

AVIATION OCCURRENCE REPORT

BROKE THROUGH ICE/ SANK IN WATER

AERONCA 11CC SUPER CHIEF C-FNGV

SAULT STE. MARIE, ONTARIO 5 nm E

23 MARCH 1996

REPORT NUMBER A9600048

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

At approximately 0830 eastern standard time (EST), the pilot and one passenger departed from the ice surface of the St. Marys River, near the Sault Ste. Marie, Ontario, sea plane base (Partridge Point), in a ski-equipped Aeronca 11CC Super Chief aircraft. The purpose of the trip was to go ice fishing on Buck Lake, and they planned to return at about 1800. When the aircraft had not returned and was overdue, a search was initiated at 2035. The visual search was hampered by darkness; however, the next morning, a search aircraft reported a hole in the ice on the St. Mary's river just west of Bells Point. An inspection of this hole revealed the submerged aircraft in about 12 feet of water. The aircraft was situated on the bottom of the river in an upright position, facing west. Both the pilot and the passenger were found outside of the submerged aircraft and under the ice surface. Both of the occupants had succumbed to hypothermia and drowning.

Ce rapport est également disponible en français.

¹ All times are EST (Coordinated Universal Time [UTC] minus five hours) unless otherwise stated.

Other Factual Information

Witnesses at Buck Lake confirmed that the aircraft had arrived and landed at about 0920 EST. The pilot and the passenger talked to two other ice fishermen who were at the lake and then set their ice fishing lines in the same vicinity. The pilot and the passenger were still fishing on Buck Lake at 1400 EST when the other fishermen departed the area. The day after the accident, one of the fishermen indicated that the pilot had told him that there had been some unspecified problem with the tail of the aircraft. The exact nature of the apparent problem was not known.

The aircraft was examined by Ontario Provincial Police divers with an underwater video camera. It was sitting upright on the bottom of the river, undamaged except for a minor dent in the engine cowl and a minor bend in the right wing fillet fairing. The propeller was undamaged.

Both seat-belts were found undone and both doors were open. The engine throttle was found pulled in the "idle" position and the carburettor heat control was found pulled fully back in the "hot" position. The magneto switch was found in the "both" position.

The ice in the vicinity of the sunken aircraft was estimated to be one to two inches thick around the hole and the water had a mild current. Such a thin layer of ice would not have supported the weight of either the pilot or the passenger. Thicker regions of ice were noted in other areas of the river. The water temperature was reported to be about one degree Celsius.

The pilot was certified and qualified for the flight in accordance with existing regulations. Both occupants displayed minor injuries, consistent with no or minimal impact forces. No potentially incapacitating medical conditions were evident in the pilot at the post mortem. Both the pilot and the passenger were wearing appropriate winter clothing for their fishing activity.

Analysis

During the investigation, there was no confirmed indication of any mechanical problem with the aircraft. The accuracy of a general reference to an unspecified problem with the tail of the aircraft, that had apparently occurred at sometime prior to the accident flight, was not determined; however, the departure from the St. Marys River and arrival at Buck Lake were normal and indicate the aircraft was operating correctly.

The aircraft apparently left from Buck Lake and returned to the St. Marys River sometime in the late afternoon. The position of the throttle, carburettor heat and magneto controls is consistent with normal engine operation at reduced power, such as would be expected for a normal landing.

The lack of any substantial damage to the aircraft, combined with the minor injuries to the occupants from any impact forces, indicated that the aircraft was stopped or travelling at a slow speed when it broke through the ice. The fact that the seat-belts were undone, that both cabin doors were open, and that both occupants were

found outside of the aircraft indicates that they had sufficient time to exit the aircraft as it sank, or that they were not in the aircraft when it started to sink.

With a water temperature of about one degree Celsius, the survival time in the water would have been very short. It would have been an extremely difficult task for both of the occupants to swim and get out of the water with the wet, heavy winter clothing they had on.

There were no known mechanical problems with the aircraft or any medical conditions of the pilot that were considered to be contributory to the accident.

Findings

1. During the landing roll at slow speed or just after coming to a stop, the aircraft broke through a thin layer of the ice which covered the St. Marys River.
2. Both the pilot and passenger, if still in the aircraft as it sank, were able to exit the aircraft, but were unable to get out of the water.
3. The pilot and the passenger succumbed to hypothermia and drowning.
4. The pilot was properly qualified and licensed.
5. There was no evidence that mechanical problems contributed to the accident.
6. The search for the aircraft was hampered by darkness and the fact that the aircraft had sunk in the water.

Causes and Contributing Factors

The Aeronca 11CC broke through a thin layer of ice on the St. Mary's river either at slow speed during, or stopped at the end of, the landing roll. Contributing to this fatal accident were the water temperature of one degree Celsius, and the winter clothing worn by the pilot and passenger which would have hampered their ability to swim and get out of the water.

This report concludes the Transportation Safety Board's investigation into this occurrence. Consequently, the Board, consisting of Chairperson Benoît Bouchard, and members Maurice Harquail, Charles Simpson and W.A. Tadros, authorized the release of this report on 05 May 1997.