

AVIATION OCCURRENCE REPORT

A95Q0215

MID-AIR COLLISION

BETWEEN

CESSNA 180 C-FYKD

AND

CESSNA 150 C-GLHJ

SAINT-FRANÇOIS-DE-LAVAL, QUEBEC

26 OCTOBER 1995

The Transportation Safety Board of Canada (TSB) investigated this occurrence for the purpose of advancing transportation safety. It is not the function of the Board to assign fault or determine civil or criminal liability.

Aviation Occurrence Report

Mid-Air Collision

Between

Cessna 180 C-FYKD

and

Cessna 150 C-GLHJ

Saint-François-de-Laval, Quebec

26 October 1995

Report Number A95Q0215

Summary

The pilot of a Cessna 180 was on final approach for a private runway at Saint-François-de-Laval, Quebec. Meanwhile, the pilot of a Cessna 150, with one passenger on board, was taking off from the same runway. Both aircraft were on visual flight rules (VFR) pleasure flights. The aircraft collided over the runway approximately 100 feet above ground level (agl). After the collision, both pilots lost control of their aircraft. Both aircraft crashed in a plowed field, a few metres east of the runway. The pilot of the Cessna 150 sustained fatal injuries, and the passenger was seriously injured. The pilot of the Cessna 180 was seriously injured.

Ce rapport est également disponible en français.

Other Factual Information

The pilot of the Cessna 180 took off from Mascouche Airport, Quebec, at 1542 eastern standard time (EST) on a flight to Laval Aviation (Contant runway). At 1545, he advised the Mascouche controller that he had left the control zone and was proceeding to Contant runway. He was then cleared to select the en route frequency of 126.7 megahertz (MHz). The controller was unaware that Laval Aviation and Contant runway were the same location. The weather conditions were favourable for visual flight. The winds, from 200 degrees magnetic and five to ten knots, favoured runway 19 for landing and take-off.

At the same time, the pilot of the Cessna 150 moved out of his parking area at Laval Aviation. The pilot positioned the aircraft at the end of runway 19 and completed the usual engine checks, which lasted about five to ten minutes.

Contant runway is an uncontrolled private aerodrome. It is neither certified by Transport Canada nor listed in the *Canada Flight Supplement*. It is located two miles south of Mascouche Airport, just outside the control zone. The only runway is 4 000 feet long by 40 feet wide and is oriented 190/010 degrees magnetic. Runway 19 is asphalt-surfaced for the first 800 feet; the remainder of the surface is gravel. Two electrical transmission lines, one 150 feet and the other 140 feet above ground, cross runway 19 at 475 feet and 700 feet, respectively, from the threshold.

Around 1546, the Cessna 180 commenced the first of two left-hand circuits approximately 1 000 feet above sea level (asl) over runway 19. A witness saw the pilot of the Cessna 150 look towards the Cessna 180, which was overflying the aerodrome in a westerly direction. On his first circuit, the pilot of the Cessna 180 saw the Cessna 150 parked at the north end of runway 19. On the cross-wind leg, the pilot of the Cessna 180 reported on frequency 126.7 MHz his intention to land on runway 19. There was no acknowledgement of this message.

On the second circuit at 500 feet asl, the pilot of the Cessna 180 thought he saw that the propeller of the Cessna 150 was stopped. He concluded that the aircraft was parked and that a take-off under the transmission lines was not possible. The pilot of the Cessna 180, who was not familiar with Contant runway, planned a final approach for runway 19.

While the Cessna 180 was on approach, the pilot of the Cessna 150 advised the Mascouche controller on frequency 118.6 MHz that he was going to take off from Laval Aviation on a flight to Joliette, Quebec, via Repentigny, Quebec. He took off on runway 19 around 1551, after he was advised by the controller to call back over Repentigny. The controller did not inform the pilot of the Cessna 150 that the Cessna 180 was going to land at Laval Aviation. On approach, the Cessna 180 flew over the transmission lines. He aimed to touch down 2 000 feet from the runway threshold. Both aircraft were on the runway centre line and flying the same track. The Cessna 150 was in the climb while the Cessna 180 was in the descent above it. The aircraft collided 1 500 feet from the end of the runway, about 100 feet agl. No avoidance manoeuvres were observed. The Cessna 180

¹All times are EST (coordinated universal time [UTC] minus five hours).

had two radios; one displayed the frequency 126.7 MHz and was set to *ON*; the other radio displayed the frequency 118.6 MHz and was set to *OFF*. The radio of the Cessna 150 displayed the frequency 118.6 MHz and was set to *ON*.

Pilots familiar with the aerodrome usually took off in a southerly direction on the asphalt-surfaced part of runway 19 and passed under the power lines. They would land in the opposite direction, on runway 01, to avoid flying over the transmission lines on approach. No radio frequency was assigned to the aerodrome, and no procedures specific to the aerodrome had been developed. According to Transport Canada, pilots of radio-equipped aircraft operating over unlisted, uncontrolled aerodromes must monitor the frequency 123.2 MHz.

According to current practice and the *Flight Training Manual*, engine checks and pre-take-off checks are completed off the runway. Before proceeding onto an active runway, the aircraft must be positioned so as to ensure that all traffic on approach from any angle can be seen. When the pilot is certain that the way is clear, she/he must proceed onto the runway and take off without delay.

According to *Air Regulation 529*: "Where an aircraft is in flight or manoeuvring on the ground or water, the pilot-in-command shall give way to other aircraft landing or about to land."

Analysis

Pilots flying VFR in known high-traffic areas must maintain external surveillance at all times, and they must warn other pilots of their intentions when approaching or departing an uncontrolled aerodrome. They bear full responsibility for seeing and avoiding other aircraft.

The two pilots were not monitoring a common frequency; the pilot of the Cessna 180 set the frequency to 126.7 MHz, and the pilot of the Cessna 150 set the frequency to that of the Mascouche tower, 118.6 MHz. It is possible that the pilot of the Cessna 150 monitored the Mascouche tower frequency, given the proximity of the Mascouche control zone, and because he had to contact the controller shortly after take-off. The Mascouche controller did not inform the Cessna 150 that the Cessna 180 was going to land at Laval Aviation because he did not know that Laval Aviation and Contant runway were the same aerodrome. The Cessna 180 had departed the Mascouche control zone five minutes earlier. Therefore, neither pilot was aware of the other's intentions. As a result, collision avoidance was totally dependent on the principle of "see and be seen".

By doing his engine checks on the runway, the pilot of the Cessna 150 was not in a position to watch the approach and spot the Cessna 180. The pilot of the Cessna 150 probably did not expect any aircraft to land on runway 19, as landings were usually made in the opposite direction. Evidently, the pilot of the Cessna 150 saw the Cessna 180 overfly the aerodrome, but he did not realize that it was executing a landing circuit. The pilot of the Cessna 180 was not familiar with the customs of the aerodrome. He executed an upwind landing on runway 19, which was not the current practice. He did not ensure that the pilot of the Cessna 150 knew he intended to land, and he executed a landing approach while the Cessna 150 was aligned for the take-off.

The Cessna 150 initiated its take-off run just before the Cessna 180 flew over it. The Cessna 180 was practically over the Cessna 150 on final approach and could not be seen by the Cessna 150. The Cessna 150 was hidden by the floor of the Cessna 180.

Findings

1. The two pilots were not monitoring a common frequency.
2. Neither aircraft was displaying the frequency recommended by Transport Canada.
3. Neither pilot was aware of the other's intentions.
4. The pilot of the Cessna 150 was not in a position to watch the approach and spot the Cessna 180.
5. The pilot of the Cessna 180 did not ensure that the pilot of the Cessna 150 knew he intended to land.
6. Each aircraft was hidden by the fuselage of the other aircraft.
7. The pilots did not execute avoidance manoeuvres.

Causes and Contributing Factors

Neither pilot saw the other aircraft in time to avoid a collision. Contributing to the accident were the fact that the pilots were not monitoring a common frequency and neither was aware of the other's intentions.

This report concludes the Transportation Safety Board's investigation into this occurrence. Consequently, the Board, consisting of Chairman Benoît Bouchard and members Maurice Harquail and W. A. Tadros, authorized the release of this report on 26 November 1996.