRISTINE MAINVILLE:** Et, dans un second temps, que si un  
8 besoin devait survenir plus tard à Ottawa au niveau des ressources liées à la main-  
9 d'œuvre, vous auriez déjà des gens à Hornell qui auront travaillé sur le modèle  
10 d'Ottawa, le modèle de train d'Ottawa et qui pourront être rendus disponibles  
11 rapidement compte tenu que Hornell dans l'État de New York, c'est plus proche, disons,  
12 que la France. C'est exact?

13 **M. BERTRAND BOUTELOUP:** C'est exact, et c'est en plus ce qui  
14 s'est passé. Les premiers monteurs d'Ottawa sont venus « witnesser » à Hornell les  
15 premiers montages. C'est exactement la transition qui s'est passée en réalité.

16 **Me CHRISTINE MAINVILLE:** Donc... et peut-être gardez votre  
17 micro plus proche parce que votre son n'est pas très fort, je crois.

18 **M. BERTRAND BOUTELOUP:** Pardon. Oui, excusez-moi.

19 **Me CHRISTINE MAINVILLE:** Merci.

20 **M. BERTRAND BOUTELOUP:** Excusez-moi. C'est exactement...  
21 c'est ce que je disais, c'est exactement ce qu'il s'est passé, les premiers montages qui  
22 ont été faits à Hornell ont été sous... avec de la présence des opérateurs d'Ottawa et  
23 on a fait l'inverse, c'est-à-dire qu'on a envoyé les opérateurs de Hornell dans les  
24 premiers montages à Ottawa pour aider. Donc, il y a bien eu cet échange dans les deux  
25 phases entre les trains 1, 2, 3, et puis un peu plus d'ailleurs.

26 **Me CHRISTINE MAINVILLE:** Parfait. Donc, ça aide ma question, si  
27 c'est ça qui s'est produit, donc, OK. Il y a de la main-d'œuvre à Ottawa qui a été formée  
28 par des gens de Hornell.

1 **M. BERTRAND BOUTELOUP:** Oui.

2 **Me CHRISTINE MAINVILLE:** D'accord.

3 **M. BERTRAND BOUTELOUP:** Oui.

4 **Me CHRISTINE MAINVILLE:** Et vous aviez eu recours à l'expertise  
5 de Hornell à Ottawa.

6 **M. BERTRAND BOUTELOUP:** Oui, oui, et on a même ajouté, mais  
7 ça, c'est en plus, on a ajouté certaines ressources industrielles qui connaissent le  
8 produit, venant de France, aussi à Ottawa. Donc, il y a eu ce support, oui.

9 **Me CHRISTINE MAINVILLE:** Et est-ce qu'il y a... lorsqu'il a fallu  
10 des renforts à Ottawa, est-ce que vous avez pu retirer certaines ressources de Hornell?

11 **M. BERTRAND BOUTELOUP:** Y'a pas vraiment eu de ressources  
12 de Hornell complètement transférées à Ottawa puisqu'on a fait un plan de mobilisation  
13 pour Ottawa à l'époque, il y a eu par contre quelques renforts qui sont venus de France  
14 pour Ottawa. Je ne pourrais pas dire s'il y a eu précisément des transferts liés à un  
15 besoin réel sur Hornell, je ne sais pas, je ne pourrais pas vous répondre.

16 **Me CHRISTINE MAINVILLE:** D'accord. Si on descend un peu plus  
17 sur cette page, on a un autre point soulevé par OLRTC.

18 Merci. Oui, voilà.

19 Alors, OLRTC écrit... a écrit :

20 « It is assumed that as the vehicle will not be  
21 manufactured in France nor will it be tested there.  
22 OLRTC requires a detailed explanation for this  
23 change, the location of the plant testing and your new  
24 strategy prior to being able to accept this proposed  
25 change. There are again many parties affected by  
26 this. »

27 Alors, on voit qu'OLRTC se souciait de l'impact que ce changement  
28 de la France à Hornell pouvait avoir sur les tests de validation. C'est exact?

1 **M. BERTRAND BOUTELOUP:** C'est exact.

2 **Me CHRISTINE MAINVILLE:** Et Alstom explique :

3 « You are correct that the testing for the first LRVs will  
4 not be conducted in France but instead it will be  
5 conducted in North America. The details of this  
6 specific location of each test will be finalized nearer  
7 the time. However, we can advise you that all  
8 qualification testing will principally be conducted for  
9 static qualification testing at the Alstom site in Hornell,  
10 New York, which has extensive testing facilities; for  
11 dynamic testing, in Colorado, at the test track in  
12 Pueblo; and, for climatic testing, at the environmental  
13 test facility in Ottawa. »

14 Alors, vous expliquez que... Alstom explique que ce n'est pas  
15 encore finalisé au niveau des tests... des plans de tests, de testing, mais que voilà  
16 l'intention. Exact?

17 **M. BERTRAND BOUTELOUP:** Exact. Il y avait un plan qui est  
18 d'utiliser les différentes localisations, qu'elles soient à Hornell, à Pueblo dans le  
19 Colorado, ou à Ottawa au moment du projet, tout à fait.

20 **Me CHRISTINE MAINVILLE:** Oui. Donc, en termes de l'impact que  
21 ces mouvements ont eu ultimement sur les tests de validation des deux premiers  
22 véhicules, est-ce exact qu'il était prévu avec le plan de testage à Pueblo au Colorado  
23 suite à la manufacture à Hornell, que les tests de validation allaient être complétés par  
24 l'année 2016? Vous vous souviendrez?

25 **M. BERTRAND BOUTELOUP:** Je ne peux pas me souvenir de la  
26 date exacte puis que je n'étais pas là au niveau du projet, mais je peux l'imaginer que  
27 c'était aussi à ce niveau-là que ça s'est passé, oui, tout à fait.

28 **Me CHRISTINE MAINVILLE:** OK. Et j'ai raison de dire – je crois



1 que vous l'aviez affirmé au préalable – que ce qui s'est produit ultimement, c'est que la  
2 validation des trains s'est entamée vers la fin 2016, début 2017, et a pris fin en 2019?

3 **M. BERTRAND BOUTELOUP:** Ça, c'est tout à fait ce qui s'est  
4 réalisé. Le plan était celui qui était à l'époque, en 2013, et il a fallu adapter pour plein de  
5 raisons différentes, il a fallu adapter en effet ce plan de validation, tout à fait.

6 **Me CHRISTINE MAINVILLE:** Oui, en effet, il y a eu plusieurs  
7 raisons, notamment, je crois, des problèmes d'accès à la voie de testage, mais aussi en  
8 partie dû à des retards des trains, des véhicules.

9 **M. BERTRAND BOUTELOUP:** Exact. La finalisation du design, les  
10 véhicules, les accès aux voies, tout à fait, ç'a... il a fallu s'adapter, tout à fait.

11 **Me CHRISTINE MAINVILLE:** Et finalement, vous expliquez à la  
12 page 3 – si on peut passer à la page 3 – votre préférence habituelle pour un intervalle  
13 ou un écart dans la manufacture entre les premiers véhicules et le reste de la série pour  
14 régler le plus gros nombre possible de problèmes à ce stade. Alors, si on va à la  
15 page 3, vous voyez dans la réponse d'Alstom :

16 « It is typically Alstom's preference to introduce a gap  
17 between the completion of the first vehicles and the  
18 remainder of the production in order for the maximum  
19 number of issues arising from assembly and tests to  
20 be fully resolved. It is not always possible to do this,  
21 however, as it is normally depending on the  
22 customer's schedule. »

23 Donc, c'est exact que, en temps normal, c'est préférable d'avoir cet  
24 écart entre la production des deux premiers véhicules pour régler tous les problèmes  
25 avant d'entamer la série?

26 **M. BERTRAND BOUTELOUP:** C'est tout à fait préférable et c'était  
27 possible à ce moment-là du projet dans le cadre du planning, c'est quelque chose que  
28 l'on préconise, en effet. Ça permet de minimiser des reprises après s'il y a besoin d'aller

1 corriger des problèmes qu'on pourrait voir en tests. C'est tout à fait ce que l'on préfère.

2 **Me CHRISTINE MAINVILLE:** Et j'imagine que c'est surtout  
3 préconisé lorsque y'a des nouveautés relatives au système comme dans le cas présent.

4 **M. BERTRAND BOUTELOUP:** Alors, puis là je vais parler en  
5 général sans parler d'Ottawa précisément, vous avez complètement raison. Quand il y  
6 a un sujet bien spécifique, on cherche à minimiser le risque, soit en ayant... en avance  
7 de phase des *bond tests*, soit en faisant sur un train de pré-série, il y a plusieurs  
8 possibilités. Mais, en effet, le plan de validation tient compte de cette nouveauté, pour  
9 répondre à votre question.

10 **Me CHRISTINE MAINVILLE:** Mais pour parler d'Ottawa plus  
11 précisément, ça aurait été encore plus préférable de le faire de cette façon compte tenu  
12 de la nouvelle infrastructure, de certaines nouveautés par rapport au train?

13 **M. BERTRAND BOUTELOUP:** Pour certaines fonctions, oui; pour  
14 d'autres fonctions qui sont des fonctions, je dirais, stables et connues d'Alstom, bon, je  
15 dirais, « *design proven* » pour reprendre un terme déjà pas mal utilisé, on peut se  
16 permettre de le faire un peu plus tardivement parce qu'on sait que les systèmes sont là.  
17 Mais dans le cadre de certaines nouveautés dont vous parlez, de l'intégration des  
18 interfaces qui ont changé, oui, tout à fait, le plan doit prendre en compte ces  
19 nouveautés pour pouvoir les tester au plus tôt, oui.

20 **Me CHRISTINE MAINVILLE:** OK. Et on voit dans le paragraphe  
21 suivant :

22 « In the case of the Ottawa LRV project, the move of  
23 production from Hornell to Ottawa introduces a  
24 natural break in production. What we have done is to  
25 maximize the gap consistent still with meeting the  
26 overall manufacturing schedule for the full fleet in  
27 order to provide as much time as possible to complete  
28 an extensive amount the LRV 1 and 2 testing before

1 assembly resumes.  
2 We believe that this will provide for a smoother start in  
3 the assembly in Ottawa and avoid unnecessary  
4 modification work which can be expected where  
5 breaking production does not exist or is too short. »

6 Et de toute évidence, ce ne sont pas comme ça que les choses se  
7 sont déroulées ultimement, exact?

8 **M. BERTRAND BOUTELOUP** : Tout à fait et c'est quand même  
9 une préférence qui a été évoquée à ce moment-là du projet, tout à fait.

10 **Me CHRISTINE MAINVILLE**: Et dans... au niveau de ce qui s'est  
11 produit ultimement à Ottawa, il y a eu plusieurs modifications tardives au véhicule, à la  
12 série, étant donné que les tests de validation n'ont pas pris place en temps et lieu. C'est  
13 exact?

14 **M. BERTRAND BOUTELOUP** : Dans votre phrase, il y a deux  
15 aspects – il y a un aspect, en effet, les trains n'ont pas été construits avec un « gap »  
16 ou un trou entre les pré-séries, les deux premiers et le troisième tel que c'était le plan à  
17 ce moment-là. Ça, c'est une première chose.

18 La deuxième, c'est la capacité de pouvoir tester ce qu'on voulait  
19 tester au fur et à mesure qui a été aussi, je dirais, une donnée d'entrée qui a changé le  
20 plan de validation.

21 **Me CHRISTINE MAINVILLE**: Et vous aviez expliqué l'impact qu'a  
22 eu le retard dans les tests de validation. D'abord, vous aviez indiqué dans votre  
23 entrevue avec la Commission que ça ne corrige pas les défauts en temps utile, donc les  
24 défauts s'accroissent pour plus tard, exact?

25 **M. BERTRAND BOUTELOUP** : Exact.

26 **Me CHRISTINE MAINVILLE**: Oui, tout simplement?

27 **M. BERTRAND BOUTELOUP** : Oui, tout à fait.

28 **Me CHRISTINE MAINVILLE**: Oui, vous êtes d'accord. Et si on

1 découvrir un problème trop tard, vous aviez expliqué qu'on ne peut pas implémenter  
2 une solution, on peut seulement mitiger le problème, si c'est trop tard.

3 **M. BERTRAND BOUTELOUP** : C'est aussi le cas; il y a certaines  
4 solutions qui sont implémentables assez rapidement et d'autres nécessitent un certain  
5 temps et en effet, on est obligés de vivre avec des solutions de *containment* ou de  
6 mode « dégradé » - entre guillemets – tout à fait. Il faut respecter les dates; c'est les  
7 choix qui doivent se faire quand il y a ce problème-là, tout à fait.

8 **Me CHRISTINE MAINVILLE**: Oui – et en termes de mode dégradé,  
9 comme vous expliquez, je pense que ce que vous voulez dire, c'est qu'il peut y avoir  
10 une solution rapide ou intérimaire qui ne résout pas véritablement le problème ou qui  
11 peut le résoudre à 80 %, mais que 20 % du problème peut demeurer. C'est exact?

12 **M. BERTRAND BOUTELOUP** : Vous avez tout à fait raison, oui.

13 **Me CHRISTINE MAINVILLE**: Et ce résidu, disons [rires] peut avoir  
14 un impact sur le comportement du train?

15 **M. BERTRAND BOUTELOUP** : Alors, il y a différentes causes; soit  
16 ça a un impact sur le comportement, soit on prend un risque, soit ça ajoute du travail au  
17 support aux opérations. Il y a différents cas de figures; il y a des choses comme qui  
18 peuvent être « bien vécues » - entre guillemets – du style du confort ou des choses  
19 esthétiques qui sont découvertes plus tard. Il y a ceux qui sont par contre plus  
20 contraignantes et qui imposent parfois du travail additionnel en inspection ou en  
21 surveillance. Tous les cas de figure sont possibles, mais c'est en effet ce que j'ai  
22 évoqué.

23 **Me CHRISTINE MAINVILLE**: Voilà – et ça s'est produit, pour être  
24 très clair, sur ce projet, qu'il y a...

25 **M. BERTRAND BOUTELOUP** : Oui, oui oui, il y a eu des  
26 fonctionnalités, il y a eu des problèmes, bien sûr, oui oui.

27 **Me CHRISTINE MAINVILLE**: Et je crois que vous avez expliqué  
28 aussi que ce retard dans les tests de validation a aussi comprimé la phase de tests

1 d'intégration?

2 **M. BERTRAND BOUTELOUP** : Alors ça, c'est un autre aspect, en  
3 effet. Là, ce dont on évoquait dans cette lettre-là était d'abord la validation du produit, le  
4 train. En parallèle de ça, c'est des phases qui ne sont pas disjointes, hein, mais il y  
5 avait en plus, après cette validation du train qui performe bien, il y a les essais  
6 d'intégration dont vous parlez et vous mentionnez qui peut permettre de valider que ça  
7 rentre dans un système global et qu'il n'y a pas d'effet ou d'impact sur les opérations au  
8 niveau global. Donc, il y a en effet à la fin de cette validation aussi une intégration du  
9 système – après la validation du produit, il y a une intégration du système qui doit être  
10 prévue.

11 **Me CHRISTINE MAINVILLE**: Et vous aviez expliqué qu'il y a eu  
12 certains tests d'intégration qui ont eu à être refaits, étant donné certaines modifications  
13 à apporter au train. C'est exact?

14 **M. BERTRAND BOUTELOUP** : Il y a eu les deux cas de figure,  
15 des modifications qui ont dû... qui ont imposé à ce qu'on refasse des tests et des  
16 modifications d'interface qui nous a nécessité qu'on les refasse aussi, qu'on les rejoue  
17 après. Il y a eu les deux cas de figure.

18 **Me CHRISTINE MAINVILLE**: D'accord. Donc, on peut retirer ce  
19 document de l'écran – merci!

20 Selon vous, il n'y a pas eu non plus... il n'y a pas eu suffisamment  
21 de testing dynamique pour l'ensemble du système. C'est exact? C'est-à-dire pour  
22 l'ensemble... pas que les trains, mais l'ensemble du système?

23 **M. BERTRAND BOUTELOUP** : En effet, ce qu'on en a vu, c'est  
24 que la maturité au global n'était pas là parce qu'il n'y a certainement pas assez de  
25 kilométrage, en effet – tout à fait, oui, c'est exact.

26 **Me CHRISTINE MAINVILLE**: Et je comprends que les trains ont,  
27 en fait, peut-être étant donné les tests qui ont dû être refaits, etc., les tests ont  
28 accumulé quand même un bon nombre de kilométrage avant l'entrée en service. Mais

1 est-ce que la distinction est à l'effet que le système n'a pas été progressivement,  
2 disons, mise en place pour avoir les trains qui fonctionnaient... en tant que système,  
3 donc, comme un tout?

4 **M. BERTRAND BOUTELOUP** : Alors oui, pour répondre à votre  
5 question, il y a eu des sujets qui sont apparus tardivement du fait de certains tests.  
6 Notamment en termes de capacité du train lui-même, on n'avait pas de doutes, on avait  
7 déjà prouvé la performance traction, la performance freinage.

8 Par contre, est venu au-delà de cette performance démontrée, il y a  
9 eu des effets système globaux et le projet a été vraiment stabilisé et on a eu accès au  
10 complet, la ligne complète plutôt au printemps 2019. Donc, on peut considérer que la  
11 maturité du système était assez jeune à l'été 2019, quand on a commencé toute cette  
12 phase de try-run, dont on verra certainement tout à l'heure. Mais oui, cette zone a été  
13 un peu compressée au global, oui.

14 **Me CHRISTINE MAINVILLE**: Au global. Donc, beaucoup... disons  
15 que le système a été testé souvent en morceaux, étant donné l'état de l'infrastructure  
16 des trains plutôt que comme un tout...

17 **M. BERTRAND BOUTELOUP** : Oui, en effet. La stabilité des  
18 interfaces n'était pas toujours démontrée dans certains cas, tout à fait.

19 **Me CHRISTINE MAINVILLE**: Et vous aviez reconnu, lors de  
20 l'entrevue, de façon bien candide, que... que la cause principale, c'était probablement  
21 la disponibilité tardive des trains eux-mêmes, disons, qui était en partie la responsabilité  
22 d'Alstom?

23 **M. BERTRAND BOUTELOUP** : Alors, je n'ai pas dit la  
24 responsabilité d'Alstom, mais en effet, l'une des parties était liée au train, la stabilité du  
25 train. Il a fallu faire... y compris en 2018, certaines modifications de fonctionnelles qui  
26 étaient quand même majeures, majeures, qui étaient importantes. Donc, je peux  
27 comprendre que cette stabilité n'était pas là, y compris côté trains, parfois liée à une...  
28 principalement liée à deux interfaces qui nous ont pas mal, je dirais, fait cogiter en

1 2018 : quand il y a eu la stabilité, enfin, de l'interface avec le système de signalisation et  
2 quand il y a eu aussi la partie radio. C'était les deux derniers où fonctionnellement, il y a  
3 eu des ajustements de fonctionnel entre les deux.

4 Il y a eu encore des conséquences en 2019 de cette non-définition  
5 d'interface, y compris sur d'autres systèmes comme les portes, qui a été impacté par  
6 cette « non-définition » - entre guillemets – d'interface.

7 **Me CHRISTINE MAINVILLE:** Et il y a un autre exemple que vous  
8 aviez mentionné, qui était la surutilisation des freins d'urgence. C'est exact?

9 **M. BERTRAND BOUTELOUP :** Alors ça, c'est encore autre chose.  
10 Quand on fait une phase d'intégration complète, l'un des éléments, même si le train est  
11 capable d'accélérer et de freiner, son utilisation... on a noté que l'utilisation était  
12 excessive ou un petit peu à la limite; ce n'est parce que le train peut accélérer et peut  
13 freiner qu'on peut le faire tout le temps. Et en fait, en effet, on a découvert que le temps  
14 de parcours ou le profil de vitesse qui avait été développé sur cette ligne était plutôt  
15 agressif. Il y a eu un nombre assez important d'*emergency breaking* pour les... que j'ai  
16 mentionnés, associés à tout ça. C'est les phases de réglage que l'on fait, hein – c'est les  
17 phases de réglage que l'on fait dans d'autres systèmes et qui nécessitent une  
18 participation de toutes les parties.

19 **Me CHRISTINE MAINVILLE:** Voilà – et donc, je crois que vous  
20 avez expliqué que ce que ça démontrait pour vous, c'est que le système n'était pas  
21 proprement ajusté ou bien réglé?

22 **M. BERTRAND BOUTELOUP :** Tout à fait – j'ai parlé d'ajustement,  
23 tout à fait, oui.

24 **Me CHRISTINE MAINVILLE:** Et comme vous l'avez indiqué, il y a  
25 eu un manque de coordination, selon vous, de l'interface entre Alstom et Thales, c'est  
26 exact?

27 **M. BERTRAND BOUTELOUP :** Ben... oui, c'est ce que j'ai dit. Il y  
28 a eu quand même différentes phases. En phase préparatoire, je comprends qu'il y a eu

1 une difficulté au tout début du projet pour fixer certaines données d'entrée, dont Thales  
2 et Alstom ont souffert, des deux côtés. Puis il y a eu une période qui a été plutôt  
3 collaborative, on va dire, avec un système intégrateur – quelqu'un que vous avez  
4 interviewé, je crois, hier, Jacques Bergeron, quand il était présent, il a fait en sorte que  
5 les deux travaillent ensemble dans le but d'obtenir des systèmes stables.

6                   Après 2018, on a un peu moins senti cette collaboration; on a plus  
7 senti un travail en silo – je sais que c'est une expression qu'on utilise pas mal. Chacun  
8 a voulu résoudre ses problèmes et on n'a peut-être pas regardé la *global picture*. C'est  
9 ça qui s'est passé.

10                   **Me CHRISTINE MAINVILLE:** Voilà – vous avez expliqué que suite  
11 au départ de Monsieur Bergeron, en 2018 surtout, Alstom et Thales étaient traités de  
12 façon séparée ou isolée et que ça créait des disputes plutôt que des compromis.

13                   **M. BERTRAND BOUTELOUP :** Plutôt... des disputes, il n'y en a  
14 pas eu vraiment avec eux. On a eu des incompréhensions, on a eu des choses, mais  
15 on n'a pas eu de disputes puisque commercialement, on n'est pas liés avec Thales.

16                   **Me CHRISTINE MAINVILLE:** Et ça a mené, si je comprends bien,  
17 à des problèmes de fiabilité?

18                   **M. BERTRAND BOUTELOUP :** Ça a mené différents problèmes;  
19 des fonctionnalités qui n'ont pas été respectées correctement, il y a des impacts sur des  
20 fonctions. Il y a eu après d'autres problèmes qui étaient, je dirais, de fiabilité et des  
21 évènements qui auraient pu être évités, tout à fait.

22                   **Me CHRISTINE MAINVILLE:** Par exemple, est-ce que ça  
23 comprend les problèmes de vision arrière, dont le système a souffert au moment de  
24 l'entrée en service?

25                   **M. BERTRAND BOUTELOUP :** Ça, ça fait partie de l'une des  
26 conséquences, en effet, des non-définitions d'interfaces entre nous. Il y a eu quelques  
27 hypothèses prises de notre côté pour faire fonctionner un système de vision, que vous  
28 appelez la *rear vision* en effet; on avait pris des hypothèses qui se sont révélées



1 exactes... pardon, inexactes et qu'on a découvert en octobre 2019.

2 **Me CHRISTINE MAINVILLE:** Après l'entrée en service.

3 **M. BERTRAND BOUTELOUP :** C'était au moment de l'entrée en  
4 service; c'est quand on a analysé les événements qu'on sait... qu'on pensait avoir  
5 résolu le problème à l'été 2019 et malheureusement, il restait ça et on a découvert que  
6 c'était en fait une mauvaise hypothèse de notre part sur les hypothèses d'entrée. Donc,  
7 c'était vraiment un problème de définition d'interface, oui.

8 **Me CHRISTINE MAINVILLE:** Voilà – entre, pour être très claire,  
9 entre Alstom et Thales.

10 **M. BERTRAND BOUTELOUP :** Bien... oui. Ça se trouve qu'on ne  
11 se parlait pas directement, mais oui oui, tout à fait...

12 **Me CHRISTINE MAINVILLE:** Oui.

13 **M. BERTRAND BOUTELOUP :** ... entre les deux systèmes,  
14 signalisation et train, oui.

15 **Me CHRISTINE MAINVILLE:** Voilà. Et selon vous, il y a eu un  
16 dépêchement à compter de la date... à compter du moment où la première date RSA  
17 de mai 2018 a été manquée, c'est exact?

18 **M. BERTRAND BOUTELOUP :** Dépêchement dans quel sens?

19 **Me CHRISTINE MAINVILLE:** Vous aviez expliqué que depuis ce  
20 moment-là, il y avait une poussée pour terminer le plus rapidement possible, sans peut-  
21 être suffisamment de coordination?

22 **M. BERTRAND BOUTELOUP :** Alors, on ne va pas déterminer un  
23 moment mais en effet, on a senti jusqu'à... jusqu'à je dirais 2018 et la volonté d'arriver,  
24 je dirais, jusqu'au printemps 2018, une certaine volonté de construction ensemble et  
25 trouver des meilleures solutions, des meilleurs compromis. Encore une fois, ce que j'ai  
26 évoqué, c'est qu'on travaillait un peu plus en silos après.

27 Il y a eu aussi pas mal de renouvellements d'équipe à ce moment-  
28 là – premièrement, parce que les phases de projet ne sont pas les mêmes, hein, entre

1 la conception et le moment de la construction, le moment des essais, ce ne sont pas les  
2 mêmes compétences, donc il y a eu des changements et on a senti un peu plus  
3 d'empressement à vouloir clore les sujets, sans vouloir toujours se coordonner pour le  
4 bien de la globalité, quoi. C'est ce que j'ai exprimé dans mon interview.

5 **Me CHRISTINE MAINVILLE:** D'accord. Et vers la fin 2018, vous  
6 personnellement, vous avez entamé la préparation de rapports de fiabilité  
7 hebdomadaires, si je comprends bien.

8 **M. BERTRAND BOUTELOUP :** Oui. Ce qui s'est passé, à partir de  
9 2018 – normalement, on le fait chez Alstom en gouvernance, on essaie de le faire un an  
10 avant le service commercial, donc vous imaginez, on était un peu tard – mais on essaie  
11 de mettre en place tous les indicateurs pour capturer les événements, pour pouvoir faire  
12 des résolutions de problèmes et faire des tendances associées à tous les événements.

13 Donc, c'est cet exercice qu'on a commencé. On l'a commencé fin  
14 2018, début 2019 et on a commencé à faire des réunions sur ces sujets-là, oui, tout à  
15 fait.

16 **Me CHRISTINE MAINVILLE:** Donc, vous dites que ça a commencé  
17 un peu tardivement; est-ce qu'il y avait une raison pour ça?

18 **M. BERTRAND BOUTELOUP :** Je pense que... et puis même, de  
19 ma petite fenêtre, on était pas mal concentrés sur nos problèmes individuels et on ne  
20 regardait plus trop ce qui se passait. J'aurais aimé qu'on le fasse un peu en avance; en  
21 général, c'est le genre d'informations que je préfère mettre en place un an avant le  
22 service commercial.

23 **Me CHRISTINE MAINVILLE:** Et vous aviez expliqué qu'environ au  
24 même moment OCTranspo commence à s'impliquer davantage dans le problème à titre  
25 d'opérateur du système.

26 **M. BERTRAND BOUTELOUP :** Exact. On est passés dans un  
27 mode plus de collaboration, je dirais, au niveau terrain, ce qui est normal puisqu'on  
28 faisait face à la même réalité des événements; il fallait pouvoir s'expliquer les

1 évènements et ça rentrait dans ce cadre-là, les échanges qu'on faisait. Alors, ce que  
2 vous appelez les revues de fiabilité, c'était aussi la façon d'expliquer comment le train  
3 réagissait et comment il fallait réagir face à un évènement, tout à fait.

4 **Me CHRISTINE MAINVILLE:** Et est-ce que je comprends que ces  
5 revues de fiabilité étaient surtout dirigées à l'opérateur, à OCTranspo?

6 **M. BERTRAND BOUTELOUP :** En fait, elles bénéficient aux deux,  
7 elles bénéficient aux deux. Ça permet d'appréhender le système pour un opérateur; ça  
8 permet aussi normalement le mainteneur, pardon, du système, de commencer à  
9 comprendre. Le mainteneur, dans ce cadre-là, n'est pas trop un sujet dans le sens où  
10 c'est la même société, Alstom, qui était dans les deux côtés au niveau au moins de la  
11 maintenance du train. Et donc, les gens de la maintenance du train faisaient confiance  
12 à ce qu'on avait, nous, mis en place au niveau de la garantie, du support garanti. Mais  
13 c'est vrai que ce genre de réunion permet à tout le monde de se mettre à niveau et de  
14 travailler ensemble sur comment opérer le système ou le train, quoi, tout à fait.

15 **Me CHRISTINE MAINVILLE:** Parce que ce sont, pour être très  
16 claire, des rapports qui font état des difficultés rencontrées avec les trains et des  
17 problèmes de fiabilité, notamment.

18 **M. BERTRAND BOUTELOUP :** Tout à fait – évènements ou  
19 fiabilité. En effet, on met tout sur la table, on dit « Tiens, hier, il y a eu... » En général,  
20 ça prend pour une petite semaine ou un peu plus pour analyser les sujets. On se dit « Il  
21 y a eu tel évènement face à face parce qu'il y a eu un problème là » ou « Vous avez  
22 mal réagi; attention, il ne faudrait pas faire ça, ça permettrait d'éviter ça ». C'est ce  
23 genre de discussions qui ont lieu lors de ces réunions, tout à fait.

24 **Me CHRISTINE MAINVILLE:** Et donc, le but...

25 **M. BERTRAND BOUTELOUP :** C'est factuel – voilà, c'est très  
26 factuel.

27 **Me CHRISTINE MAINVILLE:** ... oui et le but, c'est de s'assurer  
28 que tout le monde est au courant des difficultés et de la façon de...

1 **M. BERTRAND BOUTELOUP** : Exact.

2 **Me CHRISTINE MAINVILLE**: ... dont elles se font adresser?

3 **M. BERTRAND BOUTELOUP** : C'est un comptage d'évènements,  
4 donc c'est très factuel, oui.

5 **Me CHRISTINE MAINVILLE**: Est-ce que ces revues-là étaient  
6 discutées dans le contexte des réunions RAMP?

7 **M. BERTRAND BOUTELOUP** : RAMP?

8 **Me CHRISTINE MAINVILLE**: Rail Activation Management  
9 Program, je crois?

10 **M. BERTRAND BOUTELOUP** : Hum... non.

11 **Me CHRISTINE MAINVILLE**: Vous ne participiez pas vous-même?

12 **M. BERTRAND BOUTELOUP** : Non.

13 **Me CHRISTINE MAINVILLE**: Des réunions qui étaient menées par  
14 John Manconi et Michael Morgan, je crois?

15 **M. BERTRAND BOUTELOUP** : Non... non non, ça ne rentrait  
16 pas... bien, ça pouvait alimenter peut-être chez l'opérateur ces réunions-là, mais non  
17 non, nous, on ne participait pas. Les réunions dont je parle, c'est des réunions  
18 réunissant les représentants d'OCTranspo, de RTM partie maintenance, OLRTC, bien  
19 sûr, en tant que notre client, nous-mêmes. Voilà, c'était les principaux joueurs qui  
20 étaient présents à cette réunion.

21 **Me CHRISTINE MAINVILLE**: D'accord. Et je vais vous présenter  
22 l'une de ces présentations, mais avant, en termes des... au niveau des problèmes  
23 techniques qui surviennent en 2019, donc, avant l'entrée en service, est-ce que j'ai  
24 raison de dire qu'ils sont liés notamment au système de freinage HPU?

25 **M. BERTRAND BOUTELOUP** : Il y avait un sujet sur les HPU qui a  
26 nécessité une reprise durant l'été 2019 qui a été complétée. Oui, il y a eu ce sujet-là qui  
27 a été découvert, je pense, en avril-mai, qui a été solutionné en juin et implémenté au  
28 courant de l'été 2019, oui, il y en a eu un.

1 **Me CHRISTINE MAINVILLE:** Et il y a eu des problèmes au niveau  
2 des contacteurs?

3 **M. BERTRAND BOUTELOUP :** Il y a eu quelques problèmes, en  
4 effet, de fiabilité de contacteurs qui ont été remplacés au fur et à mesure.

5 **Me CHRISTINE MAINVILLE:** OK – les portes de cabines du train?

6 **M. BERTRAND BOUTELOUP :** Ça, ce n'était pas plutôt des  
7 évènements, c'était un choix. Il y a eu... il y a eu un choix qui a été fait aussi pour la  
8 sécurité des opérateurs de OCTranspo, il y a eu une demande de nous faire faire une  
9 serrure qui était « moins commerciale » - entre guillemets – en type de clé, plus... nous,  
10 on avait un autre sujet qui était un problème de réglage de ces cabines, donc on a réglé  
11 de cette façon en faisant une implémentation et une solution temporaires pour pouvoir  
12 permettre le démarrage. Donc en effet, il y a eu aussi une reprise de ces portes de  
13 cabines à l'été 2019, oui – qui a été finalisé avant le service commercial, de mémoire.

14 **Me CHRISTINE MAINVILLE:** Et des problèmes aussi avec les  
15 portes pour les passagers?

16 **M. BERTRAND BOUTELOUP :** Ça, c'est un peu plus compliqué, il  
17 y en a eu plusieurs... il y en a eu plusieurs sujets. Quelques sujets fonctionnels et il y a  
18 eu aussi des dysfonctionnements qui voulaient être couverts. Il y a eu des choix  
19 techniques qui ont été faits en toute transparence qui ont été remis en cause parce qu'il  
20 y avait des impacts sur l'interface voyageur. Et je me souviens qu'en effet, il y a eu des  
21 volontés de développer des fonctionnels différents; étant donné que les problèmes de  
22 certification d'un logiciel de portes est plus long – c'est exactement l'exemple qu'on  
23 reprenait tout à l'heure – il a été décidé de revenir à la situation, à un logiciel qui était  
24 certifié. Et datant... on a implémenté, je crois, en octobre ou novembre 2019 un  
25 nouveau software de portes qui corrigeait ce fonctionnel. Donc oui, il y a eu aussi ces  
26 sujets de portes.

27 **Me CHRISTINE MAINVILLE:** OK. Et qu'est-ce que vous voulez  
28 dire, il y a eu des choix techniques?

1                   **M. BERTRAND BOUTELOUP** : Il y a eu un choix fonctionnel qui a  
2 été fait sur le cyclage de fermeture de ces portes. Le système, qui était connu et choisi  
3 par notre fournisseur et nous et qui était présenté ne permettait pas la fermeture ou la  
4 refermeture, la tentative de refermeture des portes si un passager venait à faire  
5 obstacle à sa fermeture. Dès le premier cycle, la porte se mettait en défaut et il fallait  
6 une opération pour la faire... la refaire mettre en service.

7                   Ce qui a été mis en place plus tard, c'est une possibilité de si  
8 quelqu'un s'oppose à la fermeture de ces portes, de laisser la porte se rouvrir et de  
9 retenter de se fermer, ce qui permettait d'éviter l'intervention humaine et la porte restait  
10 fonctionnelle. C'est ce genre de choix technique qui avait été fait et donc, on ne voulait  
11 plus voir... OCTranspo ne voulait plus voir cet effet-là et donc, il a fallu le corriger, tout à  
12 fait.

13                   **Me CHRISTINE MAINVILLE**: D'accord. Et donc, ça, ça avait été  
14 une décision d'Alstom, vous dites, au départ?

15                   **M. BERTRAND BOUTELOUP** : C'est une décision design qui était  
16 connue, tout à fait. Le système réagissait tel que prévu; c'est juste que la conséquence  
17 vis-à-vis les voyageurs n'était pas celle voulu, donc il a fallu corriger.

18                   **Me CHRISTINE MAINVILLE**: D'accord. Et ça, normalement, est-ce  
19 qu'il y aurait eu des communications avec l'opérateur au préalable pour avoir ces  
20 discussions en termes de leurs attentes au niveau de l'opération et de ce qu'ils  
21 recherchaient?

22                   **M. BERTRAND BOUTELOUP** : Je n'étais pas tout à fait dans  
23 toutes les revues de design parce que je n'ai pas été dans tout le cycle de  
24 développement. Mais c'est tout à fait le genre de choses qui est présentée; alors, est-ce  
25 qu'au moment où on le présente d'une façon papier et document, ça se voit aussi  
26 facilement que le nez au milieu de la figure quand on est dans les opérations? Peut-être  
27 pas; donc parfois, on le loupe, ça arrive. Mais ce qui est sûr, c'est que c'est un choix qui  
28 avait été fait sciemment et qui a été repris suite aux essais et aux premiers essais et

1 aux premiers évènements qu'on a eus face à ces portes.

2 **Me CHRISTINE MAINVILLE:** D'accord. Et je crois qu'en 2019, il y  
3 a aussi eu des difficultés au niveau du pouvoir auxiliaire?

4 **M. BERTRAND BOUTELOUP :** Alors ça, c'est... le pouvoir... OK.  
5 Au niveau des unités de convertisseur, en effet, des auxiliaires...

6 **Me CHRISTINE MAINVILLE:** Voilà.

7 **M. BERTRAND BOUTELOUP :** ... tout à fait.

8 **Me CHRISTINE MAINVILLE:** Il fallait que je traduise, alors...

9 **M. BERTRAND BOUTELOUP :** Je l'ai compris... power! C'est bon.  
10 En effet, on a eu des défaillances associées à ces équipements qu'il a fallu corriger par  
11 la suite. Il a fallu faire des protections pour éviter qu'elles déclenchent, sachant que ce  
12 système avait des redondances, donc aurait pu fonctionner avec une unité sur les deux  
13 qui sont présentes sur le train, mais toutefois, il y avait un problème de stabilité du  
14 composant qui avait été notée, oui.

15 **Me CHRISTINE MAINVILLE:** Alors, peut-être qu'on peut présenter  
16 le document COW-0548732... COW-0548732. Je veux voir, Monsieur Bouteloup, s'il  
17 s'agit d'une présentation d'une de ces revues de fiabilité dont vous parlez?

18 **--- PIÈCE No. 107 :**

19 COW0548732 – Weekly MRS Review 11 September 2019

20 **M. BERTRAND BOUTELOUP :** D'accord.

21 **(COURTE PAUSE/SHORT PAUSE)**

22 **M. BERTRAND BOUTELOUP :** Oui?

23 **Me CHRISTINE MAINVILLE:** C'est ce dont il s'agit?

24 **M. BERTRAND BOUTELOUP :** Oui oui – ça, c'était des *weekly*  
25 que l'on mettait en place, oui.

26 **Me CHRISTINE MAINVILLE:** Donc, MRS, ça veut dire quoi?

27 **M. BERTRAND BOUTELOUP :** Vous me posez une question à  
28 laquelle je serais incapable... c'était à l'époque l'acronyme, je me souviens, pour les

1 évènements en amont, tous les évènements sortants du système.

2 **Me CHRISTINE MAINVILLE:** OK. Et on voit que ce rapport ou  
3 cette présentation est datée du 11 septembre 2019, c'est exact?

4 **M. BERTRAND BOUTELOUP :** OK.

5 **Me CHRISTINE MAINVILLE:** Donc, quelques jours, trois ou quatre  
6 jours avant l'entrée en service?

7 **M. BERTRAND BOUTELOUP :** D'accord.

8 **Me CHRISTINE MAINVILLE:** Oui?

9 **M. BERTRAND BOUTELOUP :** Oui oui, tout à fait.

10 **Me CHRISTINE MAINVILLE:** Alors, si on passe à la deuxième  
11 page, je vais essayer de comprendre ce qu'Alstom présente comme vous nous l'avez  
12 dit à OCTranspo, RTM et OLRTC en termes d'évènements. Donc, vous faites l'état,  
13 comme vous avez dit, de façon hebdomadaire, donc pour cette semaine-là, du 2 au 7  
14 septembre, des évènements principaux sur la ligne.

15 **M. BERTRAND BOUTELOUP :** M'hm, tout à fait.

16 **Me CHRISTINE MAINVILLE:** C'est exact?

17 **M. BERTRAND BOUTELOUP :** Oui, oui, tout à fait. Donc, il y a  
18 plusieurs comptages de certains évènements et c'est comme ça qu'on les a classifiés,  
19 tout à fait.

20 **Me CHRISTINE MAINVILLE:** OK. Et vous indiquez qu'il y a eu, par  
21 exemple cette semaine-là, 211 évènements principaux qui auraient pu affecter le  
22 service?

23 **M. BERTRAND BOUTELOUP :** Tout à fait, avec 62 dans un  
24 certain sous-système et 49 dans les autres, tout à fait, oui.

25 **Me CHRISTINE MAINVILLE:** Et ces sous-systèmes-là, pouvez-  
26 vous nous expliquer ce dont il s'agit, NDR?

27 **M. BERTRAND BOUTELOUP :** NDR, c'est la vidéosurveillance,  
28 *video recording*. Donc, c'est ce qui permet d'aller capturer toutes les images vidéo à



1 bord du train. PEI, c'est *passenger emergency interface*, c'est les boutons... c'est  
2 ce qui permet d'aller communiquer entre le passager et l'opérateur. Et le PIS, c'est en  
3 général tout ce qui est *passenger information system*, donc c'est les afficheurs à  
4 destination, c'est ce genre d'information, d'interface d'information vers le voyageur.

5 **Me CHRISTINE MAINVILLE:** OK. Donc, plusieurs difficultés au  
6 niveau des communications, des systèmes de communication, c'est exact?

7 **M. BERTRAND BOUTELOUP :** Exact.

8 **Me CHRISTINE MAINVILLE:** Et 49 autres évènements principaux.

9 **M. BERTRAND BOUTELOUP :** C'est exact.

10 **Me CHRISTINE MAINVILLE:** Et si on passe donc à la prochaine  
11 page, alors ici, on voit un schéma qui cherche à expliquer le type d'évènement qui s'est  
12 produit.

13 **M. BERTRAND BOUTELOUP :** Tout à fait. En fait, bon, si je peux  
14 vous aider... la première... bon, bien vous avez les dates. Pour chaque date, on a le  
15 kilométrage fait dans la journée puis après, on a par sous-système... les colonnes, c'est  
16 pas sous-système et les trois dont je parlais avant précédemment, sont ce qui s'appelle  
17 CCPV, PA et PIS; c'est là où on retrouve le gros morceau des 162 dont on parlait tout à  
18 l'heure. Et les autres 49 sont répartis dans différents sous-systèmes.

19 **Me CHRISTINE MAINVILLE:** Voilà. Et donc, on voit notamment  
20 qu'il y a des problèmes avec les freins mécaniques ou un problème?

21 **M. BERTRAND BOUTELOUP :** Il y en a eu plusieurs. Il y a eu  
22 sept...

23 **Me CHRISTINE MAINVILLE:** Oui, au mois d'août... plusieurs au  
24 mois d'août et un dans la semaine précédente.

25 **M. BERTRAND BOUTELOUP :** Un au mois d'août et un dans la  
26 semaine, tout à fait.

27 **Me CHRISTINE MAINVILLE:** Alors, c'est quel type de difficulté, si  
28 vous avez souvenir?

1                   **M. BERTRAND BOUTELOUP** : Alors là, je n'ai pas le souvenir  
2   sauf que la page m'indique [rires] celui qu'il y a eu, c'est ce qui s'appelle le HPU, alors  
3   c'est la partie hydraulique de la gestion du frein. Et le problème était précisément une  
4   fonte dans ce système hydraulique qui a posé problème. C'était le One-HPU que vous  
5   voyez en bas.

6                   **Me CHRISTINE MAINVILLE**: D'accord. Et plusieurs problèmes au  
7   niveau du voltage et de la traction au mois d'août, c'est exact?

8                   **M. BERTRAND BOUTELOUP** : Oui...

9                   **Me CHRISTINE MAINVILLE**: Vers la fin?

10                  **M. BERTRAND BOUTELOUP** : ... oui, c'était... oui, un voltage et  
11   traction, oui. C'est pour... OK, la subdivision était... dans les faits, on essayait de  
12   catégoriser pour pouvoir parler de sujets, tout à fait.

13                  **Me CHRISTINE MAINVILLE**: Est-ce qu'il s'agit de plus de  
14   problèmes ou d'évènements que vous souhaiteriez avoir à ce point, disons, avant...  
15   trois jours avant l'entrée en service?

16                  **M. BERTRAND BOUTELOUP** : Alors, si on met abstraction du  
17   volume de comptage du PA, PIS, les 162, les 49, bien sûr que c'est trop, c'est  
18   beaucoup – dans le sens que ça représente en moyenne plusieurs éléments par jour.  
19   Ça veut dire que vous devez réagir à plusieurs évènements. Normalement, dans ce  
20   niveau de maturité, on serait plutôt de l'ordre de un ou deux évènements par jour à  
21   gérer; c'est ce qui est plus souhaitable quand on veut démarrer en service.

22                  **Me CHRISTINE MAINVILLE**: Oups, pardon. Donc...

23                  **(PROBLÈME DE SON/SOUND PROBLEM)**

24                  **Me CHRISTINE MAINVILLE**: Alors vous dites, un ou deux  
25   évènements par jour c'était préférable, parce qu'il faut que les techniciens interviennent  
26   à chaque fois qu'il y a un évènement, c'est exact ?

27                  **M. BERTRAND BOUTELOUP**: Tout à fait, je vous ai fait une  
28   réponse globale. Encore une fois, dépendamment de l'évènement, comme je vous l'ai

1 dit tout à l'heure, un événement peut être couvert par une redondance au niveau du  
2 train, ce qui permet de ne pas impacter le service. Donc à ce moment-là le train il est  
3 malade, mais il continue sa mission et vous pouvez le traiter le soir. Mais encore une  
4 fois, ça ajoute de l'activité plus tard.

5 Mais donc, c'est pour ça que je me suis permis de faire une  
6 réponse un peu vague. On aurait souhaité un ou deux événements, maximums,  
7 impactant le service, c'est ça que je voulais dire.

8 **Me CHRISTINE MAINVILLE:** Et là, ce qu'on voit dans la dernière  
9 colonne avec le total, par jour, on a par exemple six événements, neuf événements,  
10 cinq, sept... jusqu'à dix événements dans la semaine précédent le service.

11 **M. BERTRAND BOUTELOUP:** Exact.

12 **Me CHRISTINE MAINVILLE:** Et si on passe à la prochaine page.  
13 La prochaine page, page 4, on voit la tendance. Pouvez-vous nous expliquer ce qu'on  
14 voit ici, la tendance...

15 **M. BERTRAND BOUTELOUP:** Ce que l'on fait en fiabilité, et celle-  
16 ci, je vais tout de suite mettre un bémol à la moindre conclusion. Ce que l'on graphe  
17 (sic), le graph qui est là, c'est le nombre d'événements par milliers de kilomètres. Donc  
18 ce que l'on cherche à regarder c'est, on va pouvoir mesurer la santé, je dirais, du  
19 système. On regarde s'il y a un événement tous les milles, tous les deux milles, tous les  
20 cinq mille kilomètres. Donc en fait, on fait le graphe, qui est le nombre d'événements  
21 par milliers de kilomètres. Donc quand vous voyez la tendance qui descend, c'est bon  
22 signe, c'est-à-dire qu'on améliore la fiabilité, il y a de moins en moins d'événements au  
23 millier de kilomètres. Donc ça, c'est... déjà la tendance, c'est la bonne.

24 Par contre, je mets tout de suite en garde, et j'avais tout de suite  
25 mis en garde tout le monde, on ne fait pas un suivi de fiabilité à la semaine, on le fait en  
26 général sur des volumes plus importants au niveau statistique, on le fait en général au  
27 mois, et d'ailleurs, si vous regardez les contraintes contractuelles que l'on met, c'est en  
28 général des périodes plus larges, avec des moyennes sur deux à trois mois. C'est en

1 général comme ça dans les contrats. Là, ce qu'on voulait, c'est avec le peu de recul  
2 que l'on avait, quelle était la tendance sur les dernières semaines. Donc on regardait  
3 qu'on arrivait à résoudre certains problèmes, mais il en restait. La courbe en *dotted line*  
4 en plus, c'était pour montrer qu'on a les solutions et le temps qu'on les implémente sur  
5 les trains, ça permettrait de revenir à la courbe en *dotted line*. En amont, entre la courbe  
6 en dur qui était les événements et la courbe *dotted*, c'était pour montrer qu'en  
7 implémentant les solutions que l'on connaît, on serait là. C'est ça la courbe en *dotted*  
8 *line* que vous voyez.

9 **Me CHRISTINE MAINVILLE:** D'accord. Et est-ce que...

10 **M. BERTRAND BOUTELOUP:** Oui c'est à peu près... je veux juste  
11 revenir encore sur ce que je vous ai dit.

12 **Me CHRISTINE MAINVILLE:** M'mm.

13 **M. BERTRAND BOUTELOUP:** Cette courbe en *dotted line* est à  
14 peu près au niveau que l'on souhaiterait. Je vous ai parlé d'un ou deux événements par  
15 jour, ça montre que techniquement, si on a le temps d'implémenter sur les trains on  
16 serait à un ou deux événements par jour et c'est ce que l'on voulait. C'est en ligne avec  
17 ce que je vous ai dit tout à l'heure.

18 **Me CHRISTINE MAINVILLE:** Et si on passe à la page, je crois que  
19 ça serait la page 13 en fait.

20 **(COURTE PAUSE)**

21 **Me CHRISTINE MAINVILLE:** Là on voit que, par exemple, au  
22 niveau de votre présentation, vous donnez plus de détails sur chacun... chaque type  
23 d'événement, c'est exact ?

24 **M. BERTRAND BOUTELOUP:** Là c'était aussi pour... oui. C'est  
25 surtout pour dire... je reviens encore sur le sujet que je viens de vous dire. On avait des  
26 solutions connues et on commençait à les implémenter. Donc là on mettait le niveau  
27 d'avancement de l'implémentation de certaines solutions. C'est exactement ce que ce  
28 *slide* dit.

1                   **Me CHRISTINE MAINVILLE:** Et est-ce qu'il y a autre chose qui est  
2 dit lors de ces rencontres en lien avec ces présentations ? Vous avez fait mention  
3 notamment que vous faisiez une mise en garde, qu'il ne s'agit pas de regarder au  
4 niveau des statistiques de fiabilité à la semaine, il faut tenir compte du mois. Est-ce  
5 que... Comment relatez-vous, vous diriez, la fiabilité du système à ce stade ? Qu'est-ce  
6 qui est dit dans le contexte de ces présentations-là ?

7                   **M. BERTRAND BOUTELOUP:** Premièrement, je veux quand  
8 même préciser, ces présentations ont toujours... et les échanges associés à ces  
9 présentations ont toujours été collaboratives. On a senti tout le monde qui souhaitait  
10 soutenir et aider et faire en sorte, je vous le dis clairement, il y avait beaucoup de  
11 positionnement contractuel, on pourra y revenir, mais dans le cas de ces réunions au C-  
12 Transpo, RTM, Alstom, avaient les mêmes intérêts d'aller expliquer et de se rassurer  
13 sur « on avait des solutions ». Ça, je voudrais déjà le dire. C'était clairement le  
14 message qu'on conveillait (sic), qu'on portait lors de ces réunions. Après au global il  
15 pouvait y avoir d'autres réunions managériales, où il y avait d'autres sujets évoqués,  
16 avec des enjeux et des risques, mais là au niveau très factuel, on essayait tout (l'audio  
17 coupe) de se rassurer qu'on avait la compréhension, les bonnes réactions et qu'on allait  
18 intervenir pour éviter l'impact de ces événements sur le service. Je préfère le préciser,  
19 ce n'était pas...

20                   **Me CHRISTINE MAINVILLE:** Donc...

21                   **M. BERTRAND BOUTELOUP:** Le but de ces réunions, c'était  
22 vraiment transparent et comment on fait pour s'en sortir.

23                   **Me CHRISTINE MAINVILLE:** Donc est-ce que, si je comprends  
24 bien, Alstom cherchait quand même à rassurer...

25                   **M. BERTRAND BOUTELOUP:** Oui.

26                   **Me CHRISTINE MAINVILLE:** Oui. Et est-ce que c'est exact de dire  
27 donc que Alstom a peut-être cherché à faire comprendre qu'il s'agissait de problèmes  
28 mineurs ?

1 **M. BERTRAND BOUTELOUP:** On n'a jamais minimisé...

2 **Me CHRISTINE MAINVILLE:** Ou...

3 **M. BERTRAND BOUTELOUP:** On n'a jamais minimisé les  
4 impacts. On avait un discours positif. Même si on était factuels, il fallait expliquer les  
5 sujets. On faisait face à cette situation, mais on faisait face ensemble à cette situation.  
6 Ce que je veux dire, c'est qu'autour de la table lors de ces réunions, il y avait le même  
7 but commun.

8 **Me CHRISTINE MAINVILLE:** D'accord. Et vous avez dit... on peut  
9 retirer ce document. Merci. Vous avez dit que outre ces réunions où on parlait de divers  
10 problèmes techniques et des événements, il y avait des réunions au niveau managérial.  
11 Des gestionnaires. Pouvez-vous... donc pouvez-vous nous parler un peu plus de ces  
12 discussions-là et de qui était présent lors de ces réunions-là ?

13 **M. BERTRAND BOUTELOUP:** Alors en parallèle de ces réunions-  
14 là, il y avait des réunions hebdomadaires avec OLRT, OLRTC et nous, sur le suivi  
15 notamment des points ouverts, des *snags*, des *opens points*, des sujets qu'il pourrait y  
16 avoir sur les acceptances des trains. Il y a eu en parallèle, des choses qui s'appelaient  
17 les « *Weekly progress* » ou c'était « *Fleet one upgrade...* » Tout le plan de remise à  
18 niveau des trains, comme je vous l'ai dit, il y avait un gros programme de rétrofit et de  
19 reprises et de modifications. Donc celui-ci était suivi entre l'ORTC et nous, d'une façon  
20 très factuelle et comptable et on s'évoquait nos difficultés, notamment à reprendre les  
21 trains, puisque dans cette période-là, c'était un petit peu... chargé. Les trains on les  
22 voulait pour faire les essais, les trains on les voulait pour faire le (l'audio coupe). Les  
23 trains on les voulait, mais nous on les voulait aussi pour faire les modifications. Donc il y  
24 avait des choix à faire et ces choix-là étaient faits entre OLRTC et Alstom d'une façon  
25 complètement ouverte, pendant toute la période, je dirais, de mai 2019 à août 2019. On  
26 a fait ça aussi. Donc en parallèle, il y avait toutes les réunions managériales entre la  
27 direction de projet de l'ORTC et nous-mêmes, où on faisait l'état des lieux de la maturité  
28 et des modifications en fait, et des enjeux. Et aussi...

1 **Me CHRISTINE MAINVILLE:** D'accord. Alors ça, ça n'incluait pas  
2 la ville.

3 **M. BERTRAND BOUTELOUP:** Ça, ça n'incluait pas la ville, tout à  
4 fait.

5 **Me CHRISTINE MAINVILLE:** OK, mais si on... Alors si on revient  
6 aux réunions techniques, est-ce qu'on pourrait présenter le document COW0445502 ?

7 **--- PIÈCE NO. 108**

8 COW0445502 – Email from Bertrand Bourteloup (Alstom) to  
9 Jacob Claude (RTM) et al Re: MRS Event Review 28 August  
10 2019

11 **(COURTE PAUSE)**

12 **COMMISSAIRE HOURIGAN:** Repeat the number please.

13 **Me CHRISTINE MAINVILLE:** COW0445502.

14 **(COURTE PAUSE)**

15 **Me CHRISTINE MAINVILLE:** Alors je veux juste qu'on soit clairs  
16 sur les gens qui étaient inclus ici. Vous voyez que c'est un courriel de vous-même qui  
17 achemine une présentation comme celle qu'on vient de voir, c'est exact ? Le « *Weekly*  
18 *MRS review* » ?

19 **M. BERTRAND BOUTELOUP:** Exact. OK. Tout à fait, oui.

20 **Me CHRISTINE MAINVILLE:** Oui. Et vous faisiez parvenir ça à  
21 chaque semaine donc, à ces gens ?

22 **M. BERTRAND BOUTELOUP:** Tout à fait. On le partageait aux  
23 gens qui étaient présents à la réunion, mais là, c'est une autre distribution puisque  
24 beaucoup de gens regardaient cet « état de santé », entre guillemets, de la flotte et  
25 donc on le partageait notamment... et là, on le partageait avec le management de RTM  
26 principalement, et de RTG...

27 **Me CHRISTINE MAINVILLE:** Et on voit aussi OC-Transpo, c'est  
28 exact ? Troy Charter et Matt Peters ---

1 **M. BERTRAND BOUTELOUP:** Exact.

2 **Me CHRISTINE MAINVILLE:** --- avec OC-Transpo.

3 **M. BERTRAND BOUTELOUP:** Exact.

4 **Me CHRISTINE MAINVILLE:** Et on voit également Alstom  
5 maintenance, l'équipe d'entretien, notamment Richard France.

6 **M. BERTRAND BOUTELOUP:** Oui.

7 **Me CHRISTINE MAINVILLE:** Et comme vous l'avez dit RTG, RTM  
8 et aussi OLRTC, exact ?

9 **M. BERTRAND BOUTELOUP:** Exact.

10 **Me CHRISTINE MAINVILLE:** Et donc, tout le monde... on peut dire  
11 tout le monde, tous ces gens-là du moins, toutes ces organisations-là, qu'on vient de  
12 mentionner, étaient au courant des événements sur le système à travers l'année 2019  
13 jusqu'à l'entrée en service et même après, je crois.

14 **M. BERTRAND BOUTELOUP:** Très clairement, c'est le genre de  
15 chose que l'on fait et que l'on fait d'une façon complètement ouverte, comme je vous l'ai  
16 expliqué. C'est des faits et, tout à fait, c'était connu de tous les... tous les participants.

17 **Me CHRISTINE MAINVILLE:** Diriez-vous donc que ces parties, y  
18 compris OC-Transpo, savaient très bien donc que la période d'opération et d'entretien  
19 n'allait pas être facile ?

20 **M. BERTRAND BOUTELOUP:** Ils connaissaient les enjeux, tout à  
21 fait. Après, suivant la façon dont on le prend, comme vous l'avez expliqué tout à l'heure,  
22 il y a une façon positive de se dire « on a des solutions, on va y aller. » Puis il y a une  
23 façon de, ben on est un petit peu désolé de voir tout ce qui reste encore à faire. Mais le  
24 mieux pour tout le monde, c'est que l'ensemble des intervenants, que ce soit des  
25 opérateurs, des *drivers*, des gens qui maintiennent, sache les conséquences de ce qui  
26 se passe. Donc oui, tout à fait, c'était connu de tout le monde.

27 **Me CHRISTINE MAINVILLE:** Et au niveau de cette positivité dont  
28 vous parlez, si on peut aller à ALS, au document ALS0008105. Donc *ALS0008105*.



1 **--- PIÈCE NO. 109**

2 ALS0008105 – Minutes of Alstom Weekly Management  
3 Meeting 15 May 2019

4 **(COURTE PAUSE)**

5 **COMMISSAIRE HOURIGAN:** Can we have the number again,  
6 please?

7 **Me CHRISTINE MAINVILLE:** Yes. *ALS0008105*.

8 **(COURTE PAUSE)**

9 **Me CHRISTINE MAINVILLE:** Voilà donc, reconnaissez-vous que  
10 ce sont des minutes d'une réunion interne d'Alstom ?

11 **M. BERTRAND BOUTELOUP:** Oui. OK, ça, c'est une réunion de  
12 site. Tout à fait, c'est une réunion interne Alstom, oui.

13 **Me CHRISTINE MAINVILLE:** Et vous êtes présent, vous voyez,  
14 vous êtes le dernier dans la liste, numéro 11. Pas... pas en termes d'importance,  
15 j'imagine.

16 **M. BERTRAND BOUTELOUP:** Merci de la place que vous me  
17 donnez, mais oui, je me vois. (Rires)

18 **Me CHRISTINE MAINVILLE:** Et c'est une réunion du mois de mai  
19 2019.

20 **M. BERTRAND BOUTELOUP:** OK.

21 **Me CHRISTINE MAINVILLE:** Oui ? Et si on...

22 **M. BERTRAND BOUTELOUP:** Oui.

23 **Me CHRISTINE MAINVILLE:** Si on passe à la page 2.

24 **(COURTE PAUSE)**

25 **Me CHRISTINE MAINVILLE:** À la page 2...

26 **M. BERTRAND BOUTELOUP:** Quand on arrive à la page 2, ce  
27 contexte, c'est des réunions d'équipe en effet, sur le site d'Ottawa et donne les  
28 nouvelles de tout.

1 **Me CHRISTINE MAINVILLE:** D'accord. Et vous voyez votre nom,  
2 Bertrand, vous faites une mise à jour.

3 **M. BERTRAND BOUTELOUP:** M'mm.

4 **Me CHRISTINE MAINVILLE:** Et vous voyez le dernier point  
5 situation is tough, however, Alstom continue to support revenue service date of July 1st.  
6 Vous voyez ?

7 **M. BERTRAND BOUTELOUP:** Tout à fait.

8 **Me CHRISTINE MAINVILLE:** Donc...

9 **M. BERTRAND BOUTELOUP:** C'est le genre de phrase que je  
10 suis capable de dire. (Rires)

11 **Me CHRISTINE MAINVILLE:** Donc, à ce moment-là, au mois de  
12 mai 2019, on cherche à arriver à une date de *Revenue service* le 1<sup>er</sup> juillet.

13 **M. BERTRAND BOUTELOUP:** C'était l'objectif fixé à ce moment-là  
14 pour le « *Revenue service readiness* », je pense.

15 **Me CHRISTINE MAINVILLE:** Oui.

16 **M. BERTRAND BOUTELOUP:** Pour pouvoir démarrer le *trial run*.  
17 C'était le plan qui nous avait été partagé par OLRTC à ce moment-là, tout à fait.

18 **Me CHRISTINE MAINVILLE:** D'accord, une date RSA. Et malgré  
19 les difficultés rencontrées, on voit que Alstom soutenait l'effort.

20 **M. BERTRAND BOUTELOUP:** La période était en effet très  
21 intense, et donc le message était positif vis-à-vis des équipes qui donnaient beaucoup  
22 pour faire des rétrofits et des modifications avant la date du 1<sup>er</sup> juillet. Donc je savais  
23 que c'était compliqué, je leur partageais la difficulté avec eux, mais je leur demandais  
24 tous les efforts pour soutenir et aller à cette date. C'est la principale raison de cette  
25 phrase.

26 **Me CHRISTINE MAINVILLE:** Et on voit : Alstom vehicles are under  
27 the spotlight.

28 Un peu plus haut.

1 **M. BERTRAND BOUTELOUP:** M'mm.

2 **Me CHRISTINE MAINVILLE:** J'imagine parce qu'il y a des  
3 difficultés à ce moment-là avec les véhicules.

4 **M. BERTRAND BOUTELOUP:** Il y avait beaucoup, beaucoup de  
5 focus qui avait été mis, et emphase qui avait été mis sur les trains et la disponibilité des  
6 trains. Donc je disais qu'en effet on était au centre des discussions.

7 **Me CHRISTINE MAINVILLE:** OK. Et qu'est-ce que... vous  
8 indiquez : Within our management team, there has been some reactions to this. We  
9 must concentrate and focus on Alstom's scope.

10 Vous vous souvenez de ce que vous vouliez...

11 **M. BERTRAND BOUTELOUP:** En fait... oui, oui. Je rassurais  
12 l'équipe « qu'on défendait les intérêts d'Alstom, ne vous inquiétez pas. Ce que je vous  
13 demande, c'est de vous concentrer sur ce que vous avez à faire. » C'est exactement  
14 l'interprétation qu'il faut faire de cette phrase.

15 **Me CHRISTINE MAINVILLE:** OK et train priorities have shifted.  
16 Alstom is asking for and getting back more LRVs to work on our snags, fixes,  
17 investigations, et cetera.

18 **M. BERTRAND BOUTELOUP:** Exact. C'est plus de la motivation,  
19 dans les faits, que je faisais. Je ne voulais pas que l'équipe, ni se décourage, ni  
20 considère que c'était à eux de défendre les intérêts et on était complètement sous le  
21 joug de certaines remarques à l'époque. Il y avait beaucoup, beaucoup de  
22 communications, donc j'essayais de les protéger au maximum.

23 **Me CHRISTINE MAINVILLE:** Et quelles sont les priorités au niveau  
24 des trains qui avaient changés, si vous avez souvenir ?

25 **M. BERTRAND BOUTELOUP:** À cette époque-là, l'importance  
26 était absolument fondamentale, et je le comprends, et j'étais tout à fait d'accord,  
27 d'obtenir assez de trains pour pouvoir valider le système. Si vous vous rappelez, il y  
28 avait pas mal d'interfaces encore aux mois de mai, juin, qui étaient à définir. Il y avait

1 une nouvelle version de signalisation qui était annoncée. Il fallait absolument le bon  
2 nombre de véhicules d'une façon stable, c'est-à-dire... comment dire... avec un  
3 fonctionnel connu pour que les gens puissent faire cette phase de test. Donc il y avait  
4 vraiment un focus très très important sur obtenir le minimum de trains pour pouvoir faire  
5 ça. Je me souviens que c'était vraiment l'action principale associée à ce moment-là.

6 **Me CHRISTINE MAINVILLE:** Et au niveau du soutien d'Alstom  
7 pour une date d'entrée en service, c'est-à-dire de disponibilité, donc RSA, pour l'entrée  
8 en service assez rapprochée, vous aviez parlé de pression vécue en 2019... de  
9 pression sur Alstom pour faire accepter les trains.

10 **M. BERTRAND BOUTELOUP:** En fait, il y avait plusieurs choses  
11 en parallèle. On a évoqué tout à l'heure déjà les notions de open item list pour les  
12 acceptances des trains, au même moment il y avait ce processus contractuel à passer,  
13 ou une inspection à passer. Il y avait tous les sujets, les nôtres à résoudre, il y avait tout  
14 ça. Et il y avait aussi le support pour le *System integration* et ça, j'ai toujours dans ma  
15 tête qu'il ne faut jamais perdre l'objectif final. Même si on met en porte-à-faux certains  
16 choix pour Alstom, mon but était aussi de soutenir l'opérationnel pour pouvoir faire une  
17 validation, une intégration. Toutes ces priorités, il fallait, dans ces périodes intenses,  
18 gérer cette pression en fait. Comme je vous l'ai dit tout à l'heure, il y avait beaucoup de  
19 choses qui se passaient au MSF. On avait aussi en parallèle la construction des trains  
20 de deuxième... de la deuxième phase. Il a fallu rediriger nos forces et nos ressources  
21 pour aller faire la phase 1. Tous ces choix-là sont des choix et des priorités. Il y avait  
22 une énorme pression de différentes natures à ce moment-là, il fallait garder la tête  
23 froide pour voir ce qu'on voulait. Il faut toujours garder en tête l'objectif final, qui est de  
24 transporter des passagers.

25 **Me CHRISTINE MAINVILLE:** Et au niveau de cette pression, sur  
26 Alstom plus précisément, je comprends qu'en grande partie c'était tout simplement pour  
27 rencontrer vos obligations contractuelles vous avez dit.

28 **M. BERTRAND BOUTELOUP:** Ça, c'est depuis je dirais, si on

1 revient au point de tout à l'heure, l'attitude de notre client à l'ORTC clairement en 2018  
2 a changé et il y avait une énorme pression contractuelle dans la part des lettres, mais  
3 que je ne voulais pas laisser transpirer auprès des équipes opérationnelles. Cette  
4 pression-là on la gardait, je dirais, plus au niveau contractuel et projet. On a essayé de  
5 la garder à ce niveau-là, il y avait aussi une pression financière associée à certains  
6 jalons, *mile stone*, mais encore une fois, on essaie de gérer tout en étant transparent  
7 avec ses équipes, ce que vous... je réagis par rapport aux phrases qui sont là. On  
8 essaie de gérer les priorités et pour le bien de où on veut aller. Donc suivant l'auditoire  
9 auquel on s'adresse, on a des discours positifs ou on a des discours, je dirais plus  
10 agressifs quand on est dans des réponses de lettre. Il y a eu des échanges assez  
11 importants contractuellement, entre OLRTC et nous dans cette période-là en même  
12 temps. Donc ce n'est pas facile de garder les bonnes priorités à ce moment-là. Donc  
13 c'est un peu tout ça (l'audio coupe) système de pression qu'il y a eu.

14 **Me CHRISTINE MAINVILLE:** D'accord. Et vous aviez parlé d'une  
15 réunion au mois d'août 2019 avec la ville et tout le monde où... qui était très tendue tout  
16 de même.

17 **M. BERTRAND BOUTELOUP:** Ça, c'est une autre tension. En fait,  
18 dans la *readiness* on sentait qu'il y avait pas mal d'enjeux importants et il y avait  
19 notamment des enjeux très, très importants pour RTG au global, parce que c'est quand  
20 même un *mile stone* qui est important pour Alstom, parce que c'est un des *mile stone*  
21 associé à la réception de ces trains-là. Mais il y avait aussi d'autres enjeux au niveau  
22 globaux de ce projet, suite à l'annonce *Trial run* qui est un succès, la date qui a été  
23 fixée, du 14 septembre, on sentait qu'il y avait... plus on se rapprochait de cette date, il  
24 y avait des pressions. Et en effet, il y a eu une réunion, je ne me souviens pas  
25 exactement de la date, où c'était... on sentait qu'il y avait beaucoup de tensions  
26 possibles. Oui.

27 **Me CHRISTINE MAINVILLE:** Et on peut faire descendre ce  
28 document, merci. Et Alstom n'a pas participé aux *trial running*, autre que pour fournir les

1 trains. C'est exact ?

2 **M. BERTRAND BOUTELOUP:** Oui, on y a contribué en ayant un  
3 gros sous-système. On y a aussi contribué en analysant les événements, mais on n'a  
4 pas participé aux délibérations associées au *trial running*, non.

5 **Me CHRISTINE MAINVILLE:** Voilà. Vous vous attardiez aux  
6 incidents qui survenaient sur la ligne, mais autrement vous n'étiez pas au courant des  
7 résultats ou des autres données, c'est exact ?

8 **M. BERTRAND BOUTELOUP:** Non. Nous n'étions pas dans les  
9 discussions, non.

10 **Me CHRISTINE MAINVILLE:** Mais vous avez continué à avoir des  
11 événements lors de la période de *trial running*.

12 **M. BERTRAND BOUTELOUP:** Tout à fait.

13 **Me CHRISTINE MAINVILLE:** Et on... si on peut montrer par  
14 exemple, le document COW0445315. COW0445315.

15 **--- PIÈCE NO. 110**

16 COW0445315 – Weekly MRS Review 28 August 2019

17 **(COURTE PAUSE)**

18 **Me CHRISTINE MAINVILLE:** Ici on va... d'abord on va voir la date  
19 ici. Alors le 28 août 2019. Donc suite au *trial running*, c'est exact ?

20 **M. BERTRAND BOUTELOUP:** Exact.

21 **Me CHRISTINE MAINVILLE:** Peu après. Et si on va à la page 3.

22 **(COURTE PAUSE)**

23 **Me CHRISTINE MAINVILLE:** Page 3, *page 3*, on va voir, voilà le  
24 même tableau qu'on a vu au préalable et là on voit, vous voyez à la gauche tout à fait,  
25 on voit « TR » pour « *Trial running* ». On a toutes les dates, c'est exact, pour le *trial*  
26 *running*.

27 **M. BERTRAND BOUTELOUP:** Exact. On a essayé de séparer la  
28 période du *trial running*. Oui.

1                   **Me CHRISTINE MAINVILLE:** Et là on voit, notamment qu'il y a  
2 encore plusieurs événements, si on voit dans les totaux, dans la colonne, la dernière  
3 colonne. Encore une fois, plus d'événements au départ, mais certainement même vers  
4 la fin, huit, six, sept, six événements par jour.

5                   **M. BERTRAND BOUTELOUP:** Tout à fait.

6                   **Me CHRISTINE MAINVILLE:** Ce qui est plus que ce que vous  
7 souhaiteriez avoir, comme vous l'avez indiqué.

8                   **M. BERTRAND BOUTELOUP:** Comme je l'indiquais, c'est tout à  
9 fait. Après il y avait des événements explicables pour lesquels on pouvait vivre avec et il  
10 y a ceux qui étaient par contre des événements qui allaient impacter le service, oui.

11                   **Me CHRISTINE MAINVILLE:** Voilà, parce que ces événements-là  
12 pourraient très bien avoir... ou aurait vraiment un impact sur le service.

13                   **M. BERTRAND BOUTELOUP:** Tout à fait.

14                   **Me CHRISTINE MAINVILLE:** Et donc, c'est exact de dire que vous  
15 saviez, c'était connu de part et d'autre que l'entrée en service n'allait pas être parfaite,  
16 qu'il y aurait des incidents.

17                   **M. BERTRAND BOUTELOUP:** Tout à fait, c'était connu de toutes  
18 les parties.

19                   **Me CHRISTINE MAINVILLE:** Et que ce serait difficile d'offrir le  
20 plein service.

21                   **M. BERTRAND BOUTELOUP:** Il y aurait certainement des  
22 événements derrière associés, on ne peut pas résoudre tout d'un seul coup. Donc oui,  
23 c'était connu.

24                   **Me CHRISTINE MAINVILLE:** Et les trains avaient déjà été  
25 acceptés à ce moment-là par la ville ? C'est-à-dire non, à la date de RSA ?

26                   **M. BERTRAND BOUTELOUP:** Alors le système d'acceptation de  
27 ces trains est un peu... est en deux étapes. Donc pour votre information, il y avait  
28 d'abord la *provisional acceptance* qui était faite entre OLRTC et Alstom, et cela en effet

1 était fait et accepté puisque OLRTC devait prendre possession de ces trains pour faire  
2 ses essais et tout ça. Donc ça, c'était placé. Restait l'acceptation finale et de mémoire,  
3 l'intégralité des trains n'était pas encore passée en acceptation finale. Je pense qu'il y  
4 avait encore des *open item list* qui devaient être résolues avant de pouvoir considérer  
5 les trains comme acceptés.

6 **Me CHRISTINE MAINVILLE:** D'accord. Et j'y arrive à cette liste.  
7 Mais du point de vue d'Alstom donc, les trains, et même s'il restait des modifications à  
8 faire et certains défauts si vous... à corriger, les trains pouvaient être remis à la ville, ils  
9 étaient sécuritaires de votre point de vue et c'était le critère surtout à rencontrer.

10 **M. BERTRAND BOUTELOUP:** Alors on... encore une fois je  
11 réagis face au document qui est devant (l'audio coupe) ce n'est pas ce document qui  
12 l'atteste...

13 **Me CHRISTINE MAINVILLE:** Non, et on peut le défendre en fait,  
14 je...

15 **M. BERTRAND BOUTELOUP:** Non, non. Mais tout à fait avant on  
16 a un processus interne. Il y a plusieurs processus, pardon. Le processus *Safety* global  
17 du projet était sous *Safety case* qui passait par des événements... pardon, des  
18 données, de la part d'Alstom ou des différents participants au système. Ça, c'est le  
19 processus officiel de soumission du *Safety case* global du système et on y a contribué.  
20 En plus de ça, en parallèle, nous avons un processus interne chez Alstom qui oblige à  
21 s'assurer qu'on a bien rempli toutes nos obligations pour considérer que c'est *safe*.  
22 C'est un processus qui nécessite plusieurs signatures en interne, parce que ça s'appuie  
23 sur tout notre système qualité. Donc oui, Alstom, je crois en début septembre, a fini ce  
24 processus et a validé internalement (sic)... de façon interne pardon, que les trains  
25 étaient *safe* pour des opérations et qu'ils pouvaient transporter des passagers. Oui.

26 **Me CHRISTINE MAINVILLE:** Et donc même s'il reste certains  
27 problèmes de fiabilité, c'est... est-ce que la position d'Alstom c'est « une fois les trains  
28 sécuritaires ils peuvent être acceptés par la ville et au final c'est à la ville de les



1 accepter » ?

2 **M. BERTRAND BOUTELOUP:** Donc encore une fois, c'est un  
3 choix et un compromis. Ce que l'on dit par ce document interne, et je crois, évoquait,  
4 c'est que les trains étaient sécuritaires. Donc Alstom passait à travers toutes les *gate*  
5 *review*, tous les *process* internes et il considère que les trains sont... ils peuvent  
6 transporter des passagers. C'est un document comme ça qui permet de passer... après  
7 le choix de les rentrer en service, après ça dépend de la... du support et des opérations  
8 que vous souhaitez. Il y a des entrées en service progressives, où on peut lancer trois  
9 trains tous les matins puis après quatre. On peut y aller d'une façon progressive, après  
10 l'effort est associé à la globalité des sujets ouverts. Donc je dirais, nous, on avait fait  
11 notre minimum pour la partie *safe*, ça, c'est sûr, après les connaissances et le choix  
12 d'enclencher le service commercial doit être fait entre le constructeur, l'opérateur et le  
13 mainteneur. C'est en général comme ça que ça se passe. Parce qu'il y a toujours un  
14 niveau de risque associé.

15 **Me CHRISTINE MAINVILLE:** Voilà. Et savez-vous si une telle  
16 entrée progressive en service a été soulevée par Alstom ?

17 **M. BERTRAND BOUTELOUP:** Alors il a, de ce que je (l'audio  
18 coupe), oui en début 2018, notre *management* l'a évoqué au *management* des trois  
19 partenaires de RTG, dans une rencontre qui a eu lieu à Montréal, dont je me souviens,  
20 le 3 janvier. Ça, ça a été évoqué. Ça a été très vite retoqué quelques mois après, mars-  
21 avril 2018, non, on n'ira pas en services progressifs, on démarrera avec le service... le  
22 niveau de service associé. C'était la réponse qu'on avait eue par rapport à ça. C'est  
23 clair que c'est un niveau de risque supplémentaire quand on démarre cent pour cent de  
24 la capacité ou cent pour cent du service d'un seul coup.

25 **Me CHRISTINE MAINVILLE:** Et pour être clair, ç'a été soulevé  
26 début 2018 avec... auprès de OLRTC, c'est exact?

27 **M. BERTRAND BOUTELOUP:** Mm.

28 **Me CHRISTINE MAINVILLE:** Parce c'est votre client.

1 **M. BERTRAND BOUTELOUP:** Oui.

2 **Me CHRISTINE MAINVILLE:** Et deux ou trois mois plus tard, ils  
3 sont revenus, si je comprends bien, pour dire ça ne sera pas possible.

4 **M. BERTRAND BOUTELOUP:** On n'ira pas là, tout à fait.

5 **Me CHRISTINE MAINVILLE:** On n'ira pas là. Et savez-vous quelle  
6 discussion ils ont eue avec la Ville à cet égard?

7 **M. BERTRAND BOUTELOUP:** Du tout. On n'était pas impliqués,  
8 on n'était pas... par contre, on a pris acte parce que ç'aurait été quelque chose...  
9 pourquoi nous l'avons invoqué, c'est parce que y'avait certaines compressions du  
10 planning déjà à cette époque-là et une des façons qui était de le faire était de dire, ben,  
11 si on n'est pas capables d'aller avec 34 ou 30 véhicules, faisons-le d'une façon plus  
12 progressive, ça permettra d'éviter certaines pressions du public et des opérations par  
13 rapport à cette maturité. Voilà. Ç'a été assez rapidement mis sur le côté.

14 **Me CHRISTINE MAINVILLE:** Et donc, ça n'a pas été resoulevé par  
15 la suite par Alstom?

16 **M. BERTRAND BOUTELOUP:** Non, on ne l'a plus resoulevé. On  
17 en a parlé comme ça, mais on ne l'a jamais resoulevé, non.

18 **Me CHRISTINE MAINVILLE:** Est-ce que, à votre connaissance, la  
19 Ville a consulté ou cherché à consulter Alstom par rapport à l'entrée en service, que ce  
20 soit la façon dont ça devrait se produire ou simplement la date ou la... ou à savoir si les  
21 trains étaient prêts, suffisamment prêts pour l'entrée en service?

22 **M. BERTRAND BOUTELOUP:** À mon niveau, y'a pas eu des  
23 échanges autres que les échanges opérationnels que vous avez mentionnés avec les  
24 « *weekly* » qui étaient vraiment de la pure opération --- Après, au niveau global du  
25 projet, nous n'avons pas été impliqués. Moi, à mon niveau, je pense pas qu'Alstom ait  
26 été impliquée. Les enjeux étaient plus gérés entre RTG et la Ville.

27 **Me CHRISTINE MAINVILLE:** Et on avait parlé un peu du « *trail*  
28 *running* », lorsque ça s'est entamé...

1                   **COMMISSIONER HOURIGAN:** Counsel? Counsel, I need to move  
2 to another area. We'll take the morning break, all right? Thank you.

3                   **MS. CHRISTINE MAINVILLE:** Yes, thank you.

4                   **THE REGISTRAR:** Order. All rise.

5                   The Commission will recess for 15 minutes.

6 --- Upon recessing at 10:30 a.m.

7 --- Upon resuming at 10:51 a.m.

8                   **THE REGISTRAR:** The Commission is now resumed.

9                   **MS. CHRISTINE MAINVILLE:** We may proceed, Mr.  
10 Commissioner?

11                   **COMMISSIONER HOURIGAN:** Please proceed.

12 **--- M. BERTRAND BOUTELOUP, Sous le même serment:**

13 **--- INTERROGATOIRE EN-CHEF PAR Me CHRISTINE MAINVILLE (suite)**

14                   **Me CHRISTINE MAINVILLE:** Alors, Monsieur Bouteloup, on a  
15 expliqué que... vous avez expliqué que, lors de la période du « *trial running* », Alstom  
16 s'attardait surtout principalement aux événements qui survenaient sur la ligne. C'est  
17 exact?

18                   **M. BERTRAND BOUTELOUP:** Exact.

19                   **Me CHRISTINE MAINVILLE:** Et lorsque le « *trial running* »  
20 s'entame, vous avez vous-même connaissance des critères à rencontrer. C'est exact?

21                   **M. BERTRAND BOUTELOUP:** En effet.

22                   **Me CHRISTINE MAINVILLE:** Et je voudrais clarifier, est-ce que ça,  
23 c'est dans la mesure où vous avez accès au contrat, donc les critères qui sont inclus  
24 dans le contrat, ou vous aviez accès à la procédure de « *trial running* », plus  
25 exactement?

26                   **M. BERTRAND BOUTELOUP:** Non, non, nous n'avons pas accès  
27 à la procédure de « *trial running* », nous avons accès au contrat, donc nous  
28 connaissions les critères...

1 **Me CHRISTINE MAINVILLE:** Et qui...

2 **M. BERTRAND BOUTELOUP:** ...engageants qui est le nombre de  
3 jours et... voilà, que nous avons...

4 **Me CHRISTINE MAINVILLE:** D'accord. Les critères généraux.

5 **M. BERTRAND BOUTELOUP:** Oui.

6 **Me CHRISTINE MAINVILLE:** OK. Et vous avez expliqué que, selon  
7 vous, ou peut-être selon Alstom plus globalement – vous le préciserez –, il n'était pas  
8 toujours évident, compte tenu des incidents qui survenaient, qu'une marque de passage  
9 était pour le mieux.

10 **M. BERTRAND BOUTELOUP:** Étant donné le nombre – et on l'a  
11 vu tout à l'heure sur la période de « *trial running* » – d'évènements, ne serait-ce que les  
12 évènements associés aux trains, difficile d'avoir une appréhension que ça passait au  
13 niveau critères. Encore une fois, je n'étais pas... on n'était pas dans l'instance qui  
14 faisait les bilans journaliers de ces résultats, donc vous me permettez de ne pas  
15 commenter.

16 **Me CHRISTINE MAINVILLE:** Voilà. Vous n'aviez pas toutes les  
17 données, mais vous aviez des doutes du moins quant à la maturité du système.

18 **M. BERTRAND BOUTELOUP:** On peut se poser la question. Vous  
19 avez vu le nombre d'évènements. Encore une fois, certains ne viennent pas impacter le  
20 service, donc c'est pas 1 pour 1, mais il n'empêche que vu le nombre d'évènements, on  
21 peut imaginer qu'il y avait quand même des impacts sur le service, oui.

22 **Me CHRISTINE MAINVILLE:** Et vous aviez dit que, en raison du  
23 « *trial running* » ou au cours du « *trial running* », on a vu qu'il n'était pas possible de  
24 bien faire rouler 15 trains à la fois. Est-ce que c'est exact?

25 **M. BERTRAND BOUTELOUP:** Il y a eu... le « *trial running* » a  
26 permis de détecter que les séquences de mise en disposition du nombre de trains le  
27 matin étaient compliquées, c'est-à-dire la capacité de sortir les 15 trains ou les  
28 15 *multiple units* le matin est apparue aussi à ce moment-là, oui.

1                   **Me CHRISTINE MAINVILLE:** Et, oui, pour être exact, 15 trains  
2 devaient rouler en même temps dans le plan original lors de la période... lors de l'heure  
3 de pointe du matin. C'est exact?

4                   **M. BERTRAND BOUTELOUP:** Exact. Lors du lancement du matin,  
5 tout à fait.

6                   **Me CHRISTINE MAINVILLE:** Le lancement du matin. Et donc,  
7 vous aviez eu connaissance qu'au cours du « *trial running* », on a réduit le nombre de  
8 trains à faire circuler en même temps de 15 à 13?

9                   **M. BERTRAND BOUTELOUP:** Il y a eu des... en effet, des  
10 changements associés à ça. Je ne sais plus si c'est juste avant le « *trial running* » ou  
11 c'est après le « *trial running* » que c'est app... il y a eu ce changement, mais, en effet,  
12 on a été au courant de ça.

13                   **Me CHRISTINE MAINVILLE:** Et on pourra préciser ce point avec  
14 d'autres témoins à quel moment il y a peut-être eu changement de 15 à 13 lors du  
15 « *trial running* », mais est-ce exact que si on a réduit le nombre de trains qui devaient  
16 circuler sur la ligne lors du « *trial running* », le tableau qu'on a vu tout à l'heure avec le  
17 nombre d'évènements par jour pendant le « *trial running* », ça serait le nombre  
18 d'évènements qui se sont produits sur 13 trains lorsqu'il y en avait 13 plutôt que 15?

19                   **M. BERTRAND BOUTELOUP:** Oui, y'a une partie de  
20 mathématiques qui est associée au nombre de trains, mais, comme je vous l'ai dit,  
21 l'indicateur qu'on essayait de suivre, c'était rapproché au kilométrage effectué, ce qui  
22 est une meilleure valeur de la fiabilité. Mais en termes de comptage, vous avez raison,  
23 moins on met de trains, mieux ça... alors, on aurait moins d'évènements, mais on aurait  
24 fait moins de kilométrage aussi. La difficulté ou le gros changement que ça l'a fait, c'est  
25 surtout dans la disponibilité qui est l'autre aspect avec la fiabilité, c'est le nombre de  
26 trains qu'on est capable à tous les matins de sortir pour faire du service. Donc ça, c'est  
27 la disponibilité.

28                   **Me CHRISTINE MAINVILLE:** D'accord. Et vous savez que,

1 ultimement, on a réduit aussi le nombre de trains à faire circuler de 15 à 13 pendant  
2 l'heure de pointe du matin pour l'entrée en service. C'est exact?

3 **M. BERTRAND BOUTELOUP:** C'est exact.

4 **Me CHRISTINE MAINVILLE:** Et ça, ç'a été présenté dans le cadre  
5 d'une entente finale entre RTG et la Ville qui s'intitulait le « *Term Sheet* »?

6 **M. BERTRAND BOUTELOUP:** En effet. On a découvert après le  
7 « *trial running* » qu'il y avait un document qui spécifiait certaines considérations qui  
8 étaient une réduction du niveau de service, comme vous l'avez évoqué, de 15 à 13,  
9 plus d'autres conditions, et c'est là où nous l'avons découvert, oui.

10 **Me CHRISTINE MAINVILLE:** Voilà. Et il y a eu certaines  
11 déficiences mineures de la liste de « *Minor Deficiencies* » qui ont été reportées  
12 également à l'après-mise en service. C'est exact?

13 **M. BERTRAND BOUTELOUP:** Ça, c'est pas directement lié au  
14 « *trial run* », mais c'est tout à fait exact.

15 **Me CHRISTINE MAINVILLE:** Oui. Donc...

16 **M. BERTRAND BOUTELOUP:** Quand je dis que c'est pas associé,  
17 c'est la cumulation des points ouverts et il y a toujours une discussion, c'est habituel  
18 dans tous les contrats, quel serait le niveau, je dirais, de points restant ouverts  
19 acceptable pour démarrer. Ça existe dans tous les contrats, ça.

20 **Me CHRISTINE MAINVILLE:** Oui. Et si je comprends bien, par  
21 contre, Alstom n'a pas eu à approuver cette entente, c'était entre RTG et la Ville.

22 **M. BERTRAND BOUTELOUP:** Em... en fait, pour faire simple,  
23 nous avons eu connaissance de cette entente quand nous avons reçu  
24 contractuellement un « *flow down* » de la part d'OLRTC pour la partie LRV et un « *flow*  
25 *down* » concernant la maintenance puisque ça venait aussi changer les termes des  
26 opérations et de la maintenance. En ne sortant que 13 trains le matin, il y a d'autres  
27 conditions de maintenance. Donc, ça nous a été communiqué par les deux biais  
28 contractuels.

1                   **Me CHRISTINE MAINVILLE:** Et vous aviez indiqué lors de votre  
2 entrevue que ORLTC avait cherché à ou aurait voulu qu'Alstom accepte certaines  
3 conditions relatives à cette entente finale et relatives aux pénalités qui allaient être  
4 encourues pour le système incomplet effectivement qui allait être livré à la Ville?

5                   **M. BERTRAND BOUTELOUP:** Exact. Exact.

6                   **Me CHRISTINE MAINVILLE:** Et vous aviez indiqué que Alstom  
7 avait refusé de signer.

8                   **M. BERTRAND BOUTELOUP:** En fait, c'est pour ça que je fais la  
9 distinction. Alstom côté maintenance a accusé réception et des conditions associées à  
10 ces niveaux de services différents parce que c'était une donnée essentielle pour leur  
11 démarrage et tout ça, donc il y a eu cette... avec des commentaires, je pense, de notre  
12 part, mais il y a eu ça. J'étais pas manager à l'époque, j'étais pas sur la partie --- la  
13 France, tout ce que je sais, c'est que sur la partie LRV fournitures, il y avait des  
14 conditions qui étaient une reconnaissance de certaines responsabilités puisqu'ils  
15 voulaient impacter des jalons financiers, y compris des paiements associés pour  
16 Alstom, et c'est dans ce cadre-là que nous avons refusé le *Term Sheet* à ce moment-là.

17                   **Me CHRISTINE MAINVILLE:** D'accord. Et donc, c'est ce que je  
18 voulais clarifier.

19                   Donc, si on peut présenter le document COMH0000009, alors  
20 *COMH0000009*.

21                   Vous avez peut-être vu ce document en préparation pour votre  
22 témoignage aujourd'hui?

23                   **M. BERTRAND BOUTELOUP:** Oui, je reconnais. Par contre, je ne  
24 sais pas si c'est celui côté RTM ou si c'est... c'est celui côté maintenance, donc, OK.  
25 D'accord.

26                   **Me CHRISTINE MAINVILLE:** Voilà. Et donc, ce que vous dites,  
27 c'est il y a eu une entente qui a été signée par Alstom Maintenance.

28                   **M. BERTRAND BOUTELOUP:** Tout à fait.

1 **Me CHRISTINE MAINVILLE:** Suite à l'entente entre RTG et la  
2 Ville?

3 **M. BERTRAND BOUTELOUP:** Exact.

4 **Me CHRISTINE MAINVILLE:** OK. Et il s'agit de cette entente.  
5 Donc, ce n'était pas une entente qui vous concernait.

6 **M. BERTRAND BOUTELOUP:** Exactement. À l'époque, moi, ce  
7 document-là, je ne l'ai pas travaillé, j'ai eu accès à l'autre qui était la proposition de  
8 l'ORLTC vis-à-vis d'Alstom, fournisseur de véhicules, tout à fait.

9 **Me CHRISTINE MAINVILLE:** OK. Mais aviez-vous connaissance  
10 de ce document à l'époque?

11 **M. BERTRAND BOUTELOUP:** Je savais qu'il y en avait un, je ne  
12 l'ai pas travaillé. Encore une fois, il y avait différents termes et les gens de la  
13 maintenance ont regardé les conséquences pour Alstom Maintenance, ils ont répondu,  
14 mais je n'étais pas impliqué.

15 **Me CHRISTINE MAINVILLE:** Et je vais peut-être simplement vous  
16 demander si vous êtes au courant – à la page suivante, si on passe à la page 2 –, à la  
17 page 2, on voit ici que Alstom – et si c'est nécessaire, on peut remonter –, mais je vous  
18 indique que c'est les obligations d'Alstom ici qui sont énumérées et on indique au  
19 point 3 que :

20 « Alstom acknowledges and agrees that the MSC  
21 monthly service payment and deduction factors for  
22 vehicle availability/kilometre ratio will be measured  
23 against the originally scheduled kilometres for service  
24 that uses 15 double-car trains in the morning peak  
25 period. »

26 Alors, je pose... si je comprends bien, Alstom va être pénalisée et  
27 accepte d'être pénalisée par le biais de ce contrat pour... au niveau de déductions pour  
28 le fait de ne pas mettre... de ne pas rendre disponible le 15 trains comme c'était prévu.



1 Est-ce que vous compreniez ça?

2 **M. BERTRAND BOUTELOUP:** C'est ce que je comprends, mais  
3 encore une fois, je connais pas toutes... maintenant, je connais un peu plus les  
4 conséquences par rapport aux mécanismes de paiement et suivi de la partie  
5 maintenance, mais, encore une fois, les gens de la maintenance on fait cette analyse,  
6 je n'y participais à l'époque, mais, en effet, ce qui semble, c'est que la partie  
7 maintenance a accepté de travailler avec cette référence de 13 véhicules avec des  
8 petites façons d'assumer ces... ce qu'on appelle KPI de disponibilités par rapport aux  
9 15. C'est ce que je comprends de la phrase.

10 **Me CHRISTINE MAINVILLE:** Mais vous ne savez pas, donc, si  
11 Alstom a accepté cette responsabilité ou a accepté cette pénalisation parce que Alstom  
12 était responsable dans une certaine mesure pour la non-disponibilité des véhicules.

13 **M. BERTRAND BOUTELOUP:** En aucun cas les gens de  
14 maintenance l'aurait fait. Encore une fois, la partie qui nous a... et je... désolé, je vais  
15 rediriger vers le *term sheet* qu'on a reçu côté LRV, là, il y avait des termes clairs qui  
16 nous mettaient une reconnaissance de responsabilité que l'on ne souhaitait pas prendre  
17 à cette époque-là. Ça, c'est pour la partie LRT. Là, les conséquences au niveau  
18 maintenance, il faudrait poser la question aux gens de maintenance, je n'avais pas  
19 participé à cette analyse.

20 **Me CHRISTINE MAINVILLE:** D'accord.

21 On peut retirer ce document. Merci.

22 Vous saviez, je pense que vous l'avez déjà indiqué aujourd'hui,  
23 qu'il allait y avoir certaines contraintes qui allaient être exportées sur l'entretien des  
24 opérations suite à l'entrée en service. Exact?

25 **M. BERTRAND BOUTELOUP:** Exact. Vu le nombre de sujets, oui.

26 **Me CHRISTINE MAINVILLE:** Et il était connu que cette période-là  
27 n'allait pas être facile pour l'opérateur et le mainteneur. C'est exact?

28 **M. BERTRAND BOUTELOUP:** Exact. Exact.

1                   **Me CHRISTINE MAINVILLE:** Et vous aviez expliqué qu'un  
2 opérateur mature ou un mainteneur mature dans un autre cas aurait eu une meilleure  
3 connaissance de ce qui serait en mesure d'accepter ou non, mais que ce n'était pas le  
4 cas ici.

5                   **M. BERTRAND BOUTELOUP:** Non. Ce que j'ai en effet dit – je ne  
6 sais pas si ç'a été interprété comme ça –, c'est qu'il y a eu des cas où, devant cette  
7 maturité, un opérateur aurait dit « je préfère y aller progressivement, je préfère changer  
8 un peu ce qui s'est passé avec les 13 et les 15 ». Est-ce que c'était suffisant pour  
9 relâcher une certaine pression sur les opérations? Les événements nous ont dit que ce  
10 n'était pas suffisant au global, mais, encore une fois, ça permet... et je ne veux pas  
11 élargir trop le débat, mais il y a des cas où on y va d'une façon plus progressive dans  
12 cette façon de prendre les risques, et là, dans le cadre d'une infrastructure neuve avec  
13 des véhicules – entre guillemets – « neufs » aussi, le niveau de risque aurait pu être  
14 estimé, je pense, à ce moment-là. C'est ça que j'ai dit.

15                   **Me CHRISTINE MAINVILLE:** OK. Et que faites-vous du fait que  
16 c'était Alstom surtout qui allait devoir s'occuper de l'entretien?

17                   **M. BERTRAND BOUTELOUP:** Alors, en fait, il faut comprendre  
18 que nous, nous sommes fournisseurs d'un des systèmes, qui est le LRV; par contre,  
19 Alstom mainteneur est aussi le mainteneur d'autres systèmes au-delà du *scope*  
20 d'Alstom. Et là, je reprends, quand j'étais impliqué sur la partie maintenance, il y a tout  
21 un système, le système de *handover* qu'on a vu pour les LRV existe aussi pour les  
22 autres systèmes et la globalité de l'effort nécessaire pour la maintenance était à ce  
23 moment-là estimé assez fort. Donc, Alstom devrait assumer beaucoup d'efforts dans ce  
24 cadre-là de soutien aux opérations après le début de nos services. Je pense que c'est  
25 comme ça que j'ai dû évoquer le niveau d'effort à l'époque.

26                   **Me CHRISTINE MAINVILLE:** Mais alors, ce que je cherche à  
27 comprendre, c'est : compte tenu de cette réalité, vous, vous êtes quand même Alstom,  
28 vous représentez Alstom, même si c'est le fournisseur de véhicules à ce moment-là,

1 donc comment prenez-vous compte ou tenez-vous en compte, si vous le tenez en  
2 compte du tout, de la pression qui sera mise sur Alstom Maintenance au niveau... au  
3 moment de faire accepter les trains ou de transmettre les trains à la Ville?

4 **M. BERTRAND BOUTELOUP:** Deux éléments pour répondre à  
5 votre question. La première, il y a le fait que, sur les LRV, on a le... la connaissance  
6 était chez nous et nous avons les ressources nécessaires en garantie, en support  
7 garanti, qui ne font pas partie de la maintenance pour le *troubleshooting*. Donc, on a  
8 ajouté des personnes pour assurer... devant la connaissance de tous les sujets qu'on  
9 avait, on a assuré un soutien, un soutien pour pouvoir remettre en état ou compenser  
10 les problématiques qu'on pourrait avoir sur les véhicules. Donc, en fait, la partie  
11 maintenance s'appuyait sur notre expertise. On était dans la même société, nous avons  
12 toujours soutenu cette partie, et je pense qu'on l'a vu dans un des documents que vous  
13 avez présentés, on a ré-enforcé la partie support garantie côté véhicules par rapport à  
14 notre connaissance. Était-ce suffisant? On peut toujours poser la question, mais on a  
15 renforcé sur ce qu'on connaissait.

16 Après, au global, la vision qui a été faite à cette époque-là était de  
17 généraliser tous les résultats associés à des événements du système vers le train, y  
18 compris des événements dont le train ne pouvait pas être la cause ou des choses  
19 comme ça. Il y a eu à cette époque-là énormément... ce qui est tout à fait normal et  
20 classique dans tous les projets puisque l'interface entre les passagers, le public et le  
21 système, c'est souvent le train. Donc, en fait, on retrouve cette pression et Alstom l'a  
22 subie dans les premières semaines de démarrage du service commercial.

23 **Me CHRISTINE MAINVILLE:** OK. Et je ne suis pas certaine de  
24 comprendre au niveau de la prise de décision chez Alstom comment ç'a été équilibré  
25 finalement les intérêts du fournisseur, Alstom en tant que fournisseur de véhicules et les  
26 intérêts d'Alstom Maintenance qui, j'imagine, selon ce que vous avez expliqué jusqu'à  
27 présent, était dans une certaine tension.

28 **M. BERTRAND BOUTELOUP:** Alors, afin d'assurer le maximum

1 de ce qu'on est capable de faire, il y a eu des ré-enfor... un renforcement de la partie  
2 Alstom, je dirais, garanti, donc la partie fournisseur, parce qu'on savait qu'on allait faire  
3 face à des sujets. Tous les sujets non résolus, on savait qu'ils allaient être sous  
4 pression. Je vous ai parlé... on a parlé des portes, on a parlé des PAS de la partie  
5 auxiliaire, tous ces sujets-là allaient vivre sous une certaine pression, donc cette partie-  
6 là nous l'avons assumée et nous l'avons... on a mis les équipes nécessaires pour  
7 pouvoir soutenir tous ces sujets. Il a fallu aussi réagir à des crises plus tard. Donc ça,  
8 c'est la partie, je dirais, fournisseur de trains.

9                   Après, sur la partie maintenance, il y a un autre sujet qui était la  
10 globalité du support pour les opérations et le nombre de trains qu'on est capable de  
11 mettre tous les matins en service. Et, encore une fois, je fais la distinction entre les  
12 deux qui ne nécessitent pas le même effort.

13                   **Me CHRISTINE MAINVILLE:** Est-ce que vous vous souvenez lors  
14 de votre entrevue par contre d'avoir indiqué que vous n'étiez pas chargé de l'aspect  
15 maintenance, donc, c'est exact?

16                   **M. BERTRAND BOUTELOUP:** Exact.

17                   **Me CHRISTINE MAINVILLE:** Et donc, au fond, ce n'était pas non  
18 plus votre préoccupation première.

19                   **M. BERTRAND BOUTELOUP:** Exact, mais en termes... votre  
20 question précédente était associée à Alstom au global, donc je me suis permis de réagir  
21 au global, mais, tout à fait, à cette époque-ci, donc début du cycle commercial, j'étais  
22 uniquement orienté sur la résolution des problèmes des trains, des LRV, et ce support à  
23 la garantie en fait, associée, tout à fait.

24                   **Me CHRISTINE MAINVILLE:** D'accord. Donc, pour vous, c'était...  
25 votre objectif, c'est de compléter le projet, de faire accepter les trains.

26                   **M. BERTRAND BOUTELOUP:** Exact. Il y avait le challenge de  
27 *snag correction* ou modification pour améliorer le service, tout à fait.

28                   **Me CHRISTINE MAINVILLE:** Mais au niveau de Alstom global, est-

1 ce que je comprends que pour eux il y a quand même un équilibre à faire?

2 **M. BERTRAND BOUTELOUP:** Il y avait un autre enjeu, tout à fait,  
3 qui était associé au support pour la maintenance, donc je ne m'occupais pas à l'époque.

4 **Me CHRISTINE MAINVILLE:** Et c'est exact de dire que, tout  
5 comme OLRTC, RTG et RTM ont pu faire cet équilibre entre, bon, est-ce qu'on  
6 complète le projet malgré la pression qui sera mise sur la période d'entretien, Alstom  
7 aurait fait la même chose?

8 **M. BERTRAND BOUTELOUP:** Vu la maturité, l'importance des  
9 compagnies en jeu, je pense qu'ils l'ont fait, bien sûr.

10 **Me CHRISTINE MAINVILLE:** Et y compris...

11 **M. BERTRAND BOUTELOUP:** Je ne peux pas me mettre dans  
12 leur position, mais je suis persuadé qu'ils l'ont fait.

13 **Me CHRISTINE MAINVILLE:** Et y compris Alstom, c'est ma  
14 question.

15 **M. BERTRAND BOUTELOUP:** Y compris Alstom, bien sûr, oui.

16 **Me CHRISTINE MAINVILLE:** Alstom aussi.

17 **M. BERTRAND BOUTELOUP:** Oui.

18 **Me CHRISTINE MAINVILLE:** Et c'est exact de dire que vous auriez  
19 été transparent avec Alstom Maintenance aussi, c'est-à-dire qu'ils savaient à quoi  
20 s'attendre, l'équipe d'entretien?

21 **M. BERTRAND BOUTELOUP:** Ah oui. Y'a absolument aucun  
22 doute là-dessus, mais ils comptaient sur nous beaucoup pour ce soutien parce qu'ils  
23 connaissaient les sujets, donc 'était un effort partagé, mais ils savaient très bien, oui,  
24 bien sûr. Y'a pas eu de cachotteries entre eux et nous, non.

25 **Me CHRISTINE MAINVILLE:** D'accord. Et ce dont ils devaient  
26 s'attendre ou être préparés à faire, vous nous avez indiqué au préalable, ils devaient  
27 s'attendre à faire des inspections et des vérifications additionnelles. Exact?

28 **M. BERTRAND BOUTELOUP:** Il y avait des charges... une charge

1    additionnelle qui était répartie entre ce qu'eux pouvaient faire lors de leurs inspections,  
2    lors de leurs opérations et ce que nous, on aurait comme ressources à mettre  
3    disponibles pour eux pour faire aussi notre partie des services qu'il a pu y avoir derrière.  
4    Tout à fait. Oui, oui.

5                   **Me CHRISTINE MAINVILLE:** D'accord. Et ils allaient avoir besoin  
6    justement d'un soutien d'ingénierie accru.

7                   **M. BERTRAND BOUTELOUP:** Oui.

8                   **Me CHRISTINE MAINVILLE:** OK.

9                   **M. BERTRAND BOUTELOUP:** C'était connu, oui.

10                  **Me CHRISTINE MAINVILLE:** Et il leur fallait des ressources  
11    additionnelles.

12                  **M. BERTRAND BOUTELOUP:** Il nous fallait des... là, je le mets au  
13    global, oui, il nous fallait des ressources additionnelles et c'est... l'engineering a été  
14    plutôt apportée par le côté Alstom fournisseur.

15                  **Me CHRISTINE MAINVILLE:** Et savez-vous si ç'a été fait de leur  
16    côté au niveau des ressources ou s'ils ont eu des difficultés à cet égard-là?

17                  **M. BERTRAND BOUTELOUP:** Je sais qu'il y a eu énormément de  
18    discussions sur le nombre de ressources, nous y avons contribué, il y a eu des  
19    partages de ressources et de compétences puisqu'on avait des compétences chez  
20    nous associées aux gens qui avaient déjà vécu les tests et les validations des trains,  
21    donc c'était des ressources clés, donc il y a eu des partages de ressources à ce  
22    moment-là entre Alstom Maintenance et Alstom LRV. Donc, on y a contribué et je  
23    connaissais la tension, oui.

24                  **Me CHRISTINE MAINVILLE:** Et c'est exact de dire que,  
25    ultimement, il y a eu peut-être insuffisamment de ressources ou sinon de temps pour  
26    traiter des modifications qu'il y avait à faire, des déficiences mineures qui restaient à  
27    faire, c'est exact?

28                  **M. BERTRAND BOUTELOUP:** Il y a eu des choix à faire puisqu'on

1 n'était pas capables de tout faire, oui, tout à fait. Il y a eu des choix et des modifications  
2 qui ont été retardés de ce fait-là. Maintenant, sur le nombre de ressources, il faut faire  
3 attention, sur l'efficacité de ces ressources, il y avait beaucoup de discussions sur où  
4 est-ce que les ressources sont le plus efficaces pour le système. Entre emmener des  
5 ingé... et je vais faire juste une parenthèse, emmener des ingénieurs à bord des trains  
6 toute la journée alors qu'ils pourraient analyser des sujets, c'est peut-être pas la  
7 meilleure chose. Donc, c'est un peu ce qui s'est passé à cette époque-là, on essayait  
8 de soutenir le maximum d'un côté comme de l'autre.

9 **Me CHRISTINE MAINVILLE:** Et on peut attester... accepteriez-  
10 vous de... ma proposition qu'on peut attester des difficultés qu'il y a eu pour résoudre  
11 les déficiences mineures et les modifications qu'il y a à faire compte tenu du fait qu'il en  
12 reste encore aujourd'hui à faire, plus de deux ans et demi plus tard?

13 **M. BERTRAND BOUTELOUP:** Oui. On a complètement mis en  
14 priorité plus basse beaucoup de modifications et, deux ans après, il en restait encore  
15 des *open items* de l'époque, oui.

16 **Me CHRISTINE MAINVILLE:** Et ça, est-ce que c'est compte tenu  
17 de la quantité qu'il y avait à faire ou de quels facteurs...

18 **M. BERTRAND BOUTELOUP:** Deux...

19 **Me CHRISTINE MAINVILLE:** ...font en sorte qu'on...

20 **M. BERTRAND BOUTELOUP:** Deux...

21 **Me CHRISTINE MAINVILLE:** ...qu'il en reste encore qui n'ont pas  
22 été ---

23 **M. BERTRAND BOUTELOUP:** Deux facteurs principaux. La  
24 première, les ressources que vous avez évoquées, possiblement, on ne peut pas tout  
25 faire, et donc, il y a eu des choix qui ont été faits au début, mais très rapidement les  
26 ressources étant là, ce qui s'est avéré, c'est la capacité d'arrêter les trains et surtout la  
27 capacité de faire ces programmes parce que ça vient immobiliser des positions  
28 nécessaires aux opérations. Je vais mettre un peu de mots derrière ce que je viens de

1 dire. Il y avait des positions connues pour les inspections, pour faire tourner les trains,  
2 et on venait, avec nos trains pour faire les modifications, occuper des positions dans  
3 MSF, physiques, et donc, on venait créer un problème et une tension dans  
4 l'organisation de ce site de maintenance. Et donc, il y a eu des choix qui ont été faits de  
5 retarder, en effet, principalement par rapport à toutes les modifications un peu lourdes  
6 qui nécessitent des mouvements de train et des dépôts, comme les bogies – vous en  
7 avez entendu parler. Ces programmes-là sont très lourds parce qu'ils viennent  
8 immobiliser ou prendre des installations qui sont nécessaires aussi à la maintenance  
9 des trains. Donc, tout ce programme-là a été très fortement retardé, oui.

10 **Me CHRISTINE MAINVILLE:** Donc, si je comprends bien, à la fois  
11 des difficultés au niveau de l'organisation du site, notamment les diverses activités qui  
12 devaient se dérouler au MSF en même temps, c'est exact?

13 **M. BERTRAND BOUTELOUP:** Oui.

14 **Me CHRISTINE MAINVILLE:** Et également des ressources, les  
15 ressources d'Alstom qui se sont avérées insuffisantes en bout de ligne.

16 **M. BERTRAND BOUTELOUP:** Dans la première phase, en effet,  
17 les ressources ont été mises sur ce qu'on vient de dire, les opérations d'abord, puis  
18 quand on avait les ressources de disponibles, quand on avait les pièces de disponibles,  
19 quand on avait les solutions par rapport aux problèmes qu'on avait à résoudre, très  
20 rapidement la limite n'a pas été le nombre de ressources, la limite a été l'occupation du  
21 building de maintenance, quoi, de la facilité.

22 **Me CHRISTINE MAINVILLE:** D'accord. Ce sont mes questions  
23 pour vous, Monsieur Bouteloup. Les participants auront des questions.

24 **M. BERTRAND BOUTELOUP:** Merci.

25 **COMMISSIONER HOURIGAN:** All right. Thank you, Counsel.

26 Next, City of Ottawa.

27 **MR. PETER WARDLE:** Good morning. Peter Wardle – W-A-R-D-L-  
28 E – for the City of Ottawa.



1 **--- CROSS-EXAMINATION BY MR. PETER WARDLE:**

2 **MR. PETER WARDLE:** Good morning, Mr. Bouteloup.

3 **M. BERTRAND BOUTELOUP:** Good morning.

4 **MR. PETER WARDLE:** I appreciate it's afternoon in France. I want  
5 to start with some very simple questions just about the Citadis vehicle, if you don't mind.

6 **M. BERTRAND BOUTELOUP:** Please.

7 **MR. PETER WARDLE:** So my first question is can we agree that  
8 the Citadis was a service-proven vehicle?

9 **M. BERTRAND BOUTELOUP:** The base of this vehicle is a  
10 service-proven. Now, for adaptation, we are specifically made for Ottawa, for sure.

11 **MR. PETER WARDLE:** And the low-floor requirements was not a  
12 challenge for Alstom. Correct?

13 **M. BERTRAND BOUTELOUP:** It's a challenge for the product but  
14 as the product already existed, it was no more a challenge on this particular project.

15 **COMMISSIONER HOURIGAN:** Sorry to interrupt.

16 **M. BERTRAND BOUTELOUP:** It is a ---

17 **COMMISSIONER HOURIGAN:** Sorry to interrupt. Giving he's  
18 asking in English now, feel free to speak in French, whatever you prefer.

19 **M. BERTRAND BOUTELOUP:** Okay.

20 **COMMISSIONER HOURIGAN:** Mr. Wardle has a translation, as do  
21 I, so I want you to be comfortable, whatever language you choose.

22 **M. BERTRAND BOUTELOUP:** Okay.

23 **COMMISSIONER HOURIGAN:** English, French or both. Okay.

24 **M. BERTRAND BOUTELOUP:** Merci.

25 En effet, la contrainte est une contrainte sur le produit d'avoir un  
26 *low-floor*, cent pour cent *low-floor*, mais cette contrainte était déjà derrière nous dans le  
27 cadre de Ottawa puisque cette solution existe par ailleurs et on avait des solutions par  
28 rapport à ça. Donc, c'est une contrainte maîtrisée à l'époque sur Ottawa.

1                   **MR. PETER WARDLE:** And, Mr. Bouteloup, Alstom had no issue  
2 with meeting the speed performance requirements of the PSOS?

3                   **M. BERTRAND BOUTELOUP:** No. Pardon. Il y avait la  
4 performance demandée pour la traction, la vitesse était rencontrée avec notre produit,  
5 donc il était fait pour rouler jusqu'à la vitesse maximale de 100 km/h qui n'est pas  
6 encore la vitesse d'exploitation de la phase 1 d'Ottawa. Donc, ce n'était pas un  
7 challenge de ce côté-là.

8                   **MR. PETER WARDLE:** And I'm going to suggest that it wasn't -- I  
9 suggest it wasn't unusual for Alstom to run these trains on power of 1,500 volts, is that  
10 correct?

11                   **M. BERTRAND BOUTELOUP:** En effet, le 1 500 est une tension  
12 qu'on est capable de faire au niveau du système de traction, ce n'était pas un sujet.  
13 C'est un peu particulier pour un tramway, pour un tram, pour un LRT, mais, en effet,  
14 1 500 volts n'était pas un problème pour Alstom.

15                   **MR. PETER WARDLE:** And with respect to winter testing,  
16 Mr. Bouteloup, your evidence earlier was that there was static testing of the vehicle, is  
17 that correct?

18                   **M. BERTRAND BOUTELOUP:** That's... c'est correct, oui.

19                   **MR. PETER WARDLE:** And the vehicles -- the vehicle underwent  
20 many weather performance tests at the National Research Council laboratory ---

21                   **M. BERTRAND BOUTELOUP:** C'est exact.

22                   **MR. PETER WARDLE:** -- is that correct?

23                   **M. BERTRAND BOUTELOUP:** C'est exact. Nous avons fait la  
24 validation dans les chambres climatiques du NRC, oui.

25                   **MR. PETER WARDLE:** And I'm going to just ask that we turn up  
26 COW0082357.

27   **(SHORT PAUSE)**

28                   **MR. PETER WARDLE:** And if we could just situate this on the

1 page? This is a report with respect to the Citadis Spirit, Mr. Bouteloup, with respect to  
2 some of the climate testing that was done; is that correct?

3 **M. BERTRAND BOUTELOUP:** C'est tout à fait correct.

4 **MR. PETER WARDLE:** And if we go to page 40 of this document,  
5 it would be the number 40, not the PDF 40. Thank you. And again, I'm reading this in  
6 English, Mr. Bouteloup. You can respond in French, but you'll see under "General  
7 Conclusion" it indicates:

8 "Climatic testing of the Citadis Spirit 404 light rail  
9 vehicle generally demonstrated that it can withstand  
10 Ottawa's most severe weather conditions and provide  
11 a safe and comfortable ride for its passengers."

12 Was that your understanding of the results of the static testing?

13 **M. BERTRAND BOUTELOUP:** Ç'a été la conclusion générale, en  
14 effet, des tests climatiques en chambre, oui.

15 **MR. PETER WARDLE:** And am I right – am I also right that the  
16 vehicles began running on part of the track during the winter of 2017?

17 **M. BERTRAND BOUTELOUP:** Le premier, en effet, a roulé le  
18 premier hiver 2017, tout à fait, puis on a eu les autres hivers avec plus en plus de  
19 véhicules. Mais en effet, le premier a roulé en 2017, oui.

20 **MR. PETER WARDLE:** So is it fair to say that Alstom had an  
21 opportunity to see how the vehicles performed during the Ottawa winter?

22 **M. BERTRAND BOUTELOUP:** On a eu des... oui, oui, on a eu la  
23 capacité de voir les trains rouler avant la revenue de service, oui.

24 **MR. PETER WARDLE:** And I understand that each of the vehicles  
25 had what could be called a burn-in period before they could be used for revenue  
26 service; is that correct?

27 **M. BERTRAND BOUTELOUP:** Il y a, je crois, de mémoire, dans le  
28 contrat, pas de *burn-in* défini pour la Phase 1, mais en effet, il y a eu des kilométrages

1 faits avant le service commercial, si c'est votre question. Il y en a eus, mais il n'y avait  
2 pas de *burn-in* prédéfini dans le contrat.

3 **MR. PETER WARDLE:** My understanding is that each of these  
4 vehicles had to have a minimum 4,000 kilometres before they could be transferred to  
5 the City. Is that correct?

6 **M. BERTRAND BOUTELOUP:** Encore une fois, je pense que  
7 c'était une recommandation qui a été faite. Je ne pense pas que c'était écrit comme ça  
8 sur le contrat, de mémoire. Pour la Phase 1, il n'y avait pas cette recommandation. Le  
9 *burn-in* a été discuté dans le cadre de la Phase 2, où il y avait des véhicules qui  
10 devaient rentrer en service au fur et à mesure. Donc il y avait un minimum de  
11 kilométrage. Pour moi, la Phase 1, de mémoire encore une fois je vous parle, il n'y  
12 avait pas de contrainte de *burn-in* dans la Phase 1.

13 **MR. PETER WARDLE:** And I really wasn't asking about your  
14 contractual obligations, Mr. Bouteloup. The vehicles that were turned over for Phase 1,  
15 was Alstom satisfied that they had been run for a sufficient period of time on the track to  
16 meet your requirements?

17 **M. BERTRAND BOUTELOUP:** En termes d'expérience, si on se  
18 base sur le kilométrage, oui. Si on se base sur la stabilité de toutes les interfaces,  
19 puisqu'on a changé des choses plus tardivement, il n'y a pas ce kilométrage, tel que  
20 vous l'évoquez, avec le système actuel.

21 **MR. PETER WARDLE:** Can we agree as well that the Alstom  
22 vehicles ran for approximately 100,000 kilometres during trial running?

23 **M. BERTRAND BOUTELOUP:** Individuellement, je sais pas le...  
24 oui, ça doit représenter à peu près ça, je pense, oui.

25 **MR. PETER WARDLE:** Thank you.

26 I want to just turn, if we could – we'll take this document down –  
27 and I would like to turn your attention to some of the documents my friend took you to,  
28 and we'll start with COW0548732. If we can just go down a little bit so Mr. Bouteloup

1 can see the date?

2 Do you recall my friend asking you some questions about this  
3 specific document?

4 **MR. BERTRAND BOUTELOUP:** I do, yeah.

5 **MR. PETER WARDLE:** Thank you.

6 If we go to page 2, you'll see there's a reference to 211 main  
7 events during that time period, and then in the indented section it says "including 162  
8 related to NVR PEI and PIS. Do you see that?"

9 **MR. BERTRAND BOUTELOUP:** I do.

10 **MR. PETER WARDLE:** And if we go over to the next page, those  
11 162 events are the three columns under CCTV, PA and PIS in the chart, correct?

12 **MR. BERTRAND BOUTELOUP:** That's correct, yes.

13 **MR. PETER WARDLE:** And just for the Commissioner's benefit,  
14 the first item, CCTV deals with the CCTV cameras on the platforms at the stations,  
15 correct?

16 **MR. BERTRAND BOUTELOUP:** Not only – it's CCTV at large, but  
17 mainly, at that time, it was CCTV in relation with the platform cameras, yes.

18 **MR. PETER WARDLE:** Okay.

19 **MR. BERTRAND BOUTELOUP:** A little bit larger. I'm just  
20 answering that.

21 **MR. PETER WARDLE:** I'm sorry, I interrupted you, sir.

22 **MR. BERTRAND BOUTELOUP:** Sorry, it covers a little bit larger  
23 than only the HSDR platform cameras. It also covers the internal cameras on board in  
24 the train.

25 **MR. PETER WARDLE:** Thank you.

26 And then PA is – do I have this as passenger emergency interface?

27 **MR. BERTRAND BOUTELOUP:** PA, it's public announcement or  
28 passenger announcement. It's all the audio announcement for the passenger cars.

1                   **MR. PETER WARDLE:** Okay. And the third one is PIS, which is a  
2 passenger information system?

3                   **MR. BERTRAND BOUTELOUP:** Correct.

4                   **MR. PETER WARDLE:** And so as I understand it, these were  
5 treated separately in this report, these three items; is that fair?

6                   **MR. BERTRAND BOUTELOUP:** That's fair, yeah.

7                   **MR. PETER WARDLE:** And is the reason for that because those  
8 were not issues that affected service?

9                   **MR. BERTRAND BOUTELOUP:** No, sorry to say, no. The reason  
10 it was treated separately is they were highly related to what we call PACIS software,  
11 one important software which is dealing with some comfort system, but also dealing with  
12 some important systems. When I say important, the HSDR we were mentioning is one  
13 of the important systems which could impact the operation of the LR. So that is the  
14 reason why I was saying no to your question.

15                   **MR. PETER WARDLE:** All right. And the PACIS items on here  
16 were the subject of various retrofits at this time; is that correct?

17                   **MR. BERTRAND BOUTELOUP:** That's correct. We were  
18 developing a new software version at that time.

19                   **MR. PETER WARDLE:** Okay. And so when we go over to page 4  
20 and we look at the weekly trends, so first of all, as I understand it, the solid blue line is  
21 all of the events, correct?

22                   **MR. BERTRAND BOUTELOUP:** Correct.

23                   **MR. PETER WARDLE:** And then if you look down at the bottom,  
24 the dotted line, it actually says "Without NVR". So it's without those three items that are  
25 referred to on the previous page. Is that correct?

26                   **MR. BERTRAND BOUTELOUP:** That's correct. What we said is  
27 as we segregated that due to the software we had in hand, we've made trains of – with  
28 the exception of this, yes.

1                   **MR. PETER WARDLE:** Okay. So is it fair to say then that the –  
2 with the exception of the PACIS events which are being worked on and which is in the  
3 process of a software retrofit, the actual events shown on this chart are declining during  
4 this period, from the period going back to May through to the beginning of September?

5                   **M. BERTRAND BOUTELOUP:** That's completely correct.

6                   **MR. PETER WARDLE:** If we now go back -- I am going to ask that  
7 this document be taken down. Sorry, just before we leave it -- it's now been taken  
8 down. It's okay, Mr. Bouteloup, it's my fault entirely.

9                   **MR. BERTRAND BOUTELOUP:** I could remember the graph, if  
10 needed.

11                   **MR. PETER WARDLE:** Okay. So ---

12                   **COMMISSIONER HOURIGAN:** Stand by. We will get it back up  
13 for you. Hang on.

14                   **MR. PETER WARDLE:** I think it's page 4. So, would it not be fair,  
15 Mr. Bouteloup, that given what you've told us about the PACIS events, that from the  
16 customer's perspective, this chart actually shows a very significant increase in reliability  
17 during the period from May through to September?

18                   **MR. BERTRAND BOUTELOUP:** That's exact. And, if I may, the  
19 rationale behind was some major retrofit, like HPU we were mentioning, like segregation  
20 of voltage cables, all that, things discovered earlier, we tried to correct them in the  
21 interim period between May and September. That's completely correct what you said.

22                   **MR. PETER WARDLE:** Thank you very much. So, let's move on  
23 to another document. So, my friend took you to ALS0008105, and this is a weekly  
24 management meeting on -- minutes on May 15, 2019. We will just put that up on the  
25 screen. And you will recall you were asked some questions about this document?

26                   **MR. BERTRAND BOUTELOUP:** I do, yes.

27                   **MR. PETER WARDLE:** And if we go to the second page, to the  
28 section my friend asked you some questions about.

1                   **MR. BERTRAND BOUTELOUP:** Yes.

2                   **MR. PETER WARDLE:** So, she asked you some questions about  
3 the line, and I am just going to quote, "Situation is tough; however, Alstom continues to  
4 support revenue service dated July 1." Do you see that?

5                   **MR. BERTRAND BOUTELOUP:** Yes, I do.

6                   **MR. PETER WARDLE:** Now, we know, in fact, that the date of  
7 revenue service availability was actually August the 30<sup>th</sup>. Do you recall that, Mr.  
8 Bouteloup?

9                   **MR. BERTRAND BOUTELOUP:** I do not. The July 1<sup>st</sup> I was  
10 mentioning there was the official communication from OLRTC I received.

11                   **MR. PETER WARDLE:** No, I'm not doubting that for a moment, sir.  
12 I'm going to suggest that there was a further delay in that date and ultimately it ended  
13 up being August the 30<sup>th</sup>.

14                   **MR. BERTRAND BOUTELOUP:** The actual date, yes, it was  
15 definitely end of August. Yes, sure.

16                   **MR. PETER WARDLE:** So, in fact, regardless of OLRT's  
17 schedule, as it turned out, Alstom and all of the other participants had another two  
18 months after July 1<sup>st</sup> before revenue service availability, correct?

19                   **MR. BERTRAND BOUTELOUP:** That's correct.

20                   **MR. PETER WARDLE:** Okay. And you were asked some  
21 questions about the pressure on all of the participants at the time. Do you recall being  
22 asked those questions?

23                   **MR. BERTRAND BOUTELOUP:** Yes, yes, definitely yes, I  
24 remember.

25                   **MR. PETER WARDLE:** And is it fair to say, and I am quoting from  
26 your formal interview, that "there was no financial political pressure forcing us to take a  
27 wrong technical decision, none, never." Is that your evidence?

28                   **MR. BERTRAND BOUTELOUP:** That's what I said when I was



1 asked about why does Alstom hasn't got the term sheet accepted at that time. I  
2 remember that I answered we were not in the same position. We were in a different  
3 situation that RTG, like City of Ottawa. We were doing our best efforts. But you are  
4 right. That's exactly what I mentioned in my interview, yes.

5 **MR. PETER WARDLE:** All right. So, through this period and, you  
6 know, coming to contractual close can always be a pressure situation, correct?

7 **MR. BERTRAND BOUTELOUP:** That's correct.

8 **MR. PETER WARDLE:** Okay. And in that respect, this situation  
9 was probably no different than others you've experienced in the past, correct? A lot of  
10 pressure in the moments leading up to final completion.

11 **MR. BERTRAND BOUTELOUP:** No, you are right. This potential,  
12 let's say, under pressure period exist, that's for sure. What was a little bit strange in that  
13 perspective on Ottawa, it's -- we had to segregate and to protect our -- I just remind the  
14 context of this internal meeting. I was ensuring the motivation and the mobilization of  
15 my team. So, again, I agree with what you said, I am just saying the link with that  
16 sentence is not as of obvious as -- I am just saying that.

17 **MR. PETER WARDLE:** Understood. But is it fair to say, sir, that  
18 for you and your team, the most important priority was to make the right technical  
19 decisions?

20 **MR. BERTRAND BOUTELOUP:** Clearly, yes.

21 **MR. PETER WARDLE:** Okay. So, now I just want to look quickly  
22 at the document for the trial running period, and I have this as being COW0445315.

23 And so, you recall, Mr. Bouteloup, being asked some questions  
24 about this document?

25 **MR. BERTRAND BOUTELOUP:** Yes. End of August, yes.

26 **MR. PETER WARDLE:** And this is the one that takes place right  
27 after -- at least the review takes place right after trial running, correct?

28 **MR. BERTRAND BOUTELOUP:** Exactly.

1                   **MR. PETER WARDLE:** And if we go to page 2 of this document,  
2 we see that there are 104 documents related to those three categories that we  
3 discussed a few minutes ago, correct?

4                   **MR. BERTRAND BOUTELOUP:** 104 events, yes, correct.

5                   **MR. PETER WARDLE:** And in your formal interview you indicated  
6 these were mainly relating to the rear camera issue. Do you recall that?

7                   **MR. BERTRAND BOUTELOUP:** That's correct, yes.

8                   **MR. PETER WARDLE:** And that is the issue that is ultimately  
9 resolved by putting in spotters on the platform to launch, correct?

10                  **MR. BERTRAND BOUTELOUP:** Spotter was the containment of  
11 the mitigation put in place for start of revenue service, that's correct.

12                  **MR. PETER WARDLE:** Okay. And then with respect to the  
13 remaining 41 events, your testimony and your formal interview was that the rest were  
14 either "under control, under retrofit, were manageable". Do you recall saying that?

15                  **MR. BERTRAND BOUTELOUP:** Yes. It's always -- yes, it is a risk  
16 analysis, yes, I've done.

17                  **MR. PETER WARDLE:** Okay. And then if we go to the next page  
18 -- sorry, maybe we just go to the chart. If we took out the PACIS events, that's the 104  
19 events, the total events in that time period would drop from 145 to 41, correct? I'll do  
20 the math for you, sir.

21                  **MR. BERTRAND BOUTELOUP:** No, no, I think that -- no, that was  
22 the previous page. Yes, that's correct.

23                  **MR. PETER WARDLE:** Okay. And if we go to the next page, to  
24 the chart, in fact, the reliability chart for this period, once you exclude the PACIS events,  
25 is even more favourable than the one we looked at for September, correct?

26                  **MR. BERTRAND BOUTELOUP:** Yeah. That's where the weekly  
27 trends has to be taken with caution. That's correct, the figure was lower.

28                  **MR. PETER WARDLE:** And, ultimately, Alstom, at revenue service

1 availability, signed off on the safety of the vehicles, correct?

2 **MR. BERTRAND BOUTELOUP:** Well, that's -- yeah, we did, yeah.

3 **MR. PETER WARDLE:** Okay. And I'm going to take you to one  
4 more document, and that is COW -- we can take this one down -- COW0568420.

5 **(SHORT PAUSE)**

6 **COMMISSIONER HOURIGAN:** Just standby.

7 **(SHORT PAUSE)**

8 **MR. PETER WARDLE:** Mr. Commissioner, I can give a second  
9 document number for this, if that would help?

10 **COMMISSIONER HOURIGAN:** No, it's okay. We've located it. It's  
11 just been emailed to the court operator, so it will be up in a second.

12 **MR. PETER WARDLE:** No, that is not the document, so I'm going  
13 to ask that that be ---

14 **COMMISSIONER HOURIGAN:** All right. Well, take that down and  
15 give us the other number you have, please.

16 **MR. PETER WARDLE:** Thank you, Mr. Commissioner. COW  
17 0593678.

18 And, Mr. Bouteloup, perhaps we can scroll down the first page so  
19 you can see the stamp at the bottom?

20 **MR. BERTRAND BOUTELOUP:** I recognize that document.

21 **MR. PETER WARDLE:** Thank you. And you are one of the people  
22 -- I think, if we go over to page 2, you're one of the people who signs it?

23 **MR. BERTRAND BOUTELOUP:** That's correct.

24 **MR. PETER WARDLE:** Your signature is at the bottom of page 2?

25 **MR. BERTRAND BOUTELOUP:** Correct. Yes.

26 **MR. PETER WARDLE:** So, there are -- if we go back to page 1,  
27 we go to the top, this is a fleet safety certificate, correct?

28 **MR. BERTRAND BOUTELOUP:** Correct.

1                   **MR. PETER WARDLE:** And this is one of the documents required  
2 by your subcontract with OLRTC, correct?

3                   **MR. BERTRAND BOUTELOUP:** That's correct. That's an input  
4 for the global safety documentation for the system that was our input. Yes, correct.

5                   **MR. PETER WARDLE:** Okay. And that's really what I was coming  
6 to. This is one of the documents that had to be in place for the system to be handed  
7 over to the City of Ottawa, correct?

8                   **MR. BERTRAND BOUTELOUP:** It's contributing to the global  
9 safety case which has to be given to the City of Ottawa, yes.

10                  **MR. PETER WARDLE:** In other words, if Alstom had refused to  
11 sign this document, there would have been no handover to the City, correct?

12                  **MR. BERTRAND BOUTELOUP:** For sure.

13                  **MR. PETER WARDLE:** Okay. And it's an important document  
14 because it deals with the entire fleet, and it certifies that the fleet is safe and is fit for its  
15 intended use, correct?

16                  **MR. BERTRAND BOUTELOUP:** Correct.

17                  **MR. PETER WARDLE:** And I won't go through all the signatures,  
18 but there's a number of folks from the Alstom side who have to sign off on this  
19 document?

20                  **MR. BERTRAND BOUTELOUP:** Yeah. May I explain the two  
21 difference between the first page and the second page?

22                  **MR. PETER WARDLE:** Sure, you can.

23                  **MR. BERTRAND BOUTELOUP:** Okay. The first one is, as you  
24 said, the expected input from Alstom for the safety case. The second page is the result  
25 of our internal processes within Alstom. So, the quality involving the project, the quality  
26 director of the site, the project manager, myself, and the MD, managing director for  
27 Alstom Canada, all of us certified within our process that we have fulfilled and make all  
28 the development phase, the testing phase, everything under Alstom's standards to be

1 able to say the train is safe for operation to transport passengers.

2 So, that is the conclusion of our internal processes, the second  
3 page. The first one is definitely the one which is incorporated in this global safety file of  
4 the system. Just to explain the two pages.

5 **MR. PETER WARDLE:** Thank you. And you've already testified  
6 that Alstom was not a participant in the trial running process. That was something  
7 which took place between OLRTC and the City of Ottawa, correct?

8 **MR. BERTRAND BOUTELOUP:** Exactly. The discussion about  
9 criteria and results were not -- we were not involved.

10 **MR. PETER WARDLE:** Okay. And you weren't in a position to  
11 make any judgment on the overall system score, correct?

12 **MR. BERTRAND BOUTELOUP:** Exactly, yes.

13 **MR. PETER WARDLE:** Okay. And you do recall, as you've  
14 testified, that during trial running, there was a change from 15 trains to 13 trains,  
15 correct?

16 **MR. BERTRAND BOUTELOUP:** The result of the trial running,  
17 that was the change, yes.

18 **MR. PETER WARDLE:** And the result of that, I'm going to suggest  
19 to you, was to give the maintainer more spare trains, correct?

20 **MR. BERTRAND BOUTELOUP:** Yes. It's relief of pressure on --  
21 yes.

22 **MR. PETER WARDLE:** So, it relieved the pressure, and would you  
23 agree with me that you saw it as a sensible decision in the circumstances?

24 **MR. BERTRAND BOUTELOUP:** Definitely it was sensible, yes.  
25 Sensible, yes.

26 **MR. PETER WARDLE:** Just a couple of questions before I finish  
27 about the maintenance period. Am I right that there were some issues in the winter of  
28 2020 that involved the vehicles?

1                   **MR. BERTRAND BOUTELOUP:** Correct.

2                   **MR. PETER WARDLE:** And one of the issues was inductors on  
3 the roof of the vehicles, correct?

4                   **MR. BERTRAND BOUTELOUP:** I do remember, yes.

5                   **MR. PETER WARDLE:** Okay. And there were issues that related  
6 to switch heaters, which would be a system issue, correct?

7                   **MR. BERTRAND BOUTELOUP:** Switch heater would be on the  
8 west side. Yes, correct.

9                   **MR. PETER WARDLE:** And there was, at one point, an overhead  
10 catenary failure, do you recall that?

11                  **MR. BERTRAND BOUTELOUP:** That I remember there was an  
12 icing event causing some catenary event, yes, I remember. But not only one, I think a  
13 few of them.

14                  **MR. PETER WARDLE:** A few of them.

15                  **MR. BERTRAND BOUTELOUP:** Yeah.

16                  **MR. PETER WARDLE:** In July of 2020, there was the discovery  
17 that there were cracked wheels, correct?

18                  **MR. BERTRAND BOUTELOUP:** That was another topic, yes.

19                  **MR. PETER WARDLE:** And these were wheels supplied by an  
20 Alstom subcontractor, correct?

21                  **MR. BERTRAND BOUTELOUP:** That's correct.

22                  **MR. PETER WARDLE:** And is it fair to say that all of that put a  
23 significant amount of pressure on the maintainer?

24                  **MR. BERTRAND BOUTELOUP:** It create disturbances. Now, not  
25 to the same extent, depending on the three or four topics you were mentioning, but, yes,  
26 it does create additional constraints on the maintainer.

27                  **MR. PETER WARDLE:** And do you recall the City having concerns  
28 at the outset that Alstom did not have sufficient maintenance resources and that Alstom

1 made some changes in the winter of 2020 to add additional resources?

2 **MR. BERTRAND BOUTELOUP:** We added workforce to cope with  
3 these additional constraints, yes.

4 **MR. PETER WARDLE:** Thank you, sir, those are all my questions.

5 **COMMISSIONER HOURIGAN:** All right. Thank you, Counsel.

6 Next is RTG.

7 **--- CROSS-EXAMINATION BY MR. JEAN-CLAUDE KILLEY:**

8 **MR. JEAN-CLAUDE KILLEY:** Good morning, Mr. Bouteloup.

9 **MR. BERTRAND BOUTELOUP:** Bonjour. Good morning, sorry.

10 **MR. JEAN-CLAUDE KILLEY:** Did you have a chance to see or  
11 perhaps read the testimony of Mr. Lowell Goudge yesterday?

12 **MR. BERTRAND BOUTELOUP:** No. It was not done early this  
13 morning, so I haven't had a chance to have any access to that.

14 **MR. JEAN-CLAUDE KILLEY:** Mr. Goudge described that one of  
15 the big challenges in starting production of the vehicles on this project was setting up a  
16 North American supply chain.

17 **MR. BERTRAND BOUTELOUP:** Okay.

18 **MR. JEAN-CLAUDE KILLEY:** Do you agree that that was, first of  
19 all, something Alstom had to do and, second of all, that it was a challenge?

20 **MR. BERTRAND BOUTELOUP:** Yes. It's one of the challenges  
21 we knew from the beginning of the project. And it was clearly known as a constraint on  
22 us to develop and to set up the assembly facility, yes.

23 **MR. JEAN-CLAUDE KILLEY:** One of the other things Mr. -- I'm  
24 sorry, I am just realizing I mispronounced his name, Mr. Goudge, Lowell Goudge. One  
25 of the other things he said was that Alstom was treating this project in Ottawa as a  
26 development project. and that in developing its supply chain. it was strategically looking  
27 toward not just the Canadian content requirements of this project, but establishing a  
28 supply chain that could meet U.S. content requirements on future projects that might be

1 based in the U.S. Is that something that you also agree with?

2 **MR. BERTRAND BOUTELOUP:** Yes, I remember when that  
3 project was launched, and I was not involved, because when I was directly involved, the  
4 choice was clearly to build up Ottawa facility and a way to make a Canadian base. But  
5 that is completely correct to say that, at the beginning, when we launched that product,  
6 we tried to have some North American, which can comply with *Buy-American Act* and  
7 Canadian companies. Yes, that was, at the beginning, some of the constraints.

8 **MR. JEAN-CLAUDE KILLEY:** There were, I think, some delays in  
9 starting production of the vehicles and in the initial production schedule resulting from  
10 issues in the supply chain; is that right?

11 **MR. BERTRAND BOUTELOUP:** Not only due to supply chain, but  
12 some has been impacted by the supply chain. There was also some design, let's say,  
13 influence or impact on our ability to start production.

14 **MR. JEAN-CLAUDE KILLEY:** Fair. Fair enough. Could I call up  
15 and show you a document that is ALS0058776?

16 So, this, we can see, is a slide deck in the form of a PDF with a July  
17 18, 2012. I appreciate that this predates your involvement in the project. Have you  
18 ever seen this before?

19 **MR. BERTRAND BOUTELOUP:** I have never seen it.

20 **MR. JEAN-CLAUDE KILLEY:** Okay.

21 **MR. BERTRAND BOUTELOUP:** I see that it has been shown  
22 earlier in that Commission, but I have never seen it before.

23 **MR. JEAN-CLAUDE KILLEY:** Okay. If we could scroll down to  
24 slide 6? There it is. So, that is Alstom capabilities. And if we can just keep scrolling to  
25 the next slide, and then the next slide, and continuing down to the bottom portion there,  
26 Alstom in the USA and then Alstom in Canada. Okay, we can just hold it there and  
27 maybe back up to Alstom in the USA, which is just one slide further up.

28 So, we've got here -- we don't have to read all of these details, but



1 we've got indications of Alstom's centres or locations, more than 100 years of presence  
2 in the U.S. in major manufacturing centres in New York, Connecticut, Tennessee,  
3 Texas. If we can now scroll down to the Alstom in Canada. Some similar information  
4 here about major manufacturing centres in Quebec, Alberta, B.C., seven years of  
5 presence in Canada. And then I would like, if we can, to skip down to slide 29. Sorry, I  
6 think I am referring to page 29. That's it, Canadian content. If we could scroll down?

7                   So, 2,000 employees, seven years of presence. Scroll down to the  
8 next slide, and project core team, 25 percent local content. And in the slide just below  
9 that, most of all some usual suppliers located in Canada, some logos, and I think that's  
10 as much as we need to do.

11                   The only question I wanted to ask you here, Mr. Bouteloup,  
12 appreciating you weren't on the project at this time, you hadn't seen it before, but would  
13 you agree that a person would come away from this presentation with a different  
14 impression of the -- of Alstom's existing supply chain in Canada than what was  
15 described by Mr. Goudge as being something that needed to be set up in North  
16 America. Would you agree this presentation conveys a different impression than that?

17                   **MR. BERTRAND BOUTELOUP:** No, not really. It is not because  
18 you have suppliers that these suppliers are making the solution needed for Ottawa. So,  
19 with the product, we were, from a design, which was a Citadis Dualis in France, which  
20 has to be imported, I would say, to the Canadian -- North American market, it was still a  
21 challenge, and that Canadian content was a project on its own. I'm not saying it has a  
22 lot of impact overall, but at least it has to be taken care of. The reason for that is to get  
23 the solution for the LRT of Ottawa, we need to secure that these exist. And even the  
24 names you have in front of you might not be the one. For example, Mersen is getting  
25 used to being in Canada, but definitely not involved in LRT product.

26                   So, again, you could not make a link as simple as what you were  
27 doing on the impression of the whole of the capacity to get the solution purchased in  
28 Canada. It was -- it was a challenge, for sure.

1                   **MR. JEAN-CLAUDE KILLEY:** I see. I see. Well, we -- I mean, we  
2 could at least agree that that challenge isn't really anticipated in anything that we looked  
3 at?

4                   **MR. BERTRAND BOUTELOUP:** If I remember well, this  
5 presentation was made in July ---

6                   **MR. JEAN-CLAUDE KILLEY:** 2012.

7                   **MR. BERTRAND BOUTELOUP:** --- 2012, so at the early stage of.  
8 We are not saying it was not feasible. From the tables you have shown earlier, we have  
9 a plan to, but to make that plan happen, it's still requiring some effort. That's what we  
10 said, I think.

11                   **MR. JEAN-CLAUDE KILLEY:** Fair enough. I am going to move  
12 on now to ask you a bit about reliability of the vehicles, so we can take this document  
13 down. You were shown the weekly MRS report from September 11, 2019. Commission  
14 counsel showed you -- Mr. Wardle for the City showed it to you. Just in the interest of  
15 time and efficiency, I think I can ask my questions without having to call it up again.  
16 There were -- I mean, it showed a number of outstanding issues to be resolved still on  
17 the trains at that point in time, that's fair?

18                   **MR. BERTRAND BOUTELOUP:** That's fair.

19                   **MR. JEAN-CLAUDE KILLEY:** Would you have said this was a sort  
20 of unacceptable number of issues still outstanding from Alstom's perspective?

21                   **MR. BERTRAND BOUTELOUP:** As I mentioned to the  
22 Commission earlier, to make a smooth start of operation, I would prefer to have a lower  
23 number of events and more solutions implement, that's for sure. It's always a choice  
24 you have to make, a balance you have to make.

25                   In front of this, and I think it was explained, some of them could be  
26 handled with some containment, and some of them would have an impact on the  
27 operation. That was the conclusion.

28                   **MR. JEAN-CLAUDE KILLEY:** Fair enough, and just on that point

1 while you mention it, you -- none of that, from your perspective, was a reason not to  
2 hand the trains over to the City at the end of August? That's right?

3 **MR. BERTRAND BOUTELOUP:** None of them were blocking on --  
4 yeah.

5 **MR. JEAN-CLAUDE KILLEY:** Okay. So, if we could, then, call up  
6 AGG0000317?

7 Do you recognize this?

8 **MR. BERTRAND BOUTELOUP:** Not at the first sight. That's a  
9 minor deficiencies list. Okay, okay.

10 **MR. JEAN-CLAUDE KILLEY:** Yes. And over off to the right, it  
11 says issued by independent certifier, July 26, 2019. So, that was the date of substantial  
12 completion. And so, I think we're on the same page, that this is the list of items that the  
13 independent certifier acknowledges still are required to be resolved, aren't resolved, but  
14 are of a sufficiently minor nature that they shouldn't hold up substantial completion;  
15 have I got that right?

16 **MR. BERTRAND BOUTELOUP:** Okay. It doesn't hold up the  
17 substantial completion, but, again, if I remember well, inside that list, you have some  
18 items, we -- and when I say "we," Alstom, OLRTC, OC Transpo, wants to be resolved  
19 before revenue service, but it's a snapshot at end of July situation. And some of them,  
20 we -- even if it's not blocking the substantial completion, we, all of us, wants to be --  
21 some of the items wants to be corrected to avoid having, let's say, operational impact.

22 So, I'm just trying to make some preciseness of what you said. It's  
23 a list of -- it's a snapshot at end of July situation, and within that one, some of them  
24 were to be corrected before revenue service.

25 **MR. JEAN-CLAUDE KILLEY:** Very good, in fact. If you could bear  
26 with me ---

27 **MR. BERTRAND BOUTELOUP:** It's a long list, also. I'm taking  
28 cautious, but I don't know by heart.

1                   **MR. JEAN-CLAUDE KILLEY:** I'm looking for the page number  
2 precisely to take us -- to take us there, but I've mislaid where that has got to in my  
3 notes, but it shouldn't take me -- well, you know what? No, I'll find it, because it will be  
4 helpful for us.

5                   **COMMISSIONER HOURIGAN:** Do you want to take five minutes  
6 and look at your notes? Would that be faster?

7                   **MR. JEAN-CLAUDE KILLEY:** I think we're in the order of  
8 seconds.

9                   **COMMISSIONER HOURIGAN:** Okay.

10                  **MR. JEAN-CLAUDE KILLEY:** There are 98 pages, and where I'd  
11 like to go is -- it won't be long now -- 45. So, if we scroll just down to the bottom of 45.  
12 Sorry, it's 46. All the way down so we can see the bottom entries on 46. We now see,  
13 off to the left, LRV. So, this is where vehicle related minor deficiencies start; is that  
14 right, Mr. Bouteloup?

15                  **MR. BERTRAND BOUTELOUP:** Yeah, it's -- yeah. I rely on your  
16 -- again, I don't have time to go through the whole page, but, yes, I understand that  
17 there was a category called LRV. Yes.

18                  **MR. JEAN-CLAUDE KILLEY:** And scroll over to the left so we can  
19 see the other columns? There's a dollar value assigned by the independent certifier  
20 and a date of January 22<sup>nd</sup>, 2020. If we can scroll down to the next page, we'll be able  
21 to see the title of that column, which is "required completion date," and this gives us  
22 some description of the -- of what kind of items we're talking about. Cab sliding window  
23 to be replaced due to leaking, lateral dampers are leaking, this kind of thing, the chrome  
24 is peeling. I see Ottawa chrome emblem peeling and some not installed, and that will  
25 take 30 minutes per vehicle. And if we can scroll over to the right just to see the  
26 required completion date. Again, so some of these say January 22<sup>nd</sup>, 2020, some of  
27 them say RSA, TBD. So is that the point you were getting at earlier, Mr. Bouteloup, that  
28 some were required to be completed before revenue service?

1                   **MR. BERTRAND BOUTELOUP:** Exact.

2                   **MR. JEAN-CLAUDE KILLEY:** And the rest, I mean I haven't  
3 shown them all to you, but they all -- the ones we have looked at have the date of  
4 January 22<sup>nd</sup>, 2020; was that the idea, that these ought to be completed by January  
5 22<sup>nd</sup>, 2020?

6                   **MR. BERTRAND BOUTELOUP:** That's correct. And to be fully  
7 transparent, the reason for these dates was associated with the contractual obligation to  
8 correct the minor deficiency list in a certain timeframe. So that's the reason of having a  
9 date and also an amount associated to be an incentive for us to do that minor deficiency  
10 list.

11                   **MR. JEAN-CLAUDE KILLEY:** Alstom has asked for some  
12 extensions on some of these items, I believe; are you aware of that?

13                   **MR. BERTRAND BOUTELOUP:** We did push a few times these  
14 dates to the right; again, due to various reasons and I mentioned earlier in that interview  
15 some of them: defining solutions, getting the parts but also get the access to -- the  
16 possibility to access to the train and in the MSF to some of the specific locations. That's  
17 correct.

18                   **MR. JEAN-CLAUDE KILLEY:** Do you know how many minor  
19 deficiencies are still outstanding today?

20                   **MR. BERTRAND BOUTELOUP:** I do not know.

21                   **MR. JEAN-CLAUDE KILLEY:** Do you know that there are some  
22 still outstanding today?

23                   **MR. BERTRAND BOUTELOUP:** When I was leaving in end of  
24 2021 I know a bunch of it was still open, yes.

25                   **MR. JEAN-CLAUDE KILLEY:** Okay. If we -- in fact, let me --  
26 without pulling up another document let me just ask you if you know that in fact some of  
27 the minor deficiencies that were to have been completed by revenue service are still  
28 outstanding? Are you aware of that?

1                   **MR. BERTRAND BOUTELOUP:** I do not know.

2                   **MR. JEAN-CLAUDE KILLEY:** You don't know?

3                   **MR. BERTRAND BOUTELOUP:** Okay. No.

4                   **MR. JEAN-CLAUDE KILLEY:** Would it surprise you if RTG  
5 witnesses gave evidence to that effect?

6                   **MR. BERTRAND BOUTELOUP:** No, it could happen, I know.

7                   **MR. JEAN-CLAUDE KILLEY:** All right. I would like to call up  
8 ALS0074023.

9                   Is this a document that you recognize, Mr. Bouteloup?

10 **--- EXHIBIT No. 111:**

11                                   ALS0074023 – May 2021 Ottawa Reliability Report Alstom  
12                                   RS 8 July 2021

13                   **MR. BERTRAND BOUTELOUP:** Yes, I do. That's the equivalent  
14 to the MRS we were seeing here on a weekly basis, that's the monthly one for  
15 reliabilities. Yes, I do, I do remember.

16                   **MR. JEAN-CLAUDE KILLEY:** So these are -- at this point in time,  
17 May 2021, these are being done on a monthly basis?

18                   **MR. BERTRAND BOUTELOUP:** Exactly.

19                   **MR. JEAN-CLAUDE KILLEY:** Okay. So if we can scroll to the  
20 third page of this document. So here is a graph showing the mileage of the fleet, and so  
21 I just note September 2019 was the month in which -- sorry the month that started  
22 immediately after revenue service. Do you know if these numbers are the end of the  
23 month or the beginning of the month?

24                   **MR. BERTRAND BOUTELOUP:** Usually, on the lower part what  
25 you have is the mileage of the month. For example, if I look at this one, we were giving  
26 the May mileage and all the calculation made with that value, meaning the three  
27 months' average was from May, April, March and the cumulative was from the  
28 beginning. So everything was basically data collected in May 2021.

1                   **MR. JEAN-CLAUDE KILLEY:** I see.

2                   **MR. BERTRAND BOUTELOUP:** Just if we look at August 19 and  
3                   September 19 and revenue service handover was August 30<sup>th</sup>, 2019, so is the August  
4                   number the mileage from the end of August or should we look at the September  
5                   number?

6                   **MR. BERTRAND BOUTELOUP:** I don't know. Precisely, I don't  
7                   know. I think the August column you should have the August mileage, meaning from 1<sup>st</sup>  
8                   of August to 31<sup>st</sup> of August.

9                   **MR. JEAN-CLAUDE KILLEY:** Okay. So – then the green number  
10                  is actually cumulative mileage of the whole fleet to that point in time; right?

11                  **MR. BERTRAND BOUTELOUP:** That's correct.

12                  **MR. JEAN-CLAUDE KILLEY:** So it was at one point 1,122,397  
13                  kilometres had been put on the fleet at the time of revenue service?

14                  **MR. BERTRAND BOUTELOUP:** That's correct.

15                  **MR. JEAN-CLAUDE KILLEY:** Right?

16                  **MR. BERTRAND BOUTELOUP:** Yeah.

17                  **MR. JEAN-CLAUDE KILLEY:** And 600,000 of that, it's hard to see  
18                  the number that's the blue triangle number, 600,000 or so had been the last three  
19                  months before revenue service; that's what that means?

20                  **MR. BERTRAND BOUTELOUP:** Okay, understood. I'm trying to  
21                  see what want -- you want to see the mileage in that period of time so, yes.

22                  **MR. JEAN-CLAUDE KILLEY:** The next slide I want to look at is  
23                  number six -- I'm sorry, page six. So what we're looking at here is, if I'm not mistaken,  
24                  and you can confirm it for me, a tracking of subsystems on the train and the extent to  
25                  which they have achieved a target of MKPF, and that would be "mean kilometres  
26                  between failure"; is that right?

27                  **MR. BERTRAND BOUTELOUP:** That's correct.

28                  **MR. JEAN-CLAUDE KILLEY:** So some of these subsystems have

1 done quite well but a number of them have not met their target of mean kilometres  
2 between failure.

3 **MR. BERTRAND BOUTELOUP:** If I may? The target used for this  
4 calculation is a mean tunnel allocation, meaning to fulfill our contractual obligation for  
5 the behaviour of the train. During the design phase we allocate the potential failure of  
6 this subsystem; okay? And, again, we are comparing that to that extent.

7 It is not -- the reason I'm making that is, it's important to stress the  
8 subsystem to fulfill the obligation -- you know, it's an allocation between subsystem. I'm  
9 saying that.

10 **MR. JEAN-CLAUDE KILLEY:** So is the relevance of that then,  
11 that this sort of indicates to you which systems are failing more than they should be?

12 **MR. BERTRAND BOUTELOUP:** The reason I'm mentioning it, is I  
13 can see some of them which has no impact at all on the service itself, seen from the  
14 passenger. The car body, there's nobody on board as a passenger. We can feel any of  
15 the event of the car body, for example. It's something we can see in our -- it's the work  
16 order we open but it has no impact on the service. I'm just making that relation to  
17 ensure it's no ---

18 **MR. JEAN-CLAUDE KILLEY:** Yeah.

19 **MR. BERTRAND BOUTELOUP:** --- I'm understood.

20 **MR. JEAN-CLAUDE KILLEY:** That's quite pertinent, because that  
21 would be the difference between MKBF and MKBSF; right? The "s" is for "service"?

22 **MR. BERTRAND BOUTELOUP:** Oh, right.

23 **MR. JEAN-CLAUDE KILLEY:** And so if it's a failure that does not  
24 affect service -- and is there a threshold; is it out more than five minutes or something  
25 like that?

26 **MR. BERTRAND BOUTELOUP:** In that contract I don't see a  
27 threshold but that's usually what we pick, anything impacting more or giving more than  
28 five-minute delays on the train, yes.



1                   **MR. JEAN-CLAUDE KILLEY:** Okay.

2                   **MR. BERTRAND BOUTELOUP:** That's the way we categorize it.

3                   **MR. JEAN-CLAUDE KILLEY:** And the bottom line is that a kind of  
4 total averaging where the subsystem is vehicle?

5                   **MR. BERTRAND BOUTELOUP:** Correct, yeah.

6                   **MR. JEAN-CLAUDE KILLEY:** So, in May 2021, neither MKBF nor  
7 MKBSF is over target. They are both well below target; is that right?

8                   **MR. BERTRAND BOUTELOUP:** That's correct. If I look at  
9 MKBSF, we are two-thirds, yes.

10                  **MR. JEAN-CLAUDE KILLEY:** And a little under half on failures  
11 that don't affect service, right?

12                  **MR. BERTRAND BOUTELOUP:** Correct.

13                  **MR. JEAN-CLAUDE KILLEY:** And just on that line, the MKBSF  
14 target is 52,000 kilometres. That, if I understand correctly, is a contractual requirement  
15 to have vehicles that maintain a min kilometres before service failure of 52,000  
16 kilometres; am I right?

17                  **MR. BERTRAND BOUTELOUP:** That is something which is not  
18 coming from the PA, but which is coming from us. That is the target we commit towards  
19 OLRTC. And if I may, again, the reason I am mentioning it is that target is associated to  
20 the pattern of the use of the LRV. When I say that, you have to remember that that LRV  
21 is also making -- inside the City service, it is very short distance between stations. And  
22 it is also made for getting suburban. So, we know that in Phase 2, when we go further,  
23 that will be reached. And, again, I am saying that because the way it has been fixed is  
24 associated to the average speed of the train. Just imagine you have more events the  
25 more often you stop at the station. So, when you have long distance in between  
26 stations, your figure is improving. I am saying that because that 52 is a target  
27 associated to a level and a pattern of service. Okay? Again, I mention it because it is a  
28 design -- it is how per design we have defined that value.

1 **MR. JEAN-CLAUDE KILLEY:** Sure. Sure. So, this was ---

2 **MR. BERTRAND BOUTELOUP:** In everything you said, you are  
3 right. I am just trying to give the context of it.

4 **MR. JEAN-CLAUDE KILLEY:** I appreciate that. It is helpful to  
5 have the context. And so, following up on that, it is a number that was chosen by  
6 Alstom or negotiated ---

7 **MR. BERTRAND BOUTELOUP:** Yes.

8 **MR. JEAN-CLAUDE KILLEY:** Chosen by Alstom?

9 **MR. BERTRAND BOUTELOUP:** Yes, chosen by Alstom.

10 **MR. JEAN-CLAUDE KILLEY:** And specifically for the anticipated  
11 use of the vehicles on the Confederation line, on Stage 1?

12 **MR. BERTRAND BOUTELOUP:** Yes.

13 **MR. JEAN-CLAUDE KILLEY:** Could we scroll to the 10<sup>th</sup> page of  
14 the slide deck? So, on this graph, there is a bit of information. I wonder if we could  
15 zoom in a little bit, just to help see the text. Yeah, that's great. So, in the grey columns,  
16 we are seeing actual monthly MKBSF. That would be averaged for the fleet, I imagine;  
17 is that right?

18 **MR. BERTRAND BOUTELOUP:** That's correct.

19 **MR. JEAN-CLAUDE KILLEY:** Then the red columns are  
20 forecasted, so months that haven't happened yet when this presentation is happening,  
21 that's right?

22 **MR. BERTRAND BOUTELOUP:** Correct.

23 **MR. JEAN-CLAUDE KILLEY:** And the dotted red line is the  
24 MKBSF target. So, that is drawn at 52,000 MKBSF, correct?

25 **MR. BERTRAND BOUTELOUP:** That's correct.

26 **MR. JEAN-CLAUDE KILLEY:** So, is it right that what this shows --  
27 the graph only goes back to February 2020, but it shows that between February 2020  
28 and May 2021, there was no month where the vehicles met the targeted MKBSF?

1                   **MR. BERTRAND BOUTELOUP:** Yes. It is not a surprise. Yes.

2                   **MR. JEAN-CLAUDE KILLEY:** Would you know if that was the  
3 case before February 2020 as well, between February 2020 and ---

4                   **MR. BERTRAND BOUTELOUP:** No, no, it is a reliability gross.  
5 We have never been at 52,000.

6                   **MR. JEAN-CLAUDE KILLEY:** Fair enough. Okay. In terms of the  
7 -- when you say you've never been at 52,000, is that still true today?

8                   **MR. BERTRAND BOUTELOUP:** Yeah. And if I want to enlighten  
9 a little bit the discussion, with that product, with the way it is used by multiple units on  
10 Confederation Line 1, I would say the technical target of it would be 35K - 35,000  
11 roughly. The 52 will be reached only when we will change the pattern of service, I can  
12 tell you. But, again, that is just to give expectation behind it.

13                   **MR. JEAN-CLAUDE KILLEY:** Sure. So, if it had been 35,000,  
14 then February 2021 and May 2021 would have been good months, but none of the  
15 others would have met it in those months?

16                   **MR. BERTRAND BOUTELOUP:** Exactly. Rough, what I do expect  
17 -- and, again, I am no more involved now for six months.

18                   **MR. JEAN-CLAUDE KILLEY:** I understand.

19                   **MR. BERTRAND BOUTELOUP:** But what I would expect is with  
20 that product, with the way we use it, with the way we maintain it in a MSF all the  
21 average speed by multiple unit, blah, blah, blah, peak hours, everything associated to  
22 that, I would see that fleet over 35, around 35 to 40K. Okay?

23                   **MR. JEAN-CLAUDE KILLEY:** Thank you, Mr. Bouteloup. Those  
24 are my questions for you this morning.

25                   **MR. BERTRAND BOUTELOUP:** Thank you.

26                   **COMMISSIONER HOURIGAN:** All right. Thank you for that. Next  
27 is Thales.

28                   **MS. JENNIFER MCALEER:** Bonjour, Mr. Bouteloup. Je m'appelle

1 Jennifer McAleer. Je suis un des avocats qui représente Thales, et je n'ai pas de  
2 questions pour vous aujourd'hui. Merci beaucoup.

3 **MR. BERTRAND BOUTELOUP:** Okay. Merci.

4 **COMMISSIONER HOURIGAN:** All right. Very good. Next is STV.

5 **MR. THEO MILOSIVIC:** Good morning -- or, afternoon, at this  
6 point, I should say. Theo Milosivic for STV. We have no questions either. Thank you.

7 **COMMISSIONER HOURIGAN:** All right. Transportation Action  
8 Canada, Mr. Jeanes.

9 **--- CROSS-EXAMINATION BY MR. DAVID JEANES:**

10 **MR. DAVID JEANES:** Yes, David Jeanes, J-E-A-N-E-S,  
11 Transportation Action Canada. Bonjour, Mr. Bouteloup. Je vais poser mes questions  
12 en anglais. You talked about the door closing policy that the doors would only allow one  
13 closing attempt before the train was disabled requiring a technician intervention; is that  
14 correct?

15 **MR. BERTRAND BOUTELOUP:** That's correct.

16 **MR. DAVID JEANES:** Now, you knew from 2018 that there would  
17 be a full capacity expected from Day 1, and it has been said by your colleagues that the  
18 load characteristics planned for the system were comparable to a metro rather than a  
19 light rail operation.

20 **MR. BERTRAND BOUTELOUP:** That's correct.

21 **MR. DAVID JEANES:** Are you aware that the Toronto Transit  
22 Commission subway, for example, allows multiple closure attempts for its doors  
23 because a door closing on an individual in a crowded metro situation is quite common?

24 **MR. BERTRAND BOUTELOUP:** That's exactly what I know, and I  
25 have been experiencing that either on other metro and on streetcar, and we are doing  
26 the same for Toronto. You know that we're also supplying the same product in Toronto  
27 and we are doing the same.

28 **MR. DAVID JEANES:** So, the number of disabled trains might

1 have been reduced if your current policy had been adopted initially, right?

2 **MR. BERTRAND BOUTELOUP:** If the design would have been  
3 changed, yes.

4 **MR. DAVID JEANES:** Yes. And one of the reasons for delaying  
5 that change was the need to get a safety certification for the software change?

6 **MR. BERTRAND BOUTELOUP:** What I said is, we knew what we  
7 could change in the software, but we were not able to implement that software due to  
8 the noncertification of the software version, yes.

9 **MR. DAVID JEANES:** Okay. Thank you. Now, another matter,  
10 climate testing, was heating and air conditioning planned for the train with the doors  
11 normally closed except when opened by passengers?

12 **MR. BERTRAND BOUTELOUP:** That's a very precise question.  
13 You are completely right. What we said -- no, no, what we said is the capacity of  
14 heating, especially the heating during winter, would have been better by not opening  
15 automatically the door. This train got a feature not to automatically open all the doors of  
16 the train, okay? You can only rely on passenger who wants to enter the train or exit the  
17 train, in that case you have less doors open and you have less exchange with the  
18 outside temperature.

19 **MR. DAVID JEANES:** Thank you. So, was the ---

20 **MR. BERTRAND BOUTELOUP:** That's clear.

21 **MR. DAVID JEANES:** Yes. Was the testing at NRC done on the  
22 assumption that the doors would normally be closed?

23 **MR. BERTRAND BOUTELOUP:** The capacity demonstrated that  
24 the NRC was in that configuration, yes.

25 **MR. DAVID JEANES:** Okay. And I will just mention that we  
26 actually have 10 years experience of a similar door policy on the Trillium line, where the  
27 doors are opened by the passengers and don't remain open for the entire station stop.  
28 As you know, our stations are unheated, and particularly at the end of the line, the doors

1 are all open for quite a long time. Okay. I have time maybe only for one more question.  
2 The OC Transpo operators were trained on a sophisticated simulator system in 2018  
3 and 2019, and this allowed them to experience operation of the train, including in bad  
4 weather conditions. Did Alstom have any input to the design of this simulator system?

5 **MR. BERTRAND BOUTELOUP:** We had some input on the  
6 functionality of the -- between the driver and the train. Yes, we had.

7 **MR. DAVID JEANES:** Okay. Now, we've heard that a lot of the  
8 emergency braking applications may have been due to operator action, either switching  
9 in or out of automatic train operation while the train was accelerating or braking, rather  
10 than in coasting mode.

11 **MR. BERTRAND BOUTELOUP:** I don't ---

12 **MR. DAVID JEANES:** And the other ---

13 **MR. BERTRAND BOUTELOUP:** It doesn't make sense to me. I  
14 don't know --- yeah.

15 **MR. DAVID JEANES:** Yeah. And the other case that the train may  
16 not have been switched to adjust the braking and acceleration profile for the weather  
17 conditions. I am just wondering if you know if the simulator would have covered those  
18 aspects of the operator training?

19 **MR. BERTRAND BOUTELOUP:** No. No, definitely not. What  
20 happened with that emergency brake was due to some of the weather conditions and  
21 sliding and capacity to transmit the load to the wheel on the rail to make the train move,  
22 definitely it was associated to the speed profile set up to fulfil the Johnny time. It was  
23 nothing in relation with the driver reactions to it.

24 **MR. DAVID JEANES:** Okay. Thank you.

25 **MR. BERTRAND BOUTELOUP:** When he put the automatic  
26 mode. Sorry.

27 **MR. DAVID JEANES:** Yes. Okay, thank you. I think that's my  
28 time, so thank you, Mr. Bouteloup. Merci bien.

1                   **COMMISSIONER HOURIGAN:** Thank you, Mr. Jeanes. Next is  
2 witness counsel, so Alstom's counsel.

3                   **MS. LENA WANG:** Good afternoon, Mr. Commissioner. It is  
4 Wang, W-A-N-G, Lena. We have no questions for Mr. Bouteloup.

5                   **COMMISSIONER HOURIGAN:** All right. Any re-examination?

6                   **MS. CHRISTINE MAINVILLE:** None. Thank you, Mr.  
7 Commissioner.

8                   **COMMISSIONER HOURIGAN:** All right. Very good. Sir, you are  
9 excused. Thank you for making yourself available today. Your testimony was very  
10 helpful to the Commission. We are down until 2:00.

11                   **MR. BERTRAND BOUTELOUP:** Thank you. Bye.

12                   **THE REGISTRAR:** Order. All rise. The Commission is adjourned  
13 until 2:00 p.m.

14 --- Upon recessing at 12:35 p.m.

15 --- Upon resuming at 1:58 p.m.

16                   **COMMISSIONER HOURIGAN:** All right. Good afternoon. From  
17 time to time in the Commission, we are going to do some panels. What that means is  
18 there will be more than one witness participating. So, our first panel is the Parsons  
19 Panel with Tom Foder, Mike Palmer, and Jonathan Hulse. So, let's first see if those  
20 participants or the witnesses are here on the screen. So, Mr. Fodder, Mr. Palmer, Mr.  
21 Hulse? Okay. Is counsel for Parsons, Allison Russell there?

22                   Okay. We are going to stand down for five minutes and figure this  
23 out. Thanks.

24                   **THE REGISTRAR:** Order. All rise. The Commission will recess  
25 for five minutes.

26 --- Upon recessing at 2:00 p.m.

27 --- Upon resuming at 2:07 p.m.

28                   **THE REGISTRAR:** The Commission is resumed.

1                   **COMMISSIONER HOURIGAN:** All right. So, I can see the panel  
2 members there. We are having a feedback issue. So, I am going to ask the members  
3 of the panel to shut off their microphones unless they are speaking. That may help; I  
4 don't know. But first we will deal with having the witnesses either swear an oath or  
5 affirm to tell the truth. So, each witness has to be done. So, Mr. Palmer, would you  
6 prefer to swear an oath or affirm?

7                   **MR. MIKE PALMER:** I want to affirm, please, Mr. Commissioner.

8                   **COMMISSIONER HOURIGAN:** Go ahead.

9                   **--- MR. MIKE PALMER, AFFIRMED:**

10                  **THE REGISTRAR:** The witness has been sworn in.

11                  **COMMISSIONER HOURIGAN:** All right.

12                  Next is Mr. Fodor?

13                  **MR. TOM FODOR:** Fodor, yes.

14                  **COMMISSIONER HOURIGAN:** Do you wish to swear or affirm?

15                  **MR. TOM FODOR:** I wish to affirm.

16                  **--- MR. TOM FODOR, AFFIRMED:**

17                  **THE REGISTRAR:** The witness has been sworn in.

18                  **COMMISSIONER HOURIGAN:** Mr. Hulse?

19                  **MR. JOHN HULSE:** I wish to affirm, please.

20                  **--- MR. JOHN HULSE, AFFIRMED:**

21                  **THE REGISTRAR:** The witness has been sworn in.

22                  **COMMISSIONER HOURIGAN:** All right. Go ahead, Commission  
23 Counsel, please go ahead.

24                  **--- EXAMINATION IN-CHIEF BY MS. KATE McGRANN:**

25                  **MS. KATE McGRANN:** Good afternoon, everyone. My name is  
26 Kate McGrann. I am one of the Counsels for the Commission.

27                  I will be reviewing your professional experience as it relates to the  
28 work you did that on the project with you in just a minute, but before we do that, I just



1 want to review briefly, Parsons' role overall in the project, and I'll do that with Mr. Hulse.

2 But -- so Mr. Hulse, I understand that the City retained Parsons  
3 under a task order contract, is that right?

4 **MR. JOHN HULSE:** That's correct.

5 **MS. KATE McGRANN:** And through that contract, the City then  
6 made a number of orders to Parsons to perform specific tasks?

7 **MR. JOHN HULSE:** That's correct.

8 **MS. KATE McGRANN:** Generally speaking, the City retained  
9 Parsons to provide support on operations and maintenance readiness?

10 **MR. JOHN HULSE:** Correct.

11 **MS. KATE McGRANN:** The implementation of the Thales  
12 computer-based control system?

13 **MR. JOHN HULSE:** Correct.

14 **MS. KATE McGRANN:** And system safety, is that right?

15 **MR. JOHN HULSE:** That's correct.

16 **MS. KATE McGRANN:** But Parsons was first retained to work on  
17 Stage 1 of the Ottawa Light Rail Transit Project in or about 2015?

18 **MR. JOHN HULSE:** 2015, yes.

19 **MS. KATE McGRANN:** And at that point in time, the City was  
20 already working with Capital Transit Partners, is that right?

21 **MR. JOHN HULSE:** That's correct.

22 **MS. KATE McGRANN:** My understanding -- and you explained in  
23 your interview that Parsons was filling gaps not provided by Capital Transit Partners, is  
24 that right?

25 **MR. JOHN HULSE:** That's correct.

26 **MS. KATE McGRANN:** And then just to round this off, I  
27 understand that Parsons is also providing assistance to the City with respect to Stage 2  
28 of the Light Rail Transit?

1 **MR. JOHN HULSE:** And that came later.

2 **MS. KATE McGRANN:** Sorry, you said that came later on?

3 **MR. JOHN HULSE:** That came later on, after 2015. After 2015,  
4 yes.

5 **MS. KATE McGRANN:** Okay. Turning away from Parsons'  
6 general role to your role, Mr. Hulse, on the project, you were the Parsons team's Project  
7 Manager for the work being done on Stage 1?

8 **MR. JOHN HULSE:** That's correct.

9 **MS. KATE McGRANN:** And before we talk about -- more about  
10 your role, I wonder if you could just provide us with a brief description of your education  
11 and professional experience as it relates to the work you did on Stage 1?

12 **MR. JOHN HULSE:** Professional Engineer, Ontario; a Bachelor of  
13 Engineering in electrical and electronics since 1984. And 27 years in the railway  
14 industry at this time in Canada, and working on international projects and North  
15 American projects, Canadian projects.

16 **MS. KATE McGRANN:** Okay. And I understand that your work  
17 has included work on driverless systems?

18 **MR. JOHN HULSE:** That's correct.

19 **MS. KATE McGRANN:** And you've also been involved in the  
20 opening of new systems and system extensions, is that right?

21 **MR. JOHN HULSE:** That's correct.

22 **MS. KATE McGRANN:** And that includes systems in Malaysia and  
23 South Korea?

24 **MR. JOHN HULSE:** Malaysia and South Korea and Vancouver as  
25 well.

26 **MS. KATE McGRANN:** In terms of reporting on this project,  
27 members of the Parsons team reported up to you as the Project Manager as needed?

28 **MR. JOHN HULSE:** Yes.

1                   **MS. KATE McGRANN:** And we can see from email  
2 correspondence that's been disclosed to the Commission that you and your Parsons  
3 colleagues were also discussing the progress of the project between yourselves, is that  
4 right?

5                   **MR. JOHN HULSE:** That's correct.

6                   **MS. KATE McGRANN:** And we'll turn to some of that  
7 correspondence later on in the afternoon, but turning back to the reporting done by the  
8 Parsons team on this project, in addition to reporting to you, the members of the  
9 Parsons team were also reporting directly to the City, is that right?

10                  **MR. JOHN HULSE:** That's correct.

11                  **MS. KATE McGRANN:** And they were taking directions directly  
12 from the City?

13                  **MR. JOHN HULSE:** That's correct.

14                  **MS. KATE McGRANN:** Who at the City did you primarily report to?

15                  **MR. JOHN HULSE:** The person I most directly reported to was  
16 Richard Holder.

17                  **MS. KATE McGRANN:** All right. And I know that Parsons began  
18 working on the project in 2015; you, yourself, also began working on the project in  
19 2015?

20                  **MR. JOHN HULSE:** Yes.

21                  **MS. KATE McGRANN:** And I understand that your focus on the  
22 project was on operational readiness and safety?

23                  **MR. JOHN HULSE:** That's correct.

24                  **MS. KATE McGRANN:** And you began your work by developing  
25 your concept of operations for the project?

26                  **MR. JOHN HULSE:** That's correct.

27                  **MS. KATE McGRANN:** And I'll come back and discuss what that  
28 involved with you in more detail shortly.

1 Do you recall when you stopped working on Stage 1?

2 **MR. JOHN HULSE:** When we stopped -- we stopped working on  
3 Stage 1 shortly after the revenue service, because there was still some matters to close  
4 out in our ---

5 **MS. KATE McGRANN:** Okay, thank you.

6 Mr. Fodor, turning to you for a moment, would you provide us with a  
7 brief description of your education and professional experience as it related to the work  
8 that you did on Stage 1?

9 **MR. TOM FODOR:** I'm a Professional Engineer of Ontario. I  
10 graduated in '76 from the University of Toronto, industrial engineering, and I've been  
11 working in transit system engineering for 45 years, since 1977, working on projects  
12 around the world, Pyongyang, Korea, Malaysia, Dubai, so around the world; anywhere.

13 **MS. KATE McGRANN:** And you also began your work on Stage 1  
14 in or about September 2015?

15 **MR. TOM FODOR:** I am not -- I can't -- I'm not sure what day it  
16 was. I think it was later than that, possibly. I don't know.

17 **MS. KATE McGRANN:** Okay. Maybe we can take a step back  
18 from the month and just think about the year. I believe that you began working in or  
19 about 2015 on the project, have I got that right?

20 **MR. TOM FODOR:** Yes.

21 **MS. KATE McGRANN:** And in terms of your area of focus, I  
22 understand that you were focusing on overseeing the maintenance preparation work  
23 that was being done by RTM, is that right?

24 **MR. TOM FODOR:** Yes.

25 **MS. KATE McGRANN:** And in terms of reporting to the City, who  
26 were you reporting to at the City?

27 **MR. TOM FODOR:** Richard Holder.

28 **MS. KATE McGRANN:** And your work on Stage 1, when did it

1 finish?

2 **MR. TOM FODOR:** Sorry, I didn't hear that; what?

3 **MS. KATE McGRANN:** When did your work on Stage 1 of the LRT  
4 project finish?

5 **MR. TOM FODOR:** I finished after the trial run period, more or  
6 less.

7 **MS. KATE McGRANN:** Okay. And I understand that you're no  
8 longer working with Parsons?

9 **MR. TOM FODOR:** No. Yeah, you're right, yes.

10 **MS. KATE McGRANN:** Mr. Palmer, would you provide us with a  
11 brief overview of your education and professional experience as it related to the work  
12 you did on Stage 1?

13 **MR. MIKE PALMER:** Sure. I graduated -- graduated from high  
14 school. I was going to become a teacher and graduated from training college for that;  
15 we sit an exam. So I joined London Transport as a guard in 1982 to be a conductor  
16 here, and I left London Underground 39 years later.

17 So I started at the bottom as a conductor on the trains and I went  
18 into the control centres. I was a dispatcher, what the UK would call a line controller. I  
19 became a shift boss for two lines. I ran a control centre, set up a control centre, moved  
20 on to a six -- seven-car project when it was converted from six to seven cars, the re-  
21 signalling of the Jubilee and Northern lines with Thales, transmission by train control  
22 signalling.

23 I left London Underground in 2011 in what they call a voluntary  
24 redundancy scheme, and I joined Thales nine weeks later doing the same project. And  
25 I worked with Thales two and a half years, so doing a CBTC re-signalling project and  
26 working on mainline rail and using their track and management system, which was  
27 being introduced by Network Rail in the UK.

28 And in 2014, I joined the Toronto Transit Commission on the 14<sup>th</sup> of

1 April '14. So I moved from the UK to Toronto. And I was the Deputy Chief Operating  
2 Officer. So I ran the subway in Toronto, which was with four lines, all the train crew, the  
3 control centre, the car houses, and the vehicles, infrastructures and track signalling,  
4 power, ventilation, communications, and a few other bits and pieces.

5 In 2016, I became the Acting Chief Operating Officer, and then the  
6 Chief Operating Officer for two years. I had 4,200 people report to me as the COO, and  
7 I ran everything I just mentioned, plus initially some streetcar and bus maintenance  
8 revenue collection and a few other bits and pieces. But I was one of the two Number  
9 Twos at the TTC.

10 In 2018 I left the TTC, and I joined Parsons in May 2018, and I've  
11 now been there for four years and three months, more or less, where I've carried on the  
12 work. And I currently have contracts with Amtrak in the US, that's the Ottawa, and I did  
13 work -- I'm doing work in Saudi Arabia on high-speed rail, consulting on some modelling  
14 and some other O&M stuff there. So I work around the world now doing rail projects  
15 from an O&M perspective, Operations and Maintenance.

16 **MS. KATE McGRANN:** Okay. Perfect. I was going to say O&M is  
17 Operations and Maintenance but you just filled that in for me.

18 Now, you joined Stage 1 of the Ottawa project a little bit later than  
19 Mr. Hulse and Mr. Fodor. I believe you began working on the project in the late summer  
20 or early fall of 2018, is that right?

21 **MR. MIKE PALMER:** Yes, correct. Mr. Hulse talked to me about  
22 Ottawa. I believe he spoke to Richard and offered a new name between myself, and so  
23 I went to meet Richard and -- Richard Holder and I joined the team part-time.

24 **MS. KATE McGRANN:** Okay. And in your Commission interview,  
25 you mentioned that you were filling a gap in Mr. Holder's team when you joined, could  
26 you just give us a brief description of the work that you did when you got started on  
27 Stage 1?

28 **MR. MIKE PALMER:** So there were gaps in the operations

1 maintenance knowledge, skills, and experience of the team. And so I plugged those  
2 gaps for Mr. Holden, who had asked me to take things on. The general O&M staff  
3 using my previous background and experience to give advice on where the team should  
4 go and helping out my colleagues who were engineers in power track nonstop signal,  
5 and so on, and working with Mr. Fodor and Mr. Hulse and Mr. McCurdy on -- but mainly  
6 reacting to work which Mr. Holden gave me to take on.

7 **MS. KATE McGRANN:** And who at the City were you reporting to  
8 while you were working on Stage 1?

9 **MR. MIKE PALMER:** Predominantly Richard Holder. There was a  
10 bit of Troy Charter. I dealt with a Duane Duquette (ph), Gerald Manou (ph), Control  
11 Centre Manager, and Jim Hopkins is the Chief Safety Officer, and Matt Peters, who was  
12 on the trains engineering team City, plus Richard's full team and the rail construction  
13 project team.

14 **MS. KATE McGRANN:** And when did your work on Stage 1 finish  
15 up?

16 **MR. MIKE PALMER:** It was either just before or just after the line  
17 opened. The work tailed off, and so I'm still supporting remotely for meetings --- but the  
18 work really tailed off towards the end of trial operations. Well then we're getting ready  
19 for Stage 2, so that was why.

20 **MS. KATE McGRANN:** Okay. I'm going to shift focus away from  
21 your collective professional experience to speak about the work that Mr. Hulse and Mr.  
22 Fodor did when they first began working on the project in 2015.

23 Mr. Hulse, we'll start with you. You mentioned earlier that you were  
24 working on the concept of operations. Now I understand from your Commission  
25 interview that the concept of operations describes how the system required by the  
26 project agreement is going to operate in real life. Is that fair?

27 **MR. JOHN HULSE:** That's correct.

28 **MS. KATE McGRANN:** That would include a description of how

1 the Light Rail Transit system integrates into the City's overall transit system, including  
2 buses and fare collection, things like that?

3 **MR. JOHN HULSE:** That's correct.

4 **MS. KATE McGRANN:** And in your interview, you mentioned that  
5 the concept of operations is generally completed before the preliminary design of the  
6 project?

7 **MR. JOHN HULSE:** That's correct.

8 **MS. KATE McGRANN:** And when you arrived in 2015, a concept  
9 of operations had not yet been prepared?

10 **MR. JOHN HULSE:** It hadn't, no.

11 **MS. KATE McGRANN:** And did you see any implications for the  
12 project resulting from the fact that a concept of operations had not been prepared  
13 before you prepared one?

14 **MR. JOHN HULSE:** Yeah, I did see implications. I -- my thoughts  
15 were that a concept of operations, even though late, would be very beneficial to bring  
16 the various operating groups around the table. So, accordingly, sent a plan for  
17 operations to inform detailed planning and coordination, particularly with other areas of  
18 City transit and with interface to the -- to the maintainer.

19 **MS. KATE McGRANN:** And in terms of implications for the project  
20 that stretched into revenue service, did you observe any implications for the project  
21 arising from the late creation of the concept of operations?

22 **MR. JOHN HULSE:** The concept of operations is generally  
23 developed early on, even before the project agreement, to help inform the  
24 developments and requirements. Having a concept of operations develop late means  
25 you've got to make sure the comm ops, as we call it, conforms with the projects  
26 agreement. So therefore there's very little opportunities to make -- make the necessary  
27 changes you might want to make, but it nevertheless is still a very useful document in  
28 bringing parties together to coordinate their plans for operation.



1                   **MS. KATE McGRANN:** So you've explained to me why it was  
2 important to develop a concept of operations, even in 2015. And I'm interested in  
3 understanding whether you formed a view at the time you were working on Stage 1 that  
4 the late creation of the concept of operations created issues for the project as it headed  
5 into revenue service.

6                   **MR. JOHN HULSE:** I'm not sure if -- I think -- just I'm thinking  
7 before I -- before I respond.

8                   The concept of operations being based on the project agreement  
9 makes certain assumptions about how the system would operate, including, for  
10 example, automation of the yard. Those elements didn't necessarily all come to fruition  
11 as planned in the project agreement, and therefore -- therefore we probably weren't able  
12 to contemplate the necessary changes we would have done had we developed a  
13 concept of operations much earlier.

14                   **MS. KATE McGRANN:** And turning to you, Mr. Fodor; when you  
15 first started working on Stage 1, I understand that you put together, or helped put  
16 together a concept of maintenance, is that right?

17                   **MR. TOM FODOR:** Correct.

18                   **MS. KATE McGRANN:** And a concept of maintenance describes,  
19 at a high level, how the maintenance of the system will be performed?

20                   **MR. TOM FODOR:** Yes.

21                   **MS. KATE McGRANN:** And you also worked on a configuration  
22 summary?

23                   **MR. TOM FODOR:** No.

24                   **MS. KATE McGRANN:** I beg your pardon?

25                   **MR. TOM FODOR:** No, I didn't. There was no configuration  
26 summary documents, that I'm aware of -- that I was aware of.

27                   **MS. KATE McGRANN:** So what was the impact on your work  
28 flowing from the fact that there was no configuration summary?

1                   **MR. TOM FODOR:** Well, without a configuration -- I think when I  
2 mentioned the configuration summary, it's another document that normally I would  
3 expect to see that has a summarized view of operations and all of the elements. So if  
4 someone is -- wants to understand the system, they're not -- they don't have to go  
5 through a PSOS or very detailed specifications, all the key details and information are in  
6 that document, configuration summary, how is it configured and all the elements of the  
7 P data and parameters. But I don't recall seeing any configuration summary for the  
8 Ottawa system.

9                   **MS. KATE McGRANN:** Okay. And the lack of configuration  
10 summary, based on the work that you did, did you see that have any implications for the  
11 progress of the Stage 1 project?

12                   **MR. TOM FODOR:** Not -- no, not in any big impact, no. It's a  
13 useful tool, but it's not absolutely necessary.

14                   **MS. KATE McGRANN:** And turning back to the concept of  
15 maintenance, I understood from your interview that that is also a document that's put  
16 together fairly early on in the project, normally?

17                   **MR. TOM FODOR:** Yes.

18                   **MS. KATE McGRANN:** And in this particular project, it was started  
19 later than you would have expected?

20                   **MR. TOM FODOR:** Yes.

21                   **MS. KATE McGRANN:** In your view, were there any implications  
22 for the project as it headed into revenue service that arose from the late creation of the  
23 concept of maintenance document?

24                   **MR. TOM FODOR:** No.

25                   **MS. KATE McGRANN:** I'm going to shift focus away from the  
26 concept of operations and the concept of maintenance to speak to the three of you  
27 about the systems integration that you saw in the project.

28                   Mr. Fodor, during your Commission interview, when we were

1 discussing the concept of maintenance and other foundational documents that weren't  
2 in existence when you were arrived, you mentioned that there didn't seem to be an  
3 overall systems approach being taken on the project. You remember giving that  
4 evidence?

5 **MR. TOM FODOR:** Yes.

6 **MS. KATE McGRANN:** And that lack of overall systems approach,  
7 is that something that you saw persist throughout your work on the project?

8 **MR. TOM FODOR:** From what I saw, yes.

9 **MS. KATE McGRANN:** And from what you saw, did that lack of  
10 overall systems approach have any implications for the project as it neared the launch  
11 of public service?

12 **MR. TOM FODOR:** Sorry; can you repeat that, please?

13 **MS. KATE McGRANN:** Yeah. From what you saw, based on your  
14 work on the project, did the lack of systems approach have any implications for the  
15 reliability of the system as it approached the public launch?

16 **MR. TOM FODOR:** Yes.

17 **MS. KATE McGRANN:** And would you describe to me what those  
18 implications were?

19 **MR. TOM FODOR:** The -- to have a successful system, all the  
20 elements -- all the elements need to work together properly, the design and the  
21 integration of all these components, and if you have -- don't have the proper system  
22 integration, things will not come together as easily as you would expect and will take  
23 longer to become a successful system.

24 **MS. KATE McGRANN:** And is that what you saw on the Stage 1  
25 project?

26 **MR. TOM FODOR:** Yes.

27 **MS. KATE McGRANN:** Turning to you, Mr. Hulse, in your  
28 interview you said that during the design phase, you expected that RTG and its

1 subcontractors would develop an understanding of how the systems and subsystems in  
2 the LRT system operated and integrated together. Do you remember giving that  
3 evidence?

4 **MR. JOHN HULSE:** Yes.

5 **MS. KATE McGRANN:** And you mentioned that it was important to  
6 pay attention to that operation and integration during the design phase?

7 **MR. JOHN HULSE:** Yes.

8 **MS. KATE McGRANN:** And you expected to see that  
9 understanding laid out in mature systems engineering and integration plans?

10 **MR. JOHN HULSE:** Yes.

11 **MS. KATE McGRANN:** And in your view, the plans that existed  
12 were thin?

13 **MR. JOHN HULSE:** That's correct.

14 **MS. KATE McGRANN:** And you were unsure -- or sorry, I beg  
15 your pardon. As far as you could tell, no one was making sure that everybody was  
16 working according to the plans that did exist?

17 **MR. JOHN HULSE:** That's correct.

18 **MS. KATE McGRANN:** And you didn't see any change in that until  
19 RTG hired a company called SEMP?

20 **MR. JOHN HULSE:** That's right.

21 **MS. KATE McGRANN:** SEMP was hired in or about 2018?

22 **MR. JOHN HULSE:** Yes.

23 **MS. KATE McGRANN:** And by that point in time many  
24 components of the system were built and were not working together, from what you've  
25 said?

26 **MR. JOHN HULSE:** That's right.

27 **MS. KATE McGRANN:** And from what you saw the whole system  
28 was not as well integrated as it should be for a semi-automatic train system?

1                   **MR. JOHN HULSE:** That's right.

2                   **MS. KATE McGRANN:** And the way in which those issues could  
3 be addressed was either by retrofit ---

4                   **MR. JOHN HULSE:** Yes.

5                   **MS. KATE McGRANN:** --- or adjusting how the system was  
6 operated in order to elapse the operator ----

7                   **MR. JOHN HULSE:** Yes.

8                   **MS. KATE McGRANN:** And did you continue to see implications  
9 for the reliable operation of the system as the system moved towards the public launch?

10                  **MR. JOHN HULSE:** Yes.

11                  **MS. KATE McGRANN:** And what implications did you see for the  
12 system?

13                  **MR. JOHN HULSE:** Failures in commissioning and indeed trial  
14 running. That was certainly delayed. Entry into revenue service would have caused  
15 further investigations, perhaps fixes to software or system designs that would then  
16 require further regression and retest and would increase delays to the project,  
17 sometimes to completion.

18                  **MS. KATE McGRANN:** Okay. And did these issues, from what  
19 you saw based on your work on the project, persist beyond the trial running phase into  
20 public service?

21                  **MR. JOHN HULSE:** Once we got into revenue service, I did not  
22 have the same visibility of issues and problems, but -- so I can't answer categorically.  
23 But I think there is other evidence there that you can look at.

24                  **MS. KATE McGRANN:** And, Mr. Palmer, in your Commission  
25 interview, you spoke about a meeting you attended with RTG after you began working  
26 on the project, and because it's a long excerpt from your transcript, I am going to ask  
27 that it be pulled up so that we can see it. So, I will ask that transcript 79 be shown on  
28 the screen and we want to look at page 48 of the PDF.

1                   Okay. Can we scroll down a little bit farther? If we could just go  
2 down to the next page, and if you could take me to the bottom half of that page. Okay.  
3 So, we are going to start at line 22 here. Mr. Palmer, you're speaking at this point in the  
4 transcript, and you say,

5                   “In a meeting with RTG, one of the few we had, we talked  
6 about systems integration, and you all know that Mr. Hulse is  
7 systems integration lead for Parsons. And it is important to  
8 make sure all the systems sit together as one system and it's  
9 operable and maintainable. And I actually said to somebody  
10 at RTG, “Who is the systems integrator?” And they said,  
11 “That's a difficult question.” I said, “No, it's not. It has to be  
12 you. You're buying the trains, you're buying the signals,  
13 you're buying all these products, you have to integrate  
14 them.” And the response was, “It is not the project  
15 agreement being the systems integrator.”

16                   Please scroll down a little bit further. And, Mr. Palmer, you go on to  
17 say:

18                   “And I think that may have been implicit in the PA or  
19 expected, but because it wasn't explicit, the same with  
20 standards, application of the standards, it wasn't going to be  
21 done, and a lot of these are false economies because  
22 they're now spending more money, and even later, through a  
23 lack of systems integration.”

24                   So, my first question for you is, in this last paragraph here where  
25 you say, “Because they're now spending more money,” who are you referring to?

26                   **MR. MIKE PALMER:** I am referring to the P3, RTG, OLRTC, but  
27 also the City, because lack of integration also left the City having to provide more staff  
28 to support the systems being uninterrupted.

1                   **MS. KATE McGRANN:** And my question for you is, first of all,  
2 you've heard the evidence of your two colleagues about the implications they saw for  
3 the system heading towards revenue service arising from the lack of systems  
4 integration, do you agree with their observations?

5                   **MR. MIKE PALMER:** Yes.

6                   **MS. KATE McGRANN:** And is there anything in addition that you  
7 would add, that you observed, in terms of implications for the reliability of the system as  
8 it was heading into revenue service arising from a lack of systems integration?

9                   **MR. MIKE PALMER:** Yes. In that same paragraph, between lines  
10 13 and 18, I mention standards, and I believe that the lack of standards being applied  
11 and the lack of systems integration led to some of the disconnect in the technology and  
12 how people used it. And it is the operators and the maintainers who miss out because  
13 they are having to operate and maintain equipment that is more clunky; it is less  
14 streamlined. It takes more effort to work it, and it's just not drummed up as a system.

15                   **MS. KATE McGRANN:** Okay. And the standards that you're  
16 referring to there, what standards are they?

17                   **MR. JOHN HULSE:** May I, if you don't mind? There is the IEEE  
18 15288 standard for systems in software engineering. That is a typical standard now  
19 called out in the railway and rail systems industry for the systems engineering and  
20 systems integration of complex rail systems. IEEE 15288.

21                   **MS. KATE McGRANN:** Okay. And is it your understanding that  
22 that standard was a best practice that ought to have been applied on this project?

23                   **MR. JOHN HULSE:** The emergence of systems engineering in rail  
24 systems is growing. It was not as common at the start of this project as it is now. But  
25 that has been now best practices to follow, that particular standard for complex transit  
26 systems such as this.

27                   **MS. KATE McGRANN:** Okay. And, Mr. Palmer, because the  
28 question was originally put to you about which standards you were referring to, the

1 standards that your colleague, Mr. Hulse, has identified, are those the standards you  
2 were referring to?

3 **MR. MIKE PALMER:** So, building on Mr. Hulse's answer, there is  
4 a standard to talk about concepts of operations maintenance, which came out in 2000  
5 or 2001. I don't recall its number with IEEE. And that morphed into another standard in  
6 2011-ish, which was incorporated. It lays out the purpose of a CONOPS, the sections,  
7 the content, why you do it. Alarm management, EEMUA 191 is an alarm management  
8 standard which is widely adopted for alarm management systems. You've got NFPA  
9 130, which is the American Fire Safety Technology Council for NFPA 130 automated  
10 and rail vehicles on guideway and the requirements of fire and evacuation possibilities,  
11 and that would have been mandated. And a lot of the other standards didn't appear to  
12 be used in a way which would be beneficial in the long term.

13 **MS. KATE McGRANN:** Okay. And in the answer that you gave,  
14 identifying the implications that you saw flowing from the lack of systems integration,  
15 you mentioned a disconnect of technology. Would you just give me a bit more  
16 information about what you were referring to there?

17 **MR. MIKE PALMER:** I wasn't referring to specific disconnects  
18 between two pieces of technology. As a system, it has to sit together operationally,  
19 technically, and from the maintenance point of view. So, it is intuitive. It works in  
20 harmony. You don't have systems fighting against each other, or at least not working  
21 together, and I can see evidence of that.

22 **MS. KATE McGRANN:** And, I am sorry, I missed the last part of  
23 your answer there.

24 **MR. MIKE PALMER:** I didn't see much evidence of that.

25 **MS. KATE McGRANN:** And when you say you didn't see much  
26 evidence of that, I take it you mean you didn't see much evidence of the different parts  
27 of the system working together in harmony; is that right?

28 **MR. MIKE PALMER:** Yes. Or standards being quoted.



1                   **MS. KATE McGRANN:** And that disharmony that you saw in the  
2 system, did that persist through to the launch in public service, as far as you can tell?

3                   **MR. MIKE PALMER:** Yes. I'm sure you are going to come to it.  
4 But alarms would be an example for that.

5                   **MS. KATE McGRANN:** And just because we're talking about it  
6 right now, I understand that the alarms piece is an aspect of the system that both you  
7 and Mr. Hulse worked on; is that right?

8                   **MR. MIKE PALMER:** Yes, and others.

9                   **MS. KATE McGRANN:** And others. Would you try to briefly  
10 describe the issues that you were attempting to address in your work on the alarms?

11                   **MR. MIKE PALMER:** I believe RTG and its supply of Willowglen  
12 for the SCADA system, S-C-A-D-A, didn't use an alarm standard, so they used their  
13 own skills, knowledge, and experience to apply alarm levels, nomenclature and tones  
14 and so on.

15                   I also didn't partition the alarm to go to particular people, and so  
16 every terminal was receiving around 15,000 alarms a day at different levels, and  
17 everybody got the alarm. So the stacks were just flooded, and we hadn't used an alarm  
18 standard to help provide some logic and sense out of the chaos of what -- the alarms  
19 coming.

20                   **MS. KATE McGRANN:** Okay. And it sounds to me like as a result  
21 of everybody receiving every single alarm that came through the system, there's a risk  
22 that it will take longer to identify an alarm that requires a swift response?

23                   **MR. MIKE PALMER:** Yes. In my previous statement, I described  
24 an aircraft cockpit where the alarm system is on the master alarm deck. And so the  
25 pilots and engineers take all their alarms from one stack, and they're intuitive. So if you  
26 have an engine on fire and you get a particular sound, a level of alert, as opposed to a  
27 blocked toilet on the aircraft. And so the pilots intuitively understand the cause and  
28 effect of anything that goes on in the aircraft and they can react to it.

1                   When you're getting 15,000 a day you just cannot do that, because  
2 they scroll through so quickly.

3                   **MS. KATE McGRANN:** Okay. And in addition to there being a risk  
4 that an alarm that requires a swift response may not get that kind of swift response, I  
5 take it there's also a risk that an alarm may be missed completely, just due by virtue of  
6 the volume of alarms that are being sent to everyone?

7                   **MR. MIKE PALMER:** Yes.

8                   **MS. KATE McGRANN:** And in terms of the steps taken to address  
9 that issue, would you tell me, please, what was in place to address that issue at the time  
10 that the system opened to public revenue service?

11                  **MR. MIKE PALMER:** So prior to opening, Mr. Holder asked me to  
12 draw up a short-term and long-term plan for OC Transpo on the yard construction  
13 project which would help us open the line and then regress the maturity of the alarms.

14                  So in the short term, and I believe you have my decking up on the  
15 -- it was about additional floorwalkers shelving alarms, additional technical support for  
16 making sure we had enough people in the control centre. Also, for an alarm  
17 management standard to be written by OC Transpo; they didn't have a standard of their  
18 own and so Mr. Hulse used EEMU111 as the basis for writing an alarm standard for OC  
19 Transpo, which was adopted and published, and Stage 2 had that standard to use.  
20 Where we would then go back in retrospectively apply the standards to the Stage 1  
21 alarms to increase their maturity by -- in a controlled way, doing bundles of upgrades to  
22 alarms. It could be the nomenclature, the description, the tone, the level, the ranking of  
23 important partitioning between different operators. And so the number of alarms would  
24 come down progressively until it was a manageable -- number.

25                  **MS. KATE McGRANN:** And when you speak to maturing the  
26 alarm system, does that mean that this is a process that takes place over a period of  
27 time in which the alarm system is slowly becoming that targeted, manageable system  
28 that you described?

1                   **MR. MIKE PALMER:** Yes, but it's not software configuration. So  
2 you can't make lots of changes at once because you're not quite sure which of the  
3 changes has had an impact and which hasn't. And so you might change 50 alarms at a  
4 time every three months, measure the improvement and then do the next 50, and you'd  
5 pick them off in terms of importance and just sheer number of alarms that were coming  
6 in in wide areas over time to bring the system to a good level, ready for Stage 2.

7                   **MS. KATE McGRANN:** Okay. And the risks that we identified  
8 earlier in this conversation about an alarm either being missed or not being responded  
9 to as quickly as it ought to be, did those risks continue, albeit to a decreasing an  
10 amount, through the maturity of the system that you just described?

11                   **MR. MIKE PALMER:** I really can't answer; I wasn't in the room,  
12 and I wasn't getting the statistics. The last I know is, the standard was issued and  
13 either RTG or the City were going to take steps to enforce that standard and improve  
14 the level of alarms in quality and quantity.

15                   **MS. KATE McGRANN:** And based on what you could see, Mr.  
16 Palmer, and what you could see, Mr. Hulse, was that process of maturity completed by  
17 the time that this system launched for revenue service?

18                   **MR. MIKE PALMER:** No.

19                   **MR. JOHN HULSE:** No.

20                   **MR. MIKE PALMER:** The standard was written after the line – so  
21 while the line was being opened with the idea of introducing it straight off, it was in  
22 stages.

23                   **MS. KATE McGRANN:** Okay. I'm going to shift focus now  
24 towards the work that was being done as the project is moving towards the applications  
25 by RTG for substantial completion.

26                   Mr. Hulse, I'll start with some questions for you.

27                   At a high level substantial completion was a milestone on this  
28 particular project?

1 **MR. JOHN HULSE:** Yes.

2 **MR. MIKE PALMER:** And the last milestone before Revenue  
3 Service Availability?

4 **MR. JOHN HULSE:** I believe so, yes.

5 **MS. KATE McGRANN:** Your work leading up to the achievement  
6 of substantial completion included the preparation of the operator's safety case, is that  
7 right?

8 **MR. JOHN HULSE:** Correct.

9 **MS. KATE McGRANN:** And the operator safety case looks at  
10 whether the City is ready to operate the system safely?

11 **MR. JOHN HULSE:** That's correct.

12 **MS. KATE McGRANN:** To be a bit more specific about that, the  
13 operator safety case, as you explained it in your Commission interview, looks at  
14 whether the City has personnel with the right skills, training, and experience?

15 **MR. JOHN HULSE:** That's right.

16 **MS. KATE McGRANN:** And whether the City has processes and  
17 procedures in place to operate the system safely?

18 **MR. JOHN HULSE:** That's right.

19 **MS. KATE McGRANN:** And am I right that your assessment and  
20 your work on this was primarily based on a review and creation of documents?

21 **MR. JOHN HULSE:** Interview and review of documents, yeah.

22 **MS. KATE McGRANN:** And that would have included operator  
23 training certifications?

24 **MR. JOHN HULSE:** It included operator certification, yeah.

25 **MS. KATE McGRANN:** And operating procedures?

26 **MR. JOHN HULSE:** Train operator ---

27 **MS. KATE McGRANN:** Sorry.

28 Do you mind repeating the last part of your answer because I spoke

1 over you?

2 **MR. JOHN HULSE:** Sorry.

3 **MS. KATE McGRANN:** I'm sorry.

4 **MR. JOHN HULSE:** Train operator, and also control operator in  
5 the control centre.

6 **MS. KATE McGRANN:** And in addition to those certifications, you  
7 were also looking at operating procedures?

8 **MR. JOHN HULSE:** That's correct.

9 **MS. KATE McGRANN:** And at the end of the work you did on this,  
10 you were satisfied that the City did have the trained personnel, processes, and  
11 procedures to operate the system safely?

12 **MR. JOHN HULSE:** I was.

13 **MS. KATE McGRANN:** Am I right that you were not involved in  
14 assessing RTG's application for substantial completion on behalf of the City?

15 **MR. JOHN HULSE:** That's right, I was not involved in that.

16 **MS. KATE McGRANN:** Turning to the work that you were doing,  
17 Mr. Fodor, in the time leading up to substantial completion, I understand that you were  
18 looking at the maintenance requirements; is that right?

19 **MR. TOM FODOR:** Correct.

20 **MS. KATE McGRANN:** And your role there was to make sure that  
21 there was a maintenance organization that was ready, trained, and had the equipment  
22 to do the job described in the project agreement?

23 **MR. TOM FODOR:** That's right.

24 **MS. KATE McGRANN:** In terms of what you were measuring  
25 RTM's preparedness against, I understand that you were measuring it against the  
26 requirements set out in the project agreement?

27 **MR. TOM FODOR:** Correct.

28 **MS. KATE McGRANN:** And when you set the maintenance

1 organization, the assumption you proceed on is that the system will work as it was  
2 designed to?

3 **MR. TOM FODOR:** Yes.

4 **MS. KATE McGRANN:** And that is the assumption that you  
5 proceeded on for your work on Stage 1 here?

6 **MR. TOM FODOR:** Yes.

7 **MS. KATE McGRANN:** And you were never asked to change that  
8 assumption?

9 **MR. TOM FODOR:** No.

10 **MS. KATE McGRANN:** And so I take it you provided your  
11 assessment of RTM's maintenance readiness prior to substantial completion?

12 **MR. TOM FODOR:** Yes.

13 **MS. KATE McGRANN:** And based on your work, your view is that  
14 RTM was ready to perform its maintenance obligations as set out in the project  
15 agreement?

16 **MR. TOM FODOR:** Correct.

17 **MS. KATE McGRANN:** And that was based on your assumption  
18 that RTM would be maintaining the system as it was described in the project  
19 agreement?

20 **MR. TOM FODOR:** Yes.

21 **MS. KATE McGRANN:** And to be a bit more specific, that meant  
22 that the system would perform to the reliability levels described in the project  
23 agreement?

24 **MR. TOM FODOR:** Yes.

25 **MS. KATE McGRANN:** Were you asked to assess the minor  
26 deficiencies' list?

27 **MR. TOM FODOR:** I don't remember, no.

28 **MS. KATE McGRANN:** Okay.

1 Mr. Palmer, did you have any role in assessing whether RTG had  
2 achieved substantial completion, on behalf of the City?

3 **MR. MIKE PALMER:** No.

4 **MS. KATE McGRANN:** I'm going to show you an email discussing  
5 substantial completion; it's found at PAR8018.

6 **--- EXHIBIT No. 112:**

7 PAR0008018 – Email from Mike Palmer to Glen McCurdy et  
8 al Re: Substantial Completion Confederation Line 26 July  
9 2019

10 **MS. KATE McGRANN:** So this is an email -- if we could just scroll  
11 up to the top for a second -- sent by you, Mr. Palmer, to Mr. Hulse, Mr. Fodor, and then  
12 three others; Glenn McCurdy. Mr. Palmer, is Mr. McCurdy with Parsons?

13 **MR. MIKE PALMER:** Yes.

14 **MS. KATE McGRANN:** And then two others, Cathy Wilson and  
15 Charles Hallas; are they both with Parsons as well?

16 **MR. MIKE PALMER:** Yes, Vice President and Senior Vice  
17 President.

18 **MS. KATE McGRANN:** Okay. And the subject matter of this email  
19 is substantial completion on the Confederation Line. I want to draw -- first draw your  
20 attention to the second line where -- but let's just -- let's just walk through this email. So  
21 you write:

22 "So I'm hearing that substantial completion has been  
23 accepted by the City in five days. A letter went out  
24 this afternoon to the IC." (As read)

25 And that's the independent certifier?

26 **MR. MIKE PALMER:** Yes.

27 **MS. KATE McGRANN:** Okay, and OLRTC.

28 **MR. MIKE PALMER:** Yes.

1 **MS. KATE McGRANN:** You write:

2 "Glen, I don't know what the status of 5.05.02 is  
3 signalling-wise." (As read)

4 What are you referring to there?

5 **MR. MIKE PALMER:** Signalling software for the Thales cell track  
6 14, communications-based train control signalling system. So the software drop would  
7 be 5.05, and 02 suggests it's a second version of 5.05. So as they mature the software  
8 and the matrixes, you have a series of releases.

9 **MS. KATE McGRANN:** Okay, so I take it here you're asking as to  
10 the status of whether this release has been implemented?

11 **MR. MIKE PALMER:** What the release -- what was in it and  
12 whether the fixes were successful; what wasn't successful and how reliable it would  
13 have been to operate.

14 **MS. KATE McGRANN:** Okay. And then you go on to say:

15 "And how many fifteen by two car sets have been out  
16 at the same time?" (As read)

17 In the fifteen by two car sets, you're referring there to 15 double car  
18 vehicles running on the line at the same time?

19 **MR. MIKE PALMER:** Yes, in -- I believe it's the project agreement  
20 Section 15.2, Appendix C, there was a level of service levels and the number of LRTs  
21 that should be available. Like, for service level one there were 34 vehicles available, 30  
22 of which would be in service in 15 two car sets.

23 **MS. KATE McGRANN:** Okay. And I take it that the question here  
24 is whether 15 two car sets have been out running on the line at the same time for any  
25 period of time?

26 **MR. MIKE PALMER:** Correct.

27 **MS. KATE McGRANN:** And would the concern here be that  
28 running 15 two car sets on the line at the same time is a fairly complicated exercise, as



1 opposed to running less than that?

2 **MR. MIKE PALMER:** No. What I was saying is there hadn't been  
3 any evidence of 15 two car sets being out at the same time, and so it was quite -- if  
4 substantial completion included 15 two car sets, there was no evidence of that.

5 **MS. KATE McGRANN:** Would it be the case that getting 15 two  
6 car sets out at this time may have been a challenge for this system, based on what you  
7 knew?

8 **MR. MIKE PALMER:** I think it would be a challenge for any  
9 system. Typically you don't run until you can walk and therefore you may start with a  
10 fewer number, build up your confidence in the system, and as people apply their  
11 learning on how to operate the system, or drive the trains, or maintain the trains, as  
12 people's skills, knowledge, and experience improve then you start to, perhaps, increase  
13 the number of trains. To go straight in at 15 is possible and it's done, but you're putting  
14 a lot of faith in the people and the technology, perhaps prematurely.

15 **MS. KATE McGRANN:** Okay. And let me ask you a couple of  
16 follow up questions about that. So just to put this in context, looking again at the date  
17 it's July 26<sup>th</sup> of 2019, and we know that the system opens to the public in the middle of  
18 September of 2019, right?

19 **MR. MIKE PALMER:** M'hm.

20 **MS. KATE McGRANN:** Now, you mentioned you don't run before  
21 you can walk, here we're within months of the opening for revenue service. Was it the  
22 case that the system was not walking, as you put it, at this point in time? What was  
23 your view on the ability to get a number of cars out on the line at the same time when  
24 you wrote this email?

25 **MR. MIKE PALMER:** It's exactly as I wrote in the second  
26 paragraph, that if they were going to get 15 out in the next month, they had one two-car  
27 train out yesterday and five today, and that's well short of the 15. And so that's a big  
28 gap to fill in in four weeks, and no time, in terms of achievement.

1                   **MS. KATE McGRANN:** Did you have a view at the time of how  
2 likely it was that they would be able to get 15 two car sets out within a month?

3                   **MR. MIKE PALMER:** No. I wasn't closely linked to the -- sorry; the  
4 information wasn't shared on how that testing was going as to how many one cars they  
5 had signed off.

6                   **MS. KATE McGRANN:** Okay.

7                   **MR. MIKE PALMER:** They're actually two-car trains put together.

8                   **MS. KATE McGRANN:** And then if I can take your attention down  
9 to the first full paragraph up from the bottom of the screen that begins with, "So trial  
10 running". This paragraph says:

11    "So trial running is likely to start next week, with a  
12    promise by the Mayor of August 16<sup>th</sup>. That would  
13    allow us 16 to 18 days, i.e. the 12 days happen but  
14    freeze and repeat six-ish times. The nightmare  
15    scenario is a reset to zero, which would have to be a  
16    catastrophic failure or a safety incident." (As read)

17                   So I have a couple of questions about that, but before I get there,  
18 I'm going to draw your attention back up for a second. You talk about some issues  
19 about Siemens being able to figure something out, and then there's a line in the middle  
20 of the screen that says:

21    "It then becomes a race to the top/bottom for Alstom  
22    and Thales to sort their issues out." (As read)

23                   Do you see that sentence?

24                   **MR. MIKE PALMER:** I do.

25                   **MS. KATE McGRANN:** What issues were you referring to there?

26                   **MR. MIKE PALMER:** There were some reliability issues with the  
27 vehicles, and there were reliability issues for the signalling. Both Alstom and Thales are  
28 very competent companies; they sort this stuff out, and so it was a race hopefully to the

1 top. But the lack of system integration and so on, the way it was managed by RTD,  
2 would have made it harder for Thales and Alstom to sort out problems that they shared.

3 **MS. KATE McGRANN:** And I will dig into this more with you later,  
4 but since we're talking about issues with the vehicles and signalling now, in your view  
5 from what you saw in the project did some or all of those issues persist with the system  
6 through to the launch of public service?

7 **MR. MIKE PALMER:** Yes.

8 **MS. KATE McGRANN:** I'm taking you now back to the paragraph  
9 that I read to you earlier that starts with, "So trial running is likely to start next week".  
10 You say:

11 "With the promise by the Mayor of August 16<sup>th</sup>." (As  
12 read)

13 First of all, do you recall that August 16<sup>th</sup>, 2019, was the RSA  
14 deadline at this point in time?

15 **MR. MIKE PALMER:** I'm not aware it was that, but I'm aware there  
16 was a deadline set of the 16<sup>th</sup> of August.

17 **MS. KATE McGRANN:** Okay. And do you recall what promise  
18 from the Mayor you were referring to here?

19 **MR. MIKE PALMER:** There was a statement from the City that  
20 talked about whatever the promise was being on the 16<sup>th</sup> of August, that was all. It was  
21 a date for people to head towards.

22 **MS. KATE McGRANN:** Sorry, could you say that one more time?

23 **MR. MIKE PALMER:** It was a date for people to focus on.

24 **MS. KATE McGRANN:** Okay. And you then go on to describe:

25 "Sixteen (16) to 18 days; i.e., the 12 days happen but  
26 freeze and repeat six'ish times." (As read)

27 Are you referring to the 12 days of trial running there?

28 **MR. MIKE PALMER:** Yes.

1                   **MS. KATE McGRANN:** And in -- in saying there's a "Freeze and  
2 repeat six'ish -- freeze and repeat six'ish times" I take it you're envisioning a trial running  
3 period that has to -- that involves some stopping and some repeat days?

4                   **MR. MIKE PALMER:** Yes.

5                   **MS. KATE McGRANN:** Okay. And then when you go on to  
6 describe the nightmare scenario there, can you just explain to me what you're referring  
7 to?

8                   **MR. MIKE PALMER:** I recall that day one was run, it failed; they  
9 repeated day one a second day, it failed. They repeated it a third day, it failed. I  
10 suspended trial running and then restarted it. We reset to zero as a safety critical failure  
11 of an error by somebody, an employee, and that criteria we put day whatever back to  
12 day one and we'd start again. And so the nightmare scenario would have been one of  
13 those days of an error which was on the wrong side of safety and a reset, and it would  
14 have started the trial days again.

15                   **MS. KATE McGRANN:** And why would that be a nightmare?

16                   **MR. MIKE PALMER:** It resets it to zero, so you have to go back.  
17 So any hard work in the trial running period, which was won and we moved forward a  
18 day would be lost. Number two reasons it would be a catastrophic failure, which would  
19 be unlikely, or a safety incident where there was perhaps human error or caused by  
20 equipment, and that would be sufficient grounds to set the clock back to zero.

21                   **MS. KATE McGRANN:** Looking at the last full paragraph on the  
22 screen, which starts with, "My guess is that the City," you write, "My guess is that the  
23 City (read Mayor..." ---

24                   **MR. MIKE PALMER:** "And JM."

25                   **MS. KATE McGRANN:** I'm sorry, I can't see the paragraph  
26 anymore. Could you please scroll back? That's perfect. Just keep it there for me. So,  
27 you write:

28    "My guess is that the City (read Mayor and JM) are

1 taking a calculated guess at the remaining issues can  
2 be cleared up through the 12-plus days of trial  
3 running, and the 28 days of OC playing trains.” (As  
4 read)

5 And then you go on to say:

6 “I also suspect that 28 days may shrink as well  
7 depending on the state of the system at the end of  
8 trial running.” (As read)

9 I have a couple of questions for you about that paragraph. So, for  
10 starters, when you say, “My guess is that the City (read Mayor and JM) are taking a  
11 calculated guess,” are you ultimately talking about the decision about when to launch  
12 public service?

13 **MR. MIKE PALMER:** In a way.

14 **MS. KATE McGRANN:** Okay. And you say, “My guess is that the  
15 City,” and then you define “the City” as the Mayor and JM, do you see that?

16 **MR. MIKE PALMER:** Yes.

17 **MS. KATE McGRANN:** And JM is Mr. Manconi?

18 **MR. MIKE PALMER:** Yes.

19 **MS. KATE McGRANN:** You believed that the decision about when  
20 to launch the system would be made by the Mayor and Mr. Manconi?

21 **MR. MIKE PALMER:** From the City perspective, yes.

22 **MS. KATE McGRANN:** And what was the basis for that belief?

23 **MR. MIKE PALMER:** The City would have to accept into service  
24 the assets as by being provided as a system. So, there has to be people in the City  
25 accountable for the accepting, as by taking on the operation, not maintenance in this  
26 case, but the system. So, they have to be satisfied that they’re taking on something that  
27 can be managed by their team.

28 **MS. KATE McGRANN:** And why in particular did you identify the

1 mayor as a decision maker?

2 **MR. MIKE PALMER:** That was just my opinion on who the  
3 decision makers might be to this particular question.

4 **MS. KATE McGRANN:** Was that opinion formed on the basis of  
5 what you learned about who was involved in the project and their roles through the work  
6 you had done?

7 **MR. MIKE PALMER:** I just read those two people as being key  
8 players. That was all.

9 **MS. KATE McGRANN:** Okay. And the reason that you read those  
10 people as being key players, would that have been based on your experience on the  
11 project?

12 **MR. MIKE PALMER:** Yes. I think the general manager is the  
13 person within OC Transpo who has to say, "Myself and my team can now operate the  
14 system safely," and that's the final decision, basically, as far as I'm concerned.

15 **MS. KATE McGRANN:** Okay. And with respect to the involvement  
16 of the mayor, I take it that you formed your view that he would be involved in the  
17 decision based on your experience on the project?

18 **MR. MIKE PALMER:** Yes, John Manconi, I believe, reports to the  
19 City manager and the mayor.

20 **MS. KATE McGRANN:** Turning back to the email, your reference  
21 to a 28-day period, that's a reference to the month or so that had been planned for the  
22 City to run the system in between the achievement of revenue service availability and  
23 the public launch; is that right?

24 **MR. MIKE PALMER:** Yes.

25 **MS. KATE McGRANN:** And when you write that you suspect that  
26 that 28 days may shrink as well depending on the state of the system, what were you  
27 referring to?

28 **MR. MIKE PALMER:** It could be positive and negative. If the 28

1 days went incredibly successfully, and the system held up and was reliable, you could  
2 take a view on Day 21 that you had a good 21 days. And so, another seven days would  
3 not add value other than giving more experience to people with the railway not yet open,  
4 and it could shrink if there were other pressures where it was going okay and where we  
5 wanted to adhere to a particular date or master.

6 **MS. KATE McGRANN:** Okay. So, you were, at this point in time,  
7 envisioning, among other things, that other pressures may lead to a shortening of the  
8 28-day period?

9 **MR. MIKE PALMER:** In my experience, every project I've worked  
10 on where the operator has time, as I say, you know, playing trains, getting used to it,  
11 you never get the full amount of time for lots of reasons.

12 **MS. KATE McGRANN:** Fair enough. And with respect to what you  
13 wrote about this project on July 26 of 2019, I take it that one of the things you're  
14 envisioning is that that 28-day period may shrink in response to pressure to open the  
15 system; is that right?

16 **MR. MIKE PALMER:** Sorry, pressure?

17 **MS. KATE McGRANN:** To open the system.

18 **MR. MIKE PALMER:** I can't answer that. I don't know what  
19 pressure was put on.

20 **MS. KATE McGRANN:** Well, sir, I'm just thinking about the answer  
21 that you gave about if a system is operating well on Day 21, you may say, "We don't  
22 need the additional time. We'll open it." And then you gave another example, and I  
23 won't be able to quote you perfectly, but that even if the system isn't running well, there  
24 may be pressure. So, what pressure were you referring to there?

25 **MR. MIKE PALMER:** The pressure is about maintaining a  
26 milestone. So, it isn't pressure to compromise your opinion. It's could we open on the  
27 original day, even though you don't get 28 days? You might get 26, you might get 24,  
28 but there comes a lower -- diminishing returns on how much you get back from each of

1 those last few days.

2 **MS. KATE McGRANN:** Now, it's my understanding that the last  
3 milestone for RTG on this project was revenue service availability, and the 28 days is  
4 taking place after revenue service availability, right?

5 **MR. MIKE PALMER:** If you say so. I think so, yes.

6 **MS. KATE McGRANN:** Were you aware of another milestone to  
7 be met by RTG or the City after revenue service availability?

8 **MR. MIKE PALMER:** No.

9 **MS. KATE McGRANN:** Okay. So, in terms of pressure that would  
10 lead to the shortening of the 28 days, it's not going to be pressure to achieve a  
11 milestone, right?

12 **MR. MIKE PALMER:** It would be the pressure to actually open the  
13 doors. Sorry, part of the springs being we need some power to a laptop here. Do you  
14 want to ---

15 **MR. MITCH KITAGAWA:** Okay, go ahead.

16 **MR. MIKE PALMER:** If there was a particular milestone which I  
17 didn't know about, or they wanted to stick to a date because it was important, then we  
18 got friends who maybe said, "Can we do 26 days? Can you go to the next Monday?"  
19 And then b) the operations team, whoever has got the authority, has to decide whether  
20 they can reduce that time or they wish to stick to it.

21 **MS. KATE McGRANN:** Okay. Well, as we sit here today, you're  
22 not aware of a milestone after revenue service availability?

23 **MR. MIKE PALMER:** No.

24 **MS. KATE McGRANN:** So, there's no pressure to reach a  
25 milestone and, therefore, shorten the 28 days, right?

26 **MR. MIKE PALMER:** I can't answer that. I wasn't there.

27 **MS. KATE McGRANN:** Okay. You go on to say, just right under  
28 that paragraph that we were just looking at,



1 "If I was in their position, I'd probably do the same, to be  
2 honest, but only if there was absolute clarity from the  
3 P3. I do worry that info is still being withheld on the  
4 basis the City doesn't need to know if we can sort it out.  
5 And so, the decision may not be fully underpinned with  
6 evidence."

7 So, again, I've got a couple of questions for you about this. When  
8 you say, "If I was in their position," you're referring to the mayor and John Manconi?

9 **MR. MIKE PALMER:** Yes.

10 **MS. KATE McGRANN:** And what position are you referring to  
11 here? Like, what position is it that you think they're in?

12 **MR. MIKE PALMER:** You have to take the entire paragraph in the  
13 context of without it being complete clarity and showing information from RTG, and I  
14 would -- as the CEO of the TTC, I would have taken the position, if I've got these dates  
15 to sort stuff out, and the P3 is telling me they're going to be able to do it, then we have  
16 to believe them. If they're withholding information from you, we don't need to know  
17 because we're going to sort it all out in 28 days, or however many days it is, and so the  
18 decision may not really be fully underpinned with evidence.

19 So, it's possible that, you know, often you're making decisions in  
20 the absence of information, or you're not aware of where you got the information, and  
21 that was the only context for this entire paragraph was. Everything you see there, I  
22 probably would have done the same as that, but only if I was actually assured from the  
23 P3 that everything was going to be done in that remaining period that they said they  
24 would do.

25 **MS. KATE McGRANN:** Okay. Well, let's take your suggestion, sir,  
26 and start at the end of this paragraph. So, you say, "I do worry that info is still being  
27 withheld." Had you seen information withheld from the City up until this point in time?

28 **MR. MIKE PALMER:** I can't answer the question in the way you've

1 phrased it, because I don't know what the City received. I believe that was information  
2 saying the control centre which wasn't provided around software drops.

3 **MS. KATE McGRANN:** Okay. Any other information that you  
4 believe was not being provided to the City?

5 I can't tell if we are frozen here. But just in case we were, Mr.  
6 Palmer, my question for you was, was there any information other than software drop  
7 information that you believed as being withheld from the City?

8 **COMMISSIONER HOURIGAN:** Okay. It looks like we are frozen.  
9 Let's just see if we can resolve that. Just repeat the question, Counsel.

10 **MS. KATE McGRANN:** The question was, other than information  
11 about software drops, Mr. Palmer, was there any other information that you believed  
12 was being withheld from the City at this point in time?

13 **MR. MIKE PALMER:** I still can't answer that because I don't know  
14 what was shared and what wasn't, and therefore whether the right information was  
15 available at the City at the right level.

16 **COMMISSIONER HOURIGAN:** The question was whether you  
17 believed. She is asking for your best information, knowledge, and belief. So, that's the  
18 question, please answer it.

19 **MR. MIKE PALMER:** My belief is that there was not clarity and full  
20 information from RTG on the state of the system and, if there was, whether that was  
21 sufficient for the City to decide whether to accept it into service.

22 **MS. KATE McGRANN:** Okay. And I do apologize for bouncing  
23 around, but jumping back up to the paragraph above this where you talk about the  
24 mayor and Mr. Manconi taking a calculated guess that the remaining issues can be  
25 cleared up, I take it that you were referring to issues with the system that you yourself  
26 were aware of at this point in time; is that right?

27 **MR. MIKE PALMER:** Yes. Just issues in general and, as I said, I  
28 would have done the same. If I thought there was sufficient time left to correct them all,

1 then I would have made the same decision. But that would have only been based on  
2 clarity from the P3.

3 **MS. KATE McGRANN:** And I think we have covered this in the  
4 questions that I have asked you so far, but the issues that you were aware of for the  
5 system at July 26, 2019, were those issues that would have or could have an impact on  
6 the reliable operation of the system?

7 **MR. MIKE PALMER:** Yes.

8 **MS. KATE McGRANN:** Mr. Hulse, did you share Mr. Palmer's  
9 concerns at this point in time that there were issues affecting the system that could have  
10 implications for its reliable running?

11 **MR. JOHN HULSE:** Yes, I shared that opinion at the time.

12 **MS. KATE McGRANN:** Okay. And, Mr. Fodor, do you agree with  
13 the views expressed by your colleagues about the issues that were affecting the system  
14 at this point in time?

15 **MR. TOM FODOR:** Yes.

16 **MS. KATE McGRANN:** In terms of the system's readiness for  
17 revenue service, Mr. Hulse, during your Commission interview, you said that Parson's  
18 involvement in advising the City on readiness for revenue services really was focused  
19 on reviewing and commenting on reports from RTG; is that right?

20 **MR. JOHN HULSE:** On the what of RTG, sorry?

21 **MS. KATE McGRANN:** On the reports from RTG.

22 **COMMISSIONER HOURIGAN:** Reports.

23 **MR. JOHN HULSE:** Oh yes. Reports, yes. Yes.

24 **MS. KATE McGRANN:** And for the court reporter, we can take this  
25 email down. Thanks very much. And, Mr. Hulse, as revenue service approached, you  
26 remained concerned that the LRT was not ready to enter revenue service?

27 **MR. JOHN HULSE:** Sorry, I missed that. Was that to me again?

28 **MS. KATE McGRANN:** Yes. Sorry, I will repeat it in its entirety.

1 So, as the date for revenue service availability and then revenue service approached,  
2 you remained concerned about the LRT being ready to enter revenue service?

3 **MR. JOHN HULSE:** Yes, that's right.

4 **MS. KATE McGRANN:** You said in your commission interview that  
5 you were concerned that the vehicles had not gone through the required reliability  
6 growth?

7 **MR. JOHN HULSE:** Yes, that's correct.

8 **MS. KATE McGRANN:** Would you just explain what required  
9 reliability growth you are referring to there?

10 **MR. JOHN HULSE:** It would be a period of time that you would  
11 expect for any new vehicle commissioned for any system, which has been assembled,  
12 tested, but perhaps not all the bugs and kinks ironed out of it, to make sure that all the  
13 defects, whether it is in fabrication, installation, have been discovered. These vehicles  
14 are complex, with lots of components, lots of wiring, and lots of connections, and with  
15 experience we understand it might take many (indiscernible) in various operating  
16 modes, low speed, high speed, to make sure that the vehicle as a system is running  
17 reliably, and that will take time.

18 **MS. KATE McGRANN:** Okay. And I take it that your concern  
19 about the system's readiness for public service involved issues that you were seeing  
20 occur on the system; is that right?

21 **MR. JOHN HULSE:** Issues that I was aware of. Not seeing  
22 directly, but necessarily aware of from other project information.

23 **MS. KATE McGRANN:** Okay. And were you also concerned that  
24 there were bugs or issues with the vehicle or system that hadn't been identified yet?

25 **MR. JOHN HULSE:** I was concerned that the level of testing had  
26 not been completely thorough and that there may well, as a result, be bugs that have  
27 not been discovered or completely ironed out.

28 **MS. KATE McGRANN:** And those concerns remained on your part

1 at the time of the public launch of the system?

2 **MR. JOHN HULSE:** Yes.

3 **MS. KATE McGRANN:** And I understand that you voiced your  
4 concerns to the City through communications with Eric Dube?

5 **MR. JOHN HULSE:** Eric Dube? Yes.

6 **MS. KATE McGRANN:** Richard Holder?

7 **MR. JOHN HULSE:** Yes.

8 **MS. KATE McGRANN:** And Michael Morgan?

9 **MR. JOHN HULSE:** Yes.

10 **MS. KATE McGRANN:** But, Mr. Hulse, you didn't have any role  
11 during the trial running of the system did you?

12 **MR. JOHN HULSE:** No.

13 **MS. KATE McGRANN:** And, Mr. Palmer, I believe that you didn't  
14 have a role during trial running; is that right?

15 **MR. MIKE PALMER:** I didn't.

16 **MS. KATE McGRANN:** Now, Mr. Fodor, you did have a role during  
17 trial running; have I got that right?

18 **MR. TOM FODOR:** Yes.

19 **MS. KATE McGRANN:** And I understand that you were situated in  
20 the control centre during trial running?

21 **MR. TOM FODOR:** In the yard control centre, yes.

22 **MS. KATE McGRANN:** Thank you for clarifying. And your role  
23 during trial running was to audit RTM's compliance with its maintenance plans?

24 **MR. TOM FODOR:** I wouldn't say audit. To monitor the actions  
25 during the day with respect to the maintenance plan and general operations. I  
26 volunteered to help because they were understaffed for the trial run itself. So I  
27 volunteered my time.

28 **MS. KATE McGRANN:** Okay. So you are monitoring the work

1 being done by the maintenance staff during trail running?

2 **MR. TOM FODOR:** Yes.

3 **MS. KATE McGRANN:** And, as part of that monitoring, were you --  
4 you were also filling out some sheets reporting on your observations?

5 **MR. TOM FODOR:** Correct.

6 **MS. KATE McGRANN:** And in addition to filling out those sheets,  
7 you were also providing feedback to the City more generally?

8 **MR. TOM FODOR:** Verbally, yes. My role was to fill out the forms  
9 that they asked me to fill out on a daily basis or lately basis.

10 **MS. KATE McGRANN:** Okay. And in addition to fulfilling the role  
11 of filling out the forms, to the extent you had feedback based on what you are seeing,  
12 you are providing it verbally to the City?

13 **MR. TOM FODOR:** Yes.

14 **MS. KATE McGRANN:** Okay. And in the oversight work that you  
15 are doing or the viewing that you are doing, you are looking at both planned  
16 maintenance?

17 **MR. TOM FODOR:** Yes.

18 **MS. KATE McGRANN:** Preventative maintenance?

19 **MR. TOM FODOR:** The preventative maintenance is the planned  
20 maintenance, yes. That was ---

21 **MS. KATE McGRANN:** Okay.

22 **MR. TOM FODOR:** That was generally the role, and then whatever  
23 other maintenance would come up, corrective maintenance for example.

24 **MS. KATE McGRANN:** You beat me to it. My next question was  
25 going to be, you were also looking at corrective maintenance, right?

26 **MR. TOM FODOR:** Yes.

27 **MS. KATE McGRANN:** And just so that we are all on the same  
28 page, corrective maintenance is maintenance that responds to the various needs of the

1 system as they present themselves?

2 **MR. TOM FODOR:** With respect to failures that occur online or at  
3 that time, yes, that time period.

4 **MS. KATE McGRANN:** Okay. In your Commission interview, you  
5 advised that you became aware of vehicle unreliability around the trial run period; is that  
6 right?

7 **MR. TOM FODOR:** Yes.

8 **MS. KATE McGRANN:** And can you just describe to us briefly  
9 what you learned about the reliability of the vehicles at that time?

10 **MR. TOM FODOR:** Most days, if not all days, the required number  
11 of trains that were supposed to go out was not achieved. I observed trains that came to  
12 the hand-off platform that failed and had to be removed, which delayed other trains from  
13 going in. I observed trains failing out on the mainline as well. Basically, the fleet that  
14 was supposed to be out there for the full time frame was rarely, if ever, achieved.

15 **MS. KATE McGRANN:** And you also mentioned that as far as  
16 corrective maintenance was concerned, corrective maintenance demands were  
17 overwhelming the maintenance staff during the trial run?

18 **MR. TOM FODOR:** I believe that was the case, because they --  
19 when they claimed the train was ready and it came out and it failed before it even got  
20 into revenue service, to me that was a clear indication that they were struggling to keep  
21 up with the failures and fixing the problems.

22 **MS. KATE McGRANN:** And in your Commission interview, you  
23 said that the fact that corrective maintenance demands were overwhelming the  
24 maintenance staff was obvious to everyone?

25 **MR. TOM FODOR:** Yes. In the control centre, yes, we realized we  
26 have a problem.

27 **MS. KATE McGRANN:** And you advised the person or people that  
28 you were reporting to at the City about the fact that the corrective maintenance

1 requirements were overwhelming the maintenance staff?

2 **MR. TOM FODOR:** I don't recall, but I -- yes, I would have said  
3 something that they can't keep up with the maintenance issues.

4 **MS. KATE McGRANN:** Okay. I would like to show you an email  
5 chain. It's at COW459540.

6 **--- EXHIBIT NO. 113:**

7 COW0459540 – Email from Stephen Rocque to Rashid Dorj  
8 et al Re: Trial Running – August 7 – Guideway Maintenance  
9 Observations & Week #1 feedback 7 August 2019

10 **MS. KATE McGRANN:** Okay. So, we are looking at an August 7,  
11 2019, email from Stephen Rocque to several people, including yourself, and Mr. Holder  
12 at the City. And if we scroll down a little bit, you'll see that Mr. Rocque has highlighted  
13 his statement that there are some significant issues being raised by Tom and Rashid  
14 over the last week of trial running. And then he's got some questions about how this is  
15 being communicated, what the plans and recommendations going forward are. But if  
16 we can scroll to the bottom of this email, just to see the first email in the chain here, and  
17 if you can just scroll up a little bit what we can see is that it starts with an email from Mr.  
18 Dorj at the City to Mr. Rocque and others, including yourself, on August 7 at 8:18 a.m.  
19 And if we can scroll down so we can see what this email says, I am not going to take  
20 you through the whole thing. I do want to focus your attention on one bullet point  
21 starting with staffing. So, there it is. If we could just scroll down a little bit more. So,  
22 what is written here is, "Staffing: RCM is understaffed for all disciplines (guideway,  
23 signal and comms, and power) as they are not able to follow through the planned  
24 maintenance activities or even corrective maintenance."

25 And that is consistent with what you've told us about what you  
26 observed during your work during trial running, right?

27 **MR. TOM FODOR:** Correct.

28 **MS. KATE McGRANN:** And the author here goes on to write,



1 “There is also a discrepancy between the number of staff expected to be present (from  
2 their monthly schedule) and those actually showing up for work.”

3 Did you observe that during your work in trial running?

4 **MR. TOM FODOR:** Not in -- in some places, yes, but I was  
5 focusing on one aspect of the observations, and Rashid was out at that time on the  
6 guideway, so he observed that. I did not see that in other places, for example, in  
7 vehicle building. It just depends on where you are. He was out on the guideway, so he  
8 observed that from what I understand from the people who were going out onto the  
9 guideway.

10 **MS. KATE McGRANN:** Okay. And he goes on to write here, “I am  
11 in no way indicating that the staff are not working hard enough to address the issues.  
12 The staff are professional and showed an eagerness in tackling as many problems as  
13 possible.” And then he writes, “There’s just too many issues to address for the number  
14 of staff present.”

15 And that is also consistent with what you saw, I take it?

16 **MR. TOM FODOR:** Yes.

17 **MS. KATE McGRANN:** And then I am going to turn your attention  
18 to another email that is at PAR 8257.

19 **--- EXHIBIT NO. 114:**

20 PAR0008257 – Email from Richard Holder to Bill Sideway et  
21 al Re: Trial Running Guideway Maintenance Observations  
22 Week #2 Feedback 14 August 2022

23 **MS. KATE McGRANN:** And we are looking here at an August 14,  
24 2019, email chain, including Mr. Holder and Mr. Hulse, and yourself, Mr. Fodor, and  
25 what we see here, if we can scroll down a little bit so we can see the email, the entire  
26 email that is currently shown on the screen, it’s got an email from Mr. Holder in which he  
27 writes, “Here are examples of the night reports from Rashid Dorj, our track inspector,  
28 and Tom Fodor, our overall maintenance SME.” And I take it that is subject matter

1 expert?

2 **MR. TOM FODOR:** Yes.

3 **MS. KATE McGRANN:** Okay. And he goes on to write in the  
4 second last paragraph, "Rashid has provided a summary below of his overall  
5 observations." So, let's scroll down and take a look at Mr. Dorj's email here. And, once  
6 again, there are a number of entries. I am going to focus you on the bullet point that  
7 starts with "staffing." So, this paragraph describes some changes to the Alstom  
8 workforce and then goes on to say, "In terms of difference between Week 1 and Week  
9 2..." and that's Week 1 and Week 2 of trial running?

10 **MR. TOM FODOR:** Yes.

11 **MS. KATE McGRANN:** "...all different disciplines were clearly  
12 understaffed." Is that consistent with what you recall seeing during trial running?

13 **MR. TOM FODOR:** That was his observations on the guideway. I  
14 was not aware of that understaffing, but I remember we talked about it. And I agreed  
15 that with the problems that they were having that they would have been understaffed,  
16 yes.

17 **MS. KATE McGRANN:** Okay. And in terms of the areas of focus  
18 that you were looking at, you also saw that those areas were understaffed, correct?

19 **MR. TOM FODOR:** Yes, it was clear because of the fact that trains  
20 were being -- you know, they couldn't fill the quota.

21 **MS. KATE McGRANN:** Okay. And if we could scroll down just so  
22 we can see the rest of this email, again, looking at staffing, Mr. Dorj writes, "This is likely  
23 the most difficult to address." And then he goes on to provide views of how many GTs  
24 are required. And is that guideway technicians?

25 **MR. TOM FODOR:** Yes.

26 **MS. KATE McGRANN:** And his prediction is that, "They are really  
27 three months away before they can be properly staffed during all shifts." Now, I  
28 understand that you were looking at a different area. Did you have the same concerns

1 that the maintenance team was a couple of months away before they could be properly  
2 staffed for the shifts that you were looking at?

3 **MR. TOM FODOR:** Yes. This was an issue that had been brought  
4 up that is their staffing in the maintenance plan sufficient? And they admitted that they  
5 would need to have more people and they were trying to get more people hired and  
6 trained because of the issues that they were experiencing.

7 **MS. KATE McGRANN:** Okay. And that was going to be my next  
8 question, because I take it that your view as formed just in advance of substantial  
9 completion, that RTM had a sufficient number of people to maintain the system as  
10 described in the project agreement, hadn't changed?

11 **MR. TOM FODOR:** Sorry, can you please repeat that?

12 **MS. KATE McGRANN:** Yes. And I'll try to give you a sense of  
13 what I'm really asking you here. At the time of substantial completion, you were of the  
14 view that RTM had enough staff to maintain the system described in the project  
15 agreement, right?

16 **MR. TOM FODOR:** Yes.

17 **MS. KATE McGRANN:** And your opinion that RTM had enough  
18 staff to maintain the system described in the project agreement didn't change?

19 **MR. TOM FODOR:** No, no.

20 **MS. KATE McGRANN:** But what you're looking at during trial  
21 running is RTM maintaining the system that actually existed at that time; right?

22 **MR. TOM FODOR:** Yes, they were understaffed based on the  
23 problems that they were experiencing, yes.

24 **MS. KATE McGRANN:** And what you've told the Commission  
25 today is that the maintenance staff were actually overwhelmed by the corrective  
26 maintenance demands in the system; right?

27 **MR. TOM FODOR:** Yes.

28 **MS. KATE McGRANN:** Now that would have implications for the

1 reliability of the system as it headed into revenue service; right?

2 **MR. TOM FODOR:** I would put it differently; I would say the  
3 reliability of the system or unreliability of the system will have an implication on the  
4 maintenance staff.

5 **MS. KATE McGRANN:** Well, would you agree with me, sir, that  
6 it's a bit of a circular exercise and that – I see you drawing a circle with your hand. Do  
7 you agree with me?

8 **MR. TOM FODOR:** Yes.

9 **MS. KATE McGRANN:** So the lack of reliability in the system  
10 creates additional demands for maintenance?

11 **MR. TOM FODOR:** Exactly, yes, I agree.

12 **MS. KATE McGRANN:** And then as maintenance is not able to  
13 meet those demands, plus preventative maintenance, there's additional issues with the  
14 –

15 **MR. TOM FODOR:** It can make it worse, yes.

16 **MS. KATE McGRANN:** And did you see any change to that  
17 vicious cycle during the time that you were observing trial running?

18 **MR. TOM FODOR:** No, it was a consistent repeat, if you want to  
19 call it, the same thing that I saw over and over again, so – it didn't improve because I  
20 don't recall them having – I think they may have had a few more staff but I don't think  
21 that made a difference in the grand scheme of things.

22 **MS. KATE McGRANN:** In your mind was there a level of staffing  
23 that could have addressed all of the issues with the system that you saw during trial  
24 run? Like if you brought in enough people could you account for the reliability issues of  
25 the system through maintenance?

26 **MR. TOM FODOR:** Well, yes, if you bring in double the number of  
27 staff, but then – that's a hard question. Yes, if I doubled the staff and I've got double the  
28 problems, I'd expect that I could handle that. But that's not how you develop a

1 maintenance plan, you develop it based on a reliable – a reasonably reliable system  
2 where you know that you have a preventive maintenance schedule that you'd have to  
3 do, you know, follow, and then there is some corrective maintenance. But if the  
4 corrective maintenance is overwhelming, it would be hard to say how many people you  
5 need then if the train keeps breaking down and the switches do not let the trains go  
6 through, that's a difficult one to answer in that respect.

7 **MS. KATE McGRANN:** And is it fair to say that as you're thinking  
8 about increasing the size of the maintenance staff you can only do that productively up  
9 to a certain number because of the restraints that are presented by the size of the  
10 maintenance and storage facility and the available work space, for example?

11 **MR. TOM FODOR:** Yes. There's also, you know, if you hire two  
12 or three times the number of staff initially, as I mentioned the bathtub curve, the  
13 reliability or the failures come down after a while, then you have all the staff that you  
14 have to let go and it's just not a typical way of establishing a maintenance plan that I've  
15 ever seen, no. You start with a reliable system; you make sure the system is reliable,  
16 then you go into service and then your maintenance staff is constant, it's not up and  
17 down or all over.

18 **COMMISSIONER HOURIGAN:** Counsel, we're going to take the  
19 afternoon break.

20 **THE REGISTRAR:** Order, all rise. The Commission will recess  
21 for 15 minutes.

22 --- Upon recessing at 3:33 p.m.

23 --- Upon resuming at 3:46 p.m.

24 **COMMISSIONER HOURIGAN:** All right, Ms. McGrann, go ahead.

25 **MS. KATE McGRANN:** Before the break we were talking about  
26 what you observed, Mr. Fodor, during the trial running. I would now like to take you to a  
27 sheet that I believe you filled out during the trial runnings, and could we please pull up  
28 COW593679.

1 **--- EXHIBIT No. 115:**

2 COW0593679 – Guideway Maintenance Observations 2  
3 August 2019

4 Okay, so what we're looking at here is a form entitled "Guideway &  
5 Maintenance Observations". The inspector identified there is you, Mr. Fodor, and it's  
6 dated August 2<sup>nd</sup>, 2019; do you see that?

7 **MR. TOM FODOR:** Yes.

8 **MS. KATE McGRANN:** And is this the form that you were asked  
9 to fill out each day that you were observing maintenance activities during trial running?

10 **MR. TOM FODOR:** Correct.

11 **MS. KATE McGRANN:** And if we could just scroll from top to  
12 bottom; what I want to bring your attention to is in the second column; you've got "Task  
13 Description" and then "Yes/No/Not applicable"; you've got a whole bunch of yeses here  
14 and that continues throughout the form. So if you could just scroll down a little bit  
15 further we've got some more yeses, yeses and then all the way down to the last page  
16 you've got some "unobservables" and then some more "yeses". You've got one "no"  
17 and that's about it.

18 So what I'm going to suggest to you, is that anybody who takes a  
19 quick scan through this form and looks at that column, is not going to see the kinds of  
20 issues that you've described to us that you observed during your viewing of trial  
21 running; right?

22 **MR. TOM FODOR:** Yes. The questions that were posed there, I  
23 answered, but the detail – the more intimate details of each thing it wouldn't show up  
24 there, no.

25 **MS. KATE McGRANN:** Okay. And you didn't draft this form, did  
26 you, sir?

27 **MR. TOM FODOR:** No.

28 **MS. KATE McGRANN:** But you'll agree with me that the way this

1 form is designed, it doesn't capture the kinds of observations that you have been  
2 describing to the Commission about the overwhelming of the maintenance staff by  
3 maintenance requirements?

4 **MR. TOM FODOR:** No, it doesn't, no.

5 **MS. KATE McGRANN:** And then if I could take you to the second  
6 page of this document and scroll down to the bottom, and can we just stop there for a  
7 second? The last row here, the question is "Are the vehicles fit for purpose upon  
8 handover to OCT"? And that's "OC Transpo"; right?

9 **MR. TOM FODOR:** Yes.

10 **MS. KATE McGRANN:** And then the question is explained in the  
11 brackets "(in accordance with the vehicle maintenance plan)"; do you see that?

12 **MR. TOM FODOR:** Yes.

13 **MS. KATE McGRANN:** And you have indicated that, yes, they are  
14 there with the "Y"; right?

15 **MR. TOM FODOR:** Yes.

16 **MS. KATE McGRANN:** But then you've also provided some  
17 additional commentary and I want to draw your attention to the second sentence in your  
18 notes here where you write: "There were a few vehicles with faults that are contentious  
19 and would normally not be permitted to enter revenue service, but were used in trial  
20 run." Do you see your note there?

21 **MR. TOM FODOR:** Correct, yes.

22 **MS. KATE McGRANN:** Do you know who made the decision that  
23 these vehicles would be permitted to be used in trial run?

24 **MR. TOM FODOR:** I don't know; I can't remember.

25 **MS. KATE McGRANN:** In terms of which organization made that  
26 decision, do you know whether it was OC Transpo or RTG?

27 **MR. TOM FODOR:** It would be OCT because they would -- well, I  
28 don't know. Actually, I don't know, because I don't know whether it is OCT accepting

1 the vehicles or whether it is RTG saying these vehicles are okay. I honestly don't know.

2 **MS. KATE McGRANN:** Okay. And that's fair, sir. We don't want  
3 you to guess. But I take it that you will agree with me that, to the extent that trial  
4 running is supposed to replicate revenue service and demonstrate that the requirements  
5 of revenue service can be met, allowing vehicles that wouldn't be permitted to enter  
6 revenue service to be used during trial run means you are not getting a very accurate  
7 picture of what would happen in revenue service, right?

8 **MR. TOM FODOR:** Correct.

9 **MS. KATE McGRANN:** And I can take you to another example,  
10 but in the interest of time, I am going to see if we can avoid it. I take it this is not the  
11 only time that you saw something like this take place during your review of trial run?

12 **MR. TOM FODOR:** Correct.

13 **MS. KATE McGRANN:** Now, I will let you know that we are almost  
14 done. Other than the observations that you are providing to the City through these  
15 forms, and we can take this one down now, and the verbal feedback that you were  
16 giving, Mr. Fodor, did you have any other involvement in assisting the City in  
17 determining whether the requirements for revenue service availability had been met?

18 **MR. TOM FODOR:** No.

19 **MS. KATE McGRANN:** And at any point, did anybody at the City  
20 ask you for your view on whether the maintenance team was going to be able to keep  
21 up with the demands of the system at public launch?

22 **MR. TOM FODOR:** I don't -- no, I don't think so. I don't -- I can't  
23 recall.

24 **MS. KATE McGRANN:** Okay. Mr. Palmer, did you have any  
25 involvement in assisting the City in determining whether the requirements of revenue  
26 service availability had been met?

27 **MR. MIKE PALMER:** None.

28 **MS. KATE McGRANN:** And was your view as an operations and



1 maintenance specialist sought by the City on when the public launch ought to take  
2 place?

3 **MR. MIKE PALMER:** Was I asked?

4 **MS. KATE McGRANN:** Yes.

5 **MR. MIKE PALMER:** No.

6 **MS. KATE McGRANN:** Mr. Hulse, did you have any involvement  
7 in assisting the City in determining whether the revenue service availability  
8 requirements had been met?

9 **MR. JOHN HULSE:** Only in terms of system safety and some of  
10 the work of supporting on the safety side. So, making sure that the hazards were close  
11 to an acceptable level, and any residual hazards were transferred to SOPs and  
12 operations.

13 **MS. KATE McGRANN:** And I take it that your view is that all of that  
14 was done to an acceptable level?

15 **MR. JOHN HULSE:** Yes.

16 **MS. KATE McGRANN:** And in terms of the date for which the  
17 system would be open to the public, did the City seek your view on when that should  
18 take place?

19 **MR. JOHN HULSE:** No.

20 **MS. KATE McGRANN:** I am going to take you to another email,  
21 the last one of two that we will look at today. This one is PAR 8346.

22 **--- EXHIBIT No. 116:**

23 PAR0008346 Email from Mike Palmer to Jonathan Hulse et  
24 al Re: Invitation – City to Announce public launch date 21  
25 August 2019

26 **MS. KATE McGRANN:** Okay. So, we are looking at an August 21,  
27 2019 email from Mr. Palmer to Mr. Hulse, Mr. Fodor, and others at Parsons. And I  
28 won't take you to the bottom of the email, I will just tell you that Mr. Fodor, you have

1 forwarded an announcement from the City that the City is going to announce a public  
2 launch date for the Confederation Line. And in the first line of this email, Mr. Palmer,  
3 you write, "So I believe trial running finishes tomorrow." And do you remember why you  
4 had formed the belief on August 21<sup>st</sup> that that trial running would finish the next day?

5 **MR. MIKE PALMER:** I can't recall the trigger for me being  
6 informed of that. I just can't remember. Word was that it was going to finish tomorrow.

7 **MS. KATE McGRANN:** Had you been receiving updates or  
8 information from anyone at the City about how trial running was progressing?

9 **MR. MIKE PALMER:** No. Only once I had the first three days  
10 which failed, and we said on Day 1 it was then suspended, I am not aware of any  
11 information that came out when it was resumed and when it -- until we heard it had  
12 passed.

13 **MS. KATE McGRANN:** Okay. And my next question for you is  
14 about the last sentence in this first paragraph where you say, "Certainly, the software to  
15 measure trips and KMs...", that's kilometres?

16 **MR. MIKE PALMER:** Yes.

17 **MS. KATE McGRANN:** "...was not working last week." Do you  
18 remember where you got that information from?

19 **MR. MIKE PALMER:** I believe it was Mr. McCurdy who was putting  
20 this information off, so he could assess the number of trips in kilometres operated  
21 against the project agreement.

22 **MS. KATE McGRANN:** Okay. And so, you understood from Mr.  
23 McCurdy that the software to measure trips in kilometres was not working last week?

24 **MR. MIKE PALMER:** Yes, so we didn't actually have any data on  
25 the number of trips in kilometres that were operating each day.

26 **MS. KATE McGRANN:** And do you recall if you ever learned what  
27 was done to account for that issue?

28 **MR. MIKE PALMER:** No.

1                   **MS. KATE McGRANN:** And then the other question I want to ask  
2 you about is, in the last paragraph, so you write your -- "Assuming it is deemed a  
3 success, then there are meant to be four weeks of practice for OC Transpo." And we  
4 talked about the earlier, right?

5                   **MR. MIKE PALMER:** Yes.

6                   **MS. KATE McGRANN:** And then you say, "I think that will be  
7 potentially reduced," and what was your basis for the belief that it would be reduced at  
8 this point in time?

9                   **MR. MIKE PALMER:** I believe that the number of days, once it  
10 was announced that it was finished, the next date was not going to be the 28 days  
11 potentially offered and, therefore, if the date of 17<sup>th</sup> of September, and I can't recall  
12 where I got that date from, was correct, then the 28 days may be reduced.

13                   **MS. KATE McGRANN:** Okay. And you go on to write, "A number  
14 of us are unsure whether there is wisdom, given the fragility of rolling stock and  
15 signalling." Do you see that?

16                   **MR. MIKE PALMER:** Yes.

17                   **MS. KATE McGRANN:** And is the fragility of rolling stock and  
18 signalling, what is that referring to?

19                   **MR. MIKE PALMER:** I think in their own right, you know, Thales  
20 build good signalling systems and Alstom build good trains and, you know, the products  
21 that they were offering are sound products, but I think with the -- what Mr. Fodor and Mr.  
22 Hulse had talked about with the unreliability, the high number of failures from both  
23 systems, the lack of systems integration, in my opinion, I wasn't sure if the 17<sup>th</sup> of  
24 September was correct, that that was a wise date to go into revenue service, given  
25 everything we knew at that point.

26                   **MS. KATE McGRANN:** Okay. And I take it your concerns about  
27 going to service on the 17<sup>th</sup> of September would have included concerns about whether  
28 the system could perform as it was intended to?

1                   **MR. MIKE PALMER:** Yes. And whether customers would get a  
2 good service that was reliable.

3                   **MS. KATE McGRANN:** And, Mr. Hulse, we've covered this  
4 already, but just for the sake of certainty, did you share these concerns about whether it  
5 was wise to open a revenue service as described in Mr. Palmer's email?

6                   **MR. JOHN HULSE:** Yes, I did. You asked me earlier about  
7 reliability growth and that's the issue here, is in that second paragraph.

8                   **MS. KATE McGRANN:** And, Mr. Fodor, do you agree with the  
9 views that your two colleagues have expressed here about concerns about opening the  
10 system at this point in time?

11                   **MR. TOM FODOR:** Yes.

12                   **MS. KATE McGRANN:** The last document that I will take you to  
13 today is at PAR 8673.

14 **--- EXHIBIT No. 117:**

15                                   PAR0008673 – Email from Mike Palmer to Jonathan Hulse  
16                                   et al Re: OC Transpo news 6 November 2019

17                                   **(SHORT PAUSE)**

18                   **MS. KATE McGRANN:** I am not asking any questions because all  
19 I can see is a single line on the screen. Is that what you are seeing on your end as  
20 well?

21                   **MR. JOHN HULSE:** Yes.

22                   **MR. MIKE PALMER:** Yes.

23                   **MS. KATE McGRANN:** Okay. We will just hang on a second then  
24 until the document comes up.

25                                   **(SHORT PAUSE)**

26                   **COMMISSIONER HOURIGAN:** Okay. We can see it on our end  
27 so we're going to try to make sure that you can see it on yours. Go ahead.

28                   **MR. TOM FODOR:** We cannot see it.

1 **MS. KATE McGRANN:** We're just going to ---

2 **COMMISSIONER HOURIGAN:** Standby.

3 **(SHORT PAUSE)**

4 **MR. TOM FODOR:** Okay.

5 **MS. KATE McGRANN:** Okay. Now that we can all see this  
6 document, we're looking at an email from Mr. Palmer to you, Mr. Hulse, and another  
7 person at Parsons. This is dated Wednesday, November 6<sup>th</sup>, 2019.

8 Just to put this email chain in context I'd like to scroll down to two  
9 emails below this. Okay. And we were -- scroll up a little bit; a little bit further. Okay,  
10 that's great. And I will thank our court operator; I'm sure nothing is less fun than trying  
11 to scroll to a point in an email based on somebody else's directions.

12 But the email I wanted to bring your attention to is from you, Mr.  
13 Palmer, on Wednesday, November 6<sup>th</sup> at 9:06 a.m. to the same people. And what I  
14 want to draw your attention to is the last line where you say that, "Due to call Richard  
15 today," and you've texted him to say that you're not going to be in Ottawa, but you want  
16 to catch up and you'll report back shortly. I'm going to suggest to you that that Richard  
17 is Richard Holder.

18 **MR. MIKE PALMER:** Yes.

19 **MS. KATE McGRANN:** Okay. And then if we can scroll up to the  
20 first email in this chain? Sorry, if our court operator doesn't mind taking us up to the  
21 top?

22 The reason that I -- that I took you there is because I wanted to put  
23 the first sentence of this email in context where you, Mr. Palmer, write:

24 "Sorry, just spoken to him but hadn't seen this  
25 message." (As read)

26 When you say, "Just spoken to him," I take it you're referring to Mr.  
27 Holder?

28 **MR. MIKE PALMER:** I would need to see the previous message to

1 confirm that accurately.

2 **MS. KATE McGRANN:** Okay. So why don't we -- I'm going to  
3 hand the controls over to you, Mr. Palmer, and we'll start at the very first email in this  
4 chain and you direct the court operator to scroll through, so you have an opportunity to  
5 read it, okay?

6 **MR. MIKE PALMER:** Yes, it's just the message below this...

7 **MS. KATE McGRANN:** Okay.

8 **MR. MIKE PALMER:** ...where I said I have spoken to him, so I just  
9 need to see what the previous message in the chain said. If you continue to scroll down  
10 until you get the next email? Okay.

11 So I had called Richard and then he had obviously -- he and I had  
12 spoken, and so that's what I was going to say to him. If you go back to the top I can  
13 answer your question, please.

14 **MS. KATE McGRANN:** Okay. So my question was, when you  
15 write:

16 "Sorry; had just spoken to him but hadn't seen this  
17 message." (As read)

18 The "him" you're referring to is Mr. Holder?

19 **MR. MIKE PALMER:** No, I believe I was referring to Mr. Hulse,  
20 which was the email below the second one. So if you go back down to the third one --  
21 Mr. Holder -- sorry; Mr. Hulse is one of the people I had an email chain.

22 **MS. KATE McGRANN:** Okay, so we've got you saying that you're  
23 due to call Richard Holder today and then Mr. Hulse writes to you, "Okay, ask  
24 Richard..." -- and that's Holder, right?

25 **MR. MIKE PALMER:** Yes, if you go up a bit, please, you'll see Mr.  
26 Hulse's comment back.

27 **MS. KATE McGRANN:** "Ask him if he wants to come to the  
28 Railway Club dinner"?

1                   **MR. MIKE PALMER:** Yes.

2                   **MS. KATE McGRANN:** Okay. And then you respond to Mr. Hulse  
3 and others -- if we could scroll up to the top?

4                   **MR. MIKE PALMER:** Yes.

5                   **MS. KATE McGRANN:** So you're responding to Mr. Hulse, "Sorry  
6 had just spoken to him".

7                   **MR. MIKE PALMER:** Yes.

8                   **MS. KATE McGRANN:** And you're saying the "him" you're  
9 referring to here is?

10                  **MR. MIKE PALMER:** Richard Holder.

11                  **MS. KATE McGRANN:** Okay. And the part that I want to -- I want  
12 to ask you about in this email is -- it starts about halfway down the page:

13                                 "Some of the comments he made which are  
14                                 interesting included..." (As read)

15                   Do you see that?

16                  **MR. MIKE PALMER:** Yes.

17                  **MS. KATE McGRANN:** And so you're referring to comments that  
18 Mr. Holder made?

19                  **MR. MIKE PALMER:** I can't recall, but I believe so. It may come  
20 from -- some of them might have been second-hand information which Mr. Holder was  
21 passing on, or I'd heard from someone else, but that was a summary of where we were  
22 at the point, we were going to be ready for service.

23                  **COMMISSIONER HOURIGAN:** Sorry, I just want to be clear.  
24 Some of the comments "he" made. Who is "he"?

25                  **MR. MIKE PALMER:** Richard Holder.

26                  **MS. KATE McGRANN:** Okay. And just to put us all on the same  
27 page, in terms of where we're at in time, when this email is being written we're in --  
28 we're in November of 2019, right? This is November 6<sup>th</sup>, 2019?

1 **MR. MIKE PALMER:** Yes.

2 **MS. KATE McGRANN:** And you're passing on information that Mr.  
3 Holder has provided to you here, right?

4 **MR. MIKE PALMER:** Yes.

5 **MS. KATE McGRANN:** And the first bullet point says:

6 "Joel, the OCC Manager, says the system is still  
7 fragile." (As read)

8 And that's the -- that's the LRT system?

9 **MR. MIKE PALMER:** Yeah, I believe that was a direct  
10 conversation I had with Joel Lemieux, the OCC Manager, when -- was going to him  
11 directly.

12 **MS. KATE McGRANN:** Okay. And he relays to you that the  
13 system is still fragile?

14 **MR. MIKE PALMER:** Yes.

15 **MS. KATE McGRANN:** And he advised you what -- when they do  
16 have a good day it's more by luck than judgment?

17 **MR. MIKE PALMER:** Sometimes, yes.

18 **MS. KATE McGRANN:** Okay. And a question I have for you about  
19 this is based on everything you knew about the system at the time that it was heading  
20 into revenue service, did this comment come as a surprise to you?

21 **MR. MIKE PALMER:** No, it's typical for railways starting up or  
22 extensions to have good days and bad days, and the number of good days increases,  
23 the number of bad days decrease. But early on when you're having more bad days it is  
24 often luck more than a sustained improvement in reliability and availability that you have  
25 the good days. But the comment was the system is still fragile and I read that as the  
26 signalling system and the trains and how they sat together as a system, and then that's  
27 further down. Some of this is a summary of a conversation with Richard Holder; some  
28 of it is information I've picked up from other people or I read in bulletins that were put



1 out by the City.

2 **MS. KATE McGRANN:** Okay, and that's fair enough. Just  
3 focusing on this first bullet point here, and you've given us information about how  
4 railway systems in general act, I really do want to focus on this system and its fragility at  
5 this point in time, you know, almost -- you know, it's open to revenue service in  
6 September, we're now in November. The system is still fragile. That, I take it, did not  
7 come as a surprise to you based on what you knew about the state of the system when  
8 it went into revenue service availability?

9 **MR. MIKE PALMER:** It wasn't a surprise, both on the date it went  
10 into service, and either the communication we had from the City as -- in a distribution  
11 group, or to be honest, what was on CBC News, and they were pretty much daily  
12 updates on the latest failures, and the latest issues that had happened.

13 **MS. KATE McGRANN:** Okay. And then looking at the last --  
14 second-last -- I'm sorry -- bullet point in this particular list you write:

15 "They are afraid that the snow and ice will cause  
16 disruption in their own right." (As read)

17 Is the "they" you're referring to there the City generally?

18 **MR. MIKE PALMER:** Yeah, it was a collective term I used to talk  
19 about the City and the project rather than a specific person.

20 **MS. KATE McGRANN:** Okay. And so the City at this point is:

21 "...afraid that the snow and ice will cause disruption in  
22 their own right and unmask more issues with the  
23 vehicles, switches, et cetera." (As read)

24 You see that?

25 **MR. MIKE PALMER:** Yes.

26 **MS. KATE McGRANN:** And I've got this question for all three of  
27 you, but we'll start with you, Mr. Palmer, this notion, or this fear, that additional issues  
28 would be unmasked when the winter weather hit, do you think that fear was well

1 founded on the part of the City, based on what you know about the state of the system  
2 when it went into revenue service?

3 **MR. MIKE PALMER:** Yes, 100 percent.

4 **MS. KATE McGRANN:** And Mr. Hulse, same question for you?

5 **MR. JOHN HULSE:** Yes, I completely agree.

6 **MS. KATE McGRANN:** And Mr. Palmer, same question for you?

7 **MR. MIKE PALMER:** You've already asked me. I think it would be  
8 Mr. Fodor, ---

9 **MS. KATE McGRANN:** Sorry.

10 **MR. MIKE PALMER:** --- I believe?

11 **MS. KATE McGRANN:** Mr. Fodor, same question for you.

12 **MR. TOM FODOR:** Yes, I agree.

13 **MS. KATE McGRANN:** And then the last bullet point in this -- in  
14 this list you write, Mr. Palmer:

15 "Other issues include power, switches with Tunney's,  
16 and Blair's terminals taking much of the hit." (As  
17 read)

18 You see that?

19 **MR. MIKE PALMER:** Yes.

20 **MS. KATE McGRANN:** And then you write in brackets

21 "(Predictably)"?

22 **MR. MIKE PALMER:** Yes.

23 **MS. KATE McGRANN:** The issues including power on the  
24 switches, when you say "Predictably," I take it that is something that you felt you could  
25 have foreseen based on what you knew about the system at the time it went into  
26 revenue service?

27 **MR. MIKE PALMER:** Based on their performance up until that  
28 point, the power system with the OCS, overhead catenary system, the track switches,

1 particularly Tunney's and Blair have the highest count of moves per day, were taking  
2 much of the hit, but I have the highest count of moves per day; we're talking much of a  
3 hit in in reliability to the service.

4 **MS. KATE McGRANN:** Okay. But in terms of the power and the  
5 switches, the issues that you're aware of, were they consistent with issues that you  
6 were aware of before the system went into revenue service?

7 **MR. MIKE PALMER:** Yes and no. Some of them carry on from  
8 the summer; some of them were likely manifest in the winter when you get snow, ice,  
9 salt, quite a lot of temperatures.

10 **MS. KATE McGRANN:** And Mr. Hulse, do you agree with Mr.  
11 Palmer's answer there as it pertains to the power and switches you described in this last  
12 bullet point?

13 **MR. JOHN HULSE:** I do indeed agree that they would be  
14 predictable failures as you move into winter operations.

15 **MS. KATE McGRANN:** And, Mr. Fodor, same question for you..

16 **MR. TOM FODOR:** Yes, I agree.

17 **MS. KATE McGRANN:** Those are my questions today,  
18 gentleman; thank you very much.

19 **COMMISSIONER HOURIGAN:** All right. Thank you, counsel.

20 So just so the witnesses know, you'll be asked questions by a  
21 series of counsel for various parties. The first counsel up is the City of Ottawa.

22 **--- CROSS-EXAMINATION BY MR. PETER WARDLE:**

23 **MR. PETER WARDLE:** Thank you, Mr. Commissioner, Peter  
24 Wardle for the City of Ottawa; last name W-A-R-D-L-E.

25 I wonder, Mr. Hulse, if I could just start by going back quickly to the  
26 scope of the work that Parsons did on Stage 1 in 2015 to 2019; and can I suggest to  
27 you that there were four categories, main categories of work of Mr. McCurdy's  
28 involvement in the implementation of the CBTC system; correct?

1                   **MR. JOHN HULSE:** Correct.

2                   **MR. PETER WARDLE:** Operational readiness, which was  
3 primarily Mr. Palmer; is that correct?

4                   **MR. JOHN HULSE:** That's correct.

5                   **MR. PETER WARDLE:** Maintenance, which was Mr. Fodor;  
6 correct?

7                   **MR. JOHN HULSE:** Correct.

8                   **MR. PETER WARDLE:** And safety, which was your  
9 responsibility?

10                  **MR. JOHN HULSE:** Correct.

11                  **MR. PETER WARDLE:** And as part of its scope of work Parsons  
12 was to draft and revise various documents relating to maintenance, safety and  
13 operational matters and to coordinate with OC Transpo personnel in preparing those  
14 documents?

15                  **MR. JOHN HULSE:** That is correct, yes.

16                  **MR. PETER WARDLE:** Thank you.

17                  **MR. JOHN HULSE:** And I won't take you through these in detail,  
18 but I understand you participated in drafting the "ConOps" or "Concepts of Operations";  
19 correct?

20                  **MR. JOHN HULSE:** Correct.

21                  **MR. PETER WARDLE:** The Operating Restrictions; correct?

22                  **MR. JOHN HULSE:** The Operating Restrictions Plan, not the  
23 "Operating Restrictions" themselves.

24                  **MR. PETER WARDLE:** Thank you, the Operator's Safety Case?

25                  **MR. JOHN HULSE:** Correct.

26                  **MR. PETER WARDLE:** And the Concept of Maintenance;  
27 correct?

28                  **MR. JOHN HULSE:** Correct.

1                   **MR. PETER WARDLE:** And is it fair to say that all of these  
2 documents were completed and approved by OC Transpo by the time of RSA?

3                   **MR. JOHN HULSE:** That's correct.

4                   **MR. PETER WARDLE:** Mr. Palmer, I have a few questions for  
5 you and you've already told us that you are a former Chief Operating Officer of the  
6 TTC?

7                   **MR. MIKE PALMER:** Yes.

8                   **MR. MIKE PALMER:** And you were involved in preparing what's  
9 called the "Operator's Safety Case"?

10                  **MR. MIKE PALMER:** No, there are activities I took part in such  
11 as the demos, the day-in-life workshops which provided evidence towards the safety  
12 assurance.

13                  **MR. PETER WARDLE:** And you were involved in assessing the  
14 certification of OC Transpo staff?

15                  **MR. MIKE PALMER:** Not, individual certification; I had a high  
16 level of screening and making sure that there was a process for determining people's  
17 competence and that was appropriate and being followed, not whether John Smith had  
18 or Joanne Jones, whether they're competent or not.

19                  **MR. PETER WARDLE:** And I understand, Mr. Palmer, you had no  
20 role in testing and commissioning; correct?

21                  **MR. MIKE PALMER:** Only of the signage, I was responsible for  
22 the signage side, the trackside signage. Could you break down your question?  
23 Because in terms of trial operations, you know, leading up to the that point –

24                  **MR. PETER WARDLE:** And you had no involvement I think you  
25 have already testified, in assessing whether substantial completion had been reached;  
26 correct?

27                  **MR. MIKE PALMER:** Correct.

28                  **MR. PETER WARDLE:** Yes. And no involvement in determining

1 whether the conditions for revenue service availability had been met; correct?

2 **MR. MIKE PALMER:** Correct.

3 **MR. PETER WARDLE:** It is the case, Mr. Palmer, that during your  
4 work on this engagement for Parsons, you had the opportunity to work with OC Transpo  
5 managers and operators?

6 **MR. MIKE PALMER:** Yes.

7 **MR. PETER WARDLE:** And would it be fair to say that you formed  
8 a view as to the competence and professionalism of OC Transpo staff that you  
9 interacted with?

10 **MR. MIKE PALMER:** Yes. There's a particular statement in my  
11 initial interview where I praised the OC's middle and junior management, the  
12 supervisors, the transit control centre, the instructors and the drivers, all being  
13 enthusiastic, helpful and wanting to make it work and generally showing – given their  
14 inexperience of operating a light rail system, they were impressive; they wanted to get it  
15 right and they showed that enthusiasm and professionalism; I was very impressed,  
16 particularly the couple of people who I named in my original statement.

17 **MR. PETER WARDLE:** In fact what you said in your original  
18 statement was, "I can't speak highly enough of the OC Transpo staff on the ground and  
19 the job they did in difficult circumstances"?

20 **MR. MIKE PALMER:** Yes, absolutely correct.

21 **MR. PETER WARDLE:** And you also said that you believed that  
22 the operators were ready?

23 **MR. MIKE PALMER:** Well, the operators if they really  
24 demonstrated that they could deal with anything thrown at them by the system. And so  
25 the sense of – I believe in the same section you're referring to, sir, I talked about  
26 somebody passing their driving test, and their driving test being a snapshot of the  
27 person's competence, that they've reached a threshold with which they're safe and okay  
28 to operate the system. It doesn't mean they're good drivers; it's a snapshot. And at that

1 point I was impressed with the team at that competence level.

2 **MR. PETER WARDLE:** And to the extent there were any delays in  
3 training OC Transpo staff, for example, and receiving manuals used for training and the  
4 training of trainers, where did you understand the responsibility for those delays to be  
5 placed? Where did it come from?

6 **MR. MIKE PALMER:** I cannot confirm it accurately in terms of the  
7 project agreement, but what is typical is that the supplier provides maintenance manual  
8 spares and train the trainer. And so they brought in two people from Vancouver to do  
9 the signalling training, for instance, to the trainers and then generally the local trainers  
10 that I would see would take that training and localize it and personalize it to the Ottawa  
11 environment. They're generally technical documents; they're not operational  
12 documents. And so part of the trick is to take that technical knowledge or talk and turn it  
13 into a training course for the general drivers or the controlling staff to do, which would  
14 be done by OC Transpo.

15 **MR. PETER WARDLE:** And it's, I think, clear that all three of you,  
16 but I'm going to start with you, Mr. Palmer, you worked with Richard Holder during your  
17 period on the project?

18 **MR. MIKE PALMER:** Yes.

19 **MR. PETER WARDLE:** And did you form a view with respect to  
20 the competence of Mr. Holder?

21 **MR. MIKE PALMER:** I felt he was approachable, he was friendly;  
22 he led the team well; he understood our problems and took them away to perhaps pass  
23 up the food chain, but I thought he was very good at what he was doing given what was  
24 being thrown at everybody as well.

25 **MR. PETER WARDLE:** And if I could ask you, Mr. Hulse, as well,  
26 did you have the same assessment of Mr. Holder during your dealings with him?

27 **MR. JOHN HULSE:** I have nothing but the utmost respect for Mr.  
28 Holder and his capabilities.

1                   **MR. PETER WARDLE:** And the issues, Mr. Palmer, going back to  
2 you, that you raised about system integration, and particularly the meeting with RTG  
3 where you asked about, you know, who was the system's integrator.

4                   **MR. MIKE PALMER:** Yes.

5                   **MR. PETER WARDLE:** So just, you know, backing up, the  
6 primary – and I don't want to put words in your mouth, but the primary concern from  
7 your end would have been the interface between Alstom and Thales; correct?

8                   **MR. MIKE PALMER:** I think it's wider than that. Because it's the  
9 interface between the signalling and the communication system; they're tracking the  
10 train, they're training the overheads and so it goes around the piece, but if your big  
11 ticket items, which include the signalling in the trains, are not well integrated, that  
12 problems start there.

13                   **MR. PETER WARDLE:** All right. And you formed a view based  
14 on this meeting that RTG was perhaps either not understanding its responsibility for  
15 systems integration or advocating that responsibility; is that fair?

16                   **MR. MIKE PALMER:** It is fair. I wasn't aware of what the project  
17 agreement said, but there is normally a named systems integrator, and it is generally  
18 the constructor who has to integrate the systems laid by into an operable system, that is  
19 both technically -- and so operators and maintainers can do their job as well.

20                   **MR. PETER WARDLE:** And is it also fair to say that Mr. Holder  
21 was aware of your concerns and shared those concerns?

22                   **MR. MIKE PALMER:** Yes, I believe he was in the meeting when I  
23 asked the question, "Who is the integrator?" And the response was, "That is a difficult  
24 question," which is, I think, the part of my interview you are referring to.

25                   **MR. PETER WARDLE:** And I am going to just -- I probably  
26 shouldn't do this, gentlemen, but I am going to throw this open to all three of you. When  
27 you shared assessments, observations, and concerns with Mr. Holder, was he generally  
28 responsive?



1 **MR. TOM FODOR:** Yes.

2 **MR. JOHN HULSE:** Yes.

3 **MR. MIKE PALMER:** For me there are lots of examples where I  
4 recommended something, and he adopted it very quickly.

5 **MR. PETER WARDLE:** And I know you gentlemen were not  
6 involved in the first attempt by RTG to achieve substantial completion in May of 2019.  
7 That is, you may have been around, but you weren't directly involved in that, correct?

8 **MR. MIKE PALMER:** Yes.

9 **MR. JOHN HULSE:** Correct.

10 **MR. TOM FODOR:** Correct.

11 **MR. PETER WARDLE:** But you know Mr. Holder would have  
12 been, correct?

13 **MR. MIKE PALMER:** Yes.

14 **MR. TOM FODOR:** Yeah

15 **MR. PETER WARDLE:** And did you become ---

16 **COMMISSIONER HOURIGAN:** Sorry, you can't all ---

17 **MR. PETER WARDLE:** --- aware ---

18 **COMMISSIONER HOURIGAN:** Sorry, you can't all answer at  
19 once. We can't have a clean transcript. So, just, if a question gets thrown out to you,  
20 just do it sequentially, all right? Start with Mr. Palmer and go from there, okay?

21 **MR. MIKE PALMER:** Could you ask that question again, please,  
22 sir? Thank you, Mr. Commissioner.

23 **MR. PETER WARDLE:** And that is entirely my fault, Mr.  
24 Commissioner. So, I think where we had got to was Mr. Holder was involved in the  
25 process of substantial completion in the first application in May of 2019?

26 **MR. MIKE PALMER:** I believe so, yes.

27 **MR. PETER WARDLE:** Okay. And, gentlemen, you became  
28 aware at some point that the City had not approved that application and sent RTG back.

1 Do you recall that?

2 **MR. MIKE PALMER:** Yes, I read it in the media, I think.

3 **MR. PETER WARDLE:** And I won't take you to this in the interest  
4 of time, but there is a lengthy letter from the City, and it raises a number of concerns  
5 about RTG's readiness for substantial completion, including testing, for example, and I  
6 take it that would be consistent with what you know about Mr. Holder, is that he would  
7 be taking your concerns and trying to act on them to the extent he could?

8 **MR. MIKE PALMER:** I am not familiar with the content of that  
9 letter, so I can't say yes definitively, but I believe he would have acted on what we had  
10 said from our own small error.

11 **MR. PETER WARDLE:** Okay. And I just want to be clear that the  
12 -- I am going to stick with you, Mr. Palmer. Some of the issues that arise after revenue  
13 service availability, you spoke in your transcript about the concept of a bathtub curve.  
14 Do you recall that?

15 **MR. MIKE PALMER:** Yes.

16 **MR. PETER WARDLE:** And that is the idea, I am going to suggest  
17 to you, that the reliability of a system or equipment may experience an initial dip and  
18 then improves as the system matures, right?

19 **MR. MIKE PALMER:** Yes, by the hardware and software level.

20 **MR. PETER WARDLE:** And the problems that OC Transpo  
21 experienced in the winter of 2020, starting at around New Year's Eve, would you agree  
22 that those problems went well beyond what one would expect from a bathtub  
23 curve?

24 **MR. MIKE PALMER:** Yes, it was very deep, off the top.

25 **MR. PETER WARDLE:** Okay. I want to just be clear, gentlemen,  
26 first of all Mr. Palmer, you are not a vehicle expert, sir, is that correct?

27 **MR. MIKE PALMER:** That is correct, but at the Toronto Transit  
28 Commission, the head of railcars and shocks, the professional head of rolling stock,

1 reported to me.

2 **MR. PETER WARDLE:** And, Mr. Hulse, again, you are not a  
3 vehicle expert, correct?

4 **MR. JOHN HULSE:** I have been involved in portions of vehicle  
5 design related to communications and track control. Vehicles are complex systems with  
6 multiple flip systems, so I have a fair degree of competence with regards to the interface  
7 between vehicles and train control.

8 **MR. PETER WARDLE:** Is it fair to say, though, that Parson's  
9 mandate did not extend to assessing the reliability of the Alstom vehicles?

10 **MR. JOHN HULSE:** That's correct.

11 **MR. PETER WARDLE:** And you said, Mr. Hulse, I think in your  
12 interview that the delivery of the rolling stock was late.

13 **MR. JOHN HULSE:** That's my understanding and was my  
14 understanding.

15 **MR. PETER WARDLE:** And you had concerns that the rolling  
16 stock had to go through a reliability growth period, correct?

17 **MR. JOHN HULSE:** That's correct.

18 **MR. PETER WARDLE:** And you testified at your interview that at  
19 Bombardier, and I guess this is based on prior experience with Bombardier, the  
20 expectation would be that every vehicle complete approximately 200 kilometres of  
21 operation before delivery?

22 **MR. JOHN HULSE:** That's my recollection from working at  
23 Bombardier.

24 **MR. PETER WARDLE:** And I take it you don't know what the  
25 equivalent parameter was for these vehicles from Alstom?

26 **MR. JOHN HULSE:** I don't.

27 **MR. PETER WARDLE:** And you were not involved, Mr. Hulse, in  
28 trial running, correct?

1                   **MR. JOHN HULSE:** I was not.

2                   **MR. PETER WARDLE:** And, Mr. Palmer, you were not involved in  
3 trial running?

4                   **MR. MIKE PALMER:** No, sir.

5                   **MR. PETER WARDLE:** I just want to take you, Mr. Palmer, to PAR  
6 8018 and perhaps we can turn that up again? And I am going to suggest, first of all, Mr.  
7 Palmer, and maybe it has something to do with you being from the U.K., but you have a  
8 certain way of expressing yourself; is that fair?

9                   **MR. MIKE PALMER:** We would call it industrial language, sir.

10                  **MR. PETER WARDLE:** Industrial language in this email is --  
11 actually, when you get to the bottom of it, it looks like you have a bet on with some of  
12 the people involved, Mr. Holder, Mr. Cripps, and Russell Davies, a four-way bet as to  
13 the nearest, I guess, date for substantial completion, right?

14                  **MR. MIKE PALMER:** Yes. It was out of work hours, and we were  
15 talking about work, and I suggested a date.

16                  **MR. PETER WARDLE:** Okay. And, again, it's pretty obvious from  
17 just looking at the top of the email that this is not an email shared with the City, right, or  
18 with Mr. Holder?

19                  **MR. MIKE PALMER:** This was an email within Parsons'  
20 employees, really, just updating where we were, keeping Mr. Hulse, Mr. Halaz (ph), and  
21 the rest of the team, where I saw things. It was just our means of communicating with  
22 each other.

23                  **MR. PETER WARDLE:** Fair enough. And you describe, for  
24 example, in the second paragraph -- actually, I guess it would be the third paragraph,  
25 "Since typing this, I hear that they had one times two car trains certified and out  
26 yesterday and five today." And this is third-hand information you were getting from  
27 someone else, correct?

28                  **MR. MIKE PALMER:** It was probably second-hand information

1 from one other person in the team, Mr. McCurdy. He was the closest to the daily logs  
2 from Transit Control describing what the service was that was put out.

3 **MR. PETER WARDLE:** And then you describe, in the couple of  
4 paragraphs down, the fact that Siemens were out there last week and haven't found  
5 anything definitive on the TPSS. Do you see that?

6 **MR. MIKE PALMER:** Yes, sir.

7 **MR. PETER WARDLE:** And you say, "I do think they will have a  
8 bingo bongo moment on this, and the drama will suddenly be over." And I take it what  
9 you mean is that that issue would be resolved?

10 **MR. MIKE PALMER:** Yes. A literal translation would be a eureka  
11 moment where suddenly they found the calls and the problem would suddenly go away.  
12 It wasn't the case.

13 **MR. PETER WARDLE:** Fair enough. And I am not trying to be  
14 difficult of your use of language, but this is a pretty casual email amongst your group at  
15 Parsons. Fair enough?

16 **MR. MIKE PALMER:** No, I wouldn't say it was casual. The style  
17 may be casual, but it's a serious message from where we were.

18 **MR. PETER WARDLE:** Well, let's look at the next couple of  
19 paragraphs down. You say, "The independent certifier was meant to take a further five  
20 days; however, my guess is that the most likely position she would take would be to  
21 back the City in either a yes or a no as the City is less likely to be wide of the mark than  
22 OLRTC."

23 **MR. MIKE PALMER:** Yes.

24 **MR. PETER WARDLE:** And just stopping there, can I suggest that  
25 your professional opinion was that the people at the City of Ottawa had a better handle  
26 on the status of the project than OLRTC?

27 **MR. MIKE PALMER:** I think that the opinion would be more  
28 realistic.

1                   **MR. PETER WARDLE:** Fair enough. And then you'll refer to trial  
2 running, and, again, Mr. Palmer, you weren't privy to the details of trial running, the  
3 requirements in the project agreement, any agreements that had been reached between  
4 the parties about how those would be carried out? That wasn't part of your remit, right?

5                   **MR. MIKE PALMER:** That wasn't part of my remit. My only  
6 exposure was a high-level tabletop held at City Hall where they table-topped the  
7 governance of the 28 days, and how they would run the daily assessment, and the  
8 scoring, and the process for resetting or carrying on to the next day. I just was an  
9 observer to that day.

10                  **MR. PETER WARDLE:** And then if we go down a couple of  
11 paragraphs, you have a paragraph that starts, "My guess is that the City (read mayor  
12 and JM) are taking a calculated guess." And would it be fair to say, sir, that that really is  
13 just your speculation?

14                  **MR. MIKE PALMER:** Yes, in hindsight, I would say calculation or  
15 estimate, that the remaining issues could be cleared up in the remaining time. But that  
16 was predicated on -- in the information from the RTG being correct.

17                  **MR. PETER WARDLE:** And you weren't directly involved in the  
18 chain of authority at the City of Ottawa, correct?

19                  **MR. MIKE PALMER:** No, sir.

20                  **MR. PETER WARDLE:** So, you have no idea who Mr. Manconi  
21 reported to, and what the chain was up between Mr. Manconi, the City manager, to the  
22 mayor; is that fair?

23                  **MR. MIKE PALMER:** I was only aware of the governance up to  
24 Richard Holder reporting to Michael Morgan/Steve Cripps.

25                  **MR. PETER WARDLE:** Thank you. So, to the extent that you  
26 make observations in this email about Mayor Watson, and, again, I'm not trying to be  
27 unfair to you, but it's really just your speculation, fair enough?

28                  **MR. MIKE PALMER:** It's not really speculation. It's to demonstrate

1 the point that whoever makes the decisions in the City on the final yes or no, and my  
2 guess was it was them -- I've done a number of these projects, route extensions,  
3 recently, and I'm aware of the governance and the accountable people to take  
4 decisions, and that's the point I was making. It wasn't against either the mayor or Mr.  
5 Manconi specifically, but people with the delegated authority to make the decisions.

6 **MR. PETER WARDLE:** Thank you. That's helpful. And you were  
7 concerned, and you say it in this email, that the contractor wasn't sharing all the  
8 information it had with the City. That was a consistent concern of yours; is that fair?

9 **MR. MIKE PALMER:** That was my impression. It appeared to be a  
10 firewall between the City and RTG leading up. So, a number of documents we would  
11 expect to see from Thales or from Alstom were not available for us to see at the right  
12 time.

13 **MR. PETER WARDLE:** And you made a comment -- you made a  
14 comment, Mr. Palmer, about "It's typical for railways starting up to have good days and  
15 bad days." What did you mean by that?

16 **MR. MIKE PALMER:** Much is on start-up, but throughout the life of  
17 the LRT, you have periods of good running, and then you have a couple of bad  
18 incidents in close succession, and then it recovers again. Occasionally, you have a  
19 really bad failure which knocks you back, and that's the same for a railway that's been  
20 going for five or ten years as a railway that's been open for five weeks. But I think they  
21 had some short periods of good running when they were getting more confident, and  
22 then something else would happen.

23 **MR. PETER WARDLE:** Thank you. Mr. Fodor, I have a few  
24 questions for you, and it really started from an observation you made, Mr. Fodor, in your  
25 evidence, and I just want to make sure that I have this accurately.

26 You were asked whether you became aware that the vehicles were  
27 unreliable in the trial running period, and you said, "Most days, the required number of  
28 trains were not achieved." Do you recall that?

1 **MR. TOM FODOR:** Yes.

2 **MR. PETER WARDLE:** So, first of all, Mr. Fodor, is it fair to say  
3 you were not part of the trial running test team?

4 **MR. TOM FODOR:** I was part of the trial running -- I was an  
5 observer for the trial run.

6 **MR. PETER WARDLE:** Yeah. No, that really wasn't my question.  
7 You weren't part of the trial running test team?

8 **MR. TOM FODOR:** No.

9 **MR. PETER WARDLE:** You weren't one of the people marking the  
10 score cards?

11 **MR. TOM FODOR:** No. No.

12 **MR. PETER WARDLE:** Mr. Holder was one of the people marking  
13 the score cards, correct?

14 **MR. TOM FODOR:** I don't know.

15 **MR. PETER WARDLE:** So, you actually have no idea who was  
16 involved in marking the score cards and assessing whether trial running had passed or  
17 failed; isn't that fair, Mr. Fodor?

18 **MR. TOM FODOR:** Yes.

19 **MR. PETER WARDLE:** Okay. And you actually provided  
20 documents to Mr. Holder on a daily basis about maintenance observations, correct?

21 **MR. TOM FODOR:** Yes. The inspection -- or, the reports for the  
22 observations, yes.

23 **MR. PETER WARDLE:** And if we just look at two of them, and  
24 we'll start with the one -- I'm not sure if this was the one my friend took you to, but I'm  
25 going to take you to August 2<sup>nd</sup>, and it's COW -- we'll take this document down now.  
26 So, COW 0593679. I wonder if we could just make that so that the witness can see  
27 that? That's much better. Thank you.

28 So, just so Mr. Commissioner knows what this document is, this



1 was a document you sent to Mr. Holder on a daily basis during trial running, right?

2 **MR. TOM FODOR:** Correct.

3 **MR. PETER WARDLE:** And you were located, as I understand it,  
4 in the control centre in the yard, right?

5 **MR. TOM FODOR:** Correct. Yes.

6 **MR. PETER WARDLE:** Which is different from the main control  
7 centre.

8 **MR. TOM FODOR:** Correct.

9 **MR. PETER WARDLE:** You were not one of the people out on the  
10 platforms counting the trains as they went by?

11 **MR. TOM FODOR:** No.

12 **MR. PETER WARDLE:** Okay. And this one we're looking at, if we  
13 just look at the first page, you'll see a whole bunch of yeses.

14 **MR. TOM FODOR:** Yes.

15 **MR. PETER WARDLE:** And then if we go over to the second  
16 page, you'll see a task description, and then the item that's in the middle of the page  
17 right now are the scheduled number of vehicles/trains prepared and available for  
18 service at the scheduled launch times. And you'll see you said, "Sunday schedule calls  
19 for 11 times one car, trains, available fleet, 11 times 2," and then you've noted some  
20 observations, and you've got a Y in the middle column. Do you see that?

21 **MR. TOM FODOR:** Yes.

22 **MR. PETER WARDLE:** And is it not fair to say that all of your  
23 vehicle maintenance observations for the entire period of trial running have a Y in that  
24 box in the middle, and at no time did you advise Mr. Holder that, as you said today,  
25 most days the required number of trains were not achieved?

26 **MR. TOM FODOR:** I'm -- Sunday's schedule calls for --- These  
27 were -- I was going by the number of trains prepared and available from what we were  
28 told by RTM, by the vehicle maintainers.

1                   **COMMISSIONER HOURIGAN:** I think the question was  
2 specifically about what you told the City. I think that is what counsel is looking for.

3                   **MR. TOM FODOR:** Yes, I -- yes, it would show that there are -- the  
4 number of vehicles of trains are available for service. Yes.

5                   **MR. PETER WARDLE:** Let's just look at one more, just so that we  
6 are clear. If we look at COW -- you can take this one down. COW0537247, which is  
7 August 9<sup>th</sup>. And if we go down -- we'll just make it a little bigger. I think we just lost it.

8 **--- EXHIBIT No. 118:**

9                                   COW0537247 – Vehicle Maintenance Observations 9  
10                                   August 2019

11                   **COMMISSIONER HOURIGAN:** Standby. It's up on my screen, but  
12 we will get it up. Hang on.

13                   **MR. PETER WARDLE:** I am just going to wait, Mr. Fodor. If we go  
14 down on this one, you will see the date, August 9<sup>th</sup>, and if we go down on the first page  
15 towards the bottom, you will see it says, "Are the scheduled number of vehicles" --  
16 sorry, we just need to go back up. "Are the scheduled number of vehicles and trains  
17 prepared and available for service at the scheduled launch times?" You've got in the  
18 middle column a Y, and then you've made some observations. And then at the very  
19 bottom you say, "Much smoother preparation process observed today."

20                   **MR. TOM FODOR:** Yes.

21                   **MR. PETER WARDLE:** Do you see that? And I realize it is a while  
22 ago, but is it fair to say that Mr. Holder, in reviewing these sheets that you provided to  
23 him, would have been under the impression that, from your perspective, the scheduled  
24 number of vehicles and trains prepared and available for service at the scheduled  
25 launch times, the answer to that question was actually "yes"?

26                   **MR. TOM FODOR:** I believe further down I had a comment that  
27 stated that there were a number of trains that went out that would normally, in regular  
28 service, in revenue service, would not be allowed. I remember reading that and putting

1 that comment in, that -- oh, there it is. Where the "yes/no - Are the vehicles fit for  
2 purpose upon handover?" I said, "A few LRVs with minor faults and missing PM tasks  
3 that could exclude them from entering revenue service were allowed by OCT to be used  
4 in trial runs." So, although the schedule said they were handed over and they were  
5 ready for service, in reality, if this was revenue service, they would not be accepted.  
6 So, it ---

7 **MR. PETER WARDLE:** I guess what I was having difficulty with  
8 was your evidence earlier to my friend that most days, the required number of trains  
9 was not achieved, and that is not what this document says, is it, sir?

10 **MR. TOM FODOR:** These are two days out of the time that I was  
11 there. As far as I can recall, in most days, they could not achieve the fleet that was  
12 required, and if they did initially, there were a lot of removals and attempts to replace  
13 with trains. But from my recollection, in most days, they did not achieve the revenue  
14 service fleet that was required.

15 **MR. PETER WARDLE:** All right, well ---

16 **MR. TOM FODOR:** And if they did, there were a lot that would not  
17 have been allowed except for the trial run.

18 **MR. PETER WARDLE:** I am going to try this one last time, Mr.  
19 Fodor. If we just go up the page slightly to where we were, I am going to suggest to you  
20 that for all the reports you completed during the trial running period, you answered the  
21 question with a "Y".

22 **MR. TOM FODOR:** Those were the schedules that were -- I've  
23 said the Friday scheduled calls for, and they gave us a list of trains that would be going  
24 out, and I believe that in most cases that we didn't get all of those trains out, or they  
25 came out pretty shortly thereafter.

26 **MR. PETER WARDLE:** And perhaps the last point I will make  
27 about this document, Mr. Fodor, and it is important when you are making maintenance  
28 observations, Mr. Fodor, to commit them to writing, correct?

1                   **MR. TOM FODOR:** Yes.

2                   **MR. PETER WARDLE:** Okay. And were you suggesting to my  
3 friend that there was no space on this form to make comments about corrective  
4 maintenance?

5                   **MR. TOM FODOR:** Was I -- sorry, excuse me, could you repeat  
6 that?

7                   **MR. PETER WARDLE:** My friend asked you some questions  
8 about corrective maintenance and then she asked you about this particular form, which  
9 has a whole section on maintenance and you, I think, suggested that, in answer to a  
10 question from my friend, that the form didn't allow you to fill out that information. Do I  
11 have your evidence correctly?

12                   **MR. TOM FODOR:** I was not privy to the corrective maintenance  
13 tasks on a daily -- on an evening basis. My observation was that because of failures  
14 beyond the preventive maintenance tasks and the corrective maintenance that they had  
15 to do, that there was more maintenance required than expected.

16                   **MR. PETER WARDLE:** Well, I think what you told my friend was  
17 that corrective maintenance overwhelmed the maintainer. Isn't that what you said?

18                   **MR. TOM FODOR:** Yes.

19                   **MR. PETER WARDLE:** And I am going to suggest to you that  
20 nowhere in any of these forms that you sent to Mr. Holder can we find any such  
21 observation.

22                   **MR. TOM FODOR:** The reports for the day would show that there  
23 were not -- that they did not meet the requirements for the trial run, and if the trains are  
24 being pulled out after one or two runs, or they can't leave the handover platform, that  
25 would be indicated that you can't meet the schedule, you are not meeting the schedule,  
26 and that would be indicative of failures on a train.

27                   **MR. PETER WARDLE:** Again, Mr. Fodor, as we have already  
28 talked about, you weren't part of the trial running test team, correct?

1                   **MR. TOM FODOR:** Yes.

2                   **MR. PETER WARDLE:** You weren't one of the people marking the  
3 scorecards?

4                   **MR. TOM FODOR:** Correct.

5                   **MR. PETER WARDLE:** Right? You weren't observing the  
6 throughput, right?

7                   **MR. TOM FODOR:** I was observing what was going on in the  
8 mornings and during the day, yes.

9                   **MR. PETER WARDLE:** You don't actually know what the headway  
10 requirements were, do you?

11                   **MR. TOM FODOR:** I was watching the operations from the YCC,  
12 yes.

13                   **MR. PETER WARDLE:** No, that's not the question I asked you,  
14 Mr. Fodor. You don't know what the headway requirements were, do you?

15                   **MR. TOM FODOR:** No.

16                   **MR. PETER WARDLE:** All right. Thank you. Those are all my  
17 questions for this panel. Thank you very much.

18                   **COMMISSIONER HOURIGAN:** All right. Thank you, counsel.  
19 Next is RTG.

20                   **MR. MICHAEL FENRICK:** Good morning. If this document could  
21 just be taken down? Thank you.

22 **--- CROSS-EXAMINATION BY MR. MICHAEL FENRICK:**

23                   **MR. MICHAEL FENRICK:** Good afternoon, gentlemen. My name  
24 is Michael Fenrick. For the record, F-E-N-R-I-C-K. And I am here representing the  
25 RTG parties. I have a number of questions for each of you and I will try to be clear who  
26 I am directing the questions to as we proceed. Thank you for your time today.

27                   The first question is -- the first couple of questions are for Mr.  
28 Palmer. The first being, you've given some evidence both to Mr. Wardle on behalf of

1 the City, and to Commission counsel, relating to information being -- and you say your  
2 impression was that information was withheld by RTG from the City. Are you aware of  
3 what information the City had available to it, the complete universe of information that  
4 RTG had provided to it?

5 **MR. MIKE PALMER:** No.

6 **MR. MICHAEL FENRICK:** Sorry; I didn't get your answer?

7 **MR. MIKE PALMER:** No.

8 **MR. MICHAEL FENRICK:** And what specifically do you say was  
9 withheld?

10 **MR. MIKE PALMER:** The release notice for the Thales signalling  
11 software. One example would be on a Thursday, Mr. McCurdy brought to my attention  
12 that the release notice from Thales were not in a control centre for the OCC electric rail  
13 controllers to see and act upon, based on the latest software drop.

14 I would expect to see that notice in the control centre because they  
15 are other people who need to know that if you do a particular command, you might  
16 crash the system or don't do this, do this instead.

17 And that was on a Thursday afternoon, and they had been helping  
18 RTG test the system since the Monday and so they were effectively testing blind on  
19 what software changes had been made to the Thales signalling system, in hardware or  
20 software.

21 **MR. MICHAEL FENRICK:** But you're not aware that RTG withheld  
22 that information; you just know it wasn't there?

23 **MR. MIKE PALMER:** It wasn't in the control centre, and when I  
24 raised this to Mr. Holder, he wasn't aware of the release notes either, so I can't tell you  
25 what happened above him.

26 **MR. MICHAEL FENRICK:** So you don't know whether or not the  
27 City had those documents in its possession, and they simply weren't in the control  
28 centre?

1                   **MR. MIKE PALMER:** I don't know that, but I would have expected  
2 Mr. Holder, the system's lead, to have a copy of those.

3                   **MR. MICHAEL FENRICK:** And with respect to -- you gave a  
4 number of answers with respect to specific standards, one that stood out for me was  
5 alarm standards; this was with Commission counsel. And with respect to the -- let's  
6 start -- I'll start with the alarm standards, specifically. You aren't aware -- are you  
7 familiar with some of the issues that have arisen on the system since revenue service  
8 availability? Let's start there.

9                   **MR. MIKE PALMER:** Yes. Less so in more recent times, but in  
10 the lead up to commissioning and just after, I was aware of the alarm management  
11 issues.

12                   **MR. MICHAEL FENRICK:** And are you aware that any of the  
13 issues that this Commission is investigating have anything to do with those alarm  
14 systems?

15                   **MR. MIKE PALMER:** I can't answer that, sir, because I don't know  
16 the circumstances around the derailments and who did what.

17                   **MR. MICHAEL FENRICK:** Okay. So you have no evidence on  
18 whether or not there were any issues related to the alarm systems that would have  
19 impacted on any of the issues on the system that are ---

20                   **MR. MIKE PALMER:** The only anecdotal evidence I'm aware of is  
21 the zone controller failure. On a morning -- it may have been a Sunday morning --  
22 where a power failure to a signalling equipment room out on the field had failed, the two  
23 feeds. The signalling worked off battery supply until it packed up and they had the  
24 controller fail, and trains entering the area became non-communicating and stopped.

25                   And I believe, from what I was told, that there were alarms on the  
26 SCADA stack at 3:00 a.m. informing of a power failure or a trip to the equipment room  
27 which may have been missed by the operator on the maintainer because of the flooding  
28 of the stack. Otherwise, had they seen those alarms at 3:00 a.m., because they were

1 well signed and labelled and stayed on the stack and they were reacted to, they would  
2 have known at 3:00 a.m. that there was a power failure, and they were on borrowed  
3 time.

4 **MR. MICHAEL FENRICK:** But you don't have any firsthand  
5 information about that; this is just what you were told by somebody?

6 **MR. MIKE PALMER:** It's what I was told by the Thales person that  
7 went out into the field and actually dealt with the fault. So I would take that as reliable  
8 second-hand information.

9 **MR. MICHAEL FENRICK:** And with respect to the other standards,  
10 are you aware -- I think you mentioned the -- I think it was the -- sorry; I didn't have a  
11 good note of the letters attached, but I think it was the E -- the EEMU standard, and  
12 other standards; are you aware of any of those standards having impacted on any of the  
13 issues that the Commission is inquiring into; those standards not being adopted on this  
14 project?

15 **MR. MIKE PALMER:** I'm aware of standards being not partially  
16 adopted. So within the human-factors standard, RTG wrote a very good human factors  
17 integration plan, an HFIP, by an employee of SNC-Lavalin, the old Interfleet, and that  
18 plan was delivered, and it went really good.

19 Unfortunately, that person went on mat leave and the close-out of  
20 that report, I believe, was not done, and so it was really left hanging.

21 But -- so there were standards around human factors integration  
22 which were followed because the plan was on the table. But the alarm management  
23 standard, EEMUA11, was not followed, and that was discovered in a session with  
24 Willowglen and RTG where we were showing this SCADA system for the first time, and  
25 I asked Willowglen and RTG what standards had they used in the allocation of alarms  
26 and the alarm description.

27 **MR. MICHAEL FENRICK:** And what was -- Mr. Wardle asked you  
28 a few questions about, I think -- as I understand it, I don't believe you personally were



1 involved in this since the completion, Mr. Palmer, is that fair?

2 **MR. MIKE PALMER:** Correct.

3 **MR. MICHAEL FENRICK:** What was Parsons -- are you aware of  
4 what Parsons -- or this can be to any members of the panel, what Parsons' involvement  
5 with substantial completion?

6 **MR. JOHN HULSE:** Let me answer that question, please. Mr.  
7 Hulse.

8 As I've described, Mr. Fodor was involved in observations in the  
9 yard control centre. Myself was involved in review and safety documentation and  
10 transfer of closure of safety hazards by RTG, and transfer of residual risks into  
11 operating procedures.

12 **MR. MICHAEL FENRICK:** And -- and I take it that none of these  
13 issues with respect to standards that Mr. Palmer, you've identified, prevented Parsons  
14 from recommending or allowing substantial completion to proceed?

15 **MR. JOHN HULSE:** Substantial completion wasn't contingent on  
16 our recommendation or agreement or anything else like that. We would provide  
17 comments on specific documents and reports. And that's the way our work was  
18 assigned and the way we reported on our observations.

19 **MR. MICHAEL FENRICK:** But you never -- Parsons never gave  
20 advice that substantial completion should not -- should not be accepted by the City or by  
21 the independent certifier because of these standards only?

22 **MR. JOHN HULSE:** We were never asked for our opinion on that  
23 and never provided such advice.

24 **MR. MICHAEL FENRICK:** So Mr. Fodor, just staying with you for a  
25 moment, the Commission counsel asked you a few questions about the concept of  
26 operations, the concept of maintenance, and the concept of safety and security, do you  
27 recall those questions?

28 **MR. TOM FODOR:** Yes. Excuse me; yes.

1                   **MR. MICHAEL FENRICK:** And with respect to those documents,  
2 your view, as I understand it from your evidence -- that's your transcript of your formal  
3 interview that's in evidence -- is that the City should have had these documents  
4 prepared prior to construction, is that fair?

5                   **MR. TOM FODOR:** Correct.

6                   **MR. MICHAEL FENRICK:** But the City did not in fact have those  
7 documents prepared?

8                   **MR. TOM FODOR:** No.

9                   **MR. MICHAEL FENRICK:** And by the time you joined in 2015, the  
10 City had still not prepared those documents by the time you joined the project?

11                   **MR. TOM FODOR:** Correct.

12                   **MR. MICHAEL FENRICK:** And just to have it, Mr. Hulse, you  
13 would agree with Mr. Fodor that the City should have had those documents prepared  
14 prior to construction?

15                   **MR. JOHN HULSE:** No, I wouldn't.

16                   **MR. MICHAEL FENRICK:** What's your view, Mr. Hulse?

17                   **MR. JOHN HULSE:** Because the concept of maintenance was the  
18 responsibility of RTG and RTM, as the maintainer for the -- for the system. So the  
19 responsibility for the concepts of maintenance and for the activities for which they were  
20 contracted was the responsibility of the maintainer.

21                   **MR. MICHAEL FENRICK:** And with respect to the concept of  
22 operations and the concept of safety and security, those, you would agree, were ---

23                   **MR. JOHN HULSE:** The best practice would be that the party  
24 provided those services, such as operations, would develop the con-ops early in the --  
25 in the project.

26                   **MR. MICHAEL FENRICK:** Okay. And just staying with you for a  
27 moment, Mr. Hulse, I believe your evidence was that the fact that the City had not in fact  
28 prepared those documents -- and we'll limit it here to the concept of operations and the

1 concept of safety, security at the appropriate times led to compromises that had to be  
2 made during the construction?

3 **MR. JOHN HULSE:** The parties' agreement didn't allow for or  
4 mention such documents when Parsons was retained. We came on board and gave  
5 advice, even though lately we felt it would be beneficial to all parties that we do develop  
6 such documents. And I believe that they did help in the -- in the planning for operations  
7 and maintenance, so a benefit to both the City and RTG.

8 **MR. MICHAEL FENRICK:** And that's fair. But my question was  
9 slightly different. I have your evidence in your formal interview that it led -- the fact that  
10 these documents had not been prepared led to compromises that had to be made  
11 during the construction period; is that still your evidence, sir?

12 **MR. JOHN HULSE:** I'm just thinking about specifics, if you'd give  
13 me a moment.

14 What I was perhaps trying to say in my evidence was that the  
15 benefits of a concept -- of operations and concepts and maintenance, is that it helps  
16 inform you to decide decisions.

17 **MR. MICHAEL FENRICK:** That's fair. And turning back to you,  
18 again, Mr. Fodor, I just wanted to talk a little bit in terms of your role observing the trial  
19 running. You've been asked a number of questions about that and I hope not to repeat  
20 any of them. But the first question I have for you, Mr. Fodor, in your view RTM was  
21 ready to take over maintenance on the project following revenue service in accordance  
22 with the project agreement; is that a fair characterization of your evidence?

23 **MR. TOM FODOR:** Yes.

24 **MR. MICHAEL FENRICK:** And in your view the problem was the  
25 vehicles; is that fair; they were unreliable?

26 **MR. TOM FODOR:** Yes. One of the issues; there were wayside  
27 issues as well, switch-related problems that caused operational issues and of course  
28 maintenance issues.

1                   **MR. MICHAEL FENRICK:** But one of the largest factors you would  
2 say is – was the unreliability of the vehicles that you didn't expect when you joined the  
3 project?

4                   **MR. TOM FODOR:** Yes.

5                   **MR. MICHAEL FENRICK:** And once the system went into  
6 operation, presumably the reliability of the vehicles would still pose a problem to the  
7 operations?

8                   **MR. TOM FODOR:** Yes.

9                   **MR. MICHAEL FENRICK:** And the unreliability of the vehicles  
10 meant that they were difficult to maintain; is that fair?

11                   **MR. TOM FODOR:** Yes.

12                   **MR. MICHAEL FENRICK:** And have they broke down often?

13                   **MR. TOM FODOR:** Yes.

14                   **MR. MICHAEL FENRICK:** And this led to other issues in terms of  
15 maintenance, including with respect to the MSF; is that fair?

16                   **MR. TOM FODOR:** I'm not sure.

17                   **MR. MICHAEL FENRICK:** Let me back up and rephrase it. I may  
18 be going a little too quickly in the interest of time, but as I understand it, Alstom was  
19 using the MSF to produce vehicles during Stage 1 and also to maintain vehicles; is that  
20 your understanding as well?

21                   **MR. TOM FODOR:** Yes.

22                   **MR. MICHAEL FENRICK:** And that obviously there's a limited  
23 amount of space and that the maintenance function and the production function would  
24 be competing for shot space; is that fair?

25                   **MR. TOM FODOR:** That was a concern, yes.

26                   **MR. MICHAEL FENRICK:** And that concern would only be  
27 aggravated if the maintenance needs on the project were greater than expected  
28 because the vehicles were more unreliable than you had anticipated?

1                   **MR. TOM FODOR:** If I can expand; if you needed heavy  
2 maintenance where they were doing the assembly, that was a concern. I don't know if  
3 the maintenance that they were doing was directly related to that area that would be  
4 needed where they were doing the assembly. I think all the maintenance was being  
5 done in the other building.

6                   **MR. MICHAEL FENRICK:** But your evidence in your formal  
7 interview was that -- and I'm quoting here, that you were "stunned", that's the quote, that  
8 Alstom was using the same facility for both maintenance and production. Do you still  
9 maintain that view?

10                  **MR. TOM FODOR:** I was surprised that a maintenance facility, an  
11 important part of the maintenance facility, the depo, would be used for continuous  
12 assembly and that that -- those pieces of equipment would be difficult to access.

13                  **MR. MICHAEL FENRICK:** And turning then, Mr. Hulse, to you,  
14 again, you were -- you had some concerns about the late delivery of the rolling stock; is  
15 that fair?

16                  **MR. JOHN HULSE:** Yeah.

17                  **MR. MICHAEL FENRICK:** And what were those concerns?

18                  **MR. JOHN HULSE:** Making sure, as I mentioned in the earlier  
19 answers, that they had the necessary reliability growth period before they enter into trial  
20 running and then revenue service.

21                  **MR. MICHAEL FENRICK:** Sorry to jump around between the two  
22 of you, but Mr. Fodor, back to you.

23                                 You would agree with me, Mr. Fodor, that RTM was following the  
24 maintenance plan?

25                  **MR. TOM FODOR:** Yes.

26                  **MR. MICHAEL FENRICK:** And you in fact would say that they  
27 were following the maintenance plan to a "T"? Those are your words from your formal  
28 interview.

1                   **MR. TOM FODOR:** That's an opinion, yes. What they had created  
2 they were following and, yes.

3                   **MR. MICHAEL FENRICK:** And you had no concerns that RTM  
4 was not acting in compliance with the project agreement?

5                   **MR. TOM FODOR:** No, I don't believe that would be the case, no.

6                   **MR. MICHAEL FENRICK:** And you gave some answers to  
7 Commission counsel in terms of the staffing issues that you observed because of the  
8 need for greater than expected corrective maintenance; do you recall that?

9                   **MR. TOM FODOR:** Yes.

10                  **MR. MICHAEL FENRICK:** And it's your understanding that Alstom  
11 was performing the maintenance function with respect to the vehicles; is that fair?

12                  **MR. TOM FODOR:** Yes.

13                  **MR. MICHAEL FENRICK:** And so it was Alstom that was  
14 overwhelmed by corrective maintenance?

15                  **MR. TOM FODOR:** Yes. For the vehicle, yes.

16                  **MR. MICHAEL FENRICK:** For the vehicle, yes. And you said that  
17 – you know, and I think in fairness you said that you were unclear about whether or not,  
18 you know, how many additional staff would have addressed the issue that at some point  
19 there's diminishing returns in terms of adding additional staff; is that fair?

20                  **MR. TOM FODOR:** Yes, I agree.

21                  **MR. MICHAEL FENRICK:** But really, the crux of the problem was  
22 the fact that the vehicles were unreliable and break down?

23                  **MR. TOM FODOR:** Yes.

24                  **MR. MICHAEL FENRICK:** And the unreliable – well, excuse me, I  
25 won't ask that question; I think I've already asked it, so let me tighten that up for your  
26 benefit.

27                                 And still with you, Mr. Fodor, speaking about the testing and the  
28 commissioning and the trial running, in your view it was rushed in part because there

1 was pressure on the system to go into service; is that fair?

2 **MR. TOM FODOR:** Yes.

3 **MR. MICHAEL FENRICK:** And that pressure was from the City?

4 **MR. TOM FODOR:** Yes.

5 **MR. MICHAEL FENRICK:** And in fact you told the City that you did  
6 not think the system was ready for revenue service because there hadn't been enough  
7 testing and there wasn't enough time to do testing at that point?

8 **MR. TOM FODOR:** Yes.

9 **MR. MICHAEL FENRICK:** But the City pressed on in any event?

10 **MR. TOM FODOR:** Yes.

11 **MR. MICHAEL FENRICK:** And accepted the system?

12 **MR. TOM FODOR:** I believe so, yes.

13 **MR. MICHAEL FENRICK:** And you also had some concerns about  
14 the City's preparedness for operating the system?

15 **MR. TOM FODOR:** Yes.

16 **MR. MICHAEL FENRICK:** And I just want to -- the City in your  
17 view was really -- had limited experience at that point or no experience really in terms of  
18 LRTs; they were a bus city, not an LRT city; is that fair?

19 **MR. TOM FODOR:** That was my opinion, yes.

20 **MR. MICHAEL FENRICK:** And you didn't think that the operator  
21 had the proper qualifications to be running the system at that time?

22 **MR. TOM FODOR:** It was based on my observ -- my personal  
23 observation that there were certain moves or actions that I personally would not have  
24 done, or I would have done differently. I did not know what type of training they did; I  
25 assume they had been certified so -- but that was just a personal opinion.

26 **MR. MICHAEL FENRICK:** And nobody -- to Mr. Palmer's point, I  
27 understand that they were enthusiastic and professional, but the simple point is just they  
28 lacked the experience at that point?

1                   **MR. TOM FODOR:** Well, having a new LRV system and no  
2 previous major LRV system like -- for example, the TTC that has may lines, I would  
3 have said that to beginners, it's difficult to start up a whole new type of system and be  
4 as competent as you would expect someone like let's say the, you know, Toronto  
5 Transit Commission that's been running for many, many years.

6                   **MR. MICHAEL FENRICK:** And that would be gained from time?

7                   **MR. TOM FODOR:** Yes, of course.

8                   **MR. MICHAEL FENRICK:** And Mr. Palmer -- as I said, nobody  
9 here is -- I'm not trying to suggest that people weren't professional and trying to do the  
10 best that they could, but in your experience working for the TTC and other systems,  
11 operators are often involved in troubleshooting at an early stage when problems arise.  
12 Is that fair?

13                   **MR. MIKE PALMER:** To a low level of troubleshooting, yes; not to  
14 the extent that they were exposed to in this case.

15                   **MR. MICHAEL FENRICK:** But they wouldn't have had experience,  
16 and they wouldn't have known how to do much in the way of troubleshooting when they  
17 started the operation of the system, is that right?

18                   **MR. MIKE PALMER:** No, I don't think that's correct, sir, actually.  
19 They help with the testing, and so for several months key control centre operators were  
20 being used by RTG for testing. And so their exposure went back way before revenue  
21 service, almost to the start of testing, and they would have seen the growth -- they  
22 would have understood the system from a different perspective, I think. As I said earlier  
23 in my evidence it's like a driving test, it's a snapshot of someone's competence. I would  
24 argue that RTG -- RTM were new to the game and perhaps RTG so, you know, they  
25 just lacked practical experience, and they got it very quickly and very competently, and  
26 they applied it a safe manner.

27                   **MR. MICHAEL FENRICK:** But I think in fairness, operating system,  
28 you'd agree with me, where there's passengers onboard is very different than operating



1 a system when there's no passengers on board.

2 **MR. MIKE PALMER:** No, I believe they're the same because if you  
3 act unsafely during testing and commissioning, you have the propensity to do so in real  
4 life and they didn't show that at any point. I think, you know, customer safety and  
5 employee safety is utmost, but whether or not people are on the train is irrelevant to the  
6 degree of competence they showed at such an early stage, on such an immature  
7 system.

8 **MR. MICHAEL FENRICK:** Back to you, Mr. Hulse, and I'll be  
9 wrapping up shortly, but I just -- you gave some evidence in your formal interview about  
10 the training that -- the training that you had understood the operators received, and your  
11 understanding was that it was a train-the-trainers type situation, and that's typical for  
12 these types of systems. Is that fair?

13 **MR. JOHN HULSE:** Yeah, train the trainer is typical.

14 **MR. MICHAEL FENRICK:** So you had no concern with proceeding  
15 in that fashion as a training method?

16 **MR. JOHN HULSE:** No.

17 **MR. MICHAEL FENRICK:** And back to you, Mr. Palmer. I think we  
18 heard some evidence today, in terms of the City starting revenue service with 13 trains  
19 instead of 15 as contemplated by the project agreement. Is that your understanding?

20 **MR. MIKE PALMER:** Yes, in Appendix C -- I had the question  
21 earlier, sir -- Service Level 1 in Appendix C of 15.3, I believe it is, shows a three-minute  
22 headway using 15 trains, and they achieved a four minute, eight -- four-minute, eight  
23 seconds headway using 13 and they opened up the service.

24 **MR. MICHAEL FENRICK:** And in your view was that a positive  
25 development to start train service at a -- at a lower frequency?

26 **MR. MIKE PALMER:** Yes, it would have been more positive if the  
27 decision had been made earlier, but you ramp up to 15 rather than try and attempt 15  
28 on your first day.

1                   **MR. MICHAEL FENRICK:** And those are my questions for you.

2 Thank you, gentlemen, I appreciate your time.

3                   **MR. JOHN HULSE:** Thank you.

4                   **MR. MIKE PALMER:** Thank you.

5                   **COMMISSIONER HOURIGAN:** All right, thank you for that.

6 Next is Alstom.

7                   **MR. CHARLES POWELL:** Thank you, Mister Commissioner.

8 Charles Powell, counsel for Alstom. We have no questions for the  
9 witnesses.

10                   **COMMISSIONER HOURIGAN:** All right, thank you.

11 STV?

12                   **MR. MICHAEL O'BRIEN:** Good afternoon, Mister Commissioner.

13 Michael O'Brien for STV. I have a few questions for the witnesses.

14                   **COMMISSIONER HOURIGAN:** Okay, go ahead.

15 **--- CROSS-EXAMINATION BY MR. MICHAEL O'BRIEN:**

16                   **MR. MICHAEL O'BRIEN:** Mr. Palmer, you were the Deputy Chief  
17 Operating Officer of the TTC; did I hear that correctly?

18                   **MR. MIKE PALMER:** Yes, two years as the Deputy Chief, one  
19 year as Acting Chief, and one year as Chief.

20                   **MR. MICHAEL O'BRIEN:** And in those roles did you report to Mr.  
21 Byford?

22                   **MR. MIKE PALMER:** Yes.

23                   **MR. MICHAEL O'BRIEN:** That -- he was the CEO of the TTC?

24                   **MR. MIKE PALMER:** He was the CEO of the Toronto Transit  
25 Commission.

26                   **MR. MICHAEL O'BRIEN:** And in terms of -- I just want to ask a few  
27 questions in terms of inputs and decision making.

28 You spoke in reference to -- you were asked a number of questions

1 in reference to one of the documents that was put on the screen.

2 That document is PAR0008018, if we can just pull that up?

3 **(SHORT PAUSE)**

4 **MR. MICHAEL O'BRIEN:** And I'd ask that we go to the third-last  
5 paragraph of that email, please. Yes, thank you.

6 And I just want to focus on the sentence beginning:

7 "If I was in their position, I'd probably do the same  
8 thing, to be honest." (As read)

9 You were asked a number of questions about that ---

10 **MR. MIKE PALMER:** Yes.

11 **MR. MICHAEL O'BRIEN:** --- paragraph, and I -- correct me if I'm  
12 wrong, but I think you spoke about making decisions in the absence of information?

13 **MR. MIKE PALMER:** I don't think there was a shortage of -- an  
14 absence of information. It was the source of information, and the type of information,  
15 and the timing of information.

16 **MR. MICHAEL O'BRIEN:** So when you're -- when you're in a role  
17 as a consultant you've got to make decisions that are based on the information that's  
18 available to you at the time?

19 **MR. MIKE PALMER:** Generally, yes.

20 **MR. MICHAEL O'BRIEN:** And when you're in the role as a Chief  
21 Operating Officer, you have to make decisions based on the information that's available  
22 to you at that time as well?

23 **MR. MIKE PALMER:** Yes, alongside observations, talking to  
24 people. I think it's a very narrow definition that you're giving of being able to make your  
25 mind up on something or have a view. It's much more holistic than that.

26 **MR. MICHAEL O'BRIEN:** Yeah, I think so, and I -- if I understand  
27 what you're -- what you're saying is, as you're higher on the leadership ladder you have  
28 more inputs coming into you and need to make decisions based on information you're

1 getting from various sources. Is that right?

2 **MR. MIKE PALMER:** If the relationship is right, yes.

3 **MR. MICHAEL O'BRIEN:** And when you make those decisions  
4 you need to exercise your judgment in making those decisions?

5 **MR. MIKE PALMER:** Yes.

6 **MR. MICHAEL O'BRIEN:** There's a paragraph above the  
7 paragraph we were talking about, or perhaps it's two, it says:

8 "Some of the KPI's that OC have set for reliability  
9 before service opening are high - 98 percent plus."

10 (As read)

11 Are the KPI's you're referring to there the AVKR's, or the aggregate  
12 vehicle kilometre availability ratio?

13 **MR. MIKE PALMER:** I believe it was the figures that were initially  
14 published for trial running success criteria, and my comment was I never saw what the  
15 final figures were once trial running restarted after the suspension, and so I don't know.

16 **MR. MICHAEL O'BRIEN:** Okay, sorry. I -- perhaps I'm -- I asked  
17 the question in a confusing way. I guess I -- I guess what I'm driving at is it was your  
18 impression that the 98 percent figure was a high figure. Is that correct? Is that what  
19 you're saying here?

20 **MR. MIKE PALMER:** For a brand-new railway, yes.

21 **MR. MICHAEL O'BRIEN:** Okay, thank you.

22 I have no further questions for this -- for these witnesses, Mister  
23 Commissioner.

24 Thank you, Mr. Palmer.

25 **COMMISSIONER HOURIGAN:** All right, thank you for that.

26 Next is Thales.

27 **MR. PETER MANTAS:** Yes, good afternoon, Commissioner.

28 My name is Peter Mantas, I'm legal counsel to Thales. Thales has

1 no questions of these witnesses.

2 **COMMISSIONER HOURIGAN:** All right, thank you.

3 And the next is the union local.

4 **--- CROSS-EXAMINATION BY MR. JOHN McLUCKIE:**

5 **MR. JOHN McLUCKIE:** Good afternoon, gentlemen.

6 For the record McLuckie; M-c-L-u-c-k-i-e, John, and I'm with the  
7 Amalgamated Transit Union.

8 Gentlemen, my client is the union representing the maintenance  
9 staff, both at OC Transpo and at Alstom, so I have some questions specific to the  
10 maintenance side.

11 So Mr. Fodor, that generally means my questions are going to be to  
12 you this afternoon, so thank you very much for answering them in advance.

13 So Mr. Fodor, I understand that you have a number of years of  
14 expertise in transit, and I think from your CV it indicated by the point that you became  
15 involved with this project. You had been around transit projects for about 35 years?

16 **MR. TOM FODOR:** Yes.

17 **MR. JOHN McLUCKIE:** And is it fair to say that you had a  
18 significant degree of expertise with the building and commissioning of new transit  
19 systems?

20 **MR. TOM FODOR:** Yes.

21 **MR. JOHN McLUCKIE:** And in terms of the role that you played  
22 with the City, so your firm was external to the City and external to RTG?

23 **MR. TOM FODOR:** Yes.

24 **MR. JOHN McLUCKIE:** And would it be fair to suggest that that  
25 gave you, the three of you, an opportunity to come in as outsiders and see how the  
26 system was progressing?

27 **MR. TOM FODOR:** Yes.

28 **MR. JOHN McLUCKIE:** And the experience that collectively you

1 brought, were you able to bring that expertise to bear in the observations you made in  
2 the system?

3 **MR. TOM FODOR:** I believe so.

4 **MR. JOHN McLUCKIE:** And the actual role that you were  
5 responsible for, Mr. Fodor, you were to evaluate whether RTG and Alstom, as a result  
6 of their contract with RTG, if they were in a position to carry forth the maintenance of the  
7 system; is that sort of an accurate portrayal?

8 **MR. TOM FODOR:** Yes.

9 **MR. JOHN McLUCKIE:** And you understood that Alstom was  
10 contracted by RTG and they would provide the maintenance for the train sets  
11 themselves; that was your understanding at the time?

12 **MR. TOM FODOR:** Yes.

13 **MR. JOHN McLUCKIE:** And that it was Alstom who was both  
14 supplying the vehicles and then Alstom was maintaining those same vehicles.

15 **MR. TOM FODOR:** Yes, that's typical. Yes.

16 **MR. JOHN McLUCKIE:** I will just ask one quick question about the  
17 concept of the maintenance document. I think you clarified with my friend from the City  
18 or -- my apologies, my friend from RTG, that it would have been RTG's responsibility as  
19 the sort of party responsible for maintenance to provide that document?

20 **MR. TOM FODOR:** No, I think that was John Hulse who stated that  
21 the concept of maintenance should have been done by RTG.

22 **MR. JOHN HULSE:** RTM.

23 **MR. TOM FODOR:** Or RTM, sorry. My view, and it can be -- my  
24 view was that the owner would probably do the concept documents at the beginning  
25 before the PSOS was done.

26 **MR. JOHN McLUCKIE:** And at the point that you arrived, those  
27 concept documents, they had yet to be produced, correct?

28 **MR. TOM FODOR:** Correct.

1                   **MR. JOHN McLUCKIE:** And that you found surprising?

2                   **MR. TOM FODOR:** Based on my previous experience, yes.

3                   **MR. JOHN McLUCKIE:** I just want to talk specifically about the  
4 maintenance side and, again, Mr. Fodor, the questions are largely to you. So, you  
5 remember being interviewed by Commission counsel a few months ago in preparation  
6 for today?

7                   **MR. TOM FODOR:** Yes.

8                   **MR. JOHN McLUCKIE:** And you indicated at the time that when  
9 you are developing the maintenance side of the house, that you evaluate the number of  
10 people you will need on your maintenance team, in part, based on the reliability or  
11 expected reliability of the vehicles you are dealing with. Do you remember giving  
12 answers such as that?

13                   **MR. TOM FODOR:** Yes. Yes.

14                   **MR. JOHN McLUCKIE:** And you still stand by that, that the  
15 number of teams is directly relevant to the reliability of the train sets?

16                   **MR. TOM FODOR:** Yes.

17                   **MR. JOHN McLUCKIE:** In terms of the number of technicians that  
18 Alstom had available, it was predicated on the expected reliability of that train set,  
19 correct?

20                   **MR. TOM FODOR:** Yes.

21                   **MR. JOHN McLUCKIE:** And you were aware that Alstom had  
22 pitched this vehicle as a reliable service-proven vehicle?

23                   **MR. TOM FODOR:** That was my understanding, yes.

24                   **MR. JOHN McLUCKIE:** And that was how you understood that the  
25 project was being pitched both to the City and to the public at large?

26                   **MR. TOM FODOR:** Yes.

27                   **MR. JOHN McLUCKIE:** And their maintenance needs were based,  
28 or at least you understood their maintenance staff needs to be based on the reliability of

1 the Citadis vehicle?

2 **MR. TOM FODOR:** Yes.

3 **MR. JOHN McLUCKIE:** In terms of the number of staff they  
4 actually had in the end, the reliability you talk about in the initial interview with  
5 Commission counsel, you indicate that if the reliability was less than 80 per cent you  
6 would have been concerned with the maintenance staffing that was available. Do you  
7 still stand by that?

8 **MR. TOM FODOR:** Yes. If it's not a reliable vehicle, I would have  
9 been concerned with the staffing level they had, yes.

10 **MR. JOHN McLUCKIE:** And would it surprise you to learn that the  
11 Alstom vehicle was actually nowhere close to even 80 per cent reliable?

12 **MR. TOM FODOR:** I would be surprised, yes.

13 **MR. JOHN McLUCKIE:** And in terms of the trial periods that you  
14 observed, did you see them getting anywhere close to 80 per cent for reliability rating?

15 **MR. TOM FODOR:** The impression I got from them -- I wouldn't  
16 know a number. Maybe I threw that number out, but the impression I had was that it  
17 was unreliable if you bring a train to the handover platform and it fails right there, and it  
18 occurred a number of times, that shows that it is not reliable. Now you've got to take it  
19 back.

20 **MR. JOHN McLUCKIE:** And the role of the maintenance team is  
21 essentially, I could put it to you this way, to provide vehicles that are ready for service  
22 when need be and fit for service when need be. Would you agree with that?

23 **MR. TOM FODOR:** Yes.

24 **MR. JOHN McLUCKIE:** And Alstom's responsibility was to ensure  
25 that they had a certain number of trains at a given point in time that were fit for the  
26 service needed, correct?

27 **MR. TOM FODOR:** Yes.

28 **MR. JOHN McLUCKIE:** Okay. And in terms of the maintenance



1 for that, and you talked earlier with my friend that there is a preventative maintenance  
2 function that the team performs, and that is routine maintenance, keeping the vehicle in  
3 good mechanical order as expected, checkups, regular maintenance, things like that.

4 **MR. TOM FODOR:** Yes.

5 **MR. JOHN McLUCKIE:** And then you have also talked that there  
6 is corrective maintenance and that is fixing things as they go wrong. Is that an accurate  
7 characterization?

8 **MR. TOM FODOR:** Correct.

9 **MR. JOHN McLUCKIE:** And if the vehicle itself is unreliable that  
10 increases the amount of corrective maintenance that is required, correct?

11 **MR. TOM FODOR:** Definitely, yes.

12 **MR. JOHN McLUCKIE:** And in terms of the reliability that you saw  
13 when you were on the ground, how was the level of corrective maintenance impacting  
14 the maintenance abilities of Alstom?

15 **MR. TOM FODOR:** I cannot -- sorry, can you repeat that again?

16 **MR. JOHN McLUCKIE:** So, in terms of the trial running ---

17 **MR. TOM FODOR:** Yes.

18 **MR. JOHN McLUCKIE:** --- and the reliability level that you saw of  
19 the trains during the trial running, how did you see that level of reliability impacting  
20 Alstom's ability to maintain the trains?

21 **MR. TOM FODOR:** It was very difficult because there would be a  
22 problem and then they would take it back, and then they would try to fix it, and send  
23 another vehicle out. And that would have a problem, and they would have to bring that  
24 back in and they would bring the first vehicle out, another problem. So, it just  
25 compounded the pressure on them, because even if they had it ready to take out, if you  
26 go out and half an hour later you have to bring it back in, you're back to that same  
27 problem, you know, that same issue, I have to maintain this vehicle, correct what may  
28 have been the same problem, it could be something else. It just seemed to be a

1 compounding issue and very difficult to overcome.

2 **MR. JOHN McLUCKIE:** And did that lead you, you talked with  
3 Commission counsel earlier, to a circular argument, that the more the corrective  
4 maintenance overwhelms the preventative maintenance, the less reliable the system  
5 becomes?

6 **MR. TOM FODOR:** Yes.

7 **MR. JOHN McLUCKIE:** And you had indicated in your interview  
8 with the Commission counsel that the staff appeared to be overworked, and you  
9 indicated and I am quoting you here, "I think they were being overworked. I think after  
10 time they had just had enough." And that was in reference to the maintenance staff of  
11 Alstom, wasn't it?

12 **MR. TOM FODOR:** My impression would be that when I went there  
13 to talk to them, I could see that they were busy. They were very busy. They were --  
14 from my observations they were overwhelmed with trying to keep the trains running.

15 **MR. JOHN McLUCKIE:** So, there weren't enough people to keep  
16 up with the corrective maintenance that was required, given the reliability of the train?

17 **MR. TOM FODOR:** Yes.

18 **MR. JOHN McLUCKIE:** And that was leading people to be  
19 overworked?

20 **MR. TOM FODOR:** Yes.

21 **MR. JOHN McLUCKIE:** And in the interview that you gave with  
22 Commission counsel, you indicated that at one point several of the technicians quit  
23 immediately before the trial running?

24 **MR. TOM FODOR:** I heard that from someone, and it sort of  
25 confirmed what I suspected, was that there's problems with this vehicle and that there  
26 were people bailing out and they were also bringing in other people from -- because I  
27 remember asking -- I can't remember who his name was, but they were saying, yeah,  
28 we're bringing in some other people from France, some vehicle techs, to help support

1 the team that was there.

2 **MR. JOHN McLUCKIE:** And you indicated in your interview earlier  
3 with Commission counsel that it is possible to have additional staff and to plan for  
4 additional staff, but then that becomes a budgeting issue. Do you recall talking to her  
5 about that?

6 **MR. TOM FODOR:** Yes. That's always an issue. You don't start  
7 hiring three times the staff because, again, the aim is to get a staff that can handle that  
8 bathtub curve, but you don't want to have three times the staff for that because that is  
9 really indicating you've got a very unreliable system at the beginning. And then the  
10 question is, do you really want to start service at that point? Bring the curve down  
11 where you have a steady state and then you have your maintenance staffing for that.  
12 Otherwise, you are hiring way too many people and that takes time and effort because  
13 there's training, certification, all that, mobilization and maintenance.

14 **MR. JOHN McLUCKIE:** And at the point you were observing this in  
15 September, immediately before the service went live to the public, did you feel that  
16 Alstom had enough maintenance staff to meet the reliability needs of the service?

17 **MR. TOM FODOR:** At the trial run?

18 **MR. JOHN McLUCKIE:** Yes.

19 **MR. TOM FODOR:** No.

20 **MR. JOHN McLUCKIE:** And were you in a position to suggest that  
21 Alstom should have hired additional maintenance staff to meet those operational  
22 needs?

23 **MR. TOM FODOR:** I had discussed with RTM and Alstom the  
24 issue of the bathtub curve, that they need to -- that they should have additional staff  
25 beyond what they proposed, and they assured me that there were enough staff to take  
26 care of the bathtub curve, as I've explained, and -- but I wasn't aware of how, in my  
27 view, how unreliable the vehicle was, nor was I -- I don't think they were either.

28 **COMMISSIONER HOURIGAN:** Counsel, you are well over time.

1 I'd just ask you to wrap it up in the next minute or two, okay?

2 **MR. JOHN McLUCKIE:** Yes, Mr. Chair. Yes, sir.

3 So, one last area of question, if I could. So, you indicated that for a  
4 new transit system, it's better to walk and then run. Do you remember saying that  
5 earlier today?

6 **MR. TOM FODOR:** I believe that's -- yeah. Yeah.

7 **MR. JOHN McLUCKIE:** Would you agree with that from Mr.  
8 Palmer, that it's a walk and then run?

9 **MR. TOM FODOR:** Yes.

10 **MR. JOHN McLUCKIE:** Would you have supported maintaining  
11 bus service in parallel to the train for a longer period of time?

12 **MR. TOM FODOR:** I have suggested that personally to other  
13 people, that they should have kept running the buses in parallel with this, with the LRT.  
14 I have made that suggestion, yes.

15 **MR. JOHN McLUCKIE:** Thank you for the indulgence, Mr.  
16 Commissioner. Those are my questions.

17 **COMMISSIONER HOURIGAN:** All right, thank you. RTG EJV.

18 **MR. MICHAEL VRANTSIDIS:** Thank you, Mr. Commissioner.  
19 Michael Vrantsidis for the EJV. We do not have any questions for this panel. Thank  
20 you.

21 **COMMISSIONER HOURIGAN:** All right. Thank you.  
22 Infrastructure Ontario?

23 **MR. DEVON JOHNSON:** Good afternoon. Devon Johnson for  
24 Infrastructure Ontario.

25 **--- CROSS-EXAMINATION BY MR. DEVON JOHNSON:**

26 **MR. DEVON JOHNSON:** Mr. Palmer, I'd like to follow up on a  
27 thread put to you by my friend, Mr. Wardle, who you will recall is counsel for the City.  
28 Could we please have document IFO 0000375 on the screen, please? Thank you.

1 This is the main body of the project agreement? You're familiar  
2 with the project agreement?

3 **MR. MIKE PALMER:** With parts of it, yes.

4 **MR. DEVON JOHNSON:** Could we please go to PDF page 34?  
5 Can you scroll down just a little bit, please?

6 Section 9 sets out Project Co.'s responsibilities, is that correct?  
7 Oh, sorry, just back to page 34 of the PDF? Page 34 of the PDF, please? PDF page  
8 34, please.

9 **COMMISSIONER HOURIGAN:** Just standby.

10 **MR. DEVON JOHNSON:** Thank you so much. If we could just  
11 scroll down to section 9? Thank you.

12 Section 9 sets out Project Co.'s responsibilities, is that right?

13 **MR. MIKE PALMER:** I have not seen this particular section, but  
14 I'm just reading it now, sir.

15 **MR. DEVON JOHNSON:** Do you agree based on the title there of  
16 section 9 that sets out Project Co.'s responsibilities?

17 **MR. MIKE PALMER:** That's the title, sir, yes.

18 **MR. DEVON JOHNSON:** If we could please go to the next page?  
19 If we scroll down to Roman numeral (v)? See that Project Co. shall be responsible for  
20 integration of the system?

21 **MR. MIKE PALMER:** Yes.

22 **MR. DEVON JOHNSON:** And if we look at Roman numeral (vi), do  
23 you see that, specifically, the construction contractor shall assume responsibility for  
24 integration of the system? Do you see that?

25 **MR. MIKE PALMER:** Yes, sir.

26 **MR. DEVON JOHNSON:** In that case, it would be OLRTC?

27 **MR. MIKE PALMER:** OLRTC or RTG. I couldn't say. Well, it  
28 applies to both, I guess.

1                   **MR. DEVON JOHNSON:** Okay. So, you agree that in that case,  
2 Project Co. explicitly agreed to take on responsibility for integration of the system?

3                   **MR. MIKE PALMER:** According to section (iv) and (v), yes, sir.

4                   **MR. DEVON JOHNSON:** Could we please pull up document COM  
5 0000301? Thank you. This is Schedule 3, Part 1, "Technical Submission  
6 Requirements to the RFP", do you see that?

7 **--- EXHIBIT No. 119:**

8                                   COM0000301 – OLRT Schedule 3 Part 1 Technical  
9                                   Submission Requirements

10                   **MR. MIKE PALMER:** Yes, sir.

11                   **MR. DEVON JOHNSON:** I take it the RFP phase was before your  
12 time, but you understand generally what the RFP phase of this project would have  
13 been?

14                   **MR. MIKE PALMER:** Yes, sir.

15                   **MR. DEVON JOHNSON:** If we could scroll down to the table  
16 below? Yeah, that's perfect. Thank you. You've seen this table on the left under 1.0  
17 that the proponent is required to submit a project management plan?

18                   **MR. MIKE PALMER:** Yes.

19                   **MR. DEVON JOHNSON:** And that this project management plan  
20 was to be 50 pages long, is that correct?

21                   **MR. MIKE PALMER:** Yes.

22                   **MR. DEVON JOHNSON:** I won't take you through -- oh, one  
23 second. Apologies. And then section 1.1, that would be the overall approach to  
24 partnership communications and integration? Do you see that?

25                   **MR. MIKE PALMER:** Yes, sir.

26                   **MR. DEVON JOHNSON:** I won't take you through every bullet  
27 point that would be on the right about what is contained in that section, but if we could  
28 please scroll down to the next page? You see on this page the third bullet point on the

1 right, it says, "Maximizing integration of the activities of proponent team members during  
2 all phases of the project, so as to validate and verify the requirements of the project are  
3 met," do you see that?

4 **MR. MIKE PALMER:** Yes.

5 **MR. DEVON JOHNSON:** You'll agree with me that this is a factor  
6 the proponents were asked to demonstrate in their RFP submission?

7 **MR. MITCHELL KITAGAWA:** Your Honour, Mr. Commissioner,  
8 this is a document that he has not seen before and that they were not involved in this  
9 system, so I'm not sure what -- sorry, in that part of the process, so I'm not sure what  
10 value there is in the answers, or in the questions, for that matter, being asked of these  
11 witnesses.

12 **COMMISSIONER HOURIGAN:** Yes, there is very little value.  
13 You're right. These witnesses weren't involved in this. I assume there's a point that's  
14 going to be made at some point, so I would suggest to counsel to get to it.

15 **MR. DEVON JOHNSON:** Thank you, Mr. Commissioner. Just to  
16 finish on that, there's no reason to expect that these requirements weren't part of the  
17 RFP process that are set out here? That's fair?

18 **COMMISSIONER HOURIGAN:** The document speaks for itself.  
19 You can't keep asking them if the document says what it says. I mean, they can tell you  
20 that, I can tell you that, anybody who can read can tell you that. So, I'm going to ask  
21 you to just move on, please. You're almost out of time.

22 **MR. DEVON JOHNSON:** I appreciate that, Mr. Commissioner.  
23 Just to finish off, then, is it fair to say that these were the requirements asked of  
24 proponents when they were then going on to accept in the project agreement the  
25 requirements of system integration?

26 **COMMISSIONER HOURIGAN:** Don't answer that question. I just  
27 directed you to move on, so do you have any further questions?

28 **MR. DEVON JOHNSON:** No further questions.

1                   **COMMISSIONER HOURIGAN:** All right. Thank you.

2   Transportation Action Canada.

3   **--- CROSS-EXAMINATION BY MR. DAVID JEANES:**

4                   **MR. DAVID JEANES:** Yes, thank you, David Jeanes; J-E-A-N-E-  
5   S. Transport Action Canada. I just have about five minutes, so some quick questions.

6                   Mr. Palmer, in your interview you made some general statements  
7   but I would just like to verify that I'm understanding you correctly.

8                   Talking about trade-offs, you said that you can be forgiven on a  
9   project on cost; you can be forgiven on lateness but you can't be forgiven on quality  
10   because you are stuck with it, and I think you said for perhaps the life of the project. I  
11   think you said 27 years. Is that a reasonable understanding of a statement that you  
12   made in your interview?

13                  **MR. MIKE PALMER:** So having qualified project management  
14   qualifications, the three pillars of a project are time, cost and scope or quality, and my  
15   comment was to say if a project is late, and the extra money is paid up, you're  
16   eventually forgiven. If it is over budget, or late, you're forgiven, but if the quality is not  
17   there, and this includes rail projects, then in real time you can't be forgiven because of  
18   the daily disruption to customers and the pressure from the employees; that was my  
19   comment.

20                  **MR. DAVID JEANES:** Thank you. And that's my understanding.  
21   The other comment you made was, that once your relationship becomes adversarial  
22   rather than collaborative, it's very hard to pull back. Is that also a correct understanding  
23   of one of your comments?

24                  **MR. MIKE PALMER:** It was a personal commentary from me;  
25   that in any relationship it should be a partnership, one team, resolving issues. I use an  
26   example in my (*coughing*). The contract I had with TC, with Alstom where we didn't get  
27   the contract out once –

28                  **MR. DAVID JEANES:** Yes.



1                   **MR. MIKE PALMER:** Because for me getting the contract out, is  
2 a last resort, not a first resort.

3                   **MR. DAVID JEANES:** Yes, I heard you describe that. Thank  
4 you.

5                   Mr. Fodor, you said in your interview that when you first look at  
6 such a project, you look at things that will effect what happens in the case of failure, and  
7 in this case train failures, such as the availability of pocket tracks, the number of cross-  
8 overs and you particularly referred to cross-overs later on because you were concerned  
9 that when a train failed in the absence of pocket tracks, it blocked the station and  
10 required a reduction in capacity because of the way that the system had to go to single  
11 track operation around the failed train. Am I understanding that correctly?

12                   **MR. TOM FODOR:** Yes, cross-overs would help – additional  
13 cross-overs would help that to bypass a failure, yes.

14                   **MR. DAVID JEANES:** And is it your understanding that the  
15 Confederation Line in fact has no pocket tracks; the only place that you can park a dead  
16 train is in one of the stations, including the terminal stations?

17                   **MR. TOM FODOR:** Yes, I don't believe there are any pocket  
18 tracks, no.

19                   **MR. DAVID JEANES:** And that works against getting a dead train  
20 out of the way quickly, which was one of the points that you discussed?

21                   **MR. TOM FODOR:** Yes, yes.

22                   **MR. DAVID JEANES:** You discussed some other matters – I'll  
23 just mention very briefly some things that surprised you; only one maintenance bay, not  
24 good quality ballast; I think you suggested that the spares inventory was around 10 per  
25 cent, which was possibly less than was required for such a project. And, particularly,  
26 that the fact that the maintenance yard did not have automatic train operations, that  
27 these were all challenges for the maintenance plan; is that reasonable?

28                   **MR. TOM FODOR:** They would – certainly not – yeah, there

1 would be challenges for maintenance, yes.

2 **MR. DAVID JEANES:** Okay. And a final quick question to Mr.  
3 Palmer.

4 You talked about excessive alarms flooding the system and I'm  
5 wondering, was this because prioritizing alarms, routing them differently depending on  
6 area of concern, was something that was left out of the design or was it just that the  
7 number of alarms that actually occurred was far greater than anyone had anticipated?

8 **MR. MIKE PALMER:** I'm suggesting two things, sir. They didn't  
9 have alarm apportionment so every alarm went to every terminal. The alarm should  
10 only be going to the people who need to know and need to take corrective action. To  
11 everybody else, it's noise. And I also believe that some of the alarms – because they  
12 didn't use a standard and they're allocated by Willowglen themselves – it may be the  
13 wrong level or the wrong labelling.

14 **MR. DAVID JEANES:** Okay, thank you very much. I think that's  
15 my time.

16 **COMMISSIONER HOURIGAN:** Thank you, Mr. Jeanes. Does the  
17 witness counsel have any questions of his witnesses?

18 **MR. MITCHELL KITAGAWA:** No, we do not.

19 **COMMISSIONER HOURIGAN:** All right. Any re-examination?

20 **MS. KATE McGRANN:** No thank you, Mr. Commissioner.

21 **COMMISSIONER HOURIGAN:** Gentlemen, we appreciate you  
22 coming today and giving your evidence; it was very helpful to the Commission; so thank  
23 you, you're excused. We're down until tomorrow at nine.

24 **THE REGISTRAR:** Order, all rise. The hearing is now adjourned  
25 for the day and will resume tomorrow at 9:00 a.m.

26 --- Upon adjourning at 5:45 p.m.

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**CERTIFICATION**

I, Wendy Clements, a certified court reporter, hereby certify the foregoing pages to be an accurate transcription of my notes/records to the best of my skill and ability, and I so swear.

Je, Wendy Clements, une sténographe officiel, certifie que les pages ci-hautes sont une transcription conforme de mes notes/enregistrements au meilleur de mes capacités, et je le jure.



Wendy Clements