



HOUSE OF COMMONS  
CHAMBRE DES COMMUNES  
CANADA

43rd PARLIAMENT, 1st SESSION

---

# Standing Committee on Transport, Infrastructure and Communities

EVIDENCE

**NUMBER 003**

Tuesday, February 25, 2020

---

Chair: Mr. Vance Badawey





# Standing Committee on Transport, Infrastructure and Communities

Tuesday, February 25, 2020

• (1530)

[English]

**The Chair (Mr. Vance Badawey (Niagara Centre, Lib.)):** I'd like to call this meeting to order.

Welcome, everybody. We are here today between 3:30 and five o'clock to discuss the Max 8.

We have members of the Department of Transport with us: Mr. Nicholas Robinson, director general, civil aviation, and Mr. David Turnbull, director of national aircraft certification.

Welcome, gentlemen.

Are you going to go first, Mr. Robinson? You have 10 minutes. We'll follow that with questions. Go ahead.

**Mr. Nicholas Robinson (Director General, Civil Aviation, Department of Transport):** Good day, Mr. Chair, Vice-Chair and committee members.

[Translation]

Let me begin by introducing myself. My name is Nicholas Robinson and I am the Director General of Civil Aviation at Transport Canada, responsible for aviation safety.

I am joined here today by my colleague David Turnbull, who is the Director of National Aircraft Certification at Transport Canada.

[English]

We are pleased to be here today to support this study related to aircraft certification.

Mr. Chair, let me start off by saying that Canada has one of the safest civil aviation systems in the world. We have achieved this by an unwavering commitment to safety and as a result of an exceptional level of expertise and technical experience that allows for us to make evidence-based safety decisions in this very highly complex, continuously evolving environment.

The certification of an aircraft involves careful examination of the proposed design to verify that the aircraft complies with airworthiness standards and regulations, in short, all the things we expect an aircraft to have to make it safe to fly in Canada.

In the case of a Canadian company manufacturing an aircraft or an aeronautical product such as an engine, for instance, Transport Canada is deemed the certifying authority. That means that state authorities globally look to Canada to ensure the product meets the high safety standards that we set.

This process is aligned with the recommended practice that the International Civil Aviation Organization, commonly referred to as ICAO, has set out in annex 8 of their convention, whereby states do not perform the same in-depth determination of compliance that the state of design has already completed. Instead, states may accept the original certification or use it as the basis for validating the certification.

[Translation]

The certification of an aerospace product is not done overnight. From the application date to the approval, the overall process takes years. Transport Canada works closely with the manufacturer during that period.

In examining past projects we can expect that the testing and analysis phase takes approximately two or more years to complete.

[English]

As an example, Transport Canada's certification of the A220 aircraft, formerly known as the Bombardier C Series 300 or 100, took well over 150,000 person-hours to complete over multiple years.

When it comes to products that are not Canadian made, Transport Canada's role consists of validating the certification decisions made by the state of design—the home country of the manufacturer. This ensures that the aircraft or product is safe for use in Canada and complies with our Canadian regulations and our own expectations.

Much like in the case when Canada is certifying a product, we are looking at another major certifying authority, such as Europe's, which is commonly referred to as EASA, the U.S. FAA, or Brazil's ANAC, to lead in the review. In the case of the Boeing 737 Max, the U.S. is the state of design of this aircraft. This means that the Federal Aviation Administration, the FAA, is the certifying authority, and we and other states are validating that certification.

Now, I would like to speak more specifically to the two tragic accidents that took place involving the Boeing 737 Max aircraft.

First and foremost, Mr. Chair, our thoughts continue to go out to the victims and the families of those who have been impacted by the Lion Air and Ethiopian Airlines accidents. Canada is working hard so that other families don't have to suffer through a similar tragedy such as these.

Transport Canada's actions related to the Boeing 737 Max aircraft were first made in response to the October 2018 Lion Air accident. Following that tragedy, Canada developed and implemented, in strong collaboration with our three Canadian operators that fly the Max, which are Air Canada, Sunwing and WestJet, enhanced training requirements for pilots, which exceeded the standards implemented by the American AD and other countries.

• (1535)

These standards were intended to address the runaway trim stabilizer condition that has been identified as a contributing factor in the Lion Air accident and discussed widely in media reports. This was on top of the actions the U.S. undertook as the state of design, and Canada was the only country to put these additional measures in place.

Following the Ethiopian Airlines accident that occurred on March 10, 2019, Transport Canada officials immediately began to assess the risks and the need for additional actions beyond those already taken globally, as well as those taken independently in Canada. Upon receiving and analyzing new satellite data, the department made the determination to close Canadian airspace to the aircraft, the Boeing 737 Max, commencing on March 13, 2019. We received that new data that same morning.

This action demonstrates that Canada makes evidence-based decisions and that we do not hesitate to take action when safety issues are identified. Transport Canada is continuing its independent review and validation of the Boeing 737 Max changes while we continue to work extensively with the state of design and civil aviation authorities in Europe and Brazil and across the globe to realize a possible global return to service of this aircraft. To that end, Canada is taking a leadership role with international authorities to address all factors necessary to achieve a safe return to service. The scope of our review and our concerns have been communicated to the FAA, and Transport Canada officials continue to seek information and assurance on these points.

There are three key areas of concern for Transport Canada that are broader than the maneuvering characteristics augmentation system, commonly referred to as MCAS, which has been commonly reported. These are acceptable levels of pilot workload, the flight control system or architecture for the aircraft, and a minimum training requirement for crew members to operate this aircraft safely.

[*Translation*]

Until our questions and concerns are satisfactorily addressed, Transport Canada will not lift the airspace restriction on this aircraft.

Additionally, Canada joined the FAA, the National Aeronautics and Space Administration, or NASA, and other civil airworthiness authorities in conducting a comprehensive technical review of the Boeing 737 MAX flight control system. On October 11, 2019, the FAA published the Joint Authorities Technical Review's independent report of the certification process of the aircraft, which includes recommendations brought forward by the review committee.

[*English*]

Our transportation experts continue to work tirelessly on the review of this aircraft, and I am proud of the leadership they have taken to date. Mr. Chair, allow me to assure you and the committee that Transport Canada remains steadfast in its commitment that the Boeing 737 Max will not be permitted to fly in Canada until all concerns have been addressed by the manufacturer and the FAA, and that adequate safety measures for flight crews are in place.

I trust that the foregoing information will serve to shed some light on the aircraft certification process at large as well as on Transport Canada's involvement in the ongoing Boeing 737 Max review. We look forward today to addressing additional questions the committee may have on either subject.

Thank you.

• (1540)

**The Chair:** Thank you, Mr. Robinson.

Mr. Turnbull.

**Mr. David Turnbull (Director, National Aircraft Certification, Department of Transport):** I have no opening remarks prepared. I'm prepared to receive questions.

**The Chair:** Once again, thank you, gentlemen.

We are going to start off with the Conservatives.

Mrs. Block, you have six minutes.

**Mrs. Kelly Block (Carlton Trail—Eagle Creek, CPC):** Thank you very much.

I didn't realize I was going to be asking questions first, but I am very grateful for the opportunity. It's good to be back at the transportation committee table.

I want to thank our witnesses for their opening remarks.

I want to acknowledge that it's been less than 18 months since the tragedy that claimed the lives of 189 people, as well as less than 12 months from the time of the tragedy that claimed the lives of 157 people. As you mentioned, our thoughts and prayers remain with those families who have lost loved ones. Not only were they left to grapple with their grief, but they were also left with far too many questions, I think many of which still need to be answered as the 737 Max remains grounded.

From your testimony, I think we see that there has been much work done, and I am pleased that the transportation committee is undertaking this study. It has agreed to adopt the motion that was introduced in the last Parliament to this committee, but was blocked by the members opposite, with absolutely no rationale given for that.

This is a non-partisan issue and it is something that I think we all agree on. We need to try to understand the process of certification that takes place not only here in Canada but also with our partners around the world when it comes to allowing other aircraft to serve our country.

You mentioned in your opening remarks that you had joined the FAA, the National Aeronautics and Space Administration and other civil airworthiness authorities in conducting a comprehensive technical review of the Boeing 737 Max flight control system, and that independent report includes recommendations that were brought forward.

Could you list those recommendations for us?

**Mr. Nicholas Robinson:** Mr. Chair, we could provide all of those recommendations. There are a number of different recommendations, 12, in the report, and we could provide you with those. Those are public.

We are working with the other authorities globally to look at how we may address those recommendations. We could provide those to you.

**Mrs. Kelly Block:** Do you have the list of the those today?

**Mr. David Turnbull:** I could go over the top three.

**Mrs. Kelly Block:** That would be great.

**Mr. David Turnbull:** We'll provide the entire list. The JATR report came out with 12 separate recommendations. Some of them somewhat overlap the others, so I'll attempt to briefly describe them at a high level.

The first one relates to the application of what we call the changed product rule, which is a regulation that deals with how we determine the applicable standards to an aircraft that is changed or modified. Some people use the term "derivative model" when you have one existing model and you do a modification to create a new model. This will happen successively over a number of years. In the case of the 737, it has gone through numerous generations or reiterations of the design.

That recommendation speaks to the fact that we struggle internationally with a common interpretation or application of the rule. Despite the fact that the rule has been completely harmonized and from a regulatory perspective remains common between the various authorities, it is the actual application of the rule that is sometimes open to interpretation.

The basic gist of the issue is this. At what point, when you're adding successive changes or additions to an aircraft, do you go back and establish that you have to apply the newer standards and also the newer interpretations of the standards or processes we use that have been developed over time to evaluate the aircraft?

In the case of the 737, it's been alleged that the aircraft was derived or added to in numerous cases, and yet in some cases the standards remained the older standards that were applicable to the previous derivatives, and that possibly the scope of the review, in the context of evaluating the new changes, was not as wide as it should be. That is an area which we already had on the table prior to these accidents, actually; it's not a surprise to us at all that the changed product rule is an area that will require further honing and international harmonization.

The next one—and again, I'm boiling the 12 down to three themes, just for brevity here—is the delegation systems, of course. I'm sure you've heard discussions about that. One of the recommendations speaks to another look at or another examination of the various

delegation systems that exist. Do the authorities have sufficient expertise and a sufficient degree of oversight into what these delegated entities are doing? Also, are there enough systems and protections in place to avoid any undue pressure on these delegates, who are employees of the company?

The third theme speaks to what we call development assurance practices. It links back to the changed product rule topic to some extent. As aircraft have evolved in complexity, modern aircraft today involve systems that are no longer separated. The term we use is "federated". They have systems that are typically driven by software and are highly interactive. In other words, they speak to each other.

In the old days, we used to go in and analyze discrete failures that we could predetermine. In a modern, more complex aircraft, we have to take what's called a design assurance approach, which admits that we have to find a more systemic approach to evaluating the failures and the consequences a little differently than we did in the past, in order to keep up with the evolution in technology.

Part of the challenge with the changed product rule issues that we acknowledge is that, arguably, as you introduce new technologies into an older design, you should perhaps migrate to a more modern design assurance approach, where you look at not just the area that has changed but at how that changed area affects the entire aircraft as well. That's another area where design development assurance practices are well in place for a brand new or what we call "clean sheet" airplane, but they may not necessarily be applied with the same rigour when we're talking about a derivative of a pre-existing aircraft.

At a high level, those are the main hit points in the JATR report.

● (1545)

**The Chair:** Thank you, Mr. Turnbull.

Thank you, Ms. Block.

Mr. Rogers.

**Mr. Churence Rogers (Bonavista—Burin—Trinity, Lib.):** Thank you, Mr. Chair, and welcome to our witnesses, Mr. Robinson and Mr. Turnbull.

In light of these tragic events, of course, and these tragedies that occurred with the Max 8, this is very challenging for all of us, as Ms. Block said. It's something that weighs heavily on people's minds when you try to discuss these kinds of issues. We're always sensitive to the feelings of the families and the people who were impacted by this kind of tragedy. Also, of course, for all of us, uppermost in our minds is the safety of future flights should these aircraft ever return to commercial flying.

I want to focus on the crash that took place in Ethiopia. I have a couple of questions around that one.

First of all, why did the minister want to see data from Aircon before taking the decision to ground the Canadian fleet? Was there a specific reason for that?

**Mr. Nicholas Robinson:** Following the Ethiopian Airlines crash on the Sunday, as part of our continuing airworthiness process, we immediately began to collect information on what led to the crash. What were the conditions when the flight was happening? What happened to the flight? How far in their flight segment were they? Did we have any sort of performance information on the aircraft? We gained this information through talking with the state of design authority, which is the FAA. They were gathering information from Boeing. We were gathering information from where the accident took place and any other sources of information we had.

This is part of a regular process that we do when an accident happens. We try to gather as much information and then take a particular action if we feel that it's necessary.

We weren't specifically waiting for the Aireon data. In fact, Aireon data wasn't part of our toolbox that we used in looking at aircraft accidents until Ethiopian 302. It's a relatively new available piece of information.

I'll assure the committee, Mr. Chair, that it is actually something we go to right away after accidents. I can point to the accident: the downing of flight PS752 in Iran. That accident occurred in the evening. We had the Aireon data in hand that morning because we learned ways we can improve. We learn after each accident.

We received that Aireon data on March 13. Along with all the other evidence we gathered, that was the piece of the puzzle that allowed us to move forward without reservation and make the determination to close the airspace in Canada. Transport Canada made the determination.

That information was so important because it showed—when we looked at the Lion Air accident and the Ethiopian Airlines accident—clear performance similarities across the two accidents that would have occurred only if there was a clear similarity of failure there. That's why we made the determination at that point.

• (1550)

**Mr. Churence Rogers:** How unusual is it to have a catastrophic problem with software, as appears to have happened in the case of the Max 8? Has anything comparable ever happened again?

The other part of that is that you said in your statement that on top of the actions the U.S. undertook as the state of design.... Then you said that Canada was the only country to put additional measures in place. I find that a little perplexing. Why would that be the case?

**Mr. Nicholas Robinson:** Mr. Chair, on the first question about how usual is something like this catastrophic failure, it's not usual at all. This is an exceptional case. We've been looking at this aircraft and examining a possible safe return to service of this aircraft for almost a year now. We continue to examine this. This is not usual practice within our field.

Can you identify the second question again?

**Mr. Churence Rogers:** It was where you said that this was on top of the actions the U.S. undertook as the state of design and Canada was the only country to put additional measures in place.

What were these additional measures that you made reference to?

**Mr. Nicholas Robinson:** Typically, the state of design will look at the event that happened with an aircraft and propose a mitigation measure based on their risk analysis and what they see needs to be done to mitigate that risk.

The FAA proposed a mitigation measure through an AD, an airworthiness directive. States looked at that AD and accepted it. That's the usual practice. Less usual is when a state will look and say that they'll accept that AD, but that there's also something more that they may wish to do.

Canada accepted that AD absolutely. We agreed with what the FAA was putting forward, but we worked with our three Canadian operators, Air Canada, Sunwing and WestJet, to further address the issues we saw around ensuring that our aircrew had the appropriate reaction time to this event and knew the appropriate procedures to mitigate this runaway trim stabilizer procedure. We said we're going to make a change. Aircrew had to memorize all five steps to mitigate that risk, as opposed to what was currently there, where they would memorize—or they were told to memorize—two of those five steps, and the other steps were available within the quick reference handbook on the flight deck.

We put that measure in place on November 8, 2018. It was implemented with all our airlines on November 9, 2018, about a week and a couple of days following the Lion Air accident.

**The Chair:** Thank you, Mr. Robinson and Mr. Rogers.

Mr. Barsalou-Duval.

[*Translation*]

**Mr. Xavier Barsalou-Duval (Pierre-Boucher—Les Patriotes—Verchères, BQ):** Thank you very much, Mr. Chair.

I quite liked the information you presented. I see that you are taking the Boeing 737 MAX 8 situation seriously. It can be reassuring to people to know that you take the accidents seriously. You are doing reviews. You are analyzing information that has been gathered. You will not lift the restrictions before you are sure there are no other problems. That is very good, very positive.

However, I wonder if the problem is much bigger than the Boeing 737 MAX 8. I did a bit of research and found that Transport Canada's certification work relied heavily on a kind of mutual recognition of work that is done here and there. Transport Canada looks at work that has been done in the United States, work that the Federal Aviation Administration, the FAA, is doing. A lot of the certification work done by the FAA is recognized.

I wonder, given the incident with the Boeing 737 MAX 8, if that close collaboration and recognition of the work done by the FAA will be reconsidered? Does this raise any questions about the certification that is done here?

• (1555)

**Mr. Nicholas Robinson:** It is a bit difficult for me to answer that question in my second language. Allow me to respond in English.

[English]

The validation process is fully independent of what the state of design does with regard to their certification, and it allows us for a continuum of involvement. We can choose, depending on how a state of design certifies. When we look at that certification, we can feel fairly assured with the information that's being presented to us. We can have a minimal level of involvement if we see there is very little risk that we've determined as part of that certification. On the other end, it also permits us to have a very significant involvement in validating the work of that state of design. A perfect example of that is the ongoing work of the 737 Max right now. We've chosen, as a validating state, to conduct our own flight test, as opposed to observing or taking the information from the FAA's flight test. We have chosen to observe or actively participate in a number of the different testing phases, as well as looking in more detail at a number of different envelopes within the certification process that the FAA is undertaking.

That's what this process allows us. The process itself does allow for the flexibility of the validating state to determine how involved it wants to be.

[Translation]

**Mr. Xavier Barsalou-Duval:** In short, you are essentially saying that you generally have the latitude to choose whether to rely on the information provided by the authorities of the state of design or to run your own tests. That is the current operating practice. Sometimes, when you consider the case to be too risky, you conduct further research, but sometimes you rely on the information provided by the state of design.

Does that sum up what you were saying?

**Mr. Nicholas Robinson:** Yes, we have that latitude.

**Mr. Xavier Barsalou-Duval:** Okay. You have the latitude to ask questions.

However, if I understand correctly, there is a multilateral recognition plan between Brazil, the European Union, Canada and the United States to accelerate the accreditation process and, I imagine, for that recognition to be applied automatically from one country to another.

In the Boeing 737 MAX situation, the FAA, which does not have enough staff to conduct accreditation research, disclosed that it contracted Boeing to certify its own planes. I find that rather surprising. Is that approach something we agree on? Does this approach cast doubt on the process currently in place?

**Mr. David Turnbull:** Generally speaking, we do what is necessary.

[English]

The ongoing development of the bilateral agreements is based on a fundamental understanding that we recognize through experience that although we may have differences in interpretation, the net results yield an equivalent level of safety. That's the foundation of it.

Our foundation with the FAA and our bilateral agreements go all the way back to 1938. Things will happen and things have happened, incidents that have caused concern and that have caused us

to ask these very valuable questions, but the principle of relying on our international partners is fundamental to the way we operate.

As Nick explained, we don't have to throw out the process we have right now. It is scalable. Think of it as a volume button. When things like this happen, we can turn the volume up; we can increase our involvement. When we're investigating an approval, as we are currently with the 737 Max 8, we are, of course, continuing to follow the FAA's lead. They must certify. They must present that which they will accept from Boeing. They are the certifying authority. We will follow, but in following, in many cases, we are talking directly to Boeing. FAA is always in the room. We have the opportunity to maybe get around those concerns, to not be as directly concerned about the degree to which the FAA was directly cognizant of what Boeing is doing or has done and rather to go directly to the source, to an appropriate degree, to find out for ourselves.

That's why I'm quite confident in saying yes, we rely on our bilateral partners. Yes, we have faith and trust in the FAA, but we will investigate independently to determine and validate. It's trust and verify.

• (1600)

**The Chair:** Thank you, Mr. Turnbull.

Thank you, Mr. Barsalou-Duval.

**Mr. Xavier Barsalou-Duval:** It's already over?

**The Chair:** It goes fast.

Mr. Bachrach.

**Mr. Taylor Bachrach (Skeena—Bulkley Valley, NDP):** Thank you, Mr. Chair.

Thank you, Mr. Robinson and Mr. Turnbull, for appearing before the committee today.

I'd like to follow on my colleague's question on the validation process.

On November 19, 2018, after the Lion Air crash, Transport Canada and the FAA signed the "Validation Improvement Roadmap", as you know, which expressed a vision that both authorities are committed to taking progressive steps to reduce, if not eliminate in-depth technical involvement by the validating authority based on level of risk.

I'm curious. Does Transport Canada intend to continue with this road map towards harmonization in light of these events?

Was it a mistake to sign on to this agreement at a time when concerns about the safety of the 737 Max were already being expressed?

**Mr. Nicholas Robinson:** We did sign that agreement, as you mentioned, on November 19. That doesn't preclude—and I have to stress this—the independence of our decision-making. Where we identify a risk, where we are uncertain of the certification process that the state of design, whether it be the FAA, EASA or ANAC has undertaken, or where we want to further expand our knowledge or understanding of how they feel this aircraft complies with a common set of standards that we expect all aircraft to have in order to operate safely globally, we still have that right to turn up the volume, as my colleague Dave said, or further expand our review of that.

That improvement map allows us to continue to work to understand where we have similarities, where we have commonalities or, where we don't have commonalities, how we can actually have processes that are more common to allow us to certify an aircraft more consistently.

**Mr. David Turnbull:** If I may add to that, I think it's important to recognize that “Validation Improvement Roadmap” as a work in progress. I have—I'll be completely honest—stated my concerns with the objective that you just read as it is stated. A big part of my job is not only to ensure that the minimum safety standards are met for everything that I sign off on in Canada but also to make sure that there is a level playing field amongst the various manufacturers. It's a highly competitive business. Certification costs a lot of money. For every decision that we may make to say, “No, manufacturer, you have to do one better or you have to do one more test,” I have to consider whether that is a fair and level approach vis-à-vis how the other authorities treat their manufacturers.

If we were to, as that phrase states, move to complete reciprocity on all products, we would lose the ability to calibrate those decisions against what those other authorities are doing. I believe that's a very important element. That said, there are certain categories of products we have already today for which we have direct reciprocity with no review. That's done on a risk basis. It's not done for large transport aircraft such as the Boeing 737. Personally, I don't think it will ever get there. It's simply an evolution of the degree to which we can rely on, if we choose to, the work of the other authorities.

- (1605)

**Mr. Taylor Bachrach:** Thank you for that response.

I'm curious as to what extent the certification process with these other aviation authorities was audited before Transport Canada signed on to the harmonization agreements.

Could you speak to that a little bit?

**Mr. David Turnbull:** Before we sign any of those agreements, there is a review.

With regard to the case in point, the one we're working on with Brazil right now, it involved a team going to evaluate their systems and processes to see if they are sufficiently equivalent. However, it's not just that; it's also experience. It would be very unusual for us to establish a full BASA, bilateral aviation safety agreement, with a country that had just come to the table and had not been in the business of producing that product type for some time.

It takes time and experience to learn how to build aircraft, design aircraft, and also, from the authority's perspective, to certify them. That is why we are deliberately cautious in entering into agreements with some of the newer players. They have to build that experience to establish their credibility to a certain extent.

**The Chair:** Thank you.

We're now going into the second round.

First on the docket is Mr. Baldinelli.

**Mr. Tony Baldinelli (Niagara Falls, CPC):** Thank you, Chair. Congratulations on your election.

Thank you to the witnesses for appearing.

This is my first opportunity to ask some questions.

I want to build on a comment from my colleague opposite, who talked about the certification management team. I guess the CMT was also hoping to reach a level of policy alignment and confidence for each authority to fully accept certification by the other three nations that are participating, without the need to conduct additional technical assessments.

Because of the accident, has this policy changed this, or are we continuing to advance that policy goal?

**Mr. David Turnbull:** In many respects, what we're seeing in the changes to the agreements are in the subordinate procedural documents that define how we interact. It's not just about reducing involvement; it's about improving and refining the process to make it more efficient.

I'll give you an example. When we go to validate an aircraft—and this works in both directions—we don't want somebody coming in and asking questions with a never-ending list. We're working towards what we call a work plan concept, where the validating authority assesses the new areas, the areas of risk, the areas where we may have struggled in our own certifications and there's a similar piece of technology in that other aircraft. We will define a work plan that defines in advance the exact areas we will look into, implying that with regard to other areas, we will totally rely on the other manufacturer.

That's an example of a process refinement that is more efficient and yet maintains a sufficient mutual knowledge of what each other is doing to maintain that level playing field concept that I described earlier.

I don't want you all to be left with the impression that because we're advancing these agreements, it is necessarily driving us to being forced to having mutual acceptance without review. That's not necessarily where this is going. There's a lot more to it.

**Mr. Tony Baldinelli:** Okay, thank you.

Next, in terms of the operational evaluation report for the 737 Max, which was conducted I believe on November 30, 2017, my understanding is that the OER outlines in some detail the technical differences between the 737 Max and some of the older models that have a lengthy and proven track record. However, it's this section on operational suitability that is extremely brief. It simply notes that the aircraft in general is operationally suitable for private operators and airlines under the Canadian aviation regulations.

Why is that? Were there not difficulties or technical issues to be addressed or indicated, including advanced pilot training, for example?

**Mr. David Turnbull:** Let me back up a bit and explain what the operational evaluation does for you.

At each change to an aircraft design and, in this case, stepping from what we call the NG version, or the previous generation to the Max, the manufacturer will propose a training program that bridges, from the pilot's perspective, the knowledge and awareness they have to operate the aircraft from one model to the next.

The OE, in its simplest form, is a joint board that evaluates the appropriateness of that training material to get a pilot who has flown the NG to fly on the Max. It's as simple as that. If the OE board determines that the training proposed is sufficient, then the conclusion is that it is operationally suitable.

If there are issues when the evaluators go through the process... There are always naive candidates who are selected. We try not to get people in there who have predisposed knowledge or are biased in any way. We're putting regular, average line pilots in there. They do the evaluation. If there are issues, if they struggle and are failing on the simulator, that is a clear indication that the training proposed by the manufacturer is not sufficient, and there will be an iterative process to improve the training.

- (1610)

**Mr. Tony Baldinelli:** Thank you for your response.

Just as a follow-up based on that, you mentioned the three additional concerns that you expressed to the FAA—flight control systems, minimum training, hours worked. Will they be expressed in any way in that OER?

**Mr. Nicholas Robinson:** Yes. The joint operational evaluation board will review the minimum training requirements for flight crews. As part of that, and to ensure that we truly do have a strong representation of Canadian aircrews who will be flying those aircraft, we are working with the three Canadian operators as well as the three pilot associations that represent the pilots of those three Canadian operators. They have committed to sending two of their representatives, along with Transport Canada representatives, to that JOEB process, that OE process, to ensure that the training that's being proposed is adequate enough for the crews operating in Canada to appropriately operate those aircraft.

**The Chair:** Thank you, Mr. Robinson and Mr. Baldinelli.

Mr. El-Khoury.

[*Translation*]

**Mr. Fayçal El-Khoury (Laval—Les Îles, Lib.):** Thank you, Mr. Chair.

Thank you for being here Mr. Robinson and Mr. Turnbull. I would say that this is a good opportunity to hear from you and get an idea of the efforts you are making to ensure passenger safety.

My question is for you, Mr. Robinson. Could you tell us more about the measures brought in place by Transport Canada after the first Boeing crash in Indonesia? Could you also tell us how long it took following the crash in Indonesia for Transport Canada to put those measures in place?

**Mr. Nicholas Robinson:** Thank you for the question.

[*English*]

Following the Lion Air crash that took place on October 29, 2018, we were examining that accident with the state of design, the FAA. The FAA issued their measure on November 7. They issued an AD, an airworthiness directive, which was adopted by Canada as well as globally.

On November 8, 10 days after the accident, we issued our own changes, in working with the three Canadian operators, to the quick reference handbook, and to ensure that our aircrews were memorizing the full five-step procedure to address the runaway trim stabilizer condition. Those were the additional measures Canada put in place, on top of what was adopted globally as issued by the FAA. Our measures were additional. Those were implemented within two weeks after the accident.

[*Translation*]

**Mr. Fayçal El-Khoury:** Thank you.

And now my second question: is there a difference between the measures taken by the FAA and those taken by the other authorities? Did Boeing and Transport Canada have any concerns about these measures and if so, what were they?

What was Transport Canada's reaction, Mr. Robinson?

[*English*]

**Mr. Nicholas Robinson:** When we implemented those measures, as part of common practice, we informed the FAA that our operators were making these additional changes. It wasn't a request; it was information that we were moving forward on that. We received word back from the FAA later on that they acknowledged those changes. There was no negative reaction against any of those changes that we made.

I have to also emphasize that this was in full collaboration with our three Canadian operators. This was a joint effort. It wasn't Transport Canada unilaterally making these changes. This was working with our operators and recognizing that there was a potential additional measure we could put in place to assure the safety of those flying in Canada and on Canadian-operated aircraft.

• (1615)

[Translation]

**Mr. Fayçal El-Khoury:** Mr. Robinson, do you believe that these additional measures, such as training, might have prevented a crash like the one that happened in Ethiopia? If so, to what extent? To what degree of certainty are you convinced?

[English]

**Mr. Nicholas Robinson:** *Désolé*, I can't say with any confidence that this would have prevented that Ethiopian accident. First, the Ethiopian Airlines Flight 302 investigative report has not been released yet, so we still have things to learn with regard to this accident. We still have more to garner from here. We won't know whether the crew operating that aircraft used that unique Canadian procedure and could have recovered from what they were experiencing. That's something we won't be able to determine.

What we do know is that this measure helped to reduce.... By memorizing those procedures, what we were doing was decreasing the reaction time for crews on Canadian-operated aircraft to recognize and respond to this sort of event happening in the flight deck, and that may have or would have helped them prevent that sort of issue from escalating.

I'd be in no position to determine if that would have prevented the Ethiopian Airlines accident.

**Mr. Fayçal El-Khoury:** There is a big difference between “prevent” and “reduce”. What would you tell us?

**Mr. Nicholas Robinson:** To prevent or reduce?

**Mr. Fayçal El-Khoury:** Yes. You mentioned both words.

**Mr. Nicholas Robinson:** That measure reduced the reaction time of Canadian aircrews in recognizing a runaway trim stabilizer condition. It allowed the groundwork to reduce that reaction time. Thankfully, between the Lion Air accident and the Ethiopian Airlines accident, we didn't have any of those events happen in Canada, so we didn't have a real-life test of what those measures might have done on a Canadian flight deck.

**Mr. Fayçal El-Khoury:** Then we can be confident that the effort of Transport Canada can prevent such an accident.

**Mr. Nicholas Robinson:** I would say no. I would not say that this could have absolutely prevented one.

What we were doing was addressing a safety risk that we saw and identifying a way that we believed could reduce the reaction time of air crew and could help them address that situation. I don't think any measure you could put in place could say absolutely that an aircrew would be able to respond.

**The Chair:** Thank you, Mr. Robinson and Mr. El-Khoury.

Mr. Davidson.

**Mr. Scot Davidson (York—Simcoe, CPC):** I want to talk about the airplane itself.

You were talking about the NG, so let's assume I'm a pilot flying a 400, a 600 or an 800 Boeing aircraft. They all have their little different challenges that they each pose. Let's say you're flying an 800. It's got the big spoiler at the back in case there's a tail strike. Pilots are aware of going from a 400 to an 800, and the possibility of a tail strike is always in the back of your mind on takeoff. If I was all of a sudden put in a Max—and I'm allowed to fly the Max if I can fly an 800—some things are different in that airplane. I wondered why Transport Canada didn't ask beforehand for a separate type rating on that aircraft, so you'd have to be checked out and be current on a Max, as compared to the NG. This is just due to the fact that the cockpit has changed a little bit, and I think you have a different glass set up in the Max, do you not, where you have emergency lights that come off over where the engine gauges are, as opposed—

• (1620)

**Mr. David Turnbull:** There are some very discrete changes, but I wouldn't characterize it as a result—

**Mr. Scot Davidson:** I'm just questioning whether they were major changes in moving forward and if pilots should have been checked out on that aircraft in particular, instead of just the 800, when they make that jump. I don't know how different that aircraft is. Let's say if I'm in autopilot climbing through 15,000 feet, and I want to hand-fly it and I shut the autopilot off. The automatic trim, when you want to hand-fly it, is a little bit different from the 800, is it not?

**Mr. David Turnbull:** That is the basic purpose of the OE. As I said in response to one of the previous questions, you take the training material that is intended to bridge the gap between one and the other, and whatever those differences may be—be they how cockpit indications are displayed, the handling characteristics or whatever may be different between the two aircraft—that is the purpose of the delta training to make sure it bridges that gap. The conclusion of the OE is that this training was sufficient; therefore, the conclusion is it's operationally suitable. That's it.

**Mr. Scot Davidson:** I just wondered why, from when those incidents happened, no one looked back to when the first accident happened and.... Maybe we're looking at more than just shutting off the automatic trim. Maybe there's a cockpit question coupled with fatigue or with someone who has flown this aircraft only three times compared to 600. I'm wondering about those questions.

**Mr. David Turnbull:** I understand your question better now. In fact, it was mentioned earlier by one of our esteemed members that it was a software failure. Actually, it wasn't, and most aircraft accidents are a combination of various things.

In terms of one of the things we've learned and one of the things we questioned very early on—and I think this is more to your point—it's that given what we now understand and that we didn't as well as we should have, perhaps, about the MCAS, that system, its failure modes and the resulting effects in the cockpit with an AOA disconnect, an angle of attack indicator disconnect, what we've learned from there has implications with respect to the design itself, the basic architecture, but also with respect to whether the training was indeed sufficient.

In other words, were the changes between, in this case, the NG and the Max, adequately reflected in the training material? You see, the key to all of this is that the training material in the OE is a direct result of the design. It's not the other way around. You design the airplane, it has functionality, and you create training material that reflects the design. If there are aspects of the design that are not sufficiently covered by the training material, that may be what comes out of this.

**Mr. Scot Davidson:** In your professional opinion, do you believe that this aircraft should deserve a type certificate on your licence? Obviously, if I fly an 800 Boeing, I can't fly a 321 Airbus.

**Mr. David Turnbull:** Not necessarily.

**Mr. Scot Davidson:** Okay, not necessarily—

**Mr. David Turnbull:** But I do believe and understand—and this is part of the ongoing process that we're on right now—that not only is the aircraft being redesigned, I'll say, or that the problem areas deemed to be problematic are being addressed through software changes, a big part of it is a reflection of what we've learned in the training material.

Transport Canada has been a huge proponent right from the beginning—and I believe our own minister stated it publicly early on that he was a big fan—of full flight simulator training. Lo and behold, about two or three weeks ago, Boeing finally came out and said, “We're doing it.” It was a huge relief to us. We had been pushing for that from the beginning of our review—

**Mr. Scot Davidson:** Okay. Well, I'm not—

**The Chair:** Thank you, Mr. Davidson.

Ms. Jaczek.

**Ms. Helena Jaczek (Markham—Stouffville, Lib.):** Thank you, Chair, and thank you to our witnesses for coming today.

I think we all agree that an ounce of prevention is worth a pound of cure. As Ms. Block said, our job here is really to probe as much as we can in terms of how going forward, hopefully, we can avoid this type of tragedy happening again.

Following on the conversation that we've already had this afternoon, I'd like to understand better, in terms of the validation process, to what extent you involve pilots and their feedback. You obviously use pilots and so on. If we could go back to before the first crash, what kinds of conversations does Transport Canada have in

terms of listening to the pilots about their experiences and incorporating additional requirements through that validation process?

• (1625)

**Mr. Nicholas Robinson:** We spoke about the JOEB process. That's where we have line pilots taking the training and evaluating it. Their results are telling us whether the training is adequate enough.

What we haven't spoken about is that we also have a great number of pilots in our own program. We have pilots as part of our national aircraft certification group who do test flights and participate in the certification process along with flying the aircraft or developing work plans with regard to the certification of the aircraft. We have our own inspectors as well, many of them pilots, who will be part of that JOEB process as well and will be looking at those aircraft manuals and mitigation procedures for evaluation. In a real-life scenario, are they going to work, are they workable? Pilots are a part of the regular process.

I want to specifically mention a bit of a difference that we also have in this process. There's been a great deal of review with regard to the Boeing 737 Max. At the beginning, we said that this wasn't a process where we were going to have Transport Canada focus and work with other authorities in our bilateral arrangements and let our Canadian authorities know what the outcomes were. From the beginning, the three operators who operate the Max as well as those three associations that have pilots operating the Max in Canada have been part of the process. They've been feeding us their input and feedback as part of the process. They're very interested, of course, as many of their livelihoods are tied to the Max, and they want to see how the validation process is proceeding, so we've been working with them on a regular basis. We often meet with our operators on a weekly basis to tell them how we're progressing. A lot of those individuals are pilots themselves, and many of them are typed on this aircraft and work with the aircrew associations to let them know the process.

They've had some questions. They've been briefed by Boeing and other authorities on the process. They've come to us and said, "I want to understand this particular mitigation procedure that you're exploring. I don't understand why Canada is looking or why we have an issue, and we want a different mitigation procedure. We think there's an issue here." What we've done is taken those opportunities to sit down with them. We've reviewed all the things we have found and said this is what has led us to say that we're going to take a leadership role and demand that the FAA and others look at particular incidents that we see that need to be addressed. In many cases that's been very beneficial.

I hope that the committee may have some opportunity to speak to those Canadian operators as well as those Canadian associations to hear their involvement in this process, because they've been very much involved.

**Ms. Helena Jaczek:** Prior to the first accident, you were getting feedback. I know hindsight is 20/20, but you felt assured at that particular time that the training was sufficient and that mitigation measures were understood in terms of this new software.

Can you assure us of that?

**Mr. Nicholas Robinson:** I will say that we now have a much greater understanding of some of the key concerns with this aircraft. At the time we validated this aircraft, at the time that JOEB process was completed, we looked at our process, and we validated that aircraft. There was no particular pressure that we were under to validate that aircraft. We felt that the aircraft was safe to fly in Canada. There would have been absolutely no instance where we would have approved that aircraft to fly in Canada if we did not feel that it met and complied with what we expected an aircraft to have.

**The Chair:** Thank you, Ms. Jaczek.

Mr. Barsalou-Duval.

[Translation]

**Mr. Xavier Barsalou-Duval:** Thank you, Mr. Chair.

My question is for you, Mr. Robinson.

The first accident occurred on October 29, 2018, and the second on March 10, 2019. I think the public started to become quite concerned after the second accident since the first could have been a simple mistake.

In the wake of these incidents, in an article in *La Presse* in May 2019, you said, "We have full confidence in the FAA and its process". Shortly thereafter, there was a lot of international news, including at Agence France-Presse and elsewhere.

In September 2019, Agence France-Presse reported that it was Boeing employees who inspected the MCAS anti-stall system in question in the accidents. We also learned that since 2016, under a new procedure referred to as ODA, Boeing selected the engineers who inspected its own planes and the FAA simply provided the seal of approval.

In February 2020, a former technical director who worked for the company for 30 years, said the company did as much work for as little money and as quickly as possible to get its planes in the air.

In the meantime, are you still as confident in the FAA's certification process?

• (1630)

**Mr. Nicholas Robinson:** Thank you for your question.

[English]

I do have confidence in the certification process that is outlined in annex 8 of ICAO's convention whereby the state of design is responsible for certifying the aircraft and other authorities are validating that aircraft.

[Translation]

**Mr. Xavier Barsalou-Duval:** I think you answered my question. I have another for you.

Many people in the general public are currently scared to board a Boeing 737. Personally, I think that plane poses some risks, for now at least. There may be other Boeing planes that pose risks considering that since 2005, Boeing employees are the ones who have been certifying the planes built by their own company in the United States.

I am an accountant by training. I am not an aerospace expert. However, when I was working in an accounting office as an auditor, my role was to audit businesses based on the level of risk. My role also consisted of conducting tests to determine whether the figures presented by the business corresponded to reality in order to ensure that the shareholders, bankers and lenders were not being misinformed when it came time to making financial decisions. To some extent, the FAA's certification role being not unlike the role of an accounting firm. As such, are you going to increase oversight of FAA certified planes from Boeing or any other U.S. company? The public has concerns.

[English]

**The Chair:** You have 30 seconds, Mr. Robinson.

**Mr. Nicholas Robinson:** Absolutely. I think a perfect example is the work that we're doing with the 737 Max right now. We've grown the amount of involvement that we have—

[Translation]

**Mr. Xavier Barsalou-Duval:** You are talking about planes in general.

[English]

**Mr. Nicholas Robinson:** Absolutely, but this is the plane that we are validating with the FAA right now, and what we've done is grow the process. We're involved in multiple stages of the testing process. We're asking questions, and we're asking for additional information with regard to this process. This will be reflective of our risk assessments, as you mentioned, as an auditor, ensuring that we will be looking at this when we're engaging with the FAA on other certification projects and making sure that we're addressing all the areas of risk that we identify. Where we do identify areas of risk, we will be involving ourselves in order to—to refer to another committee member—be able to say with confidence that this plane is safe to fly in Canada.

**The Chair:** Thank you, Mr. Robinson.

Mr. Bachrach, you have two and a half minutes.

**Mr. Taylor Bachrach:** Thank you, Mr. Chair.

At the hearings in the United States, there were emails revealed through whistle-blowers which showed that Boeing was aware of the safety risks of the MCAS anti-stall system and failed to disclose the significance of those risks to the regulators. Do you believe that Boeing misled the FAA and the airlines concerning the safety of the 737 Max?

**Mr. Nicholas Robinson:** I'm not going to speak specifically to the relationship between a U.S. manufacturer and the U.S. authority that's working with that, but what I will speak to is this.

The first question that we had from this committee was with regard to the JATR report and the 12 recommendations that have come out. The members of that review board were all the certification management team partners that have been referenced, and what we've all committed to is to look at those recommendations. The FAA will lead—and I give credit to the FAA for conducting this JATR review—and we'll be looking at ensuring that those recommendations are addressed and that actions are taken. The information that's come out about the relationship between the authority and the manufacturer will also be something that we'll keep in mind as we do a risk assessment on the areas of involvement that we want to have with regard to the validation of a project.

• (1635)

**The Chair:** Mr. Bachrach.

**Mr. Taylor Bachrach:** I have a quick follow-up question that gets back to the validation process and what's driving the rationale behind the harmonization of these certification processes.

You mentioned earlier that this is a very costly process for the manufacturers to go through. My concern is that cost is in some way a factor in striving towards harmonization and towards validation versus certification. Can you speak about the core rationale behind the harmonization road map?

**Mr. Nicholas Robinson:** First and foremost, let me assure this committee that safety is of the utmost importance and our number one priority. Transport Canada is to ensure the safety of Canadians travelling. Safety is our driver. That's why we have a very clear, stringent set of rules and areas of compliance that we're going to require all aircraft to meet prior to operation in Canada. What these rules allow us to do, though, is to review and ensure that products

as well as aircraft reach and allow Canadians to benefit from these products in a more streamlined fashion.

If we share a common set of expertise on an avionics system, as we do with our counterparts in EASA, and EASA has done the software on it and has clearly said that this system works in this aircraft, and we understand the process that EASA takes and the meticulous methods they have in place, then there is no benefit for us to do the exact same set of testing. We know what EASA does and their stringent set of compliance rules, so we would say, "No, we don't see a risk here; we'll focus on where we see risk."

Does that benefit the industry and the manufacturers? Absolutely. They will be able to access markets more readily than if every single state was to certify their product. But that benefit does not supersede safety, which is our number one priority. That's why it doesn't matter; if there is a remote question of it not meeting the safety standard that we expect, that aircraft doesn't get validated in Canada, not until it meets that.

**The Chair:** Thank you, Mr. Robinson and Mr. Bachrach.

Mr. Baldinelli.

**Mr. Tony Baldinelli:** Thank you, Chair.

Again, thank you, Mr. Robinson and Mr. Turnbull, for being here as we seek to rebuild some confidence in our oversight systems and to provide some answers to the families. I have three quick questions.

Mr. Turnbull, this is with regard to what you and Mr. Davidson are undertaking with the OER and the technical requirements and training manuals that are required for pilots when you're doing the OER. When you're presenting that document to the public, in terms of transparency in the OER report that's published, does the public get that detailed background, or are they able to see that these are the requirements we're asking?

**Mr. David Turnbull:** With regard to the purpose of the report, once it's approved, it goes out as the recommended set of training that the operators will adopt. The actual training program for an airline, if we're talking about large aircraft, is approved at the local level, depending; there are a lot of unique situations within an airline. The way they choose to operate the aircraft may cause or necessitate slight changes to the training material. That is the baseline that's handed out to the airlines. It's not meant to be a public document. It's meant to go to the airlines and their local authority to determine what will be the training program for that airline.

**Mr. Tony Baldinelli:** As you undertake your examinations and your studies, you're dealing with companies as well as the other oversight bodies, nationally and internationally. In terms of the oversight and the examinations, do airline pilots and their associations play any part in this certification process? Do they have any ability to comment?

**Mr. David Turnbull:** They don't on the certification process itself. As I mentioned earlier, the certification of the design, the type design, as we call it, is carried out through a certification process. The OE is a separate and subsequent step. Once you've got your design and the functionality is there, the cockpit does what it does. The aircraft flight manual, which is part of the approved type design, explains and displays the basic procedures—warning systems, non-normal procedures and everything. All of that information from the flight manual goes into the training material. The design comes first.

• (1640)

**Mr. Tony Baldinelli:** Do they have an opportunity to provide input into that?

**Mr. David Turnbull:** At the training level, yes. I explained earlier the OE process with the naive candidates, which are sometimes airline pilots, that are invited to take place. We typically do not involve the operators directly in the certification process. That is a communication between the applicant, or the designer of the airplane, and the certifying authority. The operations and the airlines are generally kept out, to the extent where they may be inquiring about the status. They're anxious to get their aircraft because they want to enter service, but we typically don't involve them in the technical certification issues that we're working on with the applicant.

**Mr. Tony Baldinelli:** I have one last question, quickly.

In February, it was reported that on the 737 Max 8 jets, Boeing had discovered fuel tanks containing debris in several of its aircraft.

Has that been reviewed, or is there any indication from Transport Canada to our companies to examine that? Even though the fleets are grounded, are they examining planes for that problem?

**Mr. Nicholas Robinson:** This is the aircraft that were in Boeing facilities waiting for distribution.

As part of the process, we're right now looking at the validation of this aircraft for it to return to service. That will be a process that we'll be looking to the FAA for, and asking how they are addressing it in those facilities. We'll also be working with our operators to see if they've seen any instances there. It's part of our continuing process on the fleet itself.

However, from a certification perspective right now, it's not something that we have focused on for the validation process.

**Mr. David Turnbull:** That's a result of a manufacturing issue as opposed to a design issue, more than likely.

**Mr. Tony Baldinelli:** We can't say, for example, that it may be an existing problem on those planes that are grounded now. We don't know that.

**Mr. Nicholas Robinson:** We'll be looking at our operators as part of their inspection that will get this....

These aircraft have been sitting on the ground for 11 months. Prior to their returning to service, the FAA will certify the design. We will validate it. We will go through that JOEB process to determine the training requirements. There will also be quite a significant amount of preparation for getting these aircraft back into service and back to airworthiness so that they can fly.

That's part of the reason—and I know there is a great deal of attention on it—that we allowed many of our operators to ferry those aircraft into parts of the U.S., warmer climates. They are not meant to sit on the ground and not operate. They're not meant to not fly.

That will be part of the process for getting them back up—

**The Chair:** Thank you, Mr. Baldinelli.

Mr. Sidhu.

**Mr. Maninder Sidhu (Brampton East, Lib.):** I'd like to start off by thanking Mr. Robinson and Mr. Turnbull for their time and their expertise. A lot of the members are thankful for your being here today.

I'm trying to understand your perspective on the safety record as a whole, especially with air travel in Canada. What measures do you use and, in your opinion, what's the safety record on air travel?

**Mr. Nicholas Robinson:** Thank you. First let me speak to the record.

Mr. Chair, I began my comments to the committee about Canada having one of the safest aviation systems in the world, and we have the data to prove it.

In 2018, we had 151 aviation accidents, which was down from 190 in 2017 and is a 29% decrease from the previous 10-year average. That's a trend we continue to see. The accident rate is in steady decline, and we are proud of that record. We have a very, very low accident record in Canada, with very minimal fatalities. There were three 705—that's the large commercial aircraft category, the Air Canadas, the Air Transat—accidents in 2018 with regard to those aircraft.

That's the average we see over the 10-year span.

**Mr. David Turnbull:** And there were no fatalities.

**Mr. Nicholas Robinson:** No fatalities. That's right.

**Mr. Maninder Sidhu:** When you compare that to globally—

**Mr. Nicholas Robinson:** Well, let me now respond as to why that is the case. That's because we are continuously looking at improving not only our certification standards and our validation standards, but also our safety standards overall.

That's why we propose additional regulations. We've moved forward most recently on flight and duty time regulations to ensure that aircrews are getting adequate rest in order to operate those aircraft. That was a safety....

We're looking at moving forward in improving the runway and safety area—that's the area at the top of and bottom of a runway—to ensure that if by chance an aircraft, because of weather, because of an operational incident, has to exit the runway, there is a certain level of ground that is pre-prepared to allow that aircraft to exit so it doesn't end up in a ravine and we have a horrible tragedy there. We're continuing to look at that.

It's not only the 705 operations, our large commercial operations, we're also very proud of our general aviation safety campaign. We've worked with the recreational operator and those associations that represent the recreational operator: What are the risks to those operators? What are the risks to those people who go down to their local airport on a Saturday to fly their aircraft for pleasure? What do they have to keep in mind in order to keep safe?

We take very seriously the Transportation Safety Board recommendations that it puts forward after air accidents. We make sure that we try to act on them as appropriately and in as timely a way as possible to ensure, and to continue to ensure, safe Canadian aviation.

• (1645)

**Mr. Maninder Sidhu:** I know that having to ground so many planes presents operational challenges. Where do you store all these planes, especially at the airports? Were there any safety concerns that had to be considered before deciding to ground the Canadian fleet, the Boeing?

**Mr. Nicholas Robinson:** Mr. Chair, just to clarify the question, do you mean as a result of the grounding did we have to consider other...? Okay.

Thank you for that question. In part to what I just responded to, once these aircraft are grounded, should there be a return to service of these aircraft, they do have to be ready and be maintained well enough to resume flight. We worked with the three Canadian operators to devise a very clear mitigation strategy and a procedure, so that if an operator wanted to move that aircraft—for routine maintenance reasons or from storage to a warmer, more appropriate climate—first of all, when they were moving it, there was absolutely no passenger content in it. As well, additional aircrew were available on the aircraft should an incident occur. Also, when they were operating these aircraft, it was in appropriate conditions. We weren't going to operate these aircraft in bad storms or weather conditions. The routes we chose were the appropriate routes and not high-traffic routes in case of an accident. Those were some of the measures we had put in place.

**The Chair:** Thank you, Mr. Sidhu.

Thank you, Mr. Robinson.

Mr. Davidson.

**Mr. Scot Davidson:** Thank you, Mr. Chair.

Just to keep going on that line of questioning, do we know where all the Canadian registered airplanes are? Are they all now in a warmer climate? I think some are still here, being pulled in and out of hangars in the middle of the winter. I'm just saying that different airplanes are going to have different challenges due to where they've been stored.

**Mr. Nicholas Robinson:** I could provide that information to you, but I don't have it with me, and I wouldn't want to say anything without assurance, because there are continual movements that we approve. A company will either move an aircraft to one of its maintenance facilities or go back—

**Mr. Scot Davidson:** No, I've seen them pulled out of a hangar in a snowstorm and put back in.

**Mr. Nicholas Robinson:** That's right, but we do have knowledge in view of where all the aircraft are, absolutely. We approve every single ferry flight, which is what we call them, in Canada.

**Mr. Scot Davidson:** No, I'm saying, will there be guidelines, Canadian guidelines, for an airplane that's been kept in Arizona as opposed to one that's been kept in Toronto, outside, when it's recertified, so they're stringent?

**Mr. Nicholas Robinson:** Absolutely, and that's also something the manufacturer has committed to. We're talking about the certification, the validation and the training portion of this. There will be another portion that we will be looking at prior to a return to service. There will have to be inspections and reviews. We will ensure that the aircrews of those operators are trained, that they've received whatever training we determine—the simulator training we determine and the other training—and that the additional software is uploaded onto the aircraft. We will see, if there are any physical changes with the aircraft, that the minimum equipment lists are up to date, and that the aircraft themselves are inspected around operations. As we said, aircraft aren't meant to be idle, so there will be a full procedure to assure—

• (1650)

**Mr. Scot Davidson:** Corrosion can set in.

**Mr. David Turnbull:** It's my understanding that Boeing has developed an additional maintenance program specifically as a result of this situation that was not there otherwise.

**Mr. Scot Davidson:** Just quickly, going back—and I don't remember exactly what you said—only because I'm looking at the cockpit design, the Max has four screens and the 800 has five screens. They are significantly different.

I'm just wondering, in training prior to these accidents, if Transport Canada picked up on any of these differences. The HSI is in a different spot. The flight tracker is in a different spot. We have emergency warning horns in a different spot. We have trim that responds differently when I'm hand-flying it. The landing gear clicks on a.... You know, an airplane feels different to every pilot. You don't hear the landing gear on the Max. There are a lot of significant differences.

I'm back to why no one asked for it to have a type rating, and why no one would want an extra rating for it now. Are they asking for that? I'm just wondering where that's going.

**Mr. Nicholas Robinson:** Also, though, to your point, that goes back to—and I know we continue to come back to this—the operational evaluation board. When we had those aircrews, those regular line pilots who were in there and they were evaluating, they had received their computer-based training. They took that and they went into the simulator. They weren't identifying, “Oh, gee, there are five screens here”, or “I'm used to five screens and now there are four.” We took them through the procedures, and that joint operational evaluation board came back and said that this training was sufficient.

That's what we expect. That's why we have the line pilots involved in that sort of training, to get first-hand their reaction. If we saw instances of their saying, "Listen, I don't know what screen I'm going to look at right now because it's entirely different from what I'm used to", then that would have been a different conclusion of that JOEB.

**Mr. Scot Davidson:** I'm confident in the FAA. I'm just saying that...for the general public to have the ultimate trust in the system, would Transport Canada recommend a type certificate on the 737 Max 8 when it comes back into service? Would that be something Transport Canada would suggest to the FAA, as a bare minimum to restore confidence in the aircraft?

**Mr. Nicholas Robinson:** Mr. Chair, I appreciate that point. That's one of the pieces for why we have, on a bit of an exceptional basis in this case, involved Canadian operators and the associations of the flight crews in Canada more in this process. If we are—and there is an "if" here—to come into a return to service of this aircraft, we've involved our Canadian operators and those associations so that we may go in force to the Canadian public saying, "This was my participation. This is why I'm confident, but I have an association next to me and this is why I'm confident"—

**Mr. Scot Davidson:** Just to add to that, Air Canada only has the 737 Max 8, correct? It wouldn't affect them, like it would WestJet.

**Mr. Nicholas Robinson:** It wouldn't, but the other two fly different ones.

**Mr. Scot Davidson:** Different ones.

**The Chair:** Thank you, Mr. Davidson.

Mr. Bittle.

**Mr. Chris Bittle (St. Catharines, Lib.):** Thank you so much.

How does Canada benefit from the current international system of air certification?

**Mr. Nicholas Robinson:** Canada benefits in so far as we are able to have a certain degree of confidence in various parts of the certification process by our three other key CMT members. We benefit in a reduced need. The certification system isn't a Canadian benefit; the benefit is at large.

To a degree, we benefit because we aren't certifying every single aeronautical product or aircraft that's being used in Canada. Those are numerous. That's a benefit that all of the system appreciates.

We spoke to safety being the number one priority for Transport Canada. The other benefit is that our very strong and safe aeronautical products and aircraft that we produce have greater access to global markets because people look at Canada as a certification leader. They look at our national aircraft certification groups as leaders in certification. When we say we certified an aircraft, like the Airbus 220, which we've just certified, they know the rigour and the standards that we apply to that. That's why it can access markets in a greater fashion.

• (1655)

**Mr. Chris Bittle:** I've heard some suggest that we should certify all planes for the Canadian market. I look to constituents of mine who work, for example, at Airbus Helicopters in Fort Erie, and I

looked across to colleagues from Quebec who represent constituents who work at Bombardier.

What does that mean for those companies, in the theoretical construct, that Canada or other countries certify each aircraft as they're being put out?

**Mr. Nicholas Robinson:** I take you back to the opening comments that we provided this committee and our certificate efforts on the Airbus 220. I mentioned that there were more than 150,000 person hours provided to the certification of that aircraft.

Now, we look at all the aircraft in the aviation system right now. If we needed to apply that exact same standard to each and every aircraft, we wouldn't have the accessibility to aircraft and the amount of aircraft in our system. We would not be able to certify every single aircraft to that degree.

**Mr. Chris Bittle:** The 150,000 person hours sounds like a lot, and it is a lot. In terms of time, is certifying an aircraft something that would be measured in years?

**Mr. David Turnbull:** It's six years.

**Mr. Chris Bittle:** My final question is very direct. If the FAA certifies this aircraft and there's a lingering doubt in Transport Canada's mind, will this aircraft fly in Canadian airspace?

**Mr. Nicholas Robinson:** No. I can assure this committee, and we've assured Canadians previously, that we will not validate this aircraft until our safety concerns, which we addressed back in April with the FAA and continue to pursue and get answers on, are addressed. Until our concerns are addressed, we will not unground this aircraft.

**Mr. David Turnbull:** It may also be worth noting that we already have additional measures we're planning to put in place above and beyond what would be required by the FAA, and this is open knowledge to both Boeing and the FAA. We have suggested they do numerous things. Fortunately, in some cases, as time went on they started to adopt these ideas. I guess they came to their own conclusions. It validated our concerns, but we're not done yet. We still have unique procedural elements in the flight manual on the table, which could be part of a unique Canadian aircraft flight manual supplement. It's part of our certification that would not be equivalent or common with the FAA. We have the same opportunity to do that with training as well.

We are not bound exclusively by what the FAA comes out with.

**Mr. Chris Bittle:** Thank you so much.

**The Chair:** Thank you, Mr. Bittle. Thank you, Mr. Turnbull.

We're now going to the last round.

Mr. Barsalou-Duval, you have two and a half minutes.

[Translation]

**Mr. Xavier Barsalou-Duval:** Thank you, Mr. Chair.

My question is for both Mr. Turnbull and Mr. Robinson. However, it may be more for you, Mr. Turnbull, given that you are in charge more specifically of issuing certifications.

The MCAS system is recent, I believe. It was installed in the 737 MAX planes. Considering that it was a new system, I imagine you had to concern yourself with this system from a validation and certification perspective.

Can you tell me how the problem that struck the 737 MAX planes could have gone undetected?

**Mr. David Turnbull:** Thank you.

[English]

We have to go back to the original validation where, as previously explained, we look at the changes from the previous model.

The MCAS was presented to us. The explanation for its existence and the way it operates was defined to us. However, at the time we did not have cause to dig any deeper. We understood the extent to which it was explained, and we went on from there. We focused on other areas. Unfortunately, this is the way we learn sometimes. Most of the amendments to the standards throughout history have been a result—

• (1700)

[Translation]

**Mr. Xavier Barsalou-Duval:** Do you believe that there was negligence, that this was a mistake on your part?

[English]

**Mr. David Turnbull:** No, not at all.

We are relying on what is presented to us in line with the concept of doing a validation. As Mr. Robinson explained, we cannot go back and recertify the entire aircraft. We have to choose the areas we will review.

It so happened that MCAS was not an area that we delved into in any great depth. We were satisfied with the explanation. We raised issues on other matters.

Obviously, the accidents have revealed things about MCAS that we surely wish we had understood, and I believe the FAA would feel the same.

[Translation]

**Mr. Xavier Barsalou-Duval:** I am trying to understand what you are saying. You say you verified something else, but did not verify the MCAS system. I asked you whether the fact that the you did not verify the MCAS system was a mistake and you answered in the negative.

I don't understand why you are saying that it wasn't a mistake.

[English]

**Mr. David Turnbull:** I don't like to be flippant, but with 20/20 hindsight—I believe one of the members mentioned that—we know a lot more now than we did then. Often in aircraft accidents—and there have been many throughout history—what we learned from that accident was not known by the designer nor by the regulator. It became common knowledge after the fact.

This is a situation where we learn and have learned about failure modes of the MCAS, how it relates to the basic architecture of the airplane.

I can assure you if we had had any of that knowledge at the time, we would have been digging a lot further, but with the aviation industry, as with the automobile industry and any other product that's produced, when things go wrong and things break, those are opportunities where we learn things we previously did not know.

It's not a question of negligence unless somebody is deliberately hiding information. That's a completely different subject. This is simply a question of what we learn after these accidents.

[Translation]

**Mr. Xavier Barsalou-Duval:** In your opinion, if you had spent 150,000 hours conducting validations like on the CSeries planes, would you have discovered this problem?

[English]

**Mr. David Turnbull:** Oh yes, indeed. The certification process of every aircraft that we go through involves stumbling over problems that we cannot perceive.

I'm sure many of you have wondered why it has taken so long to get the Max back in service. It is a result of the certification process. There have been three iterations, and still one to go with the software patch that Boeing is developing because partway through the development of the software patch more problems were discovered and they had to fix them. That's one of the benefits of the certification process. You have the opportunity to wring it out, to test the system, to prove that it operates. If you discover a problem, you do not proceed. You go back and fix it.

That's why we're still sitting here today with the 737 Max on the ground.

**The Chair:** Thank you, Mr. Turnbull.

Thank you, Mr. Barsalou-Duval.

That will do it for the rounds of questions.

Gentlemen, thank you for coming out and being very forthright in giving us the information we were expecting. We all know this is a very sensitive topic. We're going to try to get through it with the expectations of the committee members. I do, once again, thank you for that.

I thank members for the questions, as well as for drawing the information out from the witnesses.

I'm going to suspend for about two minutes before we get on with committee business.

Following that, we will have to clear the room because we will be going in camera.

Thank you.

• (1704)

(Pause)

• (1709)

**The Chair:** We will reconvene.

Members, as we have new roles going into this session on this committee, I'm going to ask if there is a desire to go in camera or whether you want to stay in an open session.

If there is a desire to go in camera, I would require a motion.

**Mr. Luc Berthold (Mégantic—L'Érable, CPC):** We're good.

**The Chair:** Everybody is fine. Good. Let's proceed.

We have a few items that we want to discuss with respect to committee business, the first being the current study, and then subsequent meetings. We're doing the aircraft certification process study right now. With that, we do have meetings scheduled for March 10, 12 and 24.

Is that fine?

Mr. El-Khoury.

• (1710)

**Mr. Fayçal El-Khoury:** Mr. Chair, I have a motion.

I propose that Mr. Xavier Barsalou-Duval be a vice-chair for this committee.

**The Chair:** Thank you, Mr. El-Khoury.

Are there any questions or comments on the motion?

**Mr. Scot Davidson:** You don't want to hear what I have to say.

**Some hon. members:** Oh, oh!

**The Chair:** We do have a motion presented by Mr. El-Khoury that Mr. Barsalou-Duval be appointed as vice-chair of the committee.

**Mr. Luc Berthold:** May I have a few seconds to consult with my whip?

**The Chair:** That's fine. Go ahead.

**Mr. Scot Davidson:** I just want to ask a question.

How much does it cost the taxpayer? How much do we pay a vice-chair?

**Mr. Luc Berthold:** It's \$6,000 a year.

**Mr. Scot Davidson:** I'm just always concerned about the taxpayer. I'm just getting a....

**Mr. Luc Berthold:** Six thousand a year. We're okay with that.

**The Chair:** Okay. We do have a motion.

There is another question.

Ms. Ashton.

**Ms. Niki Ashton (Churchill—Keewatinook Aski, NDP):** Obviously, Mr. Chair, I wasn't party to the lead-up in these conversations. I have tremendous respect for my colleague in the Bloc, but I am of the understanding that these discussions are still ongoing at PROC, and certainly with respect as well to the NDP's involvement as well. I am concerned about the fact that we are approaching this discussion as a one-off rather than respecting the process that is already under way at the PROC committee.

**The Chair:** Thank you, Ms. Ashton.

Mr. Bittle.

**Mr. Chris Bittle:** My understanding, and I'm happy to be proven wrong, is that PROC has decided in terms of adding an extra vice-chair, but it hasn't been concurred in yet in the House. Obviously, if the House decides to do that, it's something we can revisit, but I believe, pursuant to the Standing Orders, that with regard to a third party, they have the ability to be the second vice-chair of the committee until such time as the rules pursuant to that are amended.

**The Chair:** Thank you, Mr. Bittle.

Are there further questions or comments on the motion?

Mr. Barsalou-Duval.

[*Translation*]

**Mr. Xavier Barsalou-Duval:** Mr. Chair, could you please explain the usual practice for this type of motion, given that it concerns me directly.

Is there a potential conflict of interest that would require me to abstain from voting on the motion?

I would also like to say that it is important and normal for there to be a deputy chair from the Bloc Québécois, the second opposition party.

However, I would like you to clarify the first part of my question.

[*English*]

**The Chair:** You can vote.

[*Translation*]

**Mr. Xavier Barsalou-Duval:** Is it customary to allow that?

[*English*]

**The Chair:** You're fine. You don't have a conflict of interest.

Are there further questions or comments?

Ms. Ashton.

• (1715)

**Ms. Niki Ashton:** Maybe just as a lead-up, I appreciate that information. My latest information is from our whip's office. Again, this is not to oppose a particular proposal, but rather to support both the PROC committee and now, of course, the House in taking the necessary steps before we jump in as a committee.

I think it's a question as well of respecting that these processes are there in such a way that they apply to all committees, rather than committees going off in any one direction. I appreciate that the point was made about revisiting, but I also think that in this very moment it's important to respect processes as they are ongoing, whether in committee or in the House.

**The Chair:** Thank you, Ms. Ashton.

Are there further questions or comments, members?

(Motion agreed to)

**The Chair:** Thank you.

We're now going to move to the witnesses.

We have a study ongoing right now. Names of witnesses have been presented to the clerk's office as of Monday at four o'clock. The clerk is saying that if you want to submit additional witnesses you can have an extension to 4 p.m. on Wednesday.

Is that fine with you, Madam Clerk?

Members, if you have any additional witnesses for this study, you're more than welcome to submit that list to the clerk's office no later than 4 p.m. on Wednesday.

**Mr. Luc Berthold:** Wednesday is tomorrow?

**The Chair:** Wednesday is tomorrow.

Do you have a question on that, Mr. Rogers?

**Mr. Churence Rogers:** It's not about the witnesses.

**The Chair:** Okay.

Do you have a question on that, Mr. Berthold?

No. Okay.

Mr. Rogers.

**Mr. Churence Rogers:** I wanted to bring this to the attention of the committee. I'm bringing an amended motion in regard to the ministers' visits on Thursday. We all agreed that the Minister of Transport and the Minister of Infrastructure and Communities would be invited to attend on Thursday to talk about mandate letters.

Given our schedule and timeline now that we're going to be doing the Max 8 witness study until March 24 in a very tight time frame, I'm thinking that it's in the best interests of the committee if we want to get an opportunity to question the ministers on supplementary estimates that we try to squeeze it into our Thursday session.

I'm prepared to table an amended motion that we would invite the ministers to answer questions on supplementary estimates on Thursday as well.

**The Chair:** Thank you, Mr. Rogers.

**Mr. Churence Rogers:** I have a copy of the motion here, Mr. Chair, if you want—

**The Chair:** If you want to distribute it, that would be great. Thank you.

[*Translation*]

**Mr. Luc Berthold:** We already have it, Mr. Chair.

[*English*]

**Mr. Churence Rogers:** I will read the motion, if you wish, Mr. Chair.

**The Chair:** Mr. Rogers, you can read the motion, please.

**Mr. Churence Rogers:** It is:

That, when the Minister of Transport and the Minister of Infrastructure and Communities appear before the committee on Thursday, February 27, 2020, on the subject of their respective mandate letters, that they also appear on the topic of the supplementary estimates (B) that has been referred to the committee.

**The Chair:** Thank you, Mr. Rogers.

Are there any questions or comments?

Mr. Berthold.

[*Translation*]

**Mr. Luc Berthold:** Before I begin, I would like some clarification from the clerk regarding the ministers' appearance on Thursday.

Are we receiving the Minister of Infrastructure and Communities for one hour and then the Minister of Transport for one hour?

**The Clerk of the Committee (Ms. Caroline Bosc):** Yes.

**Mr. Luc Berthold:** Okay. Each minister will therefore have one hour.

Mr. Rogers, with all due respect, I think that the ministers' mandate letters are a very important aspect of what Canadians expect from them. Unfortunately, we didn't have the time to talk about that previously because the committees hadn't convened yet. I think we should focus on the mandate letters for now.

Usually, when we talk about supplementary estimates, we call on officials to be present. Unfortunately, if we call on the officials at the same time as the ministers, we won't have enough time to talk about the mandate letters. I prefer that we focus on their mandate letters, in other words the political component, when they visit. Then we could invite the ministers and departmental representatives to talk about the supplementary estimates and other matters that might be raised.

If we do what you are proposing, we will unfortunately not have enough time to question the ministers on their mandate letters. I therefore cannot support this motion.

● (1720)

[*English*]

**The Chair:** Thank you, Mr. Berthold.

Are there further questions or comments?

**Mr. Churence Rogers:** I appreciate and understand your concern, Mr. Berthold—

**The Chair:** Hold on, Mr. Rogers.

**Mr. Churence Rogers:** Sorry.

**The Chair:** Ms. Ashton.

**Ms. Niki Ashton:** I have very similar concerns. This is an opportunity to really delve into the mandate letter, which covers a number of different areas. I would think that the minister himself would be very happy to spend all of his time talking about what he's been asked to work on, and I also certainly never have been on a committee where it's not important to have the minister back on the estimates when they are around, so I'm a bit surprised by this, in fact.

I think the minister himself would be proud to talk about what he's working on.

**The Chair:** Mr. Rogers.

**Mr. Churence Rogers:** Just from a practicality perspective, I'm looking at the schedule, and we very quickly got the ministers to agree to this particular meeting on Thursday. I'm not so sure what their schedules will be in the future, but we were just thinking, from the perspective of that factor, it might be an opportunity to ask some questions on supplementary estimates.

Of course, we are at the wishes of the committee.

**The Chair:** Great, thank you.

Are there further questions or comments?

Ms. Block.

**Mrs. Kelly Block:** I'm just going to ask a question to clarify something in my own mind. When do they have to be deemed reported?

**The Chair:** Madam Clerk.

**The Clerk:** Three days before the end of the supply period.

**Mrs. Kelly Block:** The end of the supply period is March 26.

**The Clerk:** It is March 10, but the last supply day is usually three days before that or the end of the supply period, so if the last supply day or the last opposition day takes place sometime in that week, then it would be three days prior to that, but we don't yet know when that day will be.

**The Chair:** Thank you. It's very tight.

Are there further questions or comments?

It's just trying to do the math in terms of scheduling the work we have ahead of us, and now with three days in advance of the March 10 deadline, it's very difficult to squeeze all this in.

Mr. Bittle.

**Mr. Chris Bittle:** I'd like to echo squeezing all this in and the difficulties therein. Additionally, there would be an expectation that the minister appear with respect to the study we are currently engaged in, and so to have the minister here three successive times is a lot to ask. We're happy to put up the officials and make it a separate day, if it would be a preference for the opposition to carve out a date on which officials can be questioned with respect to the estimates, a separate date, but this was a priority study for the Conservatives working on that. The minister will appear on that.

There's a priority also for the Conservatives that the minister appear on the mandate letter quickly, and we were able to make that happen as well.

I'm not sure we can fit all of that in with respect to the minister's schedule.

**The Chair:** Mr. Barsalou-Duval.

[*Translation*]

**Mr. Xavier Barsalou-Duval:** I didn't know that the minister had been called for the 737 MAX study, but that makes sense since this is a hot issue and rather important. However, if we do the study on the 737 MAX and question the minister at the same time that we address his mandate letter, I think we won't have enough time to talk about it. That is a lot of time. I wonder if we can come up with another solution.

I understand that you wanted to avoid calling the minister too many times because it is too hard to coordinate with his schedule. If we asked questions on the 737 MAX and on the budget that day, but took two hours instead of one and we addressed the mandate letter of the Minister of Infrastructure and Communities another time, we would have a full hour to study each of these topics. I'm just tossing out an idea. I haven't talked to anyone about it.

Is that something that might work out? The important thing to me is that we do not cut into the time allotted for the study on the mandate letter. I think that we will have a lot of questions to ask because the mandate letter has a rather broad scope.

• (1725)

[*English*]

**The Chair:** Thank you, Mr. Barsalou-Duval.

Is there a member who wants to answer that question?

Mr. Bittle.

**Mr. Chris Bittle:** We're willing to work with the opposition, but if his appearance with respect to the Max 8.... I guess we'd be open for that to be broader, but again, given his schedule and the number of issues that are currently in crisis mode on his plate at the moment, perhaps a regular one-hour appearance with respect to the Boeing Max 8 could be broadened, and questions could be asked with respect to the supplementary estimates.

The minister's schedule is very tight. Given the number of questions I fielded in question period on Friday, I know that his office is busy. He's engaged actively and heavily with respect to not only this file but many others, most critically the rail blockades at the moment. I think that two appearances in a very short period of time is reasonable, and we can work within those two hours to meet what the opposition is looking to achieve. However, again, it has to be done.... We're on a break week next week, and this is being done in rapid succession.

**The Chair:** Mr. Berthold.

[*Translation*]

**Mr. Luc Berthold:** We could ask the minister if he is available on March 10. That would be the best thing to do to try to speed things up here. We set a date for the study, March 10, but have yet to call witnesses for that date. We could ask the minister to come then and we could also talk about the supplementary estimates.

Again, I took the time to carefully read the ministers' mandate letters. There are so many different aspects and important files that we would need two hours with each minister. These are things that Canadians are concerned about, whether we are talking about climate change, infrastructure or transport. I think that one hour per minister is not too much to ask. If anyone here had a question about the supplementary estimates and absolutely wanted a response, they could ask their question then. After all, the time belongs to each parliamentarian.

With all due respect to the parliamentary secretary, it is not the committee's job to manage the minister's schedule. Our colleagues around the table are not here to manage the ministers' agendas. As we keep hearing in response to our questions in the House of Commons, the committees are free and independent from the government's agenda. Here, it is up to us to decide whether it is reasonable to set aside two hours for both ministers. I sincerely think it is. Then we could ask the ministers to come back to talk about the supplementary estimates, even if that means getting Mr. Garneau to come just once to also talk about the study. That would be the best solution.

I really want us to talk about the ministerial mandate letters. I can't ask that we postpone the study of the mandate letter of the Minister of Infrastructure and Communities to another meeting, although I appreciate the suggestion. There are so many things we want to talk about when it comes to infrastructure that I cannot go in that direction.

[*English*]

**The Chair:** The challenge, Mr. Berthold, is time. We already have witnesses scheduled for the 10th. We have witnesses, including Mr. Garneau, for the aircraft certification process on the 12th. Then we have the families on the 24th.

• (1730)

**The Chair:** That's what we have scheduled. Basically when you look at what you're speaking of now, trying to find time to try to squeeze this in, you see it's going to be challenging, especially if you want to get to the estimates before the 12th.

[*Translation*]

**Mr. Luc Berthold:** To my knowledge, we don't have a deadline for our current study on the 737 MAX. There's nothing stopping us from pushing back the March 10 meeting. We are not constrained by any sort of deadline.

Earlier, the witnesses talked about how long the process has been and they indicated that there is still a lot of work ahead concerning certification. Accordingly, I don't think there is any urgency for holding a meeting on the 737 MAX on March 10. We have all the latitude we need as a committee to reasonably accomplish all of this.

[*English*]

**The Chair:** Mr. Bittle.

**Mr. Chris Bittle:** It's interesting. A couple of days ago we heard that we're here to get to work, and Mr Davidson banged on the table and said this study is urgent and we need to get to work and how dare we Liberals take one extra meeting to try to figure out the schedule.

If only someone had mentioned the supplementary estimates at that point in the meeting, if only there was a member who brought that up as an issue.... But this was the priority of the Conservative Party. Tables were slammed, outrage was feigned and now they are saying, "Whoa. This is not our priority. Let's slow down. Let's calm down and do something else."

I appreciate that in camera we have a.... I guess we're still public.

**The Chair:** We're still public.

**Mr. Luc Berthold:** Continue. That's fine. I really like what you are doing right now.

**Mr. Chris Bittle:** I have nothing to hide with respect to that issue. It's something that I've brought up before. It's something that you demanded was a priority a couple of days ago. Now it isn't a priority. Now we can hold off on this study to squeeze in something else, even though the minister is available.

The minister will be here, and the minister will appear on the study that you said was the number one priority and that we need to get to work on.

How dare the government members try to suggest that we plan our schedule and take an extra meeting to ensure that all of the i's are dotted and t's are crossed: That's what happened last week. We find ourselves here now with the Conservatives asking the exact opposite.

We appreciate that was priority. The ministers will be here. The minister will be scheduled with respect to the 737 Max. Let's take advantage of what we have, the witnesses we've scheduled and their time, and move that forward.

**The Chair:** We are past 5:30 p.m.

We can adjourn or we can deal with this. I will leave it to the pleasure of the committee.

**Mr. Luc Berthold:** I propose to adjourn.

**The Chair:** All right. We are going to adjourn. Thank you.





Published under the authority of the Speaker of  
the House of Commons

---

### SPEAKER'S PERMISSION

---

The proceedings of the House of Commons and its committees are hereby made available to provide greater public access. The parliamentary privilege of the House of Commons to control the publication and broadcast of the proceedings of the House of Commons and its committees is nonetheless reserved. All copyrights therein are also reserved.

Reproduction of the proceedings of the House of Commons and its committees, in whole or in part and in any medium, is hereby permitted provided that the reproduction is accurate and is not presented as official. This permission does not extend to reproduction, distribution or use for commercial purpose of financial gain. Reproduction or use outside this permission or without authorization may be treated as copyright infringement in accordance with the Copyright Act. Authorization may be obtained on written application to the Office of the Speaker of the House of Commons.

Reproduction in accordance with this permission does not constitute publication under the authority of the House of Commons. The absolute privilege that applies to the proceedings of the House of Commons does not extend to these permitted reproductions. Where a reproduction includes briefs to a committee of the House of Commons, authorization for reproduction may be required from the authors in accordance with the Copyright Act.

Nothing in this permission abrogates or derogates from the privileges, powers, immunities and rights of the House of Commons and its committees. For greater certainty, this permission does not affect the prohibition against impeaching or questioning the proceedings of the House of Commons in courts or otherwise. The House of Commons retains the right and privilege to find users in contempt of Parliament if a reproduction or use is not in accordance with this permission.

---

Also available on the House of Commons website at the following address: <https://www.ourcommons.ca>

Publié en conformité de l'autorité  
du Président de la Chambre des communes

---

### PERMISSION DU PRÉSIDENT

---

Les délibérations de la Chambre des communes et de ses comités sont mises à la disposition du public pour mieux le renseigner. La Chambre conserve néanmoins son privilège parlementaire de contrôler la publication et la diffusion des délibérations et elle possède tous les droits d'auteur sur celles-ci.

Il est permis de reproduire les délibérations de la Chambre et de ses comités, en tout ou en partie, sur n'importe quel support, pourvu que la reproduction soit exacte et qu'elle ne soit pas présentée comme version officielle. Il n'est toutefois pas permis de reproduire, de distribuer ou d'utiliser les délibérations à des fins commerciales visant la réalisation d'un profit financier. Toute reproduction ou utilisation non permise ou non formellement autorisée peut être considérée comme une violation du droit d'auteur aux termes de la Loi sur le droit d'auteur. Une autorisation formelle peut être obtenue sur présentation d'une demande écrite au Bureau du Président de la Chambre des communes.

La reproduction conforme à la présente permission ne constitue pas une publication sous l'autorité de la Chambre. Le privilège absolu qui s'applique aux délibérations de la Chambre ne s'étend pas aux reproductions permises. Lorsqu'une reproduction comprend des mémoires présentés à un comité de la Chambre, il peut être nécessaire d'obtenir de leurs auteurs l'autorisation de les reproduire, conformément à la Loi sur le droit d'auteur.

La présente permission ne porte pas atteinte aux privilèges, pouvoirs, immunités et droits de la Chambre et de ses comités. Il est entendu que cette permission ne touche pas l'interdiction de contester ou de mettre en cause les délibérations de la Chambre devant les tribunaux ou autrement. La Chambre conserve le droit et le privilège de déclarer l'utilisateur coupable d'outrage au Parlement lorsque la reproduction ou l'utilisation n'est pas conforme à la présente permission.

---

Aussi disponible sur le site Web de la Chambre des communes à l'adresse suivante :  
<https://www.noscommunes.ca>