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- safety data recording, analysis and research
- fostering safety awareness, knowledge and action.

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ATSB TRANSPORT SAFETY REPORT
Aviation Occurrence Investigation A0-2011-017
Preliminary

Collision with terrain Near Bathurst Island Aerodrome, Northern Territory 5 February 2011

Abstract

On 5 February 2011, the pilot of a Cessna Aircraft Company 310R aircraft, registered VH-XGX, was conducting a return flight to Darwin, Northern Territory, following a charter flight to Bathurst Island, Northern Territory.

The pilot departed from Bathurst Island Aerodrome at approximately 2140 Central Standard Time and the aircraft collided with terrain shortly thereafter - approximately 1 km from the upwind end of the departure runway.

The pilot, the sole occupant of the aircraft, sustained fatal injuries and the aircraft was destroyed by the impact forces and a post-impact fire.

The investigation is continuing.

FACTUAL INFORMATION

The information contained in this preliminary report is derived from the initial investigation of the occurrence. Readers are cautioned that there is the possibility that new evidence may become available that alters the circumstances as depicted in the report.

History of the flight

At 2113 Central Standard Time¹ on 5 February 2011, the pilot of a Cessna Aircraft Company 310R, registered VH-XGX, departed Darwin Airport, Northern Territory (NT) to Bathurst Island Aerodrome, NT, with four passengers on board. This flight was part of a charter service to return passengers to the Tiwi Islands (Melville and Bathurst Islands) from Darwin. On the night of the occurrence, three other aircraft were scheduled for flights to Bathurst Island Aerodrome and two for Snake Bay Aerodrome, Milikapiti, Melville Island, NT. Prior to departure from Darwin, the aircraft was refuelled to full main (tip) tanks.

VH-XGX arrived at Bathurst Island Aerodrome at approximately 2130, and the passengers disembarked. Approximately 10 minutes later, the aircraft was prepared for departure from runway 33 for the return flight to Darwin. VH-XGX was the first of the three aircraft to depart Bathurst Island, at approximately 2140.

Shortly after takeoff, a number of witnesses reported hearing a loud noise or seeing a light from the direction of departure. A search and rescue operation was initiated, with both air and ground responses. VH-XGX was found to have impacted terrain approximately 1 km from the upwind end runway 33 (Figure 1).

¹ The 24-hour clock is used in this report to describe the local time of day, Central Standard Time (CST), as particular events occurred. Central Standard Time was Coordinated Universal Time +9.5 hours.

The pilot, the sole occupant of the aircraft, was fatally injured and the aircraft was destroyed by impact forces and post impact fuel-fed fire.

Figure 1: Accident site (arrowed) with respect to runway 33, Bathurst Island Aerodrome



Pilot information

The pilot held an Australian Commercial Pilot Licence, issued on 13 February 2008. The pilot also held a command instrument rating - multi engine (aeroplane), issued on 13 December 2010, and was endorsed on the Cessna 310. He also held a current Class 1 Aviation Medical Certificate, with no restrictions.

The available information indicated that the pilot had about 1,465 hours total aeronautical experience, with about 395.5 hours in Cessna 310 aircraft. The records also showed that he had 46.9 hours total night flying experience, 25.3 hours of which were on Cessna 310 aircraft.

Aircraft information

The Cessna Aircraft Company 310R was powered by two piston engines driving three-bladed constant speed propellers. It was a low-wing aircraft with seating for six persons, including the pilot.

The aircraft, serial number 310R0058, was manufactured in the United States in 1975. According to maintenance records, the aircraft total time in service (TTIS) was 15,778 hours.

The aircraft had a current maintenance release, which was issued during its last periodic maintenance inspection on 24 December 2010. The maintenance release was valid until 24 December 2011 or 15950.1 TTIS.

Meteorological information

No observations were available for Bathurst Island Aerodrome as there were no observing instruments at that location. The nearest aerodrome with recorded observed weather data was Darwin Airport, about 75 km to the south-east. The Bureau of Meteorology weather facility at Darwin Airport generated routine weather reports (METAR). The 2130 METAR was issued at about the time of the accident and indicated there was good visibility and a 12 kt wind from 290° true.

Witnesses on Bathurst Island, including the pilots that flew the other charter flights that night, reported that there had been some thunderstorms earlier in the day and that there was some cloud in the vicinity, but the night was mostly clear at the time of the accident. Witnesses also reported that it was a very dark night, with no moon or stars visible.

Aerodrome information

Bathurst Island Aerodrome had a 1,470m sealed runway, aligned in a south-east to north-west direction of 150/330° magnetic. The aerodrome was equipped with lighting for night operations. There were no ground lights or night visual references to the north of the airstrip.

Wreckage examination

The aircraft impacted terrain in a heavily wooded area (Figure 2). Contact marks on a number of trees suggested that the aircraft probably had a shallow angle of descent into the ground, and that the wings were level.

The wreckage trail was approximately 120 m in length, and was oriented in line with, and on the same heading as runway 33. All major aircraft components were accounted for at the accident site.

Both engines had detached from the aircraft during the accident sequence. The extent of the rotational damage observed on both propellers suggested that both engines were producing significant power at the time of impact.

Heat damaged wreckage and foliage in the local area indicated that a significant fire had engulfed the area during the impact sequence.

Figure 2: Overview of wreckage towards approach direction



FURTHER INVESTIGATION

The investigation is continuing and will include:

- analysis of the accident and impact sequence
- a review of the pilot's records
- a review of the aircraft's maintenance documentation
- a review of meteorological information and environmental conditions
- technical examination and analysis of recovered aircraft components.

