TRANSPORTATION APPEAL TRIBUNAL OF CANADA

Citation: *Paul Biber v. Canada (Minister of Transport)*, 2019 TATCE 34 (Review)

TATC File No.: H-4373-68

Sector: Aviation

BETWEEN:

Paul Jose Biber, Applicant

- and -

Canada (Minister of Transport), Respondent

Heard in: Calgary, Alberta, on April 25, 2019

Before: Deborah Warren, Member

Rendered: August 19, 2019

REVIEW DETERMINATION AND REASONS

Held: The Minister of Transport has proven on a balance of probabilities that the applicant, Paul Jose Biber, does not meet the qualifications or conditions necessary for the issuance or amendment of a Canadian aviation document, pursuant to paragraph 6.71(1)(b) of the *Aeronautics Act.*

I. BACKGROUND

[1] By Notice of Refusal to Issue or Amend a Canadian Aviation Document (Notice) dated November 16, 2017, Transport Canada advised Paul Jose Biber that his pilot proficiency check privileges on a CL-65 aircraft would not be issued, as he had failed a pilot proficiency check (PPC) on November 6, 2017.

[2] The Transportation Appeal Tribunal of Canada (Tribunal) received Mr. Biber's request for review on December 6, 2017.

[3] On January 31, 2019, the Tribunal informed the parties of the hearing date set down for April 25, 2019 in Calgary, Alberta.

[4] Appendix A of the Notice indicates that Transport Canada based its decision on paragraph 6.71(1)(b) of the *Aeronautics Act*, which states that the Minister may refuse to issue or amend a Canadian aviation document on the grounds that the "applicant … does not meet the qualifications or fulfil the conditions necessary for the issuance or amendment of the document…" (Exhibit M-1, Tab 8).

[5] Appendix A also includes details of the Minister's grounds for the decision described above:

> During the flight test that occurred on 6 November 2017, you [Mr. Biber] demonstrated that you did not meet the skill standard required in a Pilot Proficiency Check (PPC). In accordance with TP14727 – PILOT PROFICIENCY CHECK AND AIRCRAFT TYPE RATING – Flight Test Guide (Aeroplanes) First Edition (Revision 1), your PPC attempt was assessed as FAILED due to unacceptable following of SOPs, rules and regulations with respect to technical skills and knowledge, as described in the attached Flight Test report.

[6] As indicated in his flight test report (Exhibit M-1, Tab 2), Mr. Biber received a below-standard score of 1 in two items (#22 and #23), with the following comments:

> 22. Technical skills and knowledge – Unacceptable following SOP's, rules and regulations. – When actioning QRH, incorrectly actioned the Left Engine Fire inflight emergency checklist after completing the Left Engine Low Oil Pressure checklist.
>
> 23. Technical skills and knowledge – Critical error. – When actioning HYD 2 HI temp QRC/QRH, incorrect diagnosis caused landing flaps to be incorrectly set, thrust reverser to be incorrectly disarmed and Hyd 2 system pressure to be reduced to 0 for landing despite a functioning backup pump. This significantly increased landing distance by almost double without crew calculating a safe landing could be made.

II. ANALYSIS

[7] The issue before this Tribunal is whether the Minister was justified in refusing to issue a Canadian aviation document, in this case a CL-65 Pilot Proficiency Check, to Mr. Biber and whether there are any grounds to refer the matter back to the Minister for reconsideration.

[8] The Minister's representative argued that Mr. Biber, during the check ride, incorrectly diagnosed two malfunctions, namely Hydraulic 2 High Temperature (exercise 23) and Engine Failure—Oil Pressure (exercise 22). Neither exercise was conducted in accordance with the Standard Operating Procedures (SOPs), showing a lack of technical skill and knowledge. The Minister argued that the approved check pilot (ACP) correctly assigned a score of 1 on both exercises 22 and 23.

[9] The Minister's representative called two witnesses: Rodney Dahl and Michel Paré.

[10] Mr. Dahl has an Approved Check Pilot Delegation of Authority and is authorized to conduct PPCs on the CL-65 (Exhibit M-1, Tab 1). He stated he has worked with Jazz Aviation since 1990 and has conducted more than 100 PPCs with a 90% success rate.

[11] Mr. Dahl was the ACP for the PPC conducted on Mr. Biber on November 6, 2017 (Exhibit M-1, Tab 2). The test was conducted in the CAE simulator in Toronto (Exhibit M-1, Tab 3). Mr. Dahl assessed two items as 1, a failed mark: flight exercises 22 and 23. Flight test exercise 23, Hydraulic 2 High Temperature malfunction, was conducted chronologically prior to flight test exercise 22, Engine Failure—Left Engine Oil Pressure.

[12] Mr. Dahl testified that he conducted the ride according to Jazz Aviation's CRJ 705 Recurrent PPC: CRJ Scripted Training and Checking guide (Exhibit M-1, Tab 4). He outlined the ACP's role, the differences between the aircraft and the simulator, crew coordination, standard tolerances, and other pertinent flight test information.

[13] The applicant argued he was assigned to fly with a pilot in the position of Pilot Monitoring (PM) who, for various reasons, made it difficult for him to carry out his Pilot Flying (PF) duties properly. For flight test exercise 23, Hydraulic 2 High Temperature emergency, he argued that the crew did follow the correct procedure based on the hydraulic temperature they observed at the time of the emergency. For exercise 22, the Engine Failure—Oil Pressure emergency, he argued that it was the PM who pulled out the wrong checklist, and he recalled the ride being terminated prematurely as soon as the checklist was pulled out.

[14] Mr. Biber was self-represented for the hearing. For his testimony he in large part used the statement that Mr. Dahl provided (Exhibit M-1, Tab 6), a detailed description of the PPC, of which he contested several items. As a result, the Minister brought back Mr. Dahl following Mr. Biber's testimony for clarification on the items contested by Mr. Biber.

[15] Mr. Biber testified at the hearing that he had some issues with the training he received, but decided that with his experience on the aircraft he felt confident going forward to do a PPC. Mr. Biber also expressed concern that his PPC was not going to be carried out with the pilot he had trained with but with a pilot he had never met. Mr. Biber met the assigned pilot just prior to the ride and following a brief conversation, although this pilot indicated a weakness in carrying out SOPs, he had no objection to going forward with the PPC.

A. Legal framework

[16] The Minister based its decision on paragraph 6.71(1)(b) of the *Aeronautics Act*, which states as follows:

> **6.71(1)** The Minister may refuse to issue or amend a Canadian aviation document on the grounds that
>
> […]
>
> **(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; […]

[17] The Minister has the burden of proof to demonstrate that its decision to refuse to issue the PPC was justified due to Mr. Biber's unsuccessful attempt on two flight test exercises resulting in a fail. The standard of proof is the balance of probabilities, pursuant to subsection 15(5) of the *Transportation Appeal Tribunal of Canada Act*.

B. Crew coordination

[18] For the flight, Mr. Biber was assigned as the Pilot Flying (PF), and the other pilot was assigned as the Pilot Monitoring (PM).

[19] Throughout the hearing, Mr. Biber expressed concern and frustration with the partner selected for him. On numerous occasions, he referred to poor performance by the PM, including slow actioning of checklists, poor positioning of the checklist in the cockpit and a general lack of knowledge, skill and confidence. Mr. Biber felt he was not able to perform as well as he could have based on these factors.

[20] Inspector Michel Paré works in National Flight Operations at Transport Canada Headquarters as an ACP Program Specialist. Mr. Paré stated that the PPC was a multi-crew flight test and that flight crew jeopardy applied, as described in TP 14727 – Pilot Proficiency Check and Aircraft Type Rating – Flight Test Guide (Aeroplanes) (Exhibit M-1, Tab 5, page 7). This means that, generally speaking, a team succeeds or fails together. When two candidates are being assessed during a flight test, both candidates are equally subject to jeopardy during the assessment. There are a few exceptions to this principle, but none of them applied to Mr. Biber's flight test.

[21] Mr. Paré pointed out that the Scripted Training and Checking guide (Exhibit M-1, Tab 4, page 4) further explains this concept under the section Crew Coordination. This document states that the PF and the PM work as a team and that crew coordination is an important part of the evaluation. He stated that each crew member must monitor the other and that both pilots must identify and address any errors made. He stated that all multi-crew airlines have this concept.

[22] Despite Mr. Dahl's acknowledgment that the PM disclosed, after the flight, that he was "still feeling the effects of his recent illness", the fact remains that this information was not brought to Mr. Dahl's attention prior to the flight. Mr. Dahl was aware that the crew had not trained together, but they gave him no indication that they were not ready to do a PPC. His expectation is that pilots have been trained and recommended and are therefore ready to complete a PPC.

[23] Although Mr. Biber stated, and this may or may not have been the situation, that having a weak PM contributed in large part to his PPC failure, the documents are very clear on crew coordination and crew jeopardy. Further, the Tribunal notes the roles of the crew per Exhibit M-

1, Tab 4: "The PF will be expected to initiate the necessary response to any event and direct any required follow-up action. The PM should assist, but not lead" (page 4). I have therefore assessed the flight test exercises on the outcome that was achieved as a crew and not attributed fault to a weak performance from one of the crew members.

C. Hydraulic 2 High Temperature malfunction

[24] Mr. Dahl introduced a malfunction, Hydraulic 2 High Temperature, under the Scripted Training and Checking guide, into the simulator when the crew was climbing through 5,000 feet (Exhibit M-1, Tab 4, page 10). The aim of the exercise is to "determine the candidate's ability to complete recommended checks and procedures in accordance with the POH [pilot operating handbook], AFM [aircraft flight manual], or other applicable publications in event of system malfunctions or other emergencies". This aim echoes that cited in exercise 23 of the Flight Test Guide, "Abnormal/Emergencies" (Exhibit M-1, Tab 5, page 45).

[25] The Scripted Training and Checking guide specifies when the ACP is to introduce the malfunction and when to remove it. In this case, once the crew has completed the Quick Reference Checklist (QRC), the malfunction is to be removed in order to keep the temperature below 107 degrees; however, the condition continues to exist until after the go-around.

[26] For this exercise, the candidates are to carry out the HYD 2 HI TEMP Caution Message checklist contained in the CRJ 705 Quick Reference Handbook (QRH), Emergency 17-5 (Exhibit M-1, Tab 9, page 3). Mr. Dahl stated that the candidates carried out the first two items in the boxed area of the checklist correctly but did not complete the third item. The third item was to monitor the System 2 Temperature, which was critical.

[27] Mr. Biber stated that when the Hydraulic 2 High Temperature malfunction was introduced, the crew actioned the QRC and that directed them to QRH Emergency 17-5. He stated the PM took a long time to find this checklist.

[28] Mr. Biber stated that the PM kept the checklist on the far-right side of the aircraft where there was more light, but this made it difficult for Mr. Biber to see. He instructed the PM to move it to centre console so he could also see the checklist. He did emphasize that as PF his main responsibility was to fly the aircraft and that the PM should be running the checklist.

[29] Mr. Dahl stated that the main condition that the pilots were to be aware of was the hydraulic temperature. Mr. Dahl stated that monitoring the hydraulic synoptic page (visual display in cockpit) is necessary to see the trend in the hydraulic temperature. He only saw the crew go to this page periodically and felt that if they had monitored for trend they would have seen a temperature that would have resulted in them completing the correct next steps.

[30] Following the actions set out in the boxed area of the checklist, the crew will take further action depending on what is contained in "If" statements. These statements are described in Exhibit M-1, Tab 6, on page 3:

> As per AOM Vol 2 Page 3.1-5, When a checklist contains an **'*If*'** statement, the statement must be reviewed; if the aircraft condition matches that described in the statement then it must also be actioned. All **'*If*'** statements must be verbalized. However, when the aircraft condition does not

> match that described in the statement, the item will be skipped. There may be more than one **'*If*'** statement per checklist.

[31] The first "If" statement was to be actioned if the hydraulic system temperature was decreasing. Although at this point the temperature was still increasing, and therefore the crew should not have actioned this checklist, they did by selecting the Hydraulic 2 Pump Off.

[32] The next "If" statement was to be actioned if the hydraulic system 2 temperature was **less than** 96 degrees. Mr. Dahl stated that if the crew had monitored the hydraulic temperature, they would have seen a slight increase in temperature, and then it would have decreased to below 96 degrees, and therefore they should have used this checklist.

[33] The flight crew did not do this checklist and instead chose the next "If" statement, which should be actioned if the temperature was **more than** 107 degrees.

[34] Mr. Biber stated that during the check the PM pulled up the hydraulic synoptic page and both crew members saw the temperature was at 118 degrees and was steady. As a result, the crew chose to go to the "If" statement that is applicable to the hydraulic system temperature being **more than** 107 degrees.

[35] Mr. Dahl stated that the temperature was above 107 at one point, but once the shut-off valve had been closed, coupled with him selecting off the malfunction on the simulator, the temperature would have fallen to below 96 degrees. He also stated that he had difficulty tracking the temperature in the simulator cockpit because the crew rarely selected the hydraulic synoptic page, which would visually illustrate the temperature.

[36] Mr. Biber could not recall the amount of time that the hydraulic synoptic page was selected, which would show the hydraulic temperature, but felt that in all likelihood they chose the normal page for flight so that he could monitor for any other malfunctions should they occur. Mr. Biber stated that he had been trained when flying to assess the situation and react accordingly. He felt that since the aircraft was close to an airport he would take action quickly to set up for getting on the ground and not waste time monitoring. However, had he been on a flight further away from an airport, he would have had the time to monitor the temperature.

[37] Mr. Biber described the various checks they followed that were necessary when following the "If" statement they had chosen. It turned out to be a long checklist requiring various actions and calculations. The checklist sequence led the crew to runway distance calculations for landing, which were only approximated, and brake pressure landing weight calculations, which were not completed due to lack of accessible information. Mr. Biber realized when he got to these pages in the checklist that they had likely made an error as the procedures were not typical of a PPC ride.

[38] Mr. Dahl stated that if the correct "If" statement was followed, it would have led the crew to a normal landing, the intention of the exercise. However, as a result of the crew choosing the incorrect statement, Mr. Dahl assessed that the crew had made a critical error leading to unacceptable risk, affecting the flaps for landing, thrust reverser, outboard brake accumulator pressure, and landing distance (Exhibit M-1, Tab 6, pages 4–5).

[39] Mr. Dahl allowed the test to go on despite this exercise being done incorrectly, as up to this point in the test there had been no other exercises graded as 2 or 1. His intention was to allow the crew to repeat this exercise at the end of the PPC.

[40] Mr. Paré stated that an ACP can allow a flight test exercise to be repeated. This provision is in accordance with the TC Approved Check Pilot Manual, Tenth Edition, Section 6.12, which outlines the conditions for a performance error (Exhibit M-1, Tab 7, page 63). The ACP has the discretion to allow for the candidate to repeat a maximum of one unsuccessful flight test exercise if certain conditions are met for specific circumstances. In circumstances relating to a performance error (such as this case), an ACP may allow a repeat of the exercise subject to no other sequence being rated a 2 or a 1. Therefore, it appears that this option was no longer available to the crew after the failure of the second malfunction (discussed below) (Exhibit M-1, Tab 6, last page).

[41] From the evidence and testimony presented during the review hearing, the issue that must be determined is whether exercise 23, Hydraulic 2 High Temperature, warranted a failing score of 1.

[42] The Flight Test Guide (Exhibit M-1, Tab 5, page 13) defines a score of 1 on a 4-point marking scale pertaining to "Technical Skills and Knowledge" as:

- **Critical error**
- Unacceptable practical understanding
- Unacceptable following SOPs, rules and regulations

[43] A critical error is defined as an "action or inaction that is consequential to the completion of a task, procedure, or manoeuvre", and where an Undesired Aircraft State (UAS) occurred (Exhibit M-1, Tab 5, page 12). The definition of UAS is "an aircraft position, speed, attitude or configuration that results from a flight crew error, action or omission which clearly reduces safety margins" (Exhibit M-1, Tab 5, page 11).

[44] The Flight Test Guide provides several performance criteria for exercise 23, including an assessment of the candidate's ability to promptly identify the malfunctions, apply correct checks and procedures, and develop a reasonable course of action for the remainder of the flight (Exhibit M-1, Tab 5, page 45).

[45] From the evidence provided, Mr. Biber observed a temperature of 118 degrees that remained steady, which is contrary to the evidence provided by Mr. Dahl, who stated the temperature reacted differently. He stated that, with the hydraulic shut-off valve closed as selected by the crew and his action of deselecting the malfunction on the simulator control, the temperature would peak and then trend downward to below 96 degrees.

[46] I find that Mr. Biber, although he saw the temperature at 118 degrees, did not monitor the temperature for any length of time. I base this determination on Mr. Dahl's testimony regarding the infrequent use of the hydraulic synoptic page, as well as Mr. Biber's own testimony that the airport was close by and it would be more important to get on the ground than to monitor the temperature, which he would do if on a longer flight further from an airport.

[47] In addition, the crew carried out the action required in the "If" statement that read "if the … hydraulic system 2 temperature is decreasing". This contradicts Mr. Biber's statement that the temperature was steady, if the check was carried out according to the checklist conditions.

[48] As a result, and despite the inconsistencies between the recollections of Mr. Biber and Mr. Dahl, given the evidence presented, I find on a balance of probabilities that Mr. Biber likely missed a downward trend in the temperature, to the point where a different checklist applied, resulting in a UAS.

[49] Therefore, based on the evidence, I believe Mr. Dahl was correct in assessing this flight test exercise as a 1, critical error, for failure to follow the correct actions for the malfunction, showing a lack of knowledge and understanding and an unacceptable following of the correct SOPs.

D. Engine Failure—Oil Pressure Warning Message

[50] Mr. Dahl introduced the Left Engine Oil Pressure Warning Message fault while the aircraft was on a downwind vector for an instrument landing system approach (Exhibit M-1, Tab 6). This exercise pertains to exercise 22 of the Flight Test Guide, "Engine Failure", and its aim is to "maintain control of the aircraft and carry out the appropriate engine failure procedures in accordance with the POH/AFM and/or SOP's" (Exhibit M-1, Tab 5, page 43).

[51] The crew initiated the appropriate checklist for this malfunction, L ENG OIL PRESS Warning Message, Emergency 1-9, in the CRJ 705 QRH (Exhibit M-1, Tab 9, page 2). The last item of the checklist directs the crew to accomplish the In-Flight Engine Shutdown checklist, Abnormal 1-1. This did not occur.

[52] Mr. Dahl stated that the PM incorrectly proceeded to a checklist titled L ENG FIRE Warning Message, Emergency 1-1, in the QRH (Exhibit M-1, Tab 9, page 1). Mr. Biber did not notice this procedural error.

[53] Mr. Dahl stated the PM continued to go through the checklist, including selecting the fire extinguisher switches, notwithstanding that there was no fire indicated in the plane. He said Mr. Biber did not query the PM while the checks were being carried out.

[54] Mr. Biber stated that the first part of the L ENG OIL PRESS checklist was done correctly, but that he felt that the PM should have read or known to go to the Abnormal 1-1 checklist, as it was his job as PM, and that Mr. Biber's primary responsibility was flying the aircraft. He pointed out that the Abnormal and Emergency sections are colour coded amber and red respectively but are often mistaken for one another because of the numbering. Mr. Biber also stated that the whole checklist was not completed, since there was no fire, but that he could not see what the PM was doing since the checklist was being held in a position that he could not see.

[55] Mr. Dahl at this point stopped the simulator when it became clear to him the crew did not understand the malfunction they were dealing with. He testified that both crew members indicated that they had an engine fire that had extinguished.

[56] Mr. Biber did not agree with Mr. Dahl's statement that after the simulator was shut down he acknowledged there was a fire that had been put out. He claimed he said nothing when asked by Mr. Dahl, as he wanted the PM to answer the question. Mr. Biber testified that the ride was stopped when the PM selected the incorrect checklist.

[57] From the evidence and testimony presented during the review hearing, the issue that must be determined is whether exercise 22, Engine Failure—Engine Oil Pressure, warranted a failing score of 1.

[58] The Flight Test Guide (Exhibit M-1, Tab 5, page 13) defines a score of 1 on a 4-point marking scale pertaining to "Technical Skills and Knowledge" as:

- **Critical error**
- Unacceptable practical understanding
- Unacceptable following SOPs, rules and regulations

[59] A critical error is defined as being an "action or inaction that is consequential to the completion of a task, procedure, or manoeuvre", and where an Undesired Aircraft State (UAS) occurred (Exhibit M-1, Tab 5, page 12). The definition of UAS is "an aircraft position, speed, attitude or configuration that results from a flight crew error, action or omission which clearly reduces safety margins" (Exhibit M-1, Tab 5, page 11).

[60] The Flight Test Guide provides several performance criteria for exercise 22, including an assessment of the candidate's ability to "recognize an engine failure or the need to shut down an engine as simulated by the ACP" (Exhibit M-1, Tab 5, page 43).

[61] Evidence shows that the left engine oil pressure checklist was not completed correctly when the crew did not go to the in-flight engine shutdown checklist, Abnormal 1-1, and selected in error the left engine fire checklist, Emergency 1-1, when there was no fire.

[62] There is some discrepancy in testimony concerning at what point the ride was discontinued, as Mr. Dahl stated that the crew actioned up to the point of selecting the engine fire extinguishers and Mr. Biber felt the ride was stopped when the PM selected the incorrect checklist.

[63] I believe the evidence does show that the correct checklist was not completed. Rather, the wrong checklist was brought out and it was acted upon to the degree that Mr. Dahl determined the crew was not following the correct procedure. Mr. Biber provided no convincing evidence that he was aware that the incorrect checklist was selected either at the time or after the fact.

[64] Based on the evidence, I find that Mr. Dahl was correct in assessing this flight test exercise as a 1, critical error, for failing to follow the correct actions for the malfunction, showing a lack of knowledge and understanding. There was unacceptable following of the SOPs.

E. Conclusion

[65] As a result of the above conclusions, I find that the Minister was justified in refusing to issue the PPC to Mr. Biber.

III. DETERMINATION

[66] The Minister of Transport has proven on a balance of probabilities that the applicant, Paul Jose Biber, does not meet the qualifications or conditions necessary for the issuance or amendment of a Canadian aviation document, pursuant to paragraph 6.71(1)(b) of the *Aeronautics Act.*

August 19, 2019

(Original signed)

Deborah Warren

Member

Appearances

For the Minister:	Martin Forget
	Amani Delbani
For the Applicant:	Self-represented