

**Aviation Safety Investigation Report
199401826**

**Cessna Aircraft Company
Skyhawk**

14 July 1994

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NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

Occurrence Number: 199401826 **Occurrence Type:** Accident
Location: North Curtis Island
State: QLD **Inv Category:** 4
Date: Thursday 14 July 1994
Time: 1000 hours **Time Zone** EST
Highest Injury Level: None

Aircraft Manufacturer: Cessna Aircraft Company
Aircraft Model: 172N
Aircraft Registration: VH-RLY **Serial Number:** 17270101
Type of Operation: Charter Passenger
Damage to Aircraft: Substantial
Departure Point: Gladstone QLD
Departure Time: 0930 EST
Destination: North Curtis Island QLD

Crew Details:

<u>Role</u>	<u>Class of Licence</u>	<u>Hours on</u>	
		<u>Type</u>	<u>Hours Total</u>
Pilot-In-Command	Commercial	23.0	269

Approved for Release: Tuesday, December 19, 1995

The destination airstrip was approximately 900 m long and orientated 140/320 degrees magnetic. A ridge line with an elevation of between 20 and 30 m above the level of the strip was situated about 250 m west of the strip and a 27 m hill was 180 m beyond the north-western end of the strip. The approach from the south-east was over a saddle between two ridges, with the final approach over ground sloping down towards the strip threshold. A windsock was positioned adjacent to the strip on the eastern side near the north-western end.

The pilot had been employed by the operating company for about three weeks as a casual pilot on an unpaid basis, gaining flying experience as it became available. This was his third charter flight with the company. He had flown into the airstrip under supervision on two previous occasions, landing towards the north-west each time. He gained the impression during these flights that landings should generally be conducted towards the north-west because of the high ground beyond the north-west end of the strip, even if this meant landing downwind. On this occasion, the pilot overflew the airstrip and noted that the windsock indicated the wind to be from the south-west at an estimated 5-10 kt. He judged that there would be a slight tailwind component for an approach and landing to the north-west and decided to land in that direction.



The pilot reported that he established the aircraft on final approach at 60 kt, with full flap selected. He assessed that the aircraft was slightly high on the approach, so he lowered the nose of the aircraft and flew it on to the ground to touch down near the runway threshold. The aircraft bounced and the pilot added some power to cushion the second touchdown. The aircraft then bounced again, more severely than the first bounce, so the pilot elected to go around and applied full power. He stated that the aircraft seemed sluggish and stabilised at about 2 m above the strip, so he retracted the flap to 20 degrees. He then became concerned about the high ground beyond the airstrip and flew towards a gap between trees about 30 m to the right of the strip. He banked the aircraft to avoid a fence and, on seeing more trees ahead, levelled the wings and closed the throttle. The left wingtip dug into the sloping terrain and yawed the aircraft. As the aircraft slowed further, the nosegear was torn off and the right gear bent backwards. The pilot could not recall hearing the stall warning horn operate at any stage during the sequence.

Witnesses reported that, while aircraft belonging to the operator involved in the accident always landed towards the north-west, other operators who used the strip landed towards the south-east when wind conditions dictated, by flying a curved approach to avoid the high ground beyond the end of the strip. The witnesses reported the surface wind as being from the south/south-east when the aircraft flew the approach. The aircraft was described as being close to the runway on base leg and to then fly a steep approach compared with other aircraft they had observed land at the strip. They stated that the aircraft touched down some distance into the strip, up to half way between the end of the strip and the windsock, and to bounce four or five times before attempting to go around from a position past the windsock.

There was no apparent fault with the aircraft which might have contributed to the accident.

Neither the touch-down or attempted go-around positions could be determined accurately. The performance of the aircraft during the attempted go-around, particularly after the partial flap retraction, indicates that the aircraft probably was operating in ground effect.

Three local considerations were identified which could have contributed to the occurrence:

1. the high ground beyond the south-eastern end of the strip could have created an illusion that the aircraft was low and led the pilot to fly a steeper than normal approach path;
2. the actual wind at the approach end of the strip could have been different to that indicated by the windsock which could have been subjected to local effects caused by the high ground adjacent to the strip; and
3. the pilot was aware that he was operating a charter flight and perceived some pressure to land from the approach, rather than fly another circuit.

The factors considered relevant to this accident were:

1. The pilot's relatively low level of flying experience.
 2. The position of the windsock was such that it might not have provided a realistic indication of the surface wind at the south-eastern end of the strip.
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3. The terrain under the approach path could have contributed to the pilot experiencing an illusion relating to the aircraft's approach angle.
4. The pilot perceived pressure to land from the approach.
5. The aircraft was probably high and fast on final approach.
6. The aircraft landed downwind.
7. The pilot made a late decision to go around.

