

TRANSPORTATION APPEAL TRIBUNAL OF CANADA

BETWEEN:

André St-Gelais, Applicant

- and -

Minister of Transport, Respondent

LEGISLATION:

Aeronautics Act, R.S.C. 1985, c. A-2, ss. 3(1), 6.71(1), 7.1(1)(b)

Canadian Aviation Regulations, SOR/96-433, s. 602.32

Responsibility of Pilot-In-Command, Pilot Proficiency Check (PPC)

Review Determination
Pierre J. Beauchamp

Decision: August 26, 2006

TRANSLATION

In the circumstances, the assessment of "failed" in the pilot proficiency check of Captain St-Gelais, dated November 2, 2005, must be upheld.

[1] A review hearing on the above matter was held on February 21, 2006, at 10 a.m. at the Commission des lésions professionnelles, 500 René-Lévesque Boulevard West, 18th floor, Montréal, Quebec.

OBJECT OF THE REVIEW HEARING

[2] On November 2, 2005, a pilot proficiency check (PPC) was conducted in Montréal on an Airbus A310 flight simulator. The crew consisted of Captain André St-Gelais and First Officer Martin Ducharme. Both are employees of Air Transat.

[3] The approved check pilot (ACP) was Captain Jean-François Carrier who, when this flight test was conducted, was receiving his annual PPC under the supervision of Inspector Ghislain Pigeon of Transport Canada.

[4] The PPC report shows that Captain St-Gelais failed. He requested a review of the decision.

LAW

[5] Subsection 6.71(1) of the *Aeronautics Act* (Act) reads as follows:

6.71 (1) The Minister may refuse to issue or amend a Canadian aviation document on the grounds that

(a) the applicant is incompetent;

(b) the applicant or any aircraft, aerodrome, airport or other facility in respect of which the application is made does not meet the qualifications or fulfil the conditions necessary for the issuance or amendment of the document; or

(c) the Minister is of the opinion that the public interest and, in particular, the aviation record of the applicant or of any principal of the applicant, as defined in regulations made under paragraph (3)(a), warrant the refusal.

[6] Subsection 6.72(1) of the Act reads as follows:

6.72 (1) Subject to any regulations made under paragraph 6.71(3)(b), an applicant, owner or operator who is served with or sent a notice under subsection 6.71(2) and who wishes to have the Minister's decision reviewed shall, on or before the date specified in the notice or within any further time that the Tribunal on application may allow, file a written request for a review of the decision with the Tribunal at the address set out in the notice.

[7] Subsection 7.1(3) of the Act reads as follows:

7.1 (3) Where the holder of a Canadian aviation document or the owner or operator of any aircraft, airport or other facility in respect of which a Canadian aviation document is issued who is affected by a decision of the Minister referred to in subsection (1) wishes to have the decision reviewed, he shall, on or before the date that is thirty days after the notice is served on or sent to him under that subsection or within such further time as the Tribunal, on application by the holder, owner or operator, may allow, in writing file with the Tribunal at the address set out in the notice a request for a review of the decision.

FACTS

[8] Four witnesses were called to testify to the facts corroborating the respective positions of the parties: for the applicant, Captain St-Gelais, the following two witnesses: First Officer Ducharme and Captain St-Gelais himself, and for the Minister of Transport, the following two witnesses: Check Pilot Jean-François Carrier and the Department's inspector, Ghislain Pigeon.

[9] The Minister's representative, Inspector Richard J.C. Gagnon, submitted that Captain St Gelais's failure of his flight test was due essentially to a violation of the 250 knot speed limit below 10 000 feet (section 602.32 of the *Canadian Aviation Regulations* (CARs)). This violation was committed while First Officer Ducharme had control of the aircraft and Captain St-Gelais was preparing the flight management system (FMS) for the holding pattern and approach to Montreal Airport, that the crew was to perform.

[10] This was the crucial element in the assessment of "failed". However, a series of relatively minor errors at various phases of the flight test, noted in the flight test report (exhibit M-4), led the check pilot, Captain Carrier, to assign a failing grade for this crew error.

Jean-François Carrier

[11] Captain Carrier testified that he has been employed as an Air Transat pilot for 10 years and as an ACP for the same company, and that he evaluated the crew on November 2, 2005.

[12] In performing this task, he used a script duly approved by the Minister, entitled A310 Script 1 (revision 1), dated September 16, 2005. The script had been in use for a few months and Captain Carrier had used it before to evaluate other pilots.

[13] It is important to note that Captain Carrier was also being evaluated by Inspector Pigeon from Transport Canada, who was on board and observed all the events that occurred during the flight test.

[14] At the Tribunal's request, Captain Carrier, in his testimony, established the sequence of events during the evaluation that led to an assessment of "failed" in what proved to be the final exercise, that is the return to Montreal Airport into a holding pattern preceding an approach. Captain Carrier testified as to the series of events that occurred during the flight test.

[15] It all began with a routine check of the aircraft at the departure gate. Captain Carrier noted that the captain had omitted to switch the crew oxygen system to "ON". This was a relatively minor error, which Inspector Pigeon attributed, in his testimony, to the nervousness of any crew during such a test. This omission is not mentioned in the flight test report (exhibit M-4), but is included in the personal notes of Captain Carrier, to which he referred during his testimony.

[16] Later, during engine start-up, Captain Carrier, as provided in the script, initiated an N2 rotation indication failure while starting the first engine, engine no. 2. Captain Carrier testified that when this failure occurred, the captain, who from memory should have immediately checked the status of the "HYD eng pump lo pr lights (affected side)" did not do so. He also indicated that the first officer performed this check for him.

[17] The engine start button is normally set from "START" to "OFF". After starting the second engine correctly while making his "FLOW" check, Captain St-Gelais inadvertently set the engine start button in the "CRANK" position, instead of the "OFF" position (from initial

position A or B). This setting of the selector to "CRANK" results in deactivation of the aircraft's air-conditioning packs.

[18] Captain Carrier testified that, in the circumstances, the only three events that could have deactivated these packs are the "APU BLEED" at "OFF", the starter set at "CRANK" or, lastly, a relay problem.

[19] In the circumstances, however, the crew was unable to identify the error and after checking, still failed to understand why the air-conditioning packs were not working. The problem was solved after maintenance control was called (with Check Pilot Carrier in the role of coordinator).

[20] Moving on to the next step in the script, which called for a "SERVO CTL JAM" on an aileron while the aircraft was taxiing to the take-off point, the crew was once again unable to solve this problem by correctly following the procedure indicated on the electronic centralized aircraft monitor (ECAM), or the *Quick Reference Handbook* (QRH) procedures.

[21] In the circumstances, while Captain St-Gelais was taxiing the aircraft, and the first officer was trying in vain to solve the problem by applying the procedure displayed on the ECAM and subsequently, at the captain's request, the procedure in the QRH, the problem was finally resolved by calling maintenance control.

[22] Captain Carrier testified that following this sequence of events, he began to question Captain St-Gelais's technical knowledge of the aircraft's systems, which accounted for his notes 1 and 23 in the flight test report:

[Translation]

1. Candidate shows poor knowledge and understanding of the aircraft's systems.
23. Deviation from checklist. Much ambiguity.

[23] Once this sequence was resolved, the aircraft finally took off. As the script required, Captain Carrier then initiated a failure entitled "left inner tank, # 2 pump low pressure".

[24] The crew correctly followed the procedure for correcting this failure. After another call to the maintenance control, in accordance with Air Transat standard operating procedures (SOPs), it was decided to return to Dorval Airport. At the time, the aircraft was about 50 miles from Montreal Airport, at an altitude of 17 000 feet.

[25] Captain Carrier testified that in such a case, it is normal for the pilot who will make the approach, once conditions have been stabilized, to initialize the FMS. He, therefore, hands over control to the first officer, who then becomes the pilot flying (PF), and the captain becomes the pilot not flying (PNF).

[26] As provided in the script, Captain Carrier cleared the crew to proceed directly to point LONNA to enter a holding pattern and maintain 3 000 feet, in anticipation of an approach to runway 24 right, using the beacon.

[27] In accordance with Air Transat's SOPs, Captain St-Gelais was then to prepare the aircraft and its navigation systems for the anticipated approach by applying a "FLOW" procedure. He testified that the procedure was correctly followed.

[28] The first officer, then in control of the aircraft operating on autopilot, had selected "OPEN DESCENT" in the descent control system, rather than the "MANAGED DESCENT" procedure. The speed protection system, which ensures an automatic speed reduction at 10 000 feet when a "MANAGED DESCENT" position is selected, was deactivated. Then, the PF had to make speed selections manually in the autopilot's speed control system by entering data in the flight control unit (FCU). Given the circumstances, the first officer had selected a descent speed of 300 knots. It was this error that led to the assessment of "failed".

[29] On approaching an altitude of 10 000 feet, the first officer should have called for the check made at 10 000 feet, in accordance with Air Transat SOPs. The first officer did not make this call and, in fact, descended through the 10 000 feet altitude at 300 knots.

[30] Air Transat SOPs require that the PNF make this call if the PF fails to do so at 10 000 feet. In the circumstances before us, at a descent altitude of 10 000 feet, the PNF should also have carried out a series of "FLOW" checks, followed by an approach check.

[31] In this case, none of these checks were performed. The captain was still busy programming the FMS. According to Mr. Carrier, he failed to notice the descent below 10 000 feet at 300 knots.

[32] Captain Carrier testified that after they descended through the 10 000 feet altitude at 300 knots, everything happened quickly. When they reached the 9 000 feet altitude at 300 knots, he turned to Transport Canada check pilot, Inspector Pigeon, to tell him that he was terminating the flight test because of this violation. The first officer then turned around and said, [Translation] "Oops, I forgot to reduce".

[33] Captain Carrier submitted that by then, they had already decided to stop the test. He testified that the first officer simply realized his error too late, and the captain failed to notice it. Everything happened very quickly.

[34] Captain Carrier explained that this was a case of poor flight deck management, since the original failure, which had prompted the crew to return to Montreal, was, after all, a minor one, the crew was cleared to enter a holding pattern located fairly close to Dorval Airport, and in the circumstances, there was no emergency.

[35] Captain Carrier pointed out that speed limits of ± 10 knots in normal flight are specified in section 10.5.1 (exhibit M-15) of the *Approved Check Pilot Manual* (ACP Manual). In this case, the discrepancy was not noticed, perceived or corrected.

[36] In concluding his testimony, Captain Carrier noted that a check pilot has some leeway in his evaluation. In the case before us, the error was not limited to this violation of 250 knots below 10 000 feet. In fact, there had been mistakes during the test in every element of difficulty programmed into the script. Thus, he felt that an assessment of "failed" was justified.

Ghislain Pigeon

[37] Inspector Pigeon's testimony essentially corroborated Captain Carrier's testimony with respect to the test in question. Having observed the same events, he noted with respect to the pre-flight check on the ramp the difficulty in starting engine no. 2 ("NO N2 DURING ENGINE START") and the inadvertent selection of the "CRANK" position by the captain after engine start-up, and the need for Captain Carrier to intervene in the coordination of maintenance in order to correct the problem and thus enable the flight to continue.

[38] As for the problem that arose while the aircraft was taxiing, the "SERVO CTL JAM ON GROUND", Inspector Pigeon testified that the first officer seemed somewhat confused in applying the procedures required by the ECAM and the QRH. At one point, in fact, Captain St-Gelais stopped the aircraft to solve the problem and remind the first officer of the procedures to be followed, and get him to use the QRH.

[39] Subsequently, the take-off proceeded normally and the crew correctly followed the procedures required for the subsequent programmed failure, namely the "left inner tank, # 2 pump low pressure".

[40] The problem arose during the change of command, when Captain St-Gelais handed over control to his first officer, who selected "OPEN DESCENT" and was descending at a speed of over 290 knots.

[41] Inspector Pigeon testified that the aircraft was descending below 10 000 feet at a speed of 290 knots with the first officer at the controls, at which time, the descent to 10 000 feet profile was inappropriate with respect to management of the automatic systems and the flight deck. According to Inspector Pigeon, the aircraft should have been righted at 10 000 feet, and the descent aborted to reduce speed to 250 knots before continuing the descent. This was not done. Captain Carrier had to halt the test between 7 000 and 8 000 feet.

[42] Inspector Pigeon claimed that no words were exchanged between crew members at the (crucial) altitude of 10 000 feet. He did not recall hearing Captain St-Gelais ask his first officer, Mr. Ducharme, to reduce speed to 250 knots at 10 000 feet, nor observing the captain select a speed of 250 knots on the FCU.

[43] Moreover, Inspector Pigeon was quite certain that the first officer did not deploy the air brakes at any time. In the circumstances, his testimony corroborated Captain Carrier's testimony that the assessment of "failed" was justified.

APPLICANT'S EVIDENCE

[44] Captain St-Gelais began by calling his first officer, Mr. Ducharme, who testified in turn about the circumstances of the flight test.

Martin Ducharme

[45] Mr. Ducharme's testimony essentially corroborated Captain Carrier's evaluation with respect to the problems on the ground, and his testimony concerning the mistaken selection of the "CRANK" position after engine start-up. Mr. Ducharme submitted that in all these cases, the intervention of maintenance control enabled the crew to solve its problems. He was led to agree with the flight test report results with respect to poor technical knowledge of the aircraft.

[46] Mr. Ducharme's version of the events that occurred, as they approached 10 000 feet during the descent when the aircraft was returning to Montreal differs, however, from the versions of Captain Carrier and Inspector Pigeon.

[47] Mr. Ducharme submitted that on approaching 10 400 feet, as the aircraft was descending at a speed above 250 knots, namely 300 knots, Captain St-Gelais asked him to reduce speed and select the air brakes. In response, Mr. Ducharme purportedly activated the air brakes. The speed of 250 knots was selected on the FCU by Captain St-Gelais. At the time, he reportedly informed air traffic control (ATC) that he was reducing speed to 250 knots.

[48] The crew received no response from ATC. Mr. Ducharme testified that Captain Carrier terminated the test a few seconds after he told him that he was reducing speed to 250 knots. However, Mr. Ducharme could not specify what altitude below 10 000 feet the crew had reached by the time Captain Carrier terminated the test.

[49] Mr. Ducharme stated that he forgot to call for checks on approaching 10 000 feet, since he had not noticed that he was descending below 10 000 feet, at a speed above 250 knots.

[50] In the circumstances, when the flight test was terminated, Mr. Ducharme immediately realized why. He had descended below 10 000 feet at a speed above 250 knots.

André St-Gelais

[51] During his testimony, Captain St-Gelais gave the Tribunal a summary of his testimony and the arguments by which he would refute point by point the items raised by the Minister with respect to the discrepancies noted in the flight test report (exhibit M-4) and the items raised in Captain Carrier's and Inspector Pigeon's testimonies.

[52] Captain St-Gelais's testimony contained a different version of the facts respecting:

- the N2 failure during start-up of engine no. 2;
- the selection of the "CRANK" position during engine start-up;
- the "SERVO CTL JAM" problem as the aircraft was taxiing; and
- the speed discrepancy above 250 knots after descending below 10 000 feet.

[53] With respect to the N2 failure during the start-up sequence, Captain St-Gelais explained, in his testimony and in his supporting documentation, that he observed the instantaneous loss of the N2 indication. He admitted that the first officer checked the hydraulic system pressure and, at once, correctly halted the engine start-up. Captain St-Gelais testified that the reason the checks applicable in these circumstances include a check of the pressure indicator lights for the hydraulic pump affected is to help the maintenance control system determine whether the problem concerns the indication (N2) or starter engine failure. In this case, he was certain that the problem was a faulty N2 indication [translation] "in any case related to the N2 indication, the outcome is the same: abort start-up" (notes submitted by Captain St-Gelais at 4).

[54] With respect to the selection of the "CRANK" position during engine start-up, instead of the "OFF" position (from initial position A or B), Captain St-Gelais testified that he noticed this as he performed his "FLOW" check procedure. At this point, he saw that the starter was at the "CRANK" position after noticing that the air-conditioning and pressurization packs were not operating normally after engine start-up.

[55] About this failure, which occurred as the aircraft was taxiing prior to take-off, Captain St-Gelais's testimony pointed out that First Officer Ducharme who, in accordance with Air Transat SOPs had to resolve this problem while the aircraft was taxiing on the ground, had difficulty understanding the procedures displayed by the ECAM.

[56] Captain St-Gelais submitted that Captain Carrier and Inspector Pigeon seemed bothered that he had continued to taxi, while the first officer carried out the procedures required both by the ECAM and the QRH without his assistance. However, according to Captain Carrier and Inspector Pigeon, Captain St-Gelais should have stopped the aircraft immediately in order to help the first officer solve the problem.

[57] Captain St-Gelais testified that he followed the SOPs provided for such circumstances. Indeed, he had to taxi away from the the taxiway to avoid disrupting ground traffic and move to a safe area, before stopping the aircraft and then solving the problem.

[58] The difficulty encountered by the first officer resulted from the fact that the procedures displayed on the ECAM should have been identical to those in the QRH. In the case of such a failure, however, the first line on the ECAM called for turning the "SERVO CTL" to "OFF", whereas the checklist required checking whether the "SERVO CTL" was "ON" (notes submitted by Captain St-Gelais at 8 and 9).

[59] Captain St-Gelais admitted that he was also annoyed when the first officer made this comment to him, since he did not understand the reason for the discrepancy between the two procedures.

[60] Captain St-Gelais testified that he settled the matter by setting aside the ECAM and following the checklist specified in the QRH, when he realized that this procedure was merely an investigation. In his view, the sole purpose of the procedure in the QRH checklist is to troubleshoot in order to determine which controls are affected.

[61] Lastly, Captain St-Gelais admitted that the comment in note 23 of the flight test report, [translation] "Deviation from checklist. Much ambiguity", is quite true. He believes that this kind of failure simulation, which draws attention to ambiguity in Airbus SOPs, should only be initiated in a training script for demonstration purposes. It should not have been initiated during a test, which in his opinion, needlessly exacerbates the pressure on the flight crew before take-off.

[62] As for the circumstances surrounding the problem of speed at 10 000 feet, Captain St-Gelais testified that after completing the checklist provided to correct the failure affecting a fuel pump at 17 000 feet, he decided to return to Montreal. Accordingly, he selected "OPEN DESCENT" since he was close to Montreal – about 50 miles – and needed to expedite his descent. He believes that this is the most effective procedure in the circumstances, that is not only permitted but recommended in the SOPs of the operating manual for Airbus 310 pilots.

[63] Moreover, according to Captain St-Gelais, the time he had to apply all of the procedures prescribed was short, namely prepare the FMS for the early approach when the crew had been cleared by Montreal Airport to enter a holding pattern at the LONNA intersection at 3 000 feet. Preparations had to be made for the approach and the holding pattern, the "FLOW" check had to be performed at altitude before descent, and the checks required at 10 000 feet and the approach checks had to be completed. Descent preparation checks are normally carried out 100 miles from the point of descent, although in the current circumstances, the crew was already descending, barely 50 miles from the point of approach to Montreal.

[64] This is why the crew was very busy during the descent, since the aircraft was descending at approximately 2 000 feet a minute. The approach had been initiated at about 17 000 feet, barely two minutes remained before reaching an altitude of 10 000 feet.

[65] Captain St-Gelais testified that, at 10 400 feet, while he was busy with the navigation system, he noticed that the speed was still at 300 knots. He allegedly told the first officer to reduce speed to 250 knots to comply with the regulations below 10 000 feet. He selected 250 knots on the FCU and noticed that Mr. Ducharme was deploying the air brakes and contacting ATC for clearance to continue decelerating during the descent. This sequence of events purportedly occurred at an altitude above 10 000 feet.

[66] The crew received no response from ATC. As the aircraft descended below 10 000 feet, Mr. Ducharme made a comment to his first officer that he would most likely receive a monetary penalty.

[67] In the circumstances, Captain St-Gelais was convinced that the procedure that he and the first officer followed was acceptable. He believed that the PF had to remain at the controls and the captain had to offer help or take control only in a dangerous situation. Safety was not an issue and the corrective measure taken was adequate. In the circumstances, he saw no need to take control of the aircraft.

[68] He asserted that the altimeter displayed 9 600 feet rather than 9 000, as stated by Captain Carrier, when he terminated the flight test.

[69] As for his management of the flight deck at the crucial moment, the first officer's recovery measure was adequate. Captain St-Gelais agreed with what he was doing. Therefore, there was no need to intervene. He drew the Tribunal's attention to appendix Q to the ACP Manual of November 2004, which states that during a flight test:

- normal crew coordination and use of SOPs are expected at all times (work as a team)
- the PF will be expected to initiate the necessary response to any event and direct any required follow-up action - the PNF should *assist but not lead* (emphasis added)

[70] In the circumstances, he believed that he was justified in refraining from intervening further.

ARGUMENTS

Minister of Transport

[71] The Minister's representative eloquently made two essential points:

- the credibility of the witnesses appearing;
- on a balance of probabilities, the clear evidence of excessive speed (over 250 knots) below 10 000 feet, a clear offence under the regulations (subsection 602.32(1) of the CARs) which justifies the assessment of "failed" in the evaluation of Captain St-Gelais.

[72] With respect to the first point, credibility of the witnesses, the Minister's representative argues that his witnesses, Captain Carrier and Inspector Pigeon, presented credible and professional evidence that accurately reported the events relating to excessive speed as the aircraft descended from 17 000 feet, returning toward a holding pattern on the approach to the runway on which the aircraft was to land.

[73] The Minister's representative submits that Inspector Carrier's testimony was clear and concise in his account of events, and that he was in a good position to observe the crew's behaviour and evaluate the candidates' performance.

[74] The evaluation is corroborated in every respect by the Minister's representative and Inspector Pigeon, who also gave credible and objective testimony about these events.

[75] Both of the Minister's witnesses, who are also qualified A310 captains, reported the same events that led to this evaluation and the failing grade.

Speed in excess of the maximum permitted below 10 000 feet (subsection 602.32(1) of the CARs)

[76] Firstly, Inspector Gagnon argues that although Captain St-Gelais was not the PF at the time of the excessive speed, he remained responsible as captain for any error in the operation of the aircraft.

[77] Secondly, the deviation is clearly established by all of the witnesses. Captain Carrier, in fact, testified a speed of 290 knots at 9 000 feet when he announced termination of the flight test.

[78] Inspector Pigeon noted excessive speed at an altitude between 7 000 and 8 000 feet.

[79] According to the Minister, First Officer Ducharme testified that at 9 600 feet, immediately before termination of the flight test, he asked ATC for permission to reduce speed to 250 knots below 10 000 feet.

[80] In his testimony, Captain St-Gelais indicated that he knew very well that they were [translation] "too high to comply with the clearance" when he decided to return to Montreal, and that the best way of descending in this situation was to use the "LVL/CHANGE" mode while maintaining high speed.

[81] Thus, the Minister argues that not only was the evidence of uncorrected high speed under 10 000 feet well established but the method of descent chosen by Captain St-Gelais, that is maintaining speed without prior clearance from ATC, was wrong since there was no emergency and they were headed into a holding pattern.

[82] The captain's decision prevented compliance with the regulations relating to speed below 10 000 feet.

[83] In these circumstances, the Minister submits that the evidence clearly establishes the cause of failure, namely excessive speed beyond the permitted limit, and that the assessment of "failed" must therefore be upheld.

Applicant

[84] Captain St-Gelais, in a most articulate presentation, speaks at length of the evidence and his interpretation of the events occurring during the flight test, and the applicable regulations and instructions of the ACP Manual.

[85] He corroborates the presentation of the Minister's representative concerning the issue before the Tribunal, namely the "failed" assessment (1) with respect to line 14 (descent) of the flight test report (exhibit M-4), the excessive deviation in executing the descent, apparently neither perceived nor corrected, that is the excessive speed below 10 000 feet.

[86] With respect to the other facts related by Captain Carrier during engine start-up and taxiing, he maintains that they discredit more than move the debate forward. In his view, the Tribunal should disregard Captain Carrier's evaluation and comments on this subject.

[87] The following facts are material:

- as for engine start-up, with regard to the N2 failure and the wrong selection of the "ENG START SELECTOR" after start-up, the assessment of (3) (at line 22) means that the qualification standard was met with a few minor discrepancies.

- as for the "AILERON BLUE SERVO CTL JAM", he admits that the comment concerning this failure, to wit [translation] "Deviation from checklist. Much ambiguity" is quite true (notes submitted by Captain St-Gelais at 12).

[88] The applicant believes that the facts must be placed in perspective with regard to the speed violation below 10 000 feet.

[89] The "LEFT FUEL TK PUMP FAIL" occurred after take-off while climbing above 10 000 feet.

[90] When the tasks related to this failure had been completed, the aircraft was at 17 000 feet. When the crew received clearance to enter a holding pattern at 3 000 feet, it anticipated the approach to Montreal. Given the short distance from Montreal, Captain St-Gelais knew perfectly well that the aircraft was [translation] "much too high to comply with the clearance" (notes submitted by Captain St-Gelais at 15).

[91] Captain St-Gelais submits that the most efficient and appropriate method of descending in such circumstances was the "LVL/CHANGE" mode, with a high rate of descent. This was the procedure he initiated before handing over control to the first officer in order to program the approach, in accordance with Air Transat SOPs.

[92] Captain St-Gelais points out that, as required by the aircraft operating manual, the time necessary to complete the checklist in preparation for descent is usually 10 minutes. The checks should have been carried out at a distance of about 80 to 100 miles from the destination airport.

[93] Moreover, Captain St-Gelais also had to include a holding pattern in the approach, which took more time. As a result, he disagrees with Inspector Pigeon's comments that he was slow in making entries in the FMS, given the short time available. On page 17 of his notes, Captain St-Gelais quotes from the ACP Manual:

Fairness

21.3.16 . . . Time is perceived differently by crew and ACP and what seems like a long time of inactivity can, in fact, be only 30 seconds.

[94] Also, as ACP, Captain Carrier was the controller and should have responded to the request for permission to descend at a speed above 250 knots, either in the affirmative or in the negative, instead of deliberately allowing the situation to deteriorate.

[95] In this respect, Captain St-Gelais quotes subsection 9.1.2(c) of the ACP Manual:

(c) provide assistance that would normally be available from ATC when necessary to facilitate the objectives of the exercise or when requested by the crew and doing so will not compromise those objectives

[96] Also, at page 18 of his notes, Captain St-Gelais argues that section 2.03.17 of the Air Transat SOPs specifies the following at page 3:

DESCENT ADJUSTMENT

Maintain high speed as long as *possible (SPD LIM may be cleared, subject to ATC clearance)*

[97] The altimeter was indicating 9 600 feet when the flight test was terminated, and not 9 000 feet, as stated by Captain Carrier.

[98] At that time, Captain St-Gelais believed that management of the flight deck was normal and the aircraft was decelerating. There was no need to take over control, since safety was not an issue and the corrective measure was sufficient.

[99] As PNF, he followed the instructions he was given during the pre-flight briefing, as stated on page 19 of his notes:

Normal crew coordination is expected. The pilot flying will be expected to direct any necessary response and initiate any follow-up action if required

[100] Appendix Q to the ACP Manual reads as follows:

- normal crew coordination and use of SOPs are expected at all times (work as a team)
- the PF will be expected to initiate the necessary response to any event and direct any required follow-up action - the PNF should *assist but not lead* (emphasis added)

[101] Thus, as PNF, he "advised" the first officer to reduce speed.

[102] In the circumstances, Captain Carrier's statement that the discrepancy was not perceived or corrected is completely false in his view and constitutes a serious offence.

[103] Lastly, he asserts at page 21 of his notes that an evaluation performed in a simulator should reflect reality as accurately as possible.

[104] Thus, the grounds for licence suspension should be the same as those applicable to a normally scheduled flight operation.

[105] However, since this offence might be subject to a monetary penalty for contravening a designated provision, this is what the Minister should have done. In fact, although in this case First Officer Ducharme's actions constituted a major breach, it had nevertheless been noticed and corrected within an acceptable time.

[106] Moreover, at no time was flight safety compromised.

[107] The assignment of a failing grade is therefore excessive. Lastly, even admitting the error attributed to the applicant, the instrument rating test should have been suspended, not the PPC.

[108] In a word, the "failed" assessment is wrong because:

- at the time of the offence, the applicant was not at the controls of the aircraft and, according to the instructions and the applicable manuals, had the obligation to suggest rather than order;
- the error occurred relative to the instrument flight rules (IFR), and the PPC should not have been removed;
- the first officer took all the steps required by Air Transat SOPs and the CARs in his recovery measure;
- the crew did not intentionally contravene the regulations, never exceeded the A310 flight envelope and did not compromise air safety;
- the post-flight debriefing following the failure assessment did not meet the requirements of the ACP Manual, namely:
 - the candidates were not specifically informed of the reasons for the assessment rating of (2) concerning poor technical knowledge of the aircraft's systems;
 - the candidates were not informed of the possibility of appealing this decision before to Tribunal, or of the appropriate procedure.

DISCUSSION

[109] The Minister has to prove, on a balance of probabilities, that the "failed" assessment of Captain St-Gelais on an A310 flight simulator, on November 2, 2005, was justified.

[110] To this end, Inspector Gagnon submitted in evidence the flight test report (exhibit M-4) and Captain Carrier's and Inspector Pigeon's testimony.

[111] Moreover, documents were provided, setting out the standards and regulations used in assessing the performance during the flight test.

[112] As submitted by Inspector Gagnon, the Minister's representative, the Tribunal is certainly convinced that a single assessment of (1) is a sufficient reason to consider the flight test a failure.

[113] Accordingly, Inspector Gagnon focused on the evidence and arguments concerning the events related to the assessment, namely the excessive speed (250 knots) permitted below 10 000 feet.

[114] Check Pilot Carrier testified that the assessment of "failed" occurred in the context of the entire flight evaluation up to that specific moment. However, since relatively serious breaches of the standards occurred at every stage of the flight, the excessive speed was the culminating factor.

Pre-flight events

[115] The undisputed evidence referred to above concerns three events that led to the assessment of (2), as the flight test report indicates:

on engine start-up:

- loss of N2 indication;
- selector positioned at "CRANK" instead of "OFF";

during taxiing:

- "AILERON BLUE SERVO CTL JAM".

[116] Inspector Carrier testified that the crew had difficulty in correctly resolving each of these events without assistance. Therefore, the performance of the crew justifies the assessment of (2) for the candidates' technical knowledge and the deviations from the checklist in dealing with the "BLUE SERVO CTL JAM" (line 23).

[117] The Tribunal is of the view, as Inspector Pigeon recounted, that minor deviations (such as forgetting to turn the crew oxygen system to "ON" and positioning the start selector at "CRANK" instead of "OFF") can easily occur during the initial phase of a flight test, because of nervousness of the candidates.

[118] However, the fact that the crew was unable to deduce that the start switch was in the wrong position, its direct consequence being the loss of air-conditioning, and that it had to call in maintenance control to resolve the problem, may indicate poor technical knowledge, as submitted by Captain Carrier.

[119] Alone, this event would be inconclusive, but combined with what also seems to have been poor technical knowledge in relation to the N2 indication failure during start-up and the difficulty in completing the checklist for the "BLUE SERVO CTL JAM", ample grounds were provided for the outcome of the evaluation.

[120] In fact, concerning the "NO N2 DURING ENGINE START" problem, the applicant seems to think that the check for "HYD eng pump lo pr lights (affected side)" is required only for troubleshooting. At page 3 of his notes, he states that "in reality, the check for HYD ENG PUMP LO PR lights is merely a troubleshooting procedure".

[121] Moreover, the applicant mentions at page 4 of his notes that [translation] ". . . the aim is to discover the cause in order to make the correct entry in the log book", and that no checklist exists for the failure that occurred during engine start-up, since [translation] "there is no checklist in the QRH called LOSS OF N2 INDICATION after N2 rotation. The NO N2 DURING ENGINE START means that in the start-up sequence..."

[122] This latter statement definitely indicates poor technical knowledge.

[123] In fact, as the evidence shows, "NO N2 DURING ENGINE START (GROUND)" can only mean that the N2 failure occurs at the moment the starter is engaged ("START pushbutton press") until the engine stabilizes at "Idle", and thus not only in the following situation, as the applicant submits on page 4 of his notes:

START pushbutton press...

[translation]

and at that point you have no N2 indication.

[124] After completing the checklist correctly, if the pilot determines that it is, in fact, only an N2 indication failure, the manual allows immediate engine start-up using the alternative procedure "ENGINE START WITH N2 INDICATION FAILED (12.11) . . . APPLY". Therefore, the check is not only used for troubleshooting.

[125] Similarly, with respect to the "SERVO CTL JAM ON GROUND", the applicant submits at page 9 of his notes that the information provided by the ECAM:

[Translation]

. . . is intended only for troubleshooting in order to determine which flight control is affected. Or to reset the servo...

... When I realized that this procedure was for troubleshooting only, I resolved the matter by disregarding the ECAM and merely completing the checklist without asking questions...

[126] However, in reading the procedures submitted (exhibit M-10), the check is not only used for troubleshooting, as suggested by the applicant. Under certain conditions, it can also allow the crew to continue normal flight operations: "If JAM warning extinguished: Resume normal operation".

[127] In both cases, it appears that the check required by the checklist is not only used for troubleshooting as the applicant suggests, since it can allow a captain to decide to continue operation, for example "ALTERNATE START PROCEDURE (NO N2) APPLY" or "If JAM extinguished: Resume normal operation".

[128] In the circumstances, the Tribunal is convinced not only of a misunderstanding. The checklist was not followed correctly in the case of the "SERVO JAM", and knowledge of the systems in question was generally poor.

Excessive speed of 250 knots below 10 000 feet (subsection 602.32(1) of the CARs)

[129] As submitted by the Minister's representative, the test was assessed as "failed" after the aircraft's unscheduled return to Dorval Airport, following the failure of a fuel pump ("left inner tank, #2 pump low pressure").

[130] Undisputed evidence shows that this failure was a routine part of the script used for the evaluation, and had been executed many times by other crews with no major problems.

[131] I am satisfied that the Minister has adequately proven that the speed limit (250 knots) below 10 000 feet was exceeded without prior clearance. All of the witnesses established that the aircraft was travelling at 290 or 300 knots as it descended below 10 000 feet, when the flight was terminated.

[132] The altitude, at which this speed limit violation was noticed, varies from witness to witness:

- Captain St-Gelais's testimony was that at 10 400 feet, he reminded the PF (First Officer Ducharme) of the speed limit and selected 250 knots in the FCU. At that moment, First Officer Ducharme requested a slower descent with no response from ATC. The applicant submitted that when Captain Carrier terminated the flight test, the altitude was at 9 600 feet.
- The first officer does not recall the altitude reading when the test was terminated, but maintains that shortly after, he mentioned that he was reducing speed to 250 knots.
- Captain Carrier placed the aircraft at 9 000 feet when the flight test was terminated. Inspector Pigeon placed it at an altitude between 7 000 and 8 000 feet, but could not be more specific.

[133] In my view, there is clear and uncontested evidence of this deviation. The tolerances specified in the ACP Manual, which apply here, read as follows:

Tolerances

10.5.1 The tolerances for instrument flight sequences must be respected by all ACPs. Each candidate must demonstrate aircraft control to maintain:

...

(d) altitude

(i) during normal flight within ± 100 feet,

...

(e) airspeed during normal flight within ± 10 knots...

[134] The evidence shows that the crew had several ways of avoiding the excessive speed when it was noticed.

[135] If, as the applicant testified, the excessive speed was noticed at 10 400 feet, it was possible forthwith to level out at 10 000 feet and reduce speed, or if a high speed was still required, to request clearance from ATC, while *first* respecting the 10 000 feet limit.

[136] In this case, in failing to act immediately to prevent a contravention of a regulation, the captain erred. It was well within the discretion of the check pilot, in the circumstances, to make an assessment of "failed".

[137] With respect to the applicant's lengthy experience, the Tribunal cannot agree with his argument that he could not act more directly, since he was bound by appendix Q to the ACP Manual which, he says, stipulates that the PNF is to assist the PF only, and not lead.

[138] Subsection 3(1) of the Act defines "pilot-in-command" as "the pilot having responsibility and authority for the operation and safety of the aircraft during flight time".

[139] This means that the pilot-in-command remains responsible during flight time for the "lawful" use of the aircraft.

[140] In the circumstances, as pilot-in-command, the applicant was responsible for the use of the aircraft, whether he was at the controls or not.

[141] The Tribunal is well aware of the dilemma facing a pilot-in-command in such circumstances. The crew members must work together at all times, and while the captain must give the first officer some leeway in the operation of the aircraft, he remains ultimately accountable and responsible to the authorities for the behaviour of the crew.

[142] Having observed the witnesses and listened attentively to their testimony, I am convinced, after considering all the evidence, that the Minister has established the alleged contravention, on a balance of probabilities, and that the assessment of "failed" is justified in the circumstances.

[143] I believe that Captain St-Gelais did exceed the permitted altitude and speed, and when he realized this, he failed to correct the error properly.

[144] Moreover, the Tribunal notes that in fact Captain Carrier and Inspector Pigeon did not follow the instructions exactly in the ACP Manual, with respect to the notifications in the post-flight debriefing after such a failure.

[145] However, it is clear first that the candidates were informed immediately of the "failed" assessment at the post-flight debriefing and that Inspector Pigeon gave the applicant notice of suspension of the PPC. Second, the applicant was informed of the details of the "failed" assessment upon receipt of his evaluation report at Air Transat, at his request, two weeks after the events.

[146] Quite obviously, Captain St-Gelais was fully aware of the details of the assessment and suffered no harm as a result of this delay, as is clear from the excellent presentation that he made before the Tribunal for his position.

[147] Lastly, the applicant submits that since the failure in question concerned only an IFR procedure, it was only the IFR rating that should have been suspended, and not the PPC.

[148] However, maintenance of the PPC on this type of aircraft requires an IFR rating. Thus, this argument cannot stand, and the Minister was correct in not renewing the applicant's PPC.

[149] In the circumstances, the notice of failure with respect to Captain St-Gelais's PPC, dated November 2, 2005, must be upheld.

August 28, 2006

Pierre J. Beauchamp
Member