

**Aviation Safety Investigation Report
198702453**

Pilatus B4 PC11

29 December 1987

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 CEO 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 CEO 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.

Occurrence Number: 198702453
Location: 3 km E of Tumut NSW
Date: 29 December 1987
Highest Injury Level: Nil
Injuries:

Occurrence Type: Accident
Time: 1400

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

Aircraft Details: Pilatus B4 PC11
Registration: VH-GCF
Serial Number: N/K
Operation Type: Private (Test Flight)
Damage Level: Substantial
Departure Point: Tumut NSW
Departure Time: 1330
Destination: Tumut NSW

Approved for Release: 29th June 1989

Circumstances:

The glider was undergoing a test flight following an annual inspection. After being released the aircraft was climbed to 4300 feet prior to the commencement of a high speed descent. At an indicated airspeed of 110 knots the pilot reported that there was a slight buffet from the tailplane area. The descent was continued and at an indicated airspeed between 118 and 122 knots severe vibrations from the tailplane area were encountered. The airspeed was reduced and after completing a control check the aircraft was landed. Subsequent inspection revealed damage to the rear fuselage near the fin root. This accident was investigated by the Gliding Federation of Australia and was not the subject of an on-site investigation by the Bureau. The Federation's investigation indicated that the amount of freeplay in the horizontal tailplane of the aircraft was just within the limits specified in the manufacturer's manual the pilot was inexperienced for the task he may have actually reached VNE and his reaction to the vibration may have overstressed the aircraft.

Significant Factors:

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

1. Limited experience of pilot (for this task).
2. Aircraft at or near limiting speed.
3. Freeplay in horizontal tailplane at maximum limit.
4. Tailplane flutter caused structural damage to rear fuselage.

Reccomendations:

The Gliding Federation of Australia in conjunction with the Civil Aviation Authority and the aircraft manufacturer review the tolerences applicable to the development of this occurrence.