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Chair

The Honourable Judy A. Sgro

Standing Committee on Transport, Infrastructure and Communities

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● (1100)

[*English*]

The Chair (Hon. Judy A. Sgro (Humber River—Black Creek, Lib.)): This is meeting number 52 of the Standing Committee on Transport, Infrastructure and Communities, 42nd Parliament. Pursuant to Standing Order 108(2), we are commencing a study of aviation safety.

Has your comment to do with our agenda here, Mr. Iacono?

[*Translation*]

Mr. Angelo Iacono (Alfred-Pellan, Lib.): Good morning, Madam Chair.

Good morning, esteemed witnesses.

Madam Chair, I would like to table my motion on air safety.

[*English*]

The Chair: Is that the motion you've already circulated to the committee?

[*Translation*]

Mr. Angelo Iacono: Yes.

[*English*]

The Chair: Would you like to read it out?

[*Translation*]

Mr. Angelo Iacono: Of course.

> That the study on air safety focus on the following: CATSA's service delivery model; the Civil Aviation Surveillance Program; the work conditions of aircraft personnel and inspectors, including their training; and security screening for employees working in secure areas of airports;
>
> And that, in consultation with the committee members, the chair be empowered to organize the schedule and resources necessary to execute the study.

[*English*]

The Chair: Given that we have witnesses here today, are you moving the motion that we deal with this now or in the last portion of our meeting?

[*Translation*]

Mr. Angelo Iacono: Madam Chair, I know that we have witnesses here this morning. I apologize for interrupting the meeting, but my motion is directly related to today's study. Consequently I think it is very important that we give it priority.

[*English*]

The Chair: Monsieur Aubin.

[*Translation*]

Mr. Robert Aubin (Trois-Rivières, NDP): Thank you, Madam Chair.

I will try to be brief, because we have to return to our study.

I have to say that I cannot support this motion. It totally changes the direction of the study on aviation safety we had agreed to do.

However, I recognize the relevance of the topic that is being proposed. It is likely a reaction to the news story that was broadcast by TVA last week. It would be entirely appropriate that our committee examine that matter. Unfortunately, we are being asked to accept that “air safety” means the same thing as “airport safety”, although these are two completely different topics of study.

Madam Chair, if you tell me that you want the committee to do another study on airport safety, I would agree with that completely, but we only have six short meeting hours to examine at least six or seven topics that involve air safety directly. The member is trying to get us to study airport safety. It seems to me that this is a substantive change.

[*English*]

The Chair: Thank you very much.

Ms. Block.

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

I would support my colleague in his assertion that this motion appears to be an attempt to change the entire focus of this study that was, I would suggest, previously discussed and agreed to by all members at the table.

It really doesn't make any sense to be rewriting the terms of a study the day that the study begins. We all submitted witnesses based on the focus area that was previously agreed to in this committee on February 23.

I think the Library of Parliament has already prepared its briefing. The briefing is based on a work plan that was agreed to by all members. We have the schedule already in place and I'm sure witnesses have been contacted.

It's also somewhat interesting that the mover of the motion has included the wording “that, in consultation with the Committee Members, the Chair be empowered to organize the schedule”, when that has already happened. This study has already been organized and a lot of work and energy has been put into it.

I recognize that something happened last week that could definitely be a component of this study, but to suggest that the study now focus on CATSA is, I think, somewhat disingenuous.

Thank you.

● (1105)

The Chair: Mr. Berthold.

[*Translation*]

Mr. Luc Berthold (Mégantic—L'Érable, CPC): Thank you very much, Madam Chair.

Indeed, I was a bit surprised by the government reaction, by Mr. Iacono's reaction, to the very simple motion I introduced. The motion simply asks that the committee organize a meeting that would not necessarily be one of the six we had already planned. Its purpose would be to discuss safety at the Montreal-Trudeau Airport following the TVA report. I don't understand that reaction, because the motion I tabled was quite simple. We would invite airport authorities to come and reassure us about the situation and make information available to the members of the committee.

You know, when problems arise, when media highlight concerns, especially regarding safety in airports, it is part of our role and our duty as parliamentarians to pay attention and to dig deeper. We have to know if we, as parliamentarians, have a role to play in safety management at the Montreal-Trudeau Airport. We are talking about one Canadian airport, but there are others. I thought the motion simply wanted to give us the opportunity to hold an additional meeting.

This meeting could perhaps even be held at the Montreal-Trudeau Airport, at a different time than our usual meeting hours for our study on air safety. In that way, we could examine the situation on site and report to Canadians on our perception of safety at the Montreal-Trudeau Airport. It is our responsibility to reassure Canadians and to see whether there are lapses. If as parliamentarians we do not see any, it is our role to say so, to repeat that and to reassure Canadians that airport authorities have radicalization issues well in hand. We also must say so if we believe that is not the case.

And so that was the sole purpose of the motion we introduced. On the following day, I became aware of Mr. Iacono's motion, which completely changes the direction of the study on aviation safety we are beginning today. I see that representatives of the Transportation Safety Board of Canada are present here now. They have things to say, they too had to go before the media to make themselves heard because Transport Canada has to follow up on their recommendations. I think that is something we should take into account. That being said, we had come up with a good schedule, we had worked on it together, and we have to continue in that vein.

Madam Chair, I don't want to take up any more time. Today we are to hear the viewpoint of the witnesses from the Transportation Safety Board, and it would be unfortunate to deprive ourselves of that expertise. I am thus going to oppose Mr. Iacono's motion. I will be tabling my own motion later. In the meantime, we could perhaps agree to examine the issue of safety at the Montreal-Trudeau Airport without disrupting the schedule of the aviation safety study we are just beginning.

[*English*]

The Chair: Thank you very much, Mr. Berthold. I acknowledge that you also have a motion that's duly here before us as well today on that particular issue. I thank you for tabling that.

[*Translation*]

Mr. Luc Berthold: Madam Chair, since we are discussing the motion I am going to table later, I would simply like to read it so that people know what it is about. We may not be debating it immediately. If we manage to come to an agreement, it may not be tabled.

The motion reads as follows:

> That, as part of its study on aviation safety...

[*English*]

Mr. Vance Badawey (Niagara Centre, Lib.): Whoa.

The Chair: Wait. Hold on.

[*Translation*]

Mr. Luc Berthold: It's my turn to speak.

[*English*]

The Chair: Mr. Berthold had the floor. I referenced his motion because I thought he would have read it into the record.

I guess that reminded you that you had not.

I'm going to make sure that I'm following the rules here.

● (1110)

[*Translation*]

Mr. Luc Berthold: Madam Chair, I am not submitting my motion, I am simply reading it, and I am following up on your invitation to explain it.

[*English*]

The Chair: Yes, that's what I thought.

[*Translation*]

Mr. Luc Berthold: Very well. The motion reads as follows:

> That, as part of its study on aviation safety, the committee hear promptly from witnesses regarding the security measures in place at Montreal-Trudeau Airport to protect travellers and employees, and invite representatives from the Service de police de la Ville de Montréal, Royal Canadian Mounted Police, Transport Canada and Public Safety Canada.

That is the motion I tabled last week, which prompted the government party to introduce its motion. If we discuss mine quickly, we could still hold our meeting and do our duty as parliamentarians.

Thank you, Madam Chair.

[*English*]

The Chair: Thank you.

Mr. Iacono.

[*Translation*]

Mr. Angelo Iacono: Thank you, Madam Chair.

I simply want to explain the objective of my motion. The study we are beginning today is vague. We have not defined clear objectives. We don't have specific points upon which to focus our study. We thus run the risk of simply touching on the many aspects involved in aviation safety.

Take our study on railway safety as an example. The committee had determined four key points upon which to focus our study so that we could do effective and useful work.

We have to do the same thing if we want this study to be credible. I reread the discussions we had in committee about air safety, as well as the notices and motions that were presented.

The motion I am putting forward would allow us to focus our study on points that are essential for air safety and the safety of passengers. In addition, it incorporates Ms. Block's motion concerning CATSA. It also integrates Mr. Berthold's motion concerning security screenings for employees following the worrisome revelations broadcast on the *J.E.* program.

It is important that Canadians trust our security system in airports, and that they be safe in all Canadian airports, not only the one in Montreal.

Mr. Berthold's motion is only about one issue discussed in the media. It is important that this issue be the subject of a rigorous and complete study by the members of this committee. That is the reason why my motion does not focus strictly on the Montreal-Trudeau Airport. Our committee has to study the entire system.

Of course, we could ask representatives of the Montreal-Trudeau Airport to appear before the committee to explain their situation. Since this is an issue that concerns both the opposition and the government, I am convinced that my colleagues will support my motion so that we can undertake a serious study with a well-defined framework, and with all of the rigour we need for an issue as crucial as aviation safety.

Thank you, Madam Chair.

[*English*]

The Chair: Thank you.

Mr. Rayes.

[*Translation*]

Mr. Alain Rayes (Richmond—Arthabaska, CPC): Madam Chair, out of respect for the witnesses who have taken the trouble to come here, I will be brief.

I cannot in any way support my colleague Mr. Iacono's motion. I think that what was put forward by Mr. Berthold would allow us, following our assessment, to quickly submit recommendations to the government, without impinging upon the work of this committee on aviation safety.

We could discuss this for a long time, but I think things are clear. People are intelligent enough to understand both motions and their respective intent. It will be my pleasure to support Mr. Berthold's motion.

[*English*]

The Chair: Thank you.

Mr. Aubin.

[*Translation*]

Mr. Robert Aubin: Thank you, Madam Chair.

I feel obliged to respond. In his remarks, Mr. Iacono said the study on aviation safety was wide open, that we didn't have anything very specific and that things could go in all directions. However, Madam Chair, you asked me at our last meeting to specify the focus of the study. I did so using six points, which I'll reiterate for Mr. Iacono. We want to focus on the fatigue issue, pilot certification, flight attendant ratio, cosmic radiation, toxic vapours and inspector training. If that isn't specific—

In addition, based on these six points, we determined the number of hours to spend on our study. This shows that we're heading somewhere. The document prepared by the library's analysts refers to these six points, which shows the study is properly aligned with them.

That said, I'm not opposed to conducting another study on airport security. I recognize the importance of addressing this subject. I also recognize the importance of my colleague Mr. Berthold's proposal, which seems to be a compromise. This would enable us to address the two issues at the same time and to move on quickly to hearing from our witnesses, which is the goal of our meeting today.

● (1115)

[*English*]

The Chair: Thank you.

Mr. Berthold.

[*Translation*]

Mr. Luc Berthold: Madam Chair, in my motion, I'm ready to include all the elements in the motion moved here by the Liberals, such as the study on the other airports. That way, we can conduct a study along the same lines as the aviation safety study we've already started. That's fine with me. However, I thought that, given our agenda, we didn't really have much time to spend on aviation safety.

Mr. Iacono, I'm perfectly willing to combine our motions if we can address the airport security situation in a separate study. We could hold two or three other meetings, which would address your concerns and the concerns of Canadians regarding airport security.

[*English*]

The Chair: We still have to go back to Ms. Block and Mr. Aubin.

I wonder. We have many witnesses in the room. I think we all care very much about airport safety, and we're in a way all talking in the same terms. It's a question of how we do this, in consideration of the fact that we have adopted a motion to move forward on very similar issues.

Could I make a suggestion that we defer dealing with this motion to the last 15 minutes of the meeting to see whether we can think through a little further which way we go? That's just so that we don't hold up so many people today. We could defer any further discussion until the last 15 minutes of today's meeting. Would that be acceptable, so that we could at least get started on our meeting today?

In the last 15 minutes of our meeting today we would go back to Mr. Iacono's motion. Would that be acceptable to the committee?

Mr. Angelo Iacono: Madam Chair, as long as Mr. Berthold doesn't move his motion—

The Chair: Right now I have one motion on the floor—

Mr. Angelo Iacono: Thank you. I just want it to be clear on the record.

The Chair: Could we find some way to have further discussions while we listen to our witnesses, to try to come to an understanding of our goals and objectives as to where we're trying to go?

If the committee is okay with that, the last 15 minutes of the meeting—

Mr. Berthold.

[*Translation*]

Mr. Luc Berthold: Mr. Iacono asked me not to move any motion in advance, which I can't guarantee. However, I already agreed that we could discuss his motion at the end of the meeting, in the last 15 minutes.

[*English*]

The Chair: I don't believe anyone is asking you to do that.

An hon. member: He just did.

The Chair: Can we please get on?

Our apologies to the witnesses, but these transportation issues are of real importance to all of our members.

To open it up, we have Kathleen Fox, chair of the Transportation Safety Board of Canada; Jean Laporte, chief operating officer; and Yanick Sarazin, manager, standards and quality assurance, air investigations—all so appropriate to be here for many reasons today.

Thank you very much for joining us.

I'll turn the floor over to Ms. Fox.

Ms. Kathleen Fox (Chair, Transportation Safety Board of Canada): Good morning, Madam Chair and honourable members.

Thank you for inviting the Transportation Safety Board of Canada to appear today as you begin your study into aviation safety.

● (1120)

[*Translation*]

Our mandate at the TSB, which is also our sole purpose, is to promote safety in the air, marine, rail and pipeline modes of transportation.

[*English*]

When something goes wrong, we investigate to find out not just what happened, but also why. And then we make public what we've learned, so those best placed to take action, regulators and the industry, can do so.

To set the stage for your study, we would first like to table a preliminary version of the TSB's 2016 statistics on aviation safety for the use of the committee. Overall, Canada's aviation industry has a very good safety record, showing a significant downward trend over the last 10 years in the accident rate for Canadian registered aircraft, expressed as accidents per 100,000 flying hours. The incident rate paralleled the reduction in accident rate up to 2014 when the TSB enacted new regulations that made more incidents reportable.

However, there is always room for further improvement, particularly when known risks persist in the aviation system. Which brings me to the TSB watch-list that we updated at the end of October 2016 and have previously sent to your committee for information. This list identifies key safety issues that need to be addressed to make Canada's transportation system even safer. Currently, there are three aviation specific issues on the watch-list: unstable approaches, runway overruns, and the risk of collisions on runways.

In the interests of time I will only briefly describe each issue.

Continuing an unstable approach—for example, one in which the aircraft is too high and too fast on approach—constitutes a frequent contributory factor to serious landing accidents.

One type of accident includes a runway overrun, when the aircraft is unable to stop before the end of the runway.

The TSB has investigated numerous landing accidents related to these two issues. One dramatic example of this occurred in 2005 at Toronto's Pearson Airport when Air France ran off the end of runway 24L into a ravine where the aircraft caught fire. Fortunately, no one was killed, but over two dozen people were injured.

Since 2007, the TSB has recommended that Transport Canada implement a variety of measures to address these issues, including enhanced training in pilot decision-making and crew resource management, improved guidance to pilots for landing when thunderstorms are present, enhanced use of airline flight data monitoring programs, and requiring major airports to implement 300-metre runway and safety areas or other engineered material arresting systems to meet international recommended practices.

[*Translation*]

With respect to the third aviation-specific issue, airports are busy places, with multiple aircraft and vehicles traversing runways and taxiways, in addition to aircraft landing and taking off all the time.

[*English*]

This can sometimes lead to conflicts known as runway incursions, which occur about once a day somewhere in Canada. The board is particularly concerned by the number of serious runway incursions in which a collision was narrowly avoided or there was a significant potential for collision. More needs to be done to provide technological defences to alert flight crews and vehicle operators directly in time to prevent a collision.

There are also two watch-list issues that affect not just aviation safety, but also marine and rail transportation.

The first of these multimodal issues is safety management and regulatory oversight. Put simply, some transportation companies are not managing their safety risks effectively and the majority of air operators in Canada are not yet required to implement safety management systems. Furthermore, Transport Canada's oversight and intervention has not always been effective at changing companies' unsafe operating practices. The board is encouraged that Transport Canada is taking action to address the issues identified with regulatory oversight, and we look forward to the results of the department's review of its aviation oversight program, expected at the end of 2017.

The other multimodal watch-list issue is the slow progress made by Transport Canada in addressing numerous TSB recommendations. While the responses to about three-quarters of all of the TSB recommendations in all modes issued since our creation in 1990 have received our highest rating of fully satisfactory, there are currently 52 recommendations directed to Transport Canada that have been active for more than 10 years, and 39 of these have been active for over 20 years, of which 32 are in aviation. Implementation of these recommendations could go a long way to reducing known preventable risks that continue to play a role in aviation accidents.

However, the regulatory issue is not just a Transport Canada issue. We would respectfully suggest that you consider the need to adopt an expedited process for taking action on safety-related recommendations, similar to what you recommended as part of the rail study.

One issue that is not on our watch-list, but is a current topic of discussion between Transport Canada and the aviation industry, is pilot fatigue. The TSB recognizes that fatigue is a hazard in any mode of transportation that operates 24-7. We always look for fatigue in our investigations, whether it was present or not, and, if it was, whether or not it contributed to an occurrence. Over the years, we have made findings with respect to the role that fatigue has played in aviation occurrences. We included fatigue as a specific issue in railway freight crews on our 2016 watch-list, but we did not have sufficiently compelling data to support elevating fatigue in aviation to the watch-list. However, that should not be construed to imply that fatigue isn't an issue in aviation or that it does not warrant further attention.

Finally, if we look at specific sectors of the commercial aviation industry, the TSB is particularly concerned about air taxi operations, which typically involve smaller airplanes and helicopters carrying up to nine passengers to smaller communities. In Canada, these operations have by far the largest number of accidents and fatalities in commercial aviation, which is why the TSB launched a broad safety study on air taxi operations in 2015 looking at air taxi occurrences during the period 2000-2014. This study will identify and examine the hazards and risk factors associated with air taxi operations in Canada, how these are being managed, and what additional measures are needed to improve safety in this aviation sector. We expect to issue our final report in early 2018.

● (1125)

[*Translation*]

In closing, we very much appreciate your focus on aviation safety and we're pleased to have been invited here today to speak with you about it.

[*English*]

We hope that our presence will help inform your study, and we are now ready to answer any questions you may have.

The Chair: Thank you very much.

Ms. Block.

Mrs. Kelly Block: Thank you very much, Madam Chair.

I'd like to thank you for being here today as we launch on this study on aviation safety.

My first question would be in reference to the TSB's 2016 watch-list of safety concerns that was released on October 31, 2016.

In that report, you stated that for the first time the TSB would be reaching out directly to aviation industry stakeholders to address safety problems arising from your crash investigation reports. I'm wondering if you would explain that a little more fully for us.

Ms. Kathleen Fox: The TSB initiated our first watch-list back in 2010, representing those issues that we believed, based on our data, posed the greatest risk to Canada's transportation system. We explained those issues to the industry, to the regulators, to the public, and the media, and then waited to see what action would be taken.

What we found is that over the course of the last six or seven years, a number of steps have been taken. We were able to take some issues off the watch-list, but we've added new ones. However, some issues, and in particular in this latest watch-list eight issues, have been carried over from the 2014 version.

What we've done differently with the 2016 edition is to be more explicit about the type of action we would like to see taken. We are also actively going out, speaking to the regulator, the departments, to industry, stakeholders, operators, to engage them and make our case for the changes that need to take place to make the transportation system safer.

Mrs. Kelly Block: Thank you. I'm interested in those numbers.

It's my understanding that your 2016 watch-list also cited Transport Canada's failure to address more than 50 TSB safety recommendations that are now more than 10 years old, and over three dozen that are more than two decades old.

In fact, I think to quote, you stated, “There is no reasonable excuse for taking that long—especially in cases where [Transport Canada] agrees that action is needed.” And you said, “Good intentions aren't enough.”

What has happened to those safety recommendations that are over 10 years old and those that are over two decades old?

● (1130)

Ms. Kathleen Fox: When the TSB issues a recommendation, under our act the minister is required to respond as to how the department will address that recommendation. That response has to be given to us within 90 days. We then assess the response and then reassess the response, typically annually, until the matter is resolved.

What we were finding a few years ago is that on a number of recommendations that we had made to Transport, the department had laid out a plan of action with a timetable, and while the plan of action seemed reasonable in terms of addressing the safety deficiency, the timetable was being continually shifted to the right, continually delayed. A few years ago, we said that instead of giving our rating of satisfactory intent, meaning that Transport Canada's plan was reasonable, we would no longer accept protracted delays. We would start assessing some of these recommendations as unsatisfactory. Even though the plan was reasonable, the timetable was not. After several years of that, when we did our latest watch-list, we realized that even on some of those recommendations, there still wasn't action being taken on a timely basis. There were still delays, and that's why we escalated this particular issue to our watch-list.

Since we issued the watch-list in October 2016, we have just gone through the reassessment cycle that we do annually on outstanding recommendations. We have not seen much movement on many of those recommendations, however, recognizing that Transport's response to us would have come within a month or two after issuing the latest watch-list.

Mrs. Kelly Block: I'm guessing that if I asked you whether in your opinion, when it comes to aviation safety, Transport Canada should be part of the solution, you would say, yes, absolutely, however, it would appear that there are a number of issues within Transport Canada that actually make it part of the problem in terms of the timeliness of addressing some of the recommendations.

You've also talked about the fact that some transportation companies are not managing their safety risks effectively, and that the majority of air operators in Canada are not yet required to implement safety management systems. I am wondering if you can speak to that issue just in the brief time that I have left in terms of safety management systems and how is it that they are not yet required to implement one as an air operator.

Ms. Kathleen Fox: If I may just comment on the first part of your question, notwithstanding that we would like to see Transport Canada enact more regulations to establish a common baseline for safety, industry can also take action. They don't have to wait for regulation in order to make changes that can reduce risk. Also, Transport Canada has often responded to our recommendations saying they have to undertake studies, they have to do consultation, or they may want to harmonize with other international bodies. I think the rule-making or the regulation-making process itself, which involves more than just the department, has to be examined in terms of the role it plays.

With respect to safety management, TSB believes that when properly implemented, safety management systems can help any commercial operator in any mode of transportation better manage its safety risk.

The Chair: Thank you very much, Ms. Fox. We're tight on time.

Mr. Sikand.

Mr. Gagan Sikand (Mississauga—Streetsville, Lib.): Thank you, Madam Chair. I will be splitting my time with my colleague.

I understand that in 2012 Transport Canada made a decision to remove small business aircraft from the SMS surveillance programs and I was wondering if you could speak to that and provide your opinion of that decision.

Ms. Kathleen Fox: I was not aware that in 2012 they had removed the oversight of business aviation. In fact, the TSB made a recommendation back around 2009 following an accident that occurred in 2007 that indicated that the Canadian Business Aviation Association, which was at that time responsible for safety management oversight of that sector of the industry, had not been effective at doing that, so Transport Canada, in fact, took back responsibility for oversight for audits and inspection for that segment of the industry. We were briefed by Transport Canada officials that their intent was to—and this goes back to August 2016—reduce or redirect resources away from planned oversight of that segment of the industry, which has a very good safety record compared to other segments of the aviation industry, in favour of redirecting their resources to higher priority or higher risk areas that they'd identified. But we were not aware that they had stopped surveillance.

● (1135)

Mr. Gagan Sikand: Again, thank you for being brief because I'm sharing my time.

Along those lines, given the relatively small number of accidents involving large commercial carriers in Canada, should discussions of aviation safety issues focus on regulations in other sectors?

Ms. Kathleen Fox: If we look at the number of fatal accidents, most of them occur in the smaller, air taxi sector and that's one of the reasons we launched our safety study into that sector back in 2015. Larger companies, the scheduled carriers, have more infrastructure, more support, more expertise, and they've implemented fairly elaborate safety management systems. However, we believe that smaller operators can also benefit from the same principles and that they should be extended to all commercial operators.

The Chair: Thank you.

Go ahead, Mr. Hardie.

Mr. Ken Hardie (Fleetwood—Port Kells, Lib.): Thank you, Madam Chair, and thank you for being here today.

There's a strong sense of déjà vu because, of course, we had the rail safety study as well. I guess the question that comes up is about the ability of the large and rather well-heeled operations to have very robust safety management systems versus the smaller operators. Rail or air, it seems to be about the same story. Is the safety management system platform or approach or model really performing as expected, so people can be assured that these companies are doing the right things in the right ways?

Ms. Kathleen Fox: Our investigations have certainly identified weaknesses in safety management in some operators, large and small. However, we also know that strict compliance with minimum regulations isn't, in and of itself, sufficient to ensure safety or reduce risk. Safety management systems incorporate certain principles, such as the commitment of senior management, having policies with respect to safety, having processes by which companies can manage their safety risks, and having ways to internally report safety issues that need to be addressed. We believe that those principles are adaptable and scalable to smaller operators and that they can go even further than strict compliance with regulations, in terms of helping companies manage safety.

Mr. Ken Hardie: We have records here that show that in 2009-10 and again in 2014-15 that there were cuts in Transport Canada by the previous government and up to about 100 positions were eliminated. Did this raise concerns with your organization with respect to Transport Canada's ability to do its job?

Ms. Kathleen Fox: We look at investigations, and we do look at Transport Canada oversight and what role, if any, it played in those investigations. What we've identified are issues with the way oversight was carried out. Transport Canada didn't identify situations of non-compliance with regulations, or they did identify non-compliance but were ineffective at bringing the company back into safe operation, or they were simply looking at SMS from the perspective of compliance with the regulations, rather than whether it was effective.

In the investigations we've done to date, we haven't identified a lack of resources as contributing to that. It's really been about the training that the inspectors receive and about where they place their emphasis when they're doing investigations. That's why we've called in our safety watch-list for a balanced approach to audits and inspections for compliance, as well as assessments of safety management systems for effectiveness.

Mr. Ken Hardie: The Canadian Federal Pilots Association is concerned that many of their inspectors haven't been able to keep their pilots' licences current. They seem to be relying more on simulators, as opposed to people on the ground, to check the capabilities of pilots. Again, has this shown up on your radar screen?

Ms. Kathleen Fox: It has not.

● (1140)

The Chair: Thank you.

Next, we have Mr. Aubin.

[*Translation*]

Mr. Robert Aubin: Thank you, Madam Chair.

I want to thank the witnesses for being here.

I'll address the fatigue issue. I was somewhat taken aback by your opening remarks, when you said that “one issue that is not on our watchlist, but is a current topic of discussion between Transport Canada and the aviation industry, is pilot fatigue.” You then said that you still take this factor into account when you need to analyze an accident.

Following an accident that requires an investigation, how do you approach the fatigue issue? Do you approach it by only checking the pilot's log of flying hours? How do you approach the issue?

Ms. Kathleen Fox: Following an accident, we always look at a number of factors to see whether fatigue could have played a role in the incident. For example, we look at the time of day when the incident occurred. During some parts of the day, such as the late afternoon or middle of the night, there's a normal decline in physiological performance caused by fatigue. We look at how many hours the crew or pilot were up, how many hours they worked, when they went to sleep and how long they slept. We look back up to 72 hours to see whether fatigue was present. Even if fatigue was present, that doesn't necessarily mean it contributed to the accident. We look at the two factors, but we do so in a very scientific way.

Mr. Robert Aubin: I imagine the time difference is also taken into account in the scientific calculation when assessing fatigue. Some long-haul flights are now able to fly for 16 hours, and that's on top of the time difference.

Ms. Kathleen Fox: Yes. We can take into account that the flight was long.

Mr. Robert Aubin: In the cases you've investigated in recent years, has fatigue been identified as a significant or new factor that explains the increasing number of accidents or incidents?

Ms. Kathleen Fox: Since 2000, fatigue has played a role in about 20 accidents or incidents we've investigated, and 15 of those events involved the crew and pilots. A number of those events involved private airplanes. In the commercial sector, fatigue or fatigue management has played a role in five or six cases, and that's out of many investigations. However, in the rail transportation sector, we found that the fatigue factor has contributed in a higher proportion to incidents and accidents. That's why we included the fatigue factor on our watchlist for freight trains and not for air transportation.

Mr. Robert Aubin: You seemed to say that it was difficult to obtain evidence to assess the fatigue issue in aviation safety. What methods should we implement to obtain evidence that would help you better assess the fatigue factor?

Ms. Kathleen Fox: In our investigations, we ask questions. We try to find a number of sources of data to show, for example, how many hours the crew worked and slept. Part of this is subjective. If a pilot is asked how many hours he slept two nights ago, it won't always be easy for him to remember. We're somewhat limited by this, but we still manage to analyze whether fatigue was a factor.

Mr. Robert Aubin: Do you think we should establish a type of logbook, like the one truck drivers have, for example, to track the pilots' hours of work and sleep?

Ms. Kathleen Fox: A regulation already requires flying hours to be logged. In the commercial sector, the number of hours is already capped. The companies are required to keep logs to show they comply with the regulations.

Mr. Robert Aubin: I wanted to know whether you find this sufficient or whether the number of hours of sleep the day before the flight should also be taken into account.

Ms. Kathleen Fox: I'll ask Mr. Sarazin to answer you.

Mr. Yanick Sarazin (Manager, Standards and Quality Assurance, Air Investigations, Transportation Safety Board of Canada): When an incident or accident is investigated, the investigators have tools developed by the TSB to find or distinguish facts related to either the reasons for or the risk associated with fatigue. First, the investigators look at the past 72 hours, as Ms. Fox mentioned. After, if they have indications, they'll use these tools to look more specifically at different areas, such as whether the ocean was crossed the right way or the wrong way or whether the flight came from Europe. At the TSB, we also have human factor specialists.

If fatigue is identified by the investigators' tools, we conduct a more in-depth study using our specialists' report on the human factors. This gives us a good sense of the direction to take the final report, but it's also useful in terms of the data, because we keep all the data. Whenever we identify a fact that may be related to fatigue, we keep the fact in mind.

● (1145)

Mr. Robert Aubin: Thank you.

[*English*]

The Chair: I'm sorry, but your time is up, Mr. Aubin.

Mr. Iacono.

Mr. Angelo Iacono: Thank you, Madam Chair.

Ms. Fox, you talked about regulatory oversight. What is the biggest issue with regard to regulatory oversight, and what would be the best way to address it?

Ms. Kathleen Fox: The issues with respect to regulatory oversight are multiple. First, there's currently not a requirement for all aviation and other operators to have a safety management system, and we believe that should be a requirement.

Second, we think there needs to be a better balance between inspections and audits for compliance with regulations, which is one form of regulatory oversight, and audits of the effectiveness of safety management systems, which is another form of regulatory oversight. It's our understanding that Transport Canada has undertaken a program review, and is updating or reviewing the way it provides regulatory oversight. We look forward to the results of that study later this year.

Mr. Angelo Iacono: Thank you.

You also talked about fatigue, and you just admitted that there's a difference between the rail industry and the airline industry. Do you think the rules in Canada with regard to the hours of flight are appropriate?

Ms. Kathleen Fox: I know that's something that's being discussed between Transport Canada and the industry right now, and we don't comment on proposed regulatory changes. All I can tell you is that based on our data, there have definitely been instances where fatigue management was an issue in aviation occurrences, so anything that can be done to improve and reduce the risk of fatigue in aviation is probably a good thing.

Mr. Angelo Iacono: I know you can't comment, but do you have any suggestions or anything that maybe we should be looking at, a direction that you can give us?

Ms. Kathleen Fox: I don't have anything specific to the regulations. It's just important to remember that pilots are pilots, and when they're flying in the middle of the night or when they're flying long days or hours, they can succumb to fatigue, which can affect performance.

Mr. Angelo Iacono: You talked about an expedited process to respond to TSB's recommendations. How do you envision such a process?

Ms. Kathleen Fox: Partly, it's a question of priorities. When TSB makes a safety recommendation, we only do so when we've identified a high, systemic risk that affects a large segment of the industry and that, we believe, warrants the highest level of regulatory action. We would like to see Transport Canada commit to addressing the recommendations, especially the backlog that has existed for more than 10 years. We should also also look at the process through Justice, and through Treasury Board, which also has an impact on the rule-making process.

[*Translation*]

Mr. Angelo Iacono: Overall and in comparison with similar countries, do you think Canada has a safe air transportation system?

Ms. Kathleen Fox: I can't really make comparisons with other countries because our mandate focuses on Canada. However, I can say that, if we assess the state of security in Canada based on the statistics I just mentioned, for example, our performance is very much in line with the performance of the other developed countries.

Mr. Angelo Iacono: You said that progress still needs to be made.

Ms. Kathleen Fox: Yes, always, especially when it comes to the regulations and monitoring by the regulator. Even though our performance has been good for 10 years, progress still needs to be made.

Mr. Angelo Iacono: How can we ensure Transport Canada responds faster when the TSB makes recommendations?

Ms. Kathleen Fox: On the one hand, I think the Department of Transportation or the other departments and regulators must commit to responding to our recommendations, especially when they're in favour of them.

On the other hand, the process, which also involves the Department of Justice and the Treasury Board, must be faster. It shouldn't take 10 or 20 years.

● (1150)

Mr. Angelo Iacono: Thank you.

I'll share my speaking time with Mr. Hardie.

[*English*]

The Chair: Mr. Hardie.

Mr. Ken Hardie: If there's some time left after my one question, I'll defer to Mr. Badawey.

You were saying that the air taxi industry record is problematic. We've been talking about fatigue in terms of the number of hours flown by a pilot, but is there also concern about the number of takeoffs and landings that a pilot might have to do in the course of a shift?

Ms. Kathleen Fox: Our air taxi study is going to look at a number of factors that have affected accidents and incidents in that area, and fatigue will certainly be one of the aspects we're looking at. Takeoffs and landings are certainly a very critical phase of flight, and most accidents occur in one or the other phase. If somebody is doing a lot of takeoffs and landings in a day, that's certainly something that can play into their fatigue.

Mr. Vance Badawey: I have a quick question.

Mr. Hardie earlier asked you about the lack of resources throughout the past 10 plus years, in which you said those challenges did exist. In your opinion, what would have been the cause for a lot of the recommendations or the deficiencies you've recognized? What, in your opinion, would have been the challenge throughout the past 10 years with Transport Canada not addressing those challenges?

Ms. Kathleen Fox: The TSB's concern is primarily with those that date from more than 10 years and more than 20 years. If you look at Transport Canada's response to our recommendations, the first response is often that they're going to do a study, they're going to hold a focus group, they're going to consult industry, they're going to harmonize with international standards, or they're going to look at what's happening in the U.S. Then sometimes that approach changes. Sometimes they opt for a voluntary rather than a mandatory approach, and then it just seems to carry on and on.

In terms of what's going on inside the department, I can't answer that question. I can only say that we've just gotten to a point where we say it's too long. There are known risks out there that could be addressed and that aren't being addressed.

Mr. Vance Badawey: This is my last question. With respect to moving forward now, I have to give a lot of compliments to the entire committee around the table with respect to being very pragmatic on a lot of the issues we've dealt with in the past year, railway being one of them. Obviously, from your comments, you would support the recommendations coming from this committee on aviation study, on safety, in terms of not only what we discussed earlier with respect to airports but also fatigue and a whole gamut of challenges I'm sure you recognized throughout your years and in the deficiencies you've brought forward, as well as our reporting those back to Transport, and of course it being pragmatic in actually implementing some of those recommendations.

Ms. Kathleen Fox: I'm sorry, I'm not clear on the question.

Mr. Vance Badawey: The question is whether you would support the direction this committee would take.

Ms. Kathleen Fox: Yes. I think we have limited resources at all levels in the industry, and it's important to identify the real safety risks and where we need to focus the resources and the level of effort in order to get to the real safety problems. That's why we have identified on our watch-lists the issues we believe pose the greatest risks to aviation.

Mr. Vance Badawey: If I may say so, that's exactly what our intentions are.

Thank you.

The Chair: Thank you all very much.

I will suspend and say thank you to the witnesses at this time. We will be cutting short our next presenters as well, so I'd like to try to give them as much time as we can.

I'm sure if the committee members have additional questions, Ms. Fox, they're able to email or communicate with you to get those answers. If you have additional information on any of the questions you heard today, please supply it to the clerk. We would appreciate supplementary answers if you have any.

I will suspend momentarily so that the upcoming group of witnesses can take their places.

Thank you very much.

● (1150)

(Pause)

● (1200)

The Chair: I am calling our meeting back to order.

For the second 45 minutes, we have Fred Jones, president and chief executive officer of the Helicopter Association of Canada, and Carlos DaCosta, airline coordinator at the International Association of Machinists and Aerospace Workers in Canada. We also have, as individuals, Jonathan Histon, adjunct professor at the University of Waterloo, and, by video conference, Gregory Belenky, research professor at Washington State University.

Thank you, all, very much for joining us.

I will turn to Mr. Jones to open up our discussion.

Mr. Fred Jones (President and Chief Executive Officer, Helicopter Association of Canada): Thank you, and good afternoon.

You have a copy of my written introduction notes in front of you. I am going to skip over the mandate of the Helicopter Association of Canada and the part about myself, but I would like to take a moment to introduce Sylvain Séguin, who is attending with me here today. He is vice-president and COO of Canadian Helicopters Limited, the largest Canadian domestic helicopter operator. He is also the immediate past chair of the Helicopter Association of Canada board of directors. He served on our board for the last seven years.

We have structured our presentation to tailor it to the items identified in your aviation safety outline.

Thank you for the opportunity to appear before the committee on the subject of aviation safety, an issue very important to the Helicopter Association of Canada.

We are the national voice for the helicopter industry in Canada. There are currently more than 2,800 helicopters registered in Canada, of which more than 1,800 are commercially registered. In the commercial sector, our industry employs 6,200 full-time equivalents, with employees earning over $500 million annually. With indirect employment, this increases to 8,900 full-time equivalents and a $640-million annual payroll. The average full-time wage is $80,000.

The sector generates GDP of almost $1 billion, and $2.1 billion in economic impact annually. The annual tax contribution is approximately $285 million at all levels of government. We are pleased to provide the committee with a copy of a recent independent economic impact study that will provide more specific details on these economic factors and what it is that the members of the association do.

The Canadian helicopter community is actively involved in the development of industry best practices. I sit on the executive committee of the International Helicopter Safety Team. In the last 10 years, and in the face of rising utilization, we have seen our accident rate decline significantly. I direct you to the HAC website and the International Helicopter Safety Team website for further details.

Helicopters are a unique, vital, and often irreplaceable form of transportation in Canada. We are often the only option to reach many remote locations. We lead and support life-saving missions, including search and rescue, emergency medical transport, and evacuation from disaster-stricken communities. The recent Fort McMurray wildfire and major accidents on the Sea-to-Sky Highway are common scenarios.

Mining and resource sectors are heavily dependent on helicopter services for surveying, development, and ongoing support of major mining and oil and gas developments. Offshore oil, the oil sands, and most mining developments, due to their remote nature, depend heavily on helicopter support, making the helicopter industry a crucial component of the primary economic drivers of the Canadian economy. Without helicopters, these activities could not happen, or they would cost considerably more to carry out.

On the subject of personnel issues, this past week Transport Canada issued a notice of intent to proceed with new fatigue management regulations for pilots, with the draft regulations to be gazetted later this spring. In a letter two months ago, and when we met with Minister Garneau two weeks ago, we specifically asked the minister to pause this process to allow parliamentarians on this committee the full opportunity to do their work with this study. We also asked him to pause while the Transportation Safety Board concluded its investigation into air taxi accidents. Unfortunately, this pause did not occur.

First, let me be abundantly clear. The Helicopter Association supports reasoned efforts to improve aviation safety that are proportional to the risk. These new regulations, however, are not proportional to the risk and will serve only to put our services beyond the reach of Canadians in many areas. Fatigue-related risks are largely being managed in the helicopter industry, which is not to say that some changes should not occur. But the proposed changes will erode safety, not improve it. What's more, when changes do not improve safety, they will make it more difficult and costly for our members to provide essential and life-saving services.

You may have heard, “A pilot is a pilot, and fatigue is fatigue”, but one set of rules cannot apply to everyone. Helicopter operators cannot be regulated on this subject like the airlines. Unfortunately, this view has pervaded the Department of Transport right up to the minister's office, and the result is a flawed, one-size-fits-all set of proposed regulations. They will not improve safety but will erode it, in our view.

Our pilots are subject to fatigue, but it must be addressed differently in our industry than in the airline industry, for the following reasons.

Because of the seasonal nature of the work that we do, particularly our service to remote and northern communities, HAC would argue that the proposed new regulations are more suited to the airlines than they are to helicopter operations. They do not adequately contemplate deployed camp operations, where our pilots live on the job site while conducting remote operations. Helicopter pilots are not airline pilots.

● (1205)

Another reason is the unscheduled work that we do in deployed operations, which is often at a camp setting where replacement crews are difficult to supply, particularly on short notice. There are long daylight hours in northern Canada. As well, it is important to consider the life-saving emergency medical services, or EMS operations, in our work in support of the resource industries.

In the helicopter world, the proposed rules will do little to advance safety and in most cases are not supported by anchor points in the fatigue-related science—most notably in the removal of the zeroing provisions and the use of cumulative duty hours.

HAC would argue that these new regulations will affect safety but in a negative way, particularly for the majority of helicopter operators who provide services in Canada's most isolated regions.

Would limiting pilots to one hour of flying each day reduce the effect of fatigue on safety? I use this ridiculous example to illustrate that the key to balancing the restrictive nature of the regulations with their impact on safety is to ensure that the restrictions they impose are proportional to the risk that they are trying to remedy.

HAC—

The Chair: I'm sorry Mr. Jones, I'm going to have to cut you off just so everybody can get a chance to speak.

We do have your additional comments before us and if you can include them in any of your answers to the questions, that would be great.

Mr. Fred Jones: I'd be happy to.

The Chair: All right.

Mr. Belenky, via video conference, would you please go forward for five minutes?

Professor Gregory Belenky (Research Professor, Washington State University, As an Individual): Thank you, ma'am.

I do research in sleep and human performance. I work primarily now with the commercial airlines in the United States, specifically United Airlines. We study sleep and performance in what we call the operational environment, among pilots flying commercial flights.

As the gentleman just said, fatigue is fatigue; pilots are pilots. They are human beings, and they fatigue; it really is the same thing. The physiology, though, needs to be understood and used to support meaningful and useful regulations.

The sleep-related factors that affect performance are: time awake, an obvious one; time of day—there is the circadian rhythm in performance and alertness, with lowest performance and highest drowsiness and tendency to fall asleep occurring in the small hours of the morning, so time of day is important—and time on task, leading to acute fatigue relieved by time off task. These three things are common across humanity among fatigue issues.

In commercial aviation, flights can be scheduled at any time of the day or night, often with one flight then giving way, after a recovery period, to another, and so on. We have in the U.S. focused on regulatory schemes that are to a degree one-size-fits-all, but recently we've moved away from that and are looking not only at fixed regulations but at systems by which one could adapt and exist "outside the regulatory envelope"—this is the term we use.

This is called fatigue risk management. One establishes a preliminary safety case that a flight is safe, usually by using mathematical models or historical experience, depending upon where your interests lie. Once you've established in a preliminary way that it looks as though it will be all right, you then make measurements in flight of the active pilots, particularly at top of descent, when the most critical phases of flight typically occur. Once one demonstrates that there is equivalence in safety between "in compliance with the regulations" flights and the exception, the non-traditional flight, then one can fly that flight and do periodic data assessments to make sure one is safe.

Among critical things, in general in our measurements, the longer the flight the safer, because there is more sleep opportunity, and the more sleep people get.... We think in terms here of four-pilot crews with only two required in the cockpit at any given time during cruise.

Another critical thing is time of day. One should avoid, if one can, takeoffs and landings in the small hours of the morning, especially between 4 a.m. and 6 a.m.

There is one more thing, if you will indulge me. One very useful intervention in counteracting fatigue in four-person or in two- or three-pilot crews is whether in-flight cockpit napping is sanctioned. This was pioneered in the U.S. in studies at NASA but then not adopted because of what we call the Jay Leno effect: would they laugh? This is now done all over the world, except in the U.S.

I think this is good by way of introduction. I'd be happy to take comments and questions and join in discussion.

● (1210)

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

Mr. DaCosta, take five minutes, please.

Mr. Carlos DaCosta (Canadian Airline Coordinator, International Association of Machinists and Aerospace Workers in Canada): Thank you.

I will cut my introduction a little short. My name is Carlos DaCosta, responsible for transportation across Canada. The IAM is the largest union in the air transport sector in both Canada and North America. We represent over 50,000 members in Canada, 20,000 of whom work in the aviation, aerospace, and air transport sector. We represent over 500,000 members in North America.

In the airport security sector, we represent the majority of the pre-board screening officers in Canada, including those in the Pacific region and in both airports in Toronto, who provide safety and security screening to the travelling public on behalf of CATSA and Transport Canada as well as other security services in the perimeter of the airport. In the ground handling sector, we represent workers across Canada at such companies as Air Canada, Air Transat, and Air Labrador, just to name a few. We represent a lot of members in this industry.

We welcome the opportunity to appear before the TRAN committee to express some of our recent concerns. This represents the view of IAM members who have been surveyed across the country. There are two areas that we will be raising. The first one will be the safety management systems, or SMS, under the control of Transport Canada. The second one will be concerns regarding airport pre-boarding screening under the control of CATSA and Transport Canada.

On the first one, I was going to get into a brief bit about SMS. Basically, according to Transport Canada regulations, the industry is required to put a safety management system in place as an extra layer of protection to help save lives. When this was first implemented, we were very critical of the program, and we had some serious concerns about how it would turn out.

Moving fast-forward to today, we looked at the SMS process and broke it down into four different areas. There's the reporting stage, where a technician comes forward and reports an incident. The second stage would be the investigation carried out by the company. The third one would be the resolution process to try to address the issue raised. The last one would be the communications stage, whereby all parties to the complaint are notified as to what took place.

Unfortunately, there are too many problems. We found that in certain companies in certain areas of the country—not all of them—too many problems are occurring during this process. For some of them we're getting reports that there does not appear to be efficient tracking of SMS items submitted, and they're not being followed up properly and reported. A lot of times we find that the process seems to disappear or go silent at the second step of the process.

The other complaint we're getting is that there appears to be a lack of resolutions and communications implemented by the companies in certain areas. That's what the mechanics who report these incidents are finding. They're not getting the proper follow-up. As a recommendation, we're asking that Transport Canada conduct more inspections on a more regular basis. Perhaps they can start to uncover some of these situations and put corrections in place.

The second item is the whistle-blower protection under the SMS process, which we find is a bit on the weak side. We found it very alarming to be told by many of our members that they do not feel confident with the process. It's not in every company and in every province, but we're finding that in British Columbia, Ontario, and Quebec there seems to be a higher rate of concern where members do not trust the system. We're getting various reasons. They're concerned for their well-being in the company and so on.

However, in Alberta there were some issues in the past where members finally had enough in one company in one location. They approached Transport Canada inspectors. The inspectors went into the workplace. We're told that as of today, everything seems to be running smoothly. Here's one example of where Transport Canada did intervene. They brought both sides together, the company and the workers. Whatever they did there seemed to work, because they have no complaints whatsoever. We're recommending that Transport Canada address this issue by creating a better atmosphere for workers to report safety hazards.

We're also asking if perhaps Transport Canada should be looking at a confidential survey to see what kind of atmosphere exists out there and if indeed there is a large problem where many technicians are not reporting situations.

● (1215)

The Chair: Thank you very much, Mr. DaCosta. Whatever critical points remain, I'm sure with the questions you'll have a chance to get those answers in.

Mr. Histon.

Mr. Jonathan Histon (Adjunct Professor, University of Waterloo and Lecturer, University of Western Ontario, As an Individual): Thank you.

Good afternoon, and thank you for this invitation to appear before the committee.

My name is Jonathan Histon and I have been involved in the study of aviation human factors and aviation safety for just under 17 years. I currently lecture in aviation safety and aviation human factors in the commercial aviation management program at Western University in London, Ontario, and hold an adjunct appointment as an assistant professor in the department of systems design engineering at the University of Waterloo. In addition, throughout my career, I have consulted with airline, air traffic control, and equipment manufacturers, amongst other organizations.

My expertise is in the area of human factors, or the relationship between human operators, technology, and system design. As director of the Humans in Complex Systems lab, I have led projects examining airspace design and its effect on complexity, UAV integration into controlled airspace, simulator use in air traffic controller training, and the use of flight data to identify emerging human factors challenges.

From my perspective, the philosophy behind the core of Canada's aviation safety approach, safety management systems, reflects what I understand to be the best practices in the safety literature, namely, a focus on continuous improvement, data collection and data-driven decision-making, and the fostering of a learning culture that understands mistakes and errors will occur, and the most important thing, how the system responds, mitigates, and corrects.

System is a key word. I think it is most valuable to think of safety as an emergent property, something that emerges from the interactions between the many parts of a system. The task of getting an airplane or helicopter off the ground and to its destination safely is one that requires contributions from an immense range of talent: mechanics, controllers, ground crew, flight crew, and all the broader systems behind them.

The design of how all these parts interrelate and work together is critical to establishing effective defences that prevent catastrophic situations from occurring. Perhaps most importantly, a system perspective helps move attention away from errors made by individuals and directs it towards the broader context those individuals are operating in. It forces us to question how the system could be improved for the future.

I want to use my remaining time to briefly raise some key challenges that I see facing the industry. One of the critical challenges that many, if not all, organizations face is what is termed in the literature as procedural drift, practical drift, or normalization of deviance. In a short form, these terms capture the observation that how work actually is done is often quite different from how it should be done according to written procedure.

The difference is usually a consequence of the multiple pressures workers and managers face: time pressure, equipment malfunctions, poor or repurposed design in terms of equipment, and just changing conditions. It's a complex problem and I'm not here to offer easy solutions. Introducing more rules or stricter penalties with the well-intentioned goal of increasing accountability and deterrence run the risk of creating adversarial relationships, creating an atmosphere of blame and cover-up, and are not long-term solutions if the underlying pressures created by the systems design aren't addressed.

This leads me to a second challenge: preserving and enhancing the ability of organizations to observe their own performance through the collection and protection of safety data. Processes we've just heard about, such as confidential reporting systems, immunity protocols, and operational data analysis can provide key insights, including helping to identify cases of normalization of deviance. But collecting such data also requires a lot of trust, as you just heard. That trust is that the data collected won't be used for punishment or otherwise misused for non-safety purposes.

I think data collection can be particularly challenging in organizations that do not have the scale to support the processes that the big airlines, as one example, have. Confidential reporting systems are great in theory, but may not be all that confidential in a very small operation. Across all organizations, however, I firmly believe that the more an organization knows about where its vulnerabilities are, where mistakes are being made, the better that organization can adapt and respond.

A final challenge that I'll direct your attention towards is determining how to assess training needs in a rapidly changing technological environment. New technologies are coming, whether in automated ground service vehicles at airports or new autopilot modes. There are a lot of things that are going to be changing. New technologies and new forms of automation will change training needs and raise questions such as how proficient operators have to be using the automation, and also when the automation isn't available, in non-automated operations. Are there legacy training requirements that are no longer appropriate, and has due consideration been given to the skill foundations built by that legacy training?

● (1220)

The Chair: Mr. Histon, I'm sorry. I have to cut you off. Members have a lot of questions.

Ms. Block.

Mrs. Kelly Block: I want to thank all our witnesses joining us today, not only for the testimony that we're hearing today. I also want to thank members from the industry who have made the effort to meet with members of Parliament, over the last number of months, to raise the issue around the recently issued notice of intent and some of the concerns around it, which I believe fuelled a desire to put forward a motion to have a study like this. I want to thank you for that.

Mr. Jones, I want to return to your opening remarks. I know there was quite a bit you didn't get to because of the time that each one of you has. I want to speak to the statement you made in your opening remarks, which was, “These new regulations, however, are not proportional to the risk and will serve only to put our services beyond the reach of Canadians in many areas”. You went on to say that “the proposed changes will erode safety, not improve it”.

I really would like to give you an opportunity to expand on those observations in your comments.

Mr. Fred Jones: The proposal as written doesn't adequately address the helicopter industry's circumstances. A pilot is a pilot, but the same underlying fatigue issue can be addressed differently, based on the industry sector and the industry's circumstances. I and our association would argue that the current rules are such a monumental departure from the status quo that they have the potential to affect currency for pilots and to affect the experience level of pilots used in our industry.

At its heart, this issue is about regulations that are proportional to the risk of this issue, and we've argued that the Minister of Transport should wait for this committee to complete its deliberations and for the TSB to complete its air taxi study to find out, from those two sources, how big this issue is.

● (1225)

Mrs. Kelly Block: You stated that earlier in your comments, and so with the issuing of the notice of intent, it's my understanding that once these draft regulations are gazetted there will be an opportunity for a comment period. Do you believe that comments made during that time won't have any sort of significant impact on the draft regulations as proposed?

Mr. Fred Jones: Thank you. There are two issues I'd like to raise. One is that there has been very little departure by the department from the principles that were articulated in the working group report from a few years ago, so they have steadfastly proceeded down this road, in spite of advice from the Helicopter Association of Canada and others. That's one point.

The second point is that, once these regulations are published in *Gazette* , part I, it's been our experience that there's usually very little change made to them going forward after *Gazette* , part I; they're tweaked. Now is the time to make any changes, and particularly any significant changes, not post-*Gazette* , part I, because there is too much of an investment of time, effort, and drafting. The process has taken us years to get this far.

Mrs. Kelly Block: Okay. Thank you for that.

You've stated that a pilot is a pilot and fatigue is fatigue, that it's something that has been stated. I'm wondering if you could comment a little further on that. Will the new regulations affect different areas of Canada differently? Will the experiences of different Canadian helicopter pilots and their passengers be affected distinctly by these new regulations?

The Chair: Give a short answer, Mr. Jones.

Mr. Fred Jones: All right. I'll try my best.

They will radically affect remote operations, service to aboriginal communities, the mining industry, and the oil and gas producers. They will significantly affect the type of service they receive. I would argue that, in some cases, they will affect service that's available to some communities altogether.

The Chair: Thank you very much.

I'm holding everyone to five minutes in order to give everyone their opportunity.

Go ahead, Mr. Badawey.

Mr. Vance Badawey: Just quickly, I did take note, Mr. Histon, of the comment you made about how work is done versus how work should be done. That's a great point. The only way we can move forward with recommendations is to work with folks like you and those who are in the business getting their hands dirty and greasy, who have wrenches in their hands, and so on.

I'm thinking out loud here a bit to try to get some input from you folks. Protocols need to be established. Obviously it's one thing to have regulations and things on paper but it's more important to have those protocols in place that we can apply to our daily jobs. Strategic measures followed by ongoing performance measures are critical. Again, it's the folks on the floor, working on the planes with their hands, who can best establish that.

It's somewhat déjà vu because we discussed this during the Bill C-10 deliberations as well with respect to creating performance areas, clusters, centres of excellence to ensure that this work gets done in a proper manner vis-à-vis protocols being put in place.

What are your thoughts on that process? I'm trying to be pragmatic. As I said earlier, our intent is to come forward with recommendations and implement those recommendations or ask the minister to implement those recommendations, so what are your thoughts on the comments made?

Mr. Jonathan Histon: I want to emphasize it is important to have procedures written down. It is important, as you said, to have those protocols put in place. When it comes to assessing whether things are being done safely, it is insufficient to simply review paper documents. This doesn't necessarily need to be a regulatory action, but there is a need that somewhere in the process, somewhere in the system, there is a culture of checking up on how we are doing and whether we have drifted away from what we said we were going to be doing.

There would be very good, practical reasons why that occurs. This is not people being nefarious, getting away with things. It's that things change. There can be competing directives and procedures and, as an organization, it is important that there be this continuous process of renewal and checking and re-establishing that the processes in place are safe. In my opinion, from my perspective, that's one of the great things that the philosophy of SMS tries to imbue into the culture of organizations. We can't just rest on our laurels. We can't just say we were safe last year and that's good enough. We have to keep on checking and be vigilant.

● (1230)

Mr. Vance Badawey: It's the culture of being proactive versus reactive.

Are there any other comments from folks?

Mr. Carlos DaCosta: I would have to agree with what Jonathan stated. We find that sometimes people change in their departments, and they need to be reminded of that culture because they are new to the system, and there needs to be a way you can measure whether those using the system feel comfortable using it or reporting situations.

Mr. Vance Badawey: Mr. Belenky, I was referring to process, trying to establish in partnership with those who are doing the job, not only on the floor with respect to the work being on the stock, the planes themselves, but the protocols that can be established, the performance measures based on the objectives established to be ongoing, so proactive versus reactive, as well as ensuring that we have those clusters, those centres of excellence that can be doing a lot of this work.

I wanted to get your thoughts on that.

Prof. Gregory Belenky: You make excellent points, and I agree with them. This is a process. Mr. Histon referred to emerging properties, these need to be continually maintained, refreshed, and so on, but we do have this co-operative relationship between union, management, and regulator, and we all meet together and we all hash these things out. We built the fatigue risk management system, FRMS, process with input from international bodies but the part of it we built ourselves came from this co-operative engine.

I've probably exceeded my time.

Mr. Vance Badawey: I'm trying to get you more time, but they won't let me.

The Chair: We were all listening with such intent here, but I'm sorry, yes, I have to go on to Mr. Aubin.

[*Translation*]

Mr. Robert Aubin: Thank you, Mr. Chair.

Since we're talking about time, I'd like to make a brief comment, which is meant to be constructive. I think that, when such high-quality witnesses are here, the number of witnesses should be limited to two or three per hour. When there are four witnesses, we lose part of the expertise provided.

That said, I'll immediately ask my first questions, which are for Mr. DaCosta.

You spoke in your opening remarks about an issue with the regularity of inspections. My question is twofold.

Should Transport Canada conduct inspections more often?

At this time, are inspections random or planned?

Are the inspectors competent enough to do their job, given that technology never stops changing?

[*English*]

Mr. Carlos DaCosta: Unfortunately, there are one or two of those questions I won't be able to answer, namely as to whether the Transport Canada inspectors are competent or not.

My understanding is that it is done randomly, and many times it is done at the request of one of the parties, who asks for Transport Canada to intervene. This was the case in Alberta, where they were having many issues with the SMS process. That's why we recommended that perhaps they should take a more hands-on approach, start finding out which areas are problematic, and go from there.

If anyone from Transport Canada or any of the committee members wish to contact me afterwards, I can provide specific information from the research section in our union as to which cities and which companies are having problems, and they can zero in on those areas.

[*Translation*]

Mr. Robert Aubin: I was taken aback by your remarks about whistleblowers. If these people don't feel protected within the company, they'll obviously stay silent and a potential issue won't be disclosed.

Do you have anything to propose to protect whistleblowers?

● (1235)

[*English*]

Mr. Carlos DaCosta: That's a tough one, because even when we were talking about the area where we found a lot of this feedback, these technicians were not willing to come forward and identify themselves to us. They identified themselves to our local reps, but they didn't want to notify themselves and have their names known to the headquarters of the union.

That's why we suggested that perhaps confidential surveys would go a long way. I don't know how you would do this, but there has to be something done whereby members feel comfortable using the system and there's no apparent threat of either their career growth being stunted or repercussions afterward in the workplace. That's what these members are saying. They're afraid. They've been coerced somehow by one or two people who operate in the SMS department, and they're very reluctant.

My concern is: what is going on unreported? Hopefully, somebody beside them is reporting the incident, bypassing the person who feels threatened.

[*Translation*]

Mr. Robert Aubin: Thank you.

I now have questions for Professor Belenky.

You spoke about the importance of taking into account the physiological factor in the regulations. Your recommendations included avoiding takeoffs and landings between 4 a.m. and 6 a.m. In terms of a 10-, 13- or 16-hour flight, is that the local time at departure or arrival?

How is the time difference taken into account on a physiological level?

[*English*]

Prof. Gregory Belenky: Well, these are long flights. Our experience has been that the longer flights are equipped with bunk facilities, so any two pilots can be sleeping while the other two are flying the aircraft. These flights are, if anything, safer, because the pilots have sleep opportunities. They take advantage of them and they sleep more on these longer flights.

It may be that the longer flights are actually, from a sleep perspective, better than shorter flights, because one has more opportunity and one generally takes it.

[*Translation*]

Mr. Robert Aubin: After how many flying hours should the mandatory number of pilots be changed?

[*English*]

Prof. Gregory Belenky: For takeoff and landing we usually like the crews to be the ones who had the most recent nap, but really, beyond that, avoiding the window of circadian low, if possible, before takeoff and landing is a good idea.

If you look at pilots over the long haul—three days prior to an international flight, during the flight, on the layover, on the return, and then back at home again for three days, so a nine- or ten-day period of time—what you see is that there is really only one night typically out of those nine or 10 nights where there is significant sleep loss.

Most people—

The Chair: Thank you very much. I've tried to stretch it here again.

Mr. Iacono.

Mr. Angelo Iacono: Professor Belenky, you raised my attention before when you talked about napping in the cockpit, and you said that the U.S. is one of the only countries in the world that is not adopting this. Can you clarify what that is all about? What are the benefits and disadvantages?

Prof. Gregory Belenky: The cockpit napping studies were done by NASA approximately 20 or 25 years ago. They showed really incontrovertible evidence that a 40-minute nap yields approximately 22 minutes of sleep and that this improves performance at top of descent.

There was an advisory circular all prepared. We were ready to launch, and then somebody raised the Jay Leno test, and I can only say that the issue was whether it would be made fun of on late-night TV, and that really killed it for the U.S. You saw similar things recently when the Secretary of Transportation said that we're not paying air traffic controllers to sleep.

Sleep is good. Sleep restores performance. Sleep sustains performance and, if you get seven or eight hours in every 24, you are going to be performing well.

● (1240)

Mr. Angelo Iacono: Thank you.

What recommendation would you make to the Canadian government with respect to fatigue? What is the most important recommendation you'd make?

Prof. Gregory Belenky: The most important recommendation is adequate sleep because sleep isn't just a mitigation, it's the fundamental thing upon which all this rests. I recommend looking at sleep opportunity, encouraging people to take the opportunity when they have it, and placing the opportunity at sleep-propitious times, which would be in the wee hours of the morning, the exact time when one should not be landing the plane, if one has the choice.

Mr. Angelo Iacono: Thank you, Professor.

I'll be sharing my time with Ken, Madam Chair.

The Chair: Mr. Hardie.

Mr. Ken Hardie: In the fisheries and oceans committee, we're talking a lot about a new approach by the regulator where DFO inspectors would be seen more as collaborators, or they would be brought in to have discussions and provide advice rather than being the heavy hand with a ticket-book in tow.

I wonder if the same sort of approach might be thought of on the air side by treating those transport inspectors like a resource. Bring them in, sit down, have a coffee, and discuss what's going on, not so much to blow the whistle, but just simply to trade ideas and up the game collaboratively.

Is that possible, Mr. DaCosta?

Mr. Carlos DaCosta: I would think anything that is tried by Transport Canada would help, would go a long way in making sure that the system is perfected even further. To just stand back and maybe audit the paperwork isn't doing any justice to the system.

You need to get to the bottom and you need to get the players, those who do the hands-on work and those who are handling the SMS complaints, to work together and understand the theory of SMS and what we're trying to achieve. We're trying to reduce air accidents to begin with, and we're trying to put in a culture whereby, if I make a mistake, I report it, and we come up with a solution so that someone else doesn't make the same mistake tomorrow. That needs to come back to the table, and everybody needs to understand the initial concepts.

Mr. Ken Hardie: I don't know if this necessarily applies to flying a plane or a helicopter, but there are certain activities that are described as long periods of boredom interspersed with moments of abject terror.

Mr. Belenky, we talk about flight time, but I'm wondering what actually goes on while the pilot is awake, especially on the long-haul flights. Everything seems to be automated. Are they just sitting there twiddling their thumbs? I've never spent any time on a flight deck, but could there be long periods of mental inactivity, if you like, that really take the edge off just as much as sleep?

Prof. Gregory Belenky: It doesn't work that way.

The real problem is lack of sleep. If you get adequate sleep, you will retain your ability to be attentive and to process information.

The whole attentional network, which is in the brain, shrinks and dims when you're fatigued or sleep deprived, and expands out to its full glory when you're well rested. You all know the difference. When you wake up after a good night's sleep, often simple solutions to problems that have been plaguing you reveal themselves.

Sleep is the essence. It's not rest. It's not time off. It's sleep. If you get seven or eight hours of sleep, you can work most of the rest of the time.

The Chair: I want to thank all of you for the valuable information you've given us today. It is possible we may be calling you back, but if you have any additional information that you think would be helpful for the committee as we move forward, we would very much appreciate you submitting it to the clerk for distribution to all our members.

I'm going to suspend momentarily so that the witnesses can leave the table and we can go on to our additional business.

● (1240)

(Pause)

● (1250)

The Chair: We're reconvening our meeting.

We're still in public session. We are not going into private session unless the members request that.

Mr. Aubin introduced the idea of this study. Moving forward, somehow you must have known that there was going to be some additional interest.

At the moment, what I have before me is a motion by Mr. Iacono. Would you like to speak to this or withdraw it? What would you like to do?

Mr. Angelo Iacono: Thank you, Madam Chair.

Indeed, I will withdraw my initial motion that was presented earlier today.

The Chair: You need unanimous consent to do that.

Does the member have unanimous consent to withdraw his motion?

Some hon. members: Agreed.

(Motion withdrawn)

Mr. Angelo Iacono: Thank you.

I would like to move on another motion, which is seconded by my colleagues Mr. Luc Berthold and Mr. Robert Aubin. I'll proceed by reading the motion, which is as follows:

> As part of the Aviation safety study that the committee commit to add up to two meetings commencing with an in camera session with appropriate security officials on the subject of screening of employees working in secure areas of airports.

The Chair: Is everyone in agreement with allowing Mr. Iacono to introduce that motion, seconded by our other two vice-chairs?

(Motion agreed to)

Mr. Luc Berthold: That's a nice surprise.

The Chair: Let me just tell you that it is so nice to have a committee that recognizes important issues and works well together. This is about airport and airline safety, and it affects all of us no matter where we live.

My thanks to the committee for their great work today.

We look forward to our next meeting.

This meeting is adjourned.

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