Aviation Safety Investigation Report 199401779

Skyfox Aviation Ltd
Skyfox

09 July 1994

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Occurrence Number: 199401779 **Occurrence Type:** Accident
Location: 8km E Mareeba
State: QLD **Inv Category:** 3
Date: Saturday 09 July 1994
Time: 1100 hours **Time Zone** EST
Highest Injury Level: Fatal
Injuries:

	Fatal	Serious	Minor	None	Total
Crew	1	0	0	0	1
Ground	0	0	0	0	0
Passenger	0	0	0	0	0
Total	**1**	**0**	**0**	**0**	**1**

Aircraft Manufacturer: Skyfox Aviation Ltd
Aircraft Model: CA-21
Aircraft Registration: 55-0605 **Serial Number:**
Type of Operation: Non-commercial Pleasure/Travel
Damage to Aircraft: Substantial
Departure Point: Strip 8km W Mareeba QLD
Departure Time: 1100 EST
Destination: Innisfail QLD

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command	Commercial	29.0	1430

Approved for Release: Thursday, February 2, 1995

The aircraft was operating from a 400 m grass airstrip orientated approximately 080 degrees M. The strip was on a property where the aircraft had been in storage for some six months prior to the accident. However, the pilot flew the aircraft for about 1.5 hours a few days before the accident. This activity included a flight to Mareeba Airport where the aircraft landed and the pilot borrowed some tools, including a soldering iron, to work on the aircraft. No information about the work done was available. However, the aircraft later departed Mareeba and apparently functioned normally during the return flight to the property.

On the day of the accident, the pilot secured two jerry cans of fuel in the right seat of the aircraft, and placed two carry bags on the shelf behind the seat. The pilot indicated to witnesses that he intended to fly one circuit and land, bid farewell to those at the strip, and then depart for Innisfail, his first intended landing point.

A witness reported that the pilot started the engine and allowed it to idle for between 3 and 5 minutes before commencing the takeoff. As the aircraft accelerated for takeoff, it drifted towards the left side of the strip but the pilot corrected this and the aircraft became airborne. The witness, who had observed the aircraft take off from the strip a number of times, considered that the length of strip the aircraft used to become airborne was greater than he had observed on previous occasions. He believed, also, that the aircraft did not climb as well as usual and was making little headway against the wind. At an estimated height of 20 m above ground level, the aircraft entered a left turn at about 30 degrees angle of bank. When heading approximately north-west, it suddenly rolled further left and spiralled to the ground.

The Bureau of Meteorology advised that, based on observations taken at Mareeba Airport on the day of the accident, the estimated weather conditions around the time of the accident were: wind, south-easterly at 5-10 kt, temperature 19-20 degrees C, and relative humidity 80 percent.

Reports from Mareeba Airport indicated that the wind was gusty at times during the day, making the conditions unsuitable for circuit flying. Witnesses at the accident site reported the weather conditions as a light south-easterly breeze with occasional drizzle, although the sun was shining when the aircraft took off. This information appears to be supported by a photograph taken of the aircraft shortly before takeoff. However, other photographs taken shortly after the aircraft took off, and looking towards the south-east, show a darkened sky and low cloud.

Examination of the aircraft wreckage did not reveal any abnormality which might have contributed to the accident. Metallurgical examination of a section of the exhaust pipe confirmed that the engine was developing power at impact.

The aircraft engine was fitted with a carburettor heat control. This was found in the off position during the wreckage examination. The atmospheric conditions which existed at the time of the accident were such that serious carburettor icing was likely at idle engine power. It is possible, therefore, that there was a buildup of carburettor ice in the period the engine was idling before takeoff. However, any such buildup would cause a decrease in engine performance by lowering the available maximum RPM, an effect which would be evident to the pilot via the cockpit engine instruments. The photographs referred to above show that the aircraft became airborne well before the end of the strip. The presence of carburettor icing cannot, therefore, be confirmed. However, any reduction in engine power would have reduced aircraft performance, particularly during a climbing turn.

The described behaviour of the aircraft in spiralling to the ground is typical of loss of aircraft control following wing stall. The height at which the event occurred would have precluded recovery to normal flight.

A further possibility is that the aircraft was affected by a change in wind conditions or turbulence and that the pilot lost control of the aircraft in these changing conditions.

Factors

The following factors are considered relevant to the development of this occurrence:

1. For reason(s) which could not be positively determined, the pilot lost control of the aircraft during a climbing turn after takeoff.

2. The height at which the loss of control occurred precluded the pilot recovering the aircraft to normal flight.