Aviation Safety Investigation Report 198703515

Cessna 182A

18 October 1987

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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: 198703515 **Occurrence Type:** Accident
Location: Aratula (63 km SW Archerfield) QLD
Date: 18 October 1987 **Time:** 1100
Highest Injury Level: Nil
Injuries:

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	4
Total	**0**	**0**	**0**	**5**

Aircraft Details: Cessna 182A
Registration: VH-WCG
Serial Number: 51194
Operation Type: Private
Damage Level: Substantial
Departure Point: Aratula QLD
Departure Time: 1100
Destination: Aratula QLD

Approved for Release: February 23rd 1989

Circumstances:

This was to be the first time the pilot had flown an aircraft for the purpose of dropping parachutists. The right cabin door and all seats except the pilot's seat had been removed and a windblast deflector baffle had been fitted at the open doorway in preparation for the day's parachute drops. The aircraft was loaded with four parachutists. After the engine was started, the pilot completed an engine check and the pre-takeoff checks. However, the flap was inadvertently left in the fully retracted position. The pilot considered the strip fairly rough and raised the nosewheel early in the takeoff run, to save it from unnecessary stress. The aircraft became airborne at about 50 knots in an exaggerated nose high attitude. Almost immediately, the left wing dropped and the aircraft veered off the centre section of the strip. Several ground strikes occurred off the strip and the left aileron struck a post in the boundary fence. The aircraft continued at full power, occasionally flying in ground effect at low airspeed, until it struck a log in high grass well beyond the marked end of the strip. The takeoff attempt was continued until the aircraft struck another log and uprooted a large sapling before coming to rest, embedded in a large felled gum tree, 370 metres beyond the end of the strip. The investigation determined that the aircraft became airborne prematurely because the pilot overrotated on takeoff. An aft centre of gravity and lack of takeoff flap combined to make the elevator control very light and prone to overcontrol. Once airborne, the induced drag caused by the exaggerated nose high attitude, and the continual ground strikes prevented acceleration.

Significant Factors:

The following factors were considered relevant to the development of the accident

1. The pilot lacked recent experience, the six hours he had flown in the previous weeks was the only flying he had done for some years.

2. The pilot was inadequately supervised for his first "live" despatch of parachutists.

3. A written checklist was not used for the pretakeoff checks and flap was not extended.

4. The aircraft was overrotated, this was probably contributed to by the aft centre of gravity causing a light elevator control feel.

5. The aircraft lifted off prematurely, in ground effect, and did not accelerate due to high induced drag and continual ground strikes.

6. The pilot did not abort the takeoff.

7. It is likely that the baffle fitted to the open doorway adversely affected the aerodynamics of the aircraft.