

TRANSPORTATION APPEAL TRIBUNAL OF CANADA

BETWEEN:

Minister of Transport, Applicant

- and -

Captain Jens Grotkopp, Respondent

LEGISLATION:

Aeronautics Act, R.S.C. 1985, c. A-2, s. 7.7

Canadian Aviation Regulations, SOR/96-433, s. 602.31(1)

Review Determination
James E. Lockyer

Decision: February 20, 2004

Captain Jens Grotkopp did not contravene subsection 602.31(1) of the Canadian Aviation Regulations and the monetary penalty of \$250.00 is rescinded.

A **review hearing** on the above matter was held Tuesday, January 13, 2004 at 10:00 hours, at the Federal Court of Canada in Montréal, Québec.

BACKGROUND

On May 27, 2003, a Notice of Assessment of Monetary Penalty was sent by the Minister of Transport to Captain Jens Grotkopp, the pilot-in-command of Air Canada Flight 401. It stated:

Pursuant to Section 7.7 of the *Aeronautics Act*, the Minister of Transport has decided to assess a monetary penalty on the grounds that you have contravened subsection 602.31 (1) of the *Canadian Aviation Regulations*.

On February 26th, 2003, at approximately 1230 UTC at Montreal Intl (Dorval) airport, while pilot-in-command of flight ACA401, you did not comply with the air traffic control instruction to hold short of runway 28 on taxiway Juliet.

A monetary penalty of \$250.00 was assessed against Captain Grotkopp.

THE LAW

Subsection 602.31(1) of the *Canadian Aviation Regulations* (CARs) provides:

Compliance with Air Traffic Control Instructions and Clearances

602. 31 (1) Subject to subsection (3), the pilot-in-command of an aircraft shall

(a) comply with and acknowledge, to the appropriate air traffic control unit, all of the air traffic control instructions directed to and received by the pilot-in-command; and

(b) comply with all of the air traffic control clearances received and accepted by the pilot-in- command and

[...]

ISSUE

Did Captain Grotkopp contravene subsection 602.31(1) of the CARs, in that he failed to "comply with an air traffic control instruction to hold short of Runway 28 on Juliett"?

In determining this issue, I am required to determine whether Captain Grotkopp received an instruction from either the ground controller or the air controller, at any time while proceeding along Taxiway Juliett, to hold short at the hold short line, or, whether the requirement to "hold" at the hold short line was waived by a controller prior to the arrival of Air Canada 401 at the hold short line.

Captain Grotkopp's position is that he received a clearance from the ground controller to contact the tower controller prior to crossing the hold short line and that the transfer to the tower controller required Captain Grotkopp to now follow the tower controller's instructions. He believed the requirement to stop at the hold short line was waived.

EVIDENCE

The de-icing apron at Montreal International Airport is located approximately mid-field between the airport's two main runways (06L/R-24L/R). It lies adjacent and parallel to the airport's third runway, 10-28.

To access Runway 10-28 from the de-icing apron, two curved taxiways are provided; Kilo and Juliett. Kilo is the shortest and exits directly onto Runway 28. Taxiway Juliett is the longer of the two and is somewhat indirect in the sense that it does not directly exit on to Runway 28. Rather, it proceeds to intersect Taxiway A which is then used to access Runway 28. The result is that an aircraft exiting the de-ice apron via Taxiway Juliett, must intersect Taxiway Alpha and then proceed to the threshold of Runway 28.

Taxiway Juliett is approximately 2000 feet long (660 yards). Just prior to the intersection of Taxiway Juliett with Taxiway Alpha, there is a "hold short line". A rough measurement would suggest this hold short line is about 1800 feet along Taxiway Juliett from the de-icing apron and about 400 feet from the edge of Runway 28.

The hold short line is located in this position instead of on Taxiway Alpha in order to meet the requirements of TP 312. Rather exceptionally, when holding at this hold short line, pilots find themselves in the unusual position of holding for clearances on Taxiway Juliett at an angle of 180 degrees to Runway 28 instead of the usual 90 degrees. The location of the hold short line on Taxiway Juliett is identified on the airport taxi chart.

The hold short line on Taxiway Juliett has been the location of numerous runway incursions. The evidence indicates that Air Canada issued a "Flight Operations Standards Update" a year earlier in February 2002, on the subject of runway incursions at Montreal International Airport. The report indicates that the number of runway incursions in the 7 months preceding the issue of the Standards Update reached 18. The report states:

Most of the runway incursions in YUL would be better defined as approach path incursions. They were committed by crews who, without clearance, taxied beyond a fully marked runway hold short position while exiting the de-ice bay via Juliett where the taxiway intersects the approach to Runway 28.

The Standards Update continues:

To quote from the AIP departure procedures: "If a pilot is required to cross any runway while taxiing towards the departure runway, the ground or airport controller will issue a specific instruction to cross or hold short. If a specific authorization to cross was not received, pilots shall hold short and request authorization to cross the runway." This also applies when approach paths are marked and signed as runway hold short positions.

Finally, the Air Canada Standards Update concludes with a warning to pilots:

Last minute editorial note: After three runway incursions on the weekend of Feb. 23rd the runway incursion problem in YUL has become a major safety concern. Over the last 7 months in YUL alone at least 36 Air Canada pilots have taxied beyond a clearly marked hold short position (hold short markings, wig wags, and a runway identification / hold short sign) without clearance. Be warned: Transport Canada advises that any further incursions will result in enforcement action.

The seriousness of the problem at the hold short line on Taxiway Juliett was reiterated with an article in the Transport Canada Aviation Safety Letter dated 4/2002 and reprinted in the Air Canada Flightline magazine dated Winter, 2003. This article entitled, *At Dorval, I keep my eyes peeled on Juliett*, provides information on the incursion problem at the location of the hold short line on Taxiway Juliett and identifies a number of measures being taken to prevent runway incursions. The article describes these measures as follows:

The marking of the holding position on Juliett, clear of Runway 10- 28 was improved by:

1. repainting the stop line and doubling its area;
2. altering the holding position sign for greater clarity; and
3. adding two runway guard lights to draw pilot's attention to the position of the stop line.
 - o User awareness programs were set up.
 - o Air Canada communicated the problem clearly in its internal publications and training.
 - o Official publications will be revised to draw attention to the unusual placement of the holding position on Juliett protecting Runway 28.
 - o A warning message will be posted on the Dorval Tower ATIS when the de-icing pad and Runway 10-28 are in use.
 - o The phraseology of all parties was reviewed for accuracy and consistency with established standards.
 - o Appeals for vigilance, already made to controllers, will be repeated on refresher courses and expanded to pilots.

It is evident that the incursion problem on Taxiway Juliett at the hold short line was both serious and notorious and that efforts by all parties, controllers, pilots and users, were being requested to assist in reducing runway incursions at that location.

On February 26, 2003, Captain Jens Grotkopp was piloting Air Canada Flight AC401 departing Montreal at 1230 UTC (7:30 a.m. local) on a Rapidair flight to Toronto. The aircraft was a Boeing 767 with a full load of passengers. The day was clear with a few clouds at an altitude of 21,000 feet. The temperature at ground level was -21 degrees. The weather report (METAR) for the hour of 1200UTC indicated "FROIN" (frost on the indicator).

Captain Grotkopp testified that, weather-wise, it was a "good day". There was hoar frost (light coating of ice) on the wings. De-icing was necessary. After receiving the appropriate clearances, he piloted the aircraft to the de-icing apron. After completion of the de-icing process, he contacted the ground controller and requested permission to proceed onto Taxiway Juliett.

The ground controller cleared Air Canada 401 to proceed onto Taxiway Juliett. As the aircraft was proceeding along the taxiway, the crew of Air Canada 401 completed 3 to 4 minutes of pre-take-off checks, and passenger announcements.

Captain Grotkopp testified the aircraft was moving at a "crawl" with a maximum speed of approximately 10 miles per hour. The taxiways were slippery with black ice and there may have been some blowing or drifting snow along the taxiway. He states he was in no particular hurry to arrive at the end of the taxiway.

Referring to the location of the hold short Line on Taxiway Juliett, Captain Grotkopp testified, in his direct evidence, that he "knew exactly where it was – no problem". He also indicated in cross-examination, that the warning (wig wag) lights identifying the hold short were "in plain

view" and not covered with snow. He also indicated in a signed statement in an Air Canada Air Safety Report completed after the occurrence, "...with all recent publicity about this point it is doubtful Capt. would have passed it without clearance".

I am satisfied Captain Grotkopp knew of the exact location of the hold short line on Taxiway Juliett. I am also satisfied he knew of its significance, and the need to obtain a clearance in the appropriate circumstance.

As he was proceeding along the taxiway, Captain Grotkopp testified he did not receive any instruction from the ground controller to "hold short" of runway 28. Rather, he testified that on contacting the ground controller, the specific instruction he received was to "contact tower 119.9, short of Runway 28 on Juliett".

Captain Grotkopp did not stop his aircraft at the hold short line on Taxiway Juliett because, according to his testimony, he believed he was cleared by the ground controller to contact the tower controller for runway and departure instructions on Taxiway Juliett prior to arriving at the hold short line.

There is no evidence Air Canada 401 was past the hold short line when the ground controller instructed Captain Grotkopp to transfer to the tower frequency.

Mr. Peter Collins, the Montreal International Airport Tower air controller on duty on February 26, 2003 at 1230 UTC was called as a witness by the Minister. His career, as an air traffic controller, spanned 27 years in different locations across Canada. He had recently transferred to the Montreal tower, and had just completed an extensive 5-6 week training course on air operations and tower procedures at the Montreal International Airport and its airspace. The training course included a tour of the airport facilities and layout. He testified he was familiar with the hold short line, the warning lights (wig wags) and signs on Taxiway Juliett. He testified he was aware of the incursion problem associated with Taxiway Juliett.

Mr. Collins was certified to work, under supervision, in the Montreal International Airport Tower as of January 2003. At the time of this incident, he was classified as a "trainee controller" for that location. The alleged contravention occurred during his first week working as a controller at the Montreal tower.

The Nav Canada tape records for the Montreal tower's exchange with Air Canada Flight AC 401 were introduced in evidence. Mr. Collins identified his voice as the controller on the "air mike" portion on the tape. The responses from Air Canada 401 suggest that two persons responded to the transmissions from the tower.

Two transcripts were prepared from the tape; one by Nav Canada and the other by the case investigator Mr. Guy Hamel of Transport Canada. The versions differ slightly, but the substance remains the same. Mr. Collins, after listening to the tape while on the witness stand, hand wrote his version of one part of the transmission where it appeared a discrepancy existed between the two versions.

Both transcripts, as well as the tape recording and the handwritten clarification provided by Mr. Collins, were accepted in evidence.

The radio exchange between AC 401 and Montreal Tower is transcribed below including the insertion of the clarification provided by Mr. Collins (marked by an asterisk). The exchange involves transmissions first, from the ground controller while AC 401 was moving slowly along Juliett and, second, the set of transmissions involving those of Mr. Collins.

The Nav Canada tape record indicates there is a time lapse of 50 seconds from the moment of the handover from the ground controller to the tower controller. Captain Grotkopp's testimony is that, having received no hold short instruction from the ground controller, the aircraft continued to move along Taxiway Juliett at approximately 10 miles per hour and then contacted the tower controller.

Ground freq. from 1228:08Z to 1228:38Z

AC 401	Good morning, Ground Air Canada 401, taxi...(unreadable)...for 28
Ground	Air Canada 401 heavy Ground, runway 28, altimeter 30.47, contact tower 119.9 short of runway 28 on Juliett
AC401	30. 47, short runway 28, AC401

Lapse: 50 seconds

Tower freq. from 1229:28Z to 1230:29Z

AC401	Tower, Air Canada 401, short of 28
Tower	Air Canada 401, taxi to position on runway 28
AC401	Clear to runway 28, Air Canada 401
Tower	And Air Canada 401, just for your information sir, you passed the hold line by the time you called me.
AC401	Air Canada 401, Roger
Tower	* They are a little far back in that taxiway. It is a little deceptive but they are further back.*
AC401	(voice change) Must have missed it because there's a lot of snow on it.
Tower	Ok, we'll get them to check that.
AC401	Thanks
Tower	Air Canada 401, not too much delay rolling, traffic on final for the right, contact departure airborne, clear take-off runway 28.
AC401	Air Canada 401, clear runway 28, no delay.

Captain Grotkopp testified that his intervention on the tape relating to "snow" was simply a reflex response to the admonition of the tower controller, and was not factually based nor did it reflect conditions at the time. I accept this explanation. I also accept his other testimony that the hold short line was clearly visible.

The ground controller working Air Canada 401's movements up to the point of the hold short line was not called as a witness by the Minister nor was he or she present at the hearing.

I found both Captain Grotkopp and the tower controller, Mr. Collins, to be credible witnesses.

ANALYSIS

I wish to pursue Mr. Collins evidence on his perception of the location of the hold short line on Taxiway Juliett, followed by the exchange between the ground controller and Captain Grotkopp.

Much of Mr. Collins's evidence related to his perception of the location of the hold short line on Taxiway Juliett as seen from his vantage point in the tower. His testimony included as well his perception of where Captain Grotkopp's aircraft was located on Taxiway Juliett as he shifted his attention to it and began his "tower" communication with the pilot.

Mr. Collins testified that his position in the tower was approximately 4600 feet from the hold short line on Juliett. Mr. Collins further testified that he was not able to see the hold short line from the tower. He admitted, in cross-examination, that he "cannot actually say where the line is". He also testified he could not see the warning lights (wig wags) or warning signs at the hold short line on Juliett on the day in question. In fact, he testified that in order to compensate for his inability to see the line and the warning indicators from the tower, he uses line of sight to a reference point, located at an entrance to an adjacent apron at the Air Canada Maintenance Facility.

When asked, during cross-examination, to show his line of sight to the reference point on an exhibit, he hand drew a line in blue ink, on the Montreal International (Dorval) Ground Movement Chart (entered as Exhibit D-6). He testified this line indicated where he perceived, from the tower, the hold short line to be located. The line, Mr. Collins personally drew on Exhibit D-6, has two (2) crossing points on Taxiway Juliett; one approximately 200 feet ahead of the hold short line and another approximately 100 feet ahead of the line.

Mr. Collins admits he could not see the hold short line and that he "cannot" say where it was. His hand drawn line suggests two reference points; one of which may be up to 200 feet from the location of the hold short line. His testimony as to the location of the hold short line using his line of sight method raises questions. If Captain Grotkopp's aircraft was crossing these reference points then it may be that it was up to 200 feet away from the hold short line or, had still not crossed the hold short line.

The evidence is factually inconclusive as to whether the aircraft had passed the hold short line. I am, therefore, unable to conclude on a balance of probabilities that Captain Grotkopp's aircraft had, in fact, crossed the hold short line when Mr. Collins suggests it did.

I am satisfied on the evidence, and find as a fact, that Mr. Collins was unable to identify for the purposes of this matter, the actual location of the hold short line on Juliett at the time in question. He was therefore not in a position to conclude with certainty that there had been an incursion at that moment. I conclude that he may have been mistaken in his belief that Captain Grotkopp's aircraft had crossed the hold short line when he says it did.

There was no evidence from Mr. Collins as to his awareness of the details of the communication between Air Canada 401 and the ground controller. He did testify that the ground controller has authority to issue hold short instructions.

The ground controller in the above transmission instructs Air Canada 401 to:

Ground: Air Canada 401 heavy, Ground, runway 28, altimeter 30.47, contact tower 119.9, short of runway 28 on Juliett (emphasis added).

At no time, in this transmission, did the ground controller give an instruction to Captain Grotkopp to "Hold short of Runway 28 on Juliett", although he had the authority to do so. Rather, he instructed the pilot of Air Canada 401 to contact the tower when short of Runway 28 on Juliett. This is exactly what Captain Grotkopp did. There is no evidence of any hold short instruction issued to Captain Grotkopp, at any time, by either the ground or tower controller.

The A.I.P. Canada (which was referred to in Exhibit M-6) at RAC 4.2.5 states:

... If a pilot is required to cross any runway while taxiing towards the departure runway, the ground or airport controller will issue a specific instruction to cross or hold short...

If the ground controller wanted to issue a specific instruction to "hold short", there was a duty on the ground controller to be specific; the instruction must be to "hold short". The words used to communicate this intent must be clear and unequivocal. Captain Grotkopp was entitled to receive a "specific instruction" from the ground controller to hold short, providing that was what the ground controller wanted. Captain Grotkopp did not receive any such instruction. Rather, the "specific instruction" he received was to proceed on Juliett and short of Runway 28 contact the tower for departure clearance. He received a credible instruction and one on which he was entitled to rely as reflecting the wish of the ground controller. He complied with the instruction.

There is also no evidence on the tape recording that the ground controller witnessed Air Canada 401 proceed, unauthorized, past the hold short line. There is not, for example, an admonition by the ground controller during his communications with the pilot that the aircraft had already passed the hold short line without clearance. The lapse in time in the transmissions between the ground controller and the air controller would have permitted such an admonition by the ground controller.

The evidence also disclosed that there was ground radar in operation at the airport to monitor ground movements at the time in question. While this radar would not have disclosed the location of the hold short lines, Mr. Collins testified that ground radar would be of assistance in

determining the position of an aircraft in relation to the hold short line. If there had been a violation of the hold short line, one would expect that the ground controller would have reported the violation to the pilot similar to what Mr. Collins did, on his own account, as tower controller.

The only reasonable conclusion, in the absence of such evidence, is that the Air Canada 401 had not crossed the hold short line while the ground controller was controlling and communicating with the aircraft; otherwise, why would the ground controller not admonish the pilot for a violation?

Assuming the ground controller was attentive to his responsibilities and in the absence of contradictory evidence, I can only conclude that the controller saw no need to issue a hold short instruction, and he did not. On the contrary, he proceeded to instruct the pilot to contact the tower for further instructions.

To prevent runway incursions, there is a further check and balance designed in the system. The A.I.P. goes on to say in the next paragraph:

To emphasize the protection of active runways and to enhance the prevention of runway incursions, taxi authorizations that contain the instructions *hold* or *hold short* shall be acknowledged by the pilot providing the readback or repeating the hold point (emphasis added).

The pilot is required to "readback" a hold short instruction. The purpose of a "readback" is to confirm (in the controller's mind) that the instruction communicated to the pilot by the controller is understood by the pilot. The pilot is then required to implement the instruction. In the case of a hold short instruction, readback is also used to confirm the pilot is aware that the aircraft must stop at the hold short line and not proceed onto the runway; in order not to cause a runway incursion.

Readback presents the ground controller with an opportunity to correct any misunderstanding, on the part of the pilot, as to the instruction. If the readback is not consistent with the instruction, the ground controller must correct it to prevent any improper aircraft movement. An inappropriate readback must be corrected by the controller. Where there is no correction following the readback, the pilot is entitled to proceed in the belief that his or her perception of the instruction is correct.

The ground controller, after the readback, did not alter the instruction to ensure that the hold short procedure was included. He did not correct the impression in the pilot's mind that the hold short procedure was not required.

The requirement to hold short may be waived by a ground controller where, operationally, there may be no need, for an aircraft to hold short at that particular moment in time. For example, the instruction by a tower controller to "move to position" on a runway may be given prior to reaching a hold short line, in which case, the requirement to hold short is waived for operational reasons.

By not issuing a specific hold short instruction, and not perceiving a potential problem and correcting it upon the pilot's readback, the ground controller permitted the pilot-in-command to proceed in the reasonable belief that a "hold" at the hold short line on Taxiway Juliett was not required.

The seriousness and nature of the incursion problem on Taxiway Juliett required all parties, controllers, pilots, and users to be vigilant and to be clear on the necessary instructions. The pilot was of the belief the requirement to hold short was waived. The responsibility is on the ground controller to be sure and not create an alternative and reasonable interpretation of any instruction.

The duty of the ground controller in this case was to issue a specific instruction to hold short on Taxiway Juliett and correct any inconsistency on the readback inconsistent with this instruction. The tape recording introduced into evidence reveals the ground controller did neither.

The operative part of the ground controller's instruction was "contact tower 119.9 short of runway 28 on Juliett". A literal and credible interpretation of this transmission, in the circumstances, tells the pilot to contact the tower on 119.9, (while) short of Runway 28 on Juliett. That is what Captain Grotkopp did.

Alternatively, if the ground controller had said nothing or issued no instruction, and consequently, Air Canada 401 had not had any communication with the ground controller after entering Taxiway Juliett from the de-icing apron, Captain Grotkopp would have been required to stop the aircraft at the hold short line and request a clearance to cross (see RAC 4.2.5). The evidence indicates this is not what happened in this case. Captain Grotkopp received a specific instruction to contact the tower.

CONCLUSION

I find that Captain Grotkopp was entitled to proceed, and "contact tower 119.9 short of runway 28 on Juliett". This he did. Captain Grotkopp complied with subsection 602.31(1) of the CARs in that he complied with and acknowledged the air traffic control instruction directed to and received by him.

DETERMINATION

Captain Jens Grotkopp did not contravene subsection 602.31(1) of the CARs and the monetary penalty of \$250.00 is rescinded.

James E. Lockyer
Member
Transportation Appeal Tribunal of Canada