

1. LOCATION OF OCCURRENCE

Clarkefield, Victoria.	Height a.m.s.l. (ft) 1200 feet	Date 29.1.70	Time (Local) 1430	Zone EST
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2. THE AIRCRAFT

Make and Model Cessna 180	Registration VH-PVB	Certificate of Airworthiness	Valid from 23.12.64	Valid to 22.12.73
Registered Owner Pastoral Aviation Pty. Ltd., 736 Young Street, Albury, New South Wales.	Operator Pastoral Aviation Pty. Ltd., 736 Young Street, Albury, New South Wales.	Degree of damage to aircraft Substantial		
		Other property damaged Fence broken		
Defects discovered				

3. THE FLIGHT

Last or intended departure point Clarkefield	Time of departure 1430	Next point of intended landing Departure Point	Purpose of flight Superphosphate Spreading	Class of operation Aerial Work
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4. THE CREW

Name	Status	Age	Class of licence	Hours on type	Total hours	Degree of injury
Douglas Gibson McPHERSON	Pilot	30	Commercial	75	670	Nil

5. OTHER PERSONS (All passengers and persons injured on ground)

Name	Status	Degree of injury	Name	Status	Degree of injury

6. CONTRAVENTIONS OF REGULATIONS AND ORDERS

Regulation or Order No.	Nature of contravention
ANR 227(1)	The aircraft attempted to take-off at a weight which was in excess of that permissible under the circumstances.

7. RELEVANT EVENTS

The pilot was operating under the remote supervision of the chief pilot who had marked the section of the field as suitable for the operation of the aircraft. The distance available for take-off and landing under the prescribed agricultural operational requirements was 1,400 feet and there was then a distance of 120 feet before a three foot high fence on the boundary of the field. The pilot was not aware of the exact length of the field nor did he check the flight manual to assess the aircraft's performance under the conditions. During earlier operations on the day of the accident the aircraft became airborne about 300 feet from the fence but as the temperature rose and the wind strength decreased, this distance became less and on the flight before refuelling the aircraft did not become airborne until about 150 feet from the fence. After adding 22 gallons of fuel and reloading the pilot realised that the wind was now only light and variable and he began his take-off run from a point 100 feet behind the previously used commencement point, thus making a total effective length of 1,550 feet. The aircraft did not become airborne until it was about 50 feet from the fence and the pilot attempted to dump the load but operated the mechanism incorrectly and the aircraft struck the fence, damaging the tailplane and elevator. The aircraft remained in the air and subsequently landed safely. According to the performance chart in the conditions prevailing at the time of the accident the take-off distance requirement was 2,300 feet.

8. OPINION AS TO CAUSE

The cause of the accident was that the pilot did not appreciate the effect of changing ambient conditions on the aircraft performance.

Report approved



(D.S. GRAHAM)

Designation

Assistant Director-General
(Air Safety Investigation)

Date

4.2.1971

DEFINITIONS

ACCIDENT - An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all those persons have disembarked and in which

- (a) any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached to the aircraft; or
- (b) the aircraft suffers substantial damage.

FATAL INJURY - Any injury which results in death within 30 days.

SERIOUS INJURY - Any injury other than a fatal injury which

- (a) requires hospitalisation for more than 48 hours, commencing within seven days from the date the injury was received; or
- (b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- (c) involves lacerations which cause severe haemorrhages, nerve, muscle or tendon damage; or
- (d) involves injury to any internal organ; or
- (e) involves second or third degree burns, or any burns affecting more than five percent of the body surface.

MINOR INJURY - Any injury other than as defined under "Fatal Injury" or "Serious Injury".

DESTROYED - Consumed by fire, demolished or damaged beyond repair.

SUBSTANTIAL DAMAGE - Damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft and which would normally require major repair or replacement of the affected component. The following types of damage are specifically excluded: engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, taxi-ing damage to propeller blades, damage to tyres, engine accessories, brakes, or wingtips.

MINOR DAMAGE - Damage other than as defined under "Destroyed" or "Substantial Damage".