Australian Government

Australian Transport Safety Bureau

ATSB TRANSPORT SAFETY INVESTIGATION REPORT

Aviation Occurrence Report – 200602199

Final

Runway Excursion – Mabuiag Island, Torres Strait
27 April 2006
VH-SPI
Cessna Aircraft Company U206G

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Accident site photo courtesy of Queensland Police.

Abstract

On 27 April 2006 at about 1530 Eastern Standard Time, a Cessna Aircraft Company U206G (206) aircraft was being operated on a non-scheduled passenger flight from Warraber Island to Mabuiag Island, in Torres Strait. On board were a pilot, six passengers and luggage. Shortly after touchdown during the landing on runway 15 at Mabuiag Island, the aircraft commenced to veer to the left. The pilot was unable to maintain the aircraft on the runway and it continued to veer left, skidding sideways on the grass verge through a fence and into a lagoon. The pilot and passengers were able to safely vacate the aircraft.

The pilot reported that the aircraft was configured with full flap for the approach and that the aircraft touched down at about 65 kts near the runway threshold. He retracted the flaps on touchdown and as he applied maximum braking, the aircraft turned to the left and started to skid. He applied gentle right rudder in an attempt to straighten the aircraft, but it continued to slide to the left. The aircraft ran off the sealed runway surface and it continued to slide on the grass.

The operator reported that an inspection of the aircraft following its recovery from the lagoon did not reveal any mechanical or system anomalies that may have been a factor in the accident.

The pilot reported that he probably did not apply equal braking effort to both the left and right main landing gear brakes during the landing. While the braking technique may have been a factor, it is more likely that the pilot's limited experience in crosswind conditions and on the aircraft types were the main factors that led to the runway excursion.

THE AUSTRALIAN TRANSPORT SAFETY BUREAU

The Australian Transport Safety Bureau (ATSB) is an operationally independent multi-modal Bureau within the Australian Government Department of Transport and Regional Services. ATSB investigations are independent of regulatory, operator or other external bodies.

The ATSB is responsible for investigating accidents and other transport safety matters involving civil aviation, marine and rail operations in Australia that fall within Commonwealth jurisdiction, as well as participating in overseas investigations involving Australian registered aircraft and ships. A primary concern is the safety of commercial transport, with particular regard to fare-paying passenger operations. Accordingly, the ATSB also conducts investigations and studies of the transport system to identify underlying factors and trends that have the potential to adversely affect safety.

The ATSB performs its functions in accordance with the provisions of the *Transport Safety Investigation Act 2003* and, where applicable, relevant international agreements. The object of a safety investigation is to determine the circumstances in order to prevent other similar events. The results of these determinations form the basis for safety action, including recommendations where necessary. As with equivalent overseas organisations, the ATSB has no power to implement its recommendations.

It is not the object of an investigation to determine blame or liability. However, it should be recognised that an investigation report must include factual material of sufficient weight to support the analysis and findings. That material will at times contain information reflecting on the performance of individuals and organisations, and how their actions may have contributed to the outcomes of the matter under investigation. At all times the ATSB endeavours to balance the use of material that could imply adverse comment with the need to properly explain what happened, and why, in a fair and unbiased manner.

Central to the ATSB's investigation of transport safety matters is the early identification of safety issues in the transport environment. While the Bureau issues recommendations to regulatory authorities, industry, or other agencies in order to address safety issues, its preference is for organisations to make safety enhancements during the course of an investigation. The Bureau prefers to report positive safety action in its final reports rather than making formal recommendations. Recommendations may be issued in conjunction with ATSB reports or independently. A safety issue may lead to a number of similar recommendations, each issued to a different agency.

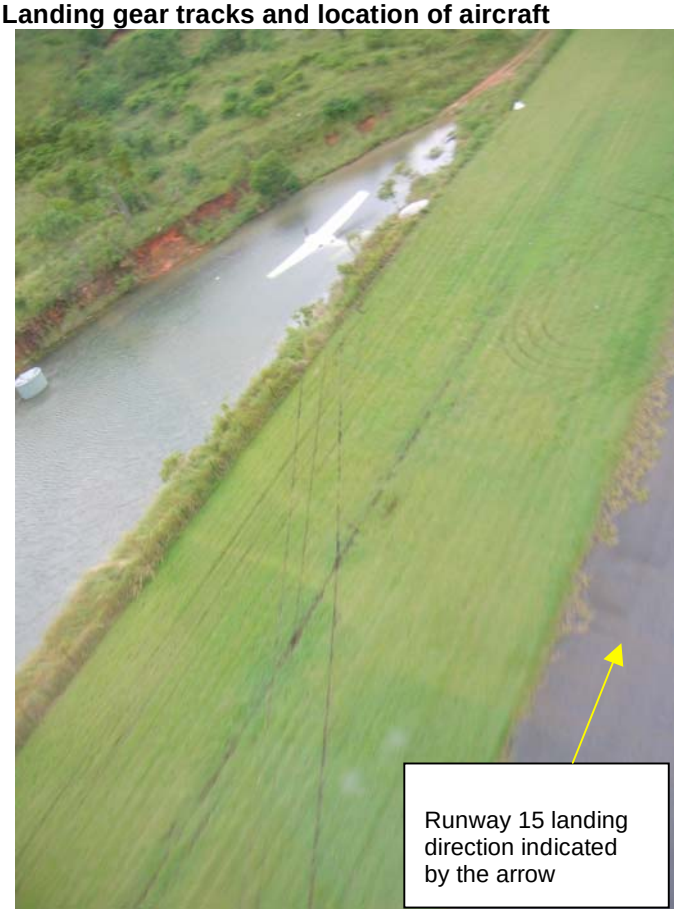
The ATSB does not have the resources to carry out a full cost-benefit analysis of each safety recommendation. The cost of a recommendation must be balanced against its benefits to safety, and transport safety involves the whole community. Such analysis is a matter for the body to which the recommendation is addressed (for example, the relevant regulatory authority in aviation, marine or rail in consultation with the industry).

FACTUAL INFORMATION

The report presented below was prepared principally from information supplied to the Bureau.

On 27 April 2006 at about 1530 Eastern Standard Time[1] a Cessna Aircraft Company U206G (206) aircraft was being operated on a non-scheduled passenger flight from Warraber Island to Mabuiag Island, in Torres Strait. On board were the pilot, six passengers and luggage. Shortly after touchdown during the landing on runway 15 at Mabuiag Island, the aircraft started to veer to the left. The pilot was unable to maintain the aircraft on the runway and it continued to veer left, skidding sideways on the grass verge through a fence and into a lagoon. The pilot and passengers were able to safely vacate the aircraft.

Figure 1: Landing gear tracks and location of aircraft



Bureau of Meteorology data recorded for Horn and Coconut Islands at 1500 on the day of the accident indicate that the Torres Strait area was subject to an east-south-easterly wind at a speed of 10 to 15 kts. The weather at Mabuiag Island was

1 The 24-hour clock is used in this report to describe the local time of day, Eastern Standard Time (EST), as particular events occurred. Eastern Standard Time was Coordinated Universal Time (UTC) + 10 hours.

reported to be visual meteorological conditions[2]. The pilot reported that the wind direction and speed at Mabuiag Island was 120 degrees M at 20 kts, gusting up to 30 kts. There had been recent rain and the pilot reported that the runway was wet. Runway 15 is aligned approximately 150 degrees M.

The pilot reported that he had about 312 hours total flying experience and had commenced working with the aircraft operator on 29 March 2006. His total experience on the aircraft type was about 41 hours and that had been gained since starting flying for the operator. The pilot reported that he had not had much opportunity to practice flying in crosswind conditions during his pilot training or recently with the operator. The operator provided the pilot with a familiarisation flight on the 206 that included one touch and go landing and a landing at Mabuiag Island on 29 March under supervision. The pilot's first solo landing at Mabuiag Island occurred on 24 April.

The accident flight was the third flight, on the day, to Mabuiag Island. All flights were conducted with a full passenger load. During the second flight to the island the pilot had to go around as the aircraft ballooned[3] and there was insufficient runway remaining to continue the landing. A subsequent approach and landing was successful. The accident occurred on the landing at the island on the third flight.

The pilot reported that the aircraft was configured with full flap for the approach and that the aircraft touched down at about 65 kts near the runway threshold. He retracted the flaps on touchdown and as he applied maximum braking the aircraft turned to the left and started to skid. He applied gentle right rudder in an attempt to straighten the aircraft but it continued to slide left. The aircraft ran off the sealed runway surface and it continued to slide on the grass verge.

The operator reported that an inspection of the aircraft, following its recovery from the lagoon, did not reveal any mechanical or system anomalies that may have been a factor in the accident.

The pilot reported that he probably did not apply equal braking effort to both the left and right main landing gear brakes during the landing. While the braking technique may have been a factor, it is more likely that the pilot's limited experience in crosswind conditions and on the aircraft type were the main factors that led to the runway excursion.

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2 Visual meteorological conditions exists when inflight visibility is greater than 5,000 m and flight can be conducted clear of cloud and in sight of ground or water.

3 A condition where a pilot applies excessive up elevator during an aircraft's landing causing it to climb.