

AVIATION OCCURRENCE REPORT

OVERSHOOT LANDING

TRANSPORT AIR
PIPER PA 23-250 C-GPJQ
ÎLES-DE-LA-MADELEINE, QUEBEC
15 JUNE 1994

REPORT NUMBER A94Q0110

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.

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Summary

The aircraft took off from Jean Lesage International Airport, Quebec, at 1107 bound for Charlo, New Brunswick, and Îles-de-la-Madeleine, Quebec. The aircraft landed at Charlo at 1243. As the weather conditions were marginal in Îles-de-la-Madeleine, the pilot waited until they improved before departing. He took off at 1748 and made a LOC (BC)/DME approach to runway 26. Unable to maintain the localizer approach, he pulled up. On the second approach, the pilot saw a runway when the aircraft was over the airport. He made a 280-degree turn to the left and set the aircraft down on the last 200 to 300 feet of runway 34. The aircraft overshot the runway and, when the pilot realized that he could not stop the aircraft before it left the airport perimeter, he made a right turn. The nosewheel and the left main landing gear broke off. The aircraft came to rest 270 feet from the end of runway 34, and 150 feet from the water's edge. The aircraft was quickly evacuated, and none of the occupants were injured. The accident occurred in daylight at 1949.

Ce rapport est également disponible en français.

¹ All times are eastern daylight time (Coordinated Universal Time (UTC) minus four hours) unless otherwise stated.

Other Factual Information

The pilot held a valid pilot proficiency check (PPC) card which authorized him, when he was the only pilot on board, to operate within the limitations of Schedule C of ANO, Series VII, No. 3. These limitations specify that no flight shall be terminated at an airport in weather conditions less than the alternate weather minima specified for that airport in the *Canada Air Pilot* (CAP). The alternate minimum published for the Îles-de-la-Madeleine Airport is 800 feet and two miles' visibility.

The runway in use was runway 26, which is 4,500 feet long by 150 feet wide. Runway 34 is 3,600 feet by 150 feet. Both runways are paved. At the time of the occurrence, the sky was partly obscured: ceiling measured at 300 feet by balloon; visibility five miles in fog; winds from 010 degrees True at 10 knots; clouds and obscuring phenomena, 3/10 fog, 7/10 stratus fractus. These conditions prevailed at the airport for most of the day, with rare exceptions.

The pilot said that the lateral deviation indication seemed to be erratic on the first approach. No other pilot reported anything unusual with the LOC approach system on that day. A check by the maintenance service confirmed that all the parameters of the approach system were within limits.

The pilot was using navigation receiver No. 1 (NAV1) for the approach. He said that he should also have used the NAV2 to corroborate the NAV1 indications. The pilot further stated that the deviation indication was more stable on the second approach.

During a LOC (BC) approach, the needle of the deviation indicator is much more sensitive because, by the very nature of the installation of the approach system, the back course (BC) beam is narrower than the beam for a front course approach. Furthermore, the calibration standards are less strict for the BC beam than for the front course beam.

Towards the end of the second approach, the pilot maintained an altitude of 300 feet, but he did not see the threshold of runway 26 because the aircraft was left of the runway centre line. Furthermore, the fuselage of the aircraft masked the runway on his right. He was, however, able to see runway 34 which he had just crossed. The pilot therefore requested and received clearance to land on that runway. He made a 280-degree turn to the left and landed the aircraft on the last 200 to 300 feet of runway 34.

The pilot stated that he had been disoriented on the second approach when he saw the airport because he expected to see a runway in front of him rather than cross over one as he did. He also said that he had never felt pressured by the passengers or the company. He stated, however, that he did want to satisfy the passengers so that the company could improve its performance in chartering.

Analysis

² Air Navigation Order, Series VII, No. 3, *Standards and Procedures for Air Carriers Using Small Aeroplanes in Air Transport Operations*, Schedule C.

Throughout almost the whole day, the clouds stayed at a maximum altitude of 300 feet over the Îles-de-la-Madeleine Airport. The pilot took off from Charlo because he thought that the conditions would improve. The pilot was not, however, authorized to make an approach as the only pilot on board because the measured ceiling of 300 feet was below the alternate minimum of 800 feet published in the CAP for the airport. The pilot put pressure on himself to succeed and satisfy the passengers.

When the aircraft broke out below the cloud layer on the second approach, it was to the left of the centre line of runway 26. The pilot could not identify the runway threshold because of the poor horizontal in-flight visibility at 300 feet above ground level (agl). Furthermore, as the aircraft was to the left of the runway centre line, the fuselage masked the identification of the runway. Moreover, the pilot was disoriented when he saw runway 34 as he was crossing over it. He made a left turn and touched down on the runway that he had identified. During the turn, the poor in-flight visibility at 300 feet did now allow the pilot to manoeuvre to ensure a safe normal landing. Because of where the wheels finally touched down, it was impossible for the pilot to stop the aircraft safely before the end of the runway with only between 200 and 300 feet remaining.

Findings

1. The weather minima were below those for which the pilot was authorized.
2. The pilot put pressure on himself to satisfy the passengers.
3. Because the horizontal in-flight visibility at 300 feet agl was poor, the pilot could not positively identify runway 26 and could not manoeuvre in order to ensure a safe normal landing on runway 34.
4. The pilot landed the aircraft on the last 200 to 300 feet of runway 34.
5. The remaining runway length was insufficient for the pilot to avert overshooting the runway.

Causes and Contributing Factors

The pilot made an approach in marginal weather conditions for which he was not authorized and which did not allow him to manoeuvre to ensure a safe normal landing. The pilot landed the aircraft on another runway with insufficient distance remaining to avert overshooting. The fact that the pilot put pressure on himself to satisfy the company's customers is a contributing factor to the occurrence.

This report concludes the Transportation Safety Board's investigation into this occurrence. Consequently, the Board, consisting of Chairperson John W. Stants, and members Gerald E. Bennett, Zita Brunet, the Hon. Wilfred R. DuPont and Hugh MacNeil, authorized the release of this report on 15 February 1995.