Aviation Safety Investigation Report 199700528

Cessna Aircraft Company 182P

23 February 1997

Readers are advised that the Australian Transport Safety Bureau investigates for the sole purpose of enhancing transport safety. Consequently, Bureau reports are confined to matters of safety significance and may be misleading if used for any other purposes.

Investigations commenced on or before 30 June 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with Part 2A of the Air Navigation Act 1920.

Investigations commenced after 1 July 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with the Transport Safety Investigation Act 2003 (TSI Act). Reports released under the TSI Act are not admissible as evidence in any civil or criminal proceedings.

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.

Aviation Safety Investigation Report

199700528

The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

Occurrence Number: 199700528 **Occurrence Type:** Accident
Location: Thornton
State: VIC **Inv Category:** 4
Date: Sunday 23 February 1997
Time: 0900 hours **Time Zone** ESuT
Highest Injury Level: None

Aircraft Manufacturer: Cessna Aircraft Company
Aircraft Model: 182P
Aircraft Registration: VH-DMA **Serial Number:** 18263238
Type of Operation: Non-commercial Pleasure/Travel
Damage to Aircraft: Substantial
Departure Point:
Departure Time:
Destination: Tumut NSW

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command	Commercial	6.6	184

Approved for Release: Tuesday, February 25, 1997

On the evening before the accident, the pilot made a precautionary landing in a paddock due to problems with the aircraft's communication and navigation equipment and the approaching onset of last light. On the morning of the accident he paced the paddock and determined it was approximately 395 metres (1,296 ft) long and level. The elevation was about 800 ft, the temperature 20 degrees, aircraft weight was about 2,200 lb and there was no wind. The pilot said that the grass was about 30 cm long and there was no slope. He got the property owner to run over the proposed take-off path in his four wheel drive to flatten the grass.

In the prevailing conditions, the take-off "P chart" for the aircraft indicated that a field length of 1,000 ft was required for takeoff to 50 ft. The manufacturer's performance data indicated 950 ft was required for takeoff to 50 ft at an aircraft weight of 2,400 lb. The "P chart" distances are factored whereas the manufacturer's data is not.

The pilot said that he did an engine runup and then commenced the takeoff using the recommended short field take-off technique. The aircraft did not accelerate as expected and did not become airborne in the available field length. It ran through the fence at the end of the paddock and came to a stop in the next paddock, substantially damaged.

A pilot/aircraft engineer who later assessed the aircraft for recovery purposes reported that the grass was about 60 cm long. The pilot later advised that when he applied full power for takeoff, the manifold pressure gauge was indicating 26 inches and tachometer was indicating 2,600 RPM.