

**Aviation Safety Investigation Report
198903758**

Piper PA23-250

23 March 1989

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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: 198903758
Location: Yam Island QLD
Date: 23 March 1989
Highest Injury Level: Nil
Injuries:

Occurrence Type: Accident

Time: 1015

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	5
Total	0	0	0	6

Aircraft Details: Piper PA23-250
Registration: VH-THG
Serial Number: 27-7304920
Operation Type: Charter
Damage Level: Substantial
Departure Point: Yam Island QLD
Departure Time: 1015
Destination: Horn Island QLD

Approved for Release: June 27th 1989

Circumstances:

The pilot had operated from the 750 metre strip many times, usually in a Britten-Norman Islander BN-2 aircraft. On this occasion, however, the BN-2 was not available so a PA23 aircraft was used. The strip was firm and covered with grass 10-15 cm long. There had been intermittent showers on the strip for some hours. Although the pilot had operated PA23 aircraft from the strip previously, he had not done so in wet conditions. The pilot held the aircraft on the brakes and set full power before beginning the takeoff roll with 10` flap selected. He reported being concerned part way along the strip at what appeared a slow rate of acceleration but put this down to the different characteristics of the PA23 aircraft compared to the BN-2. Further down the strip the pilot considered aborting the takeoff but decided to continue after concluding that there was insufficient strip remaining for the aircraft to be stopped. The aircraft became airborne about 20 metres from the upwind end of the strip and the left wing contacted vegetation a short distance further on. This slewed the aircraft left, resulting in the fuselage being broken just aft of the cockpit as the aircraft slowed and came to rest in mangroves. The takeoff performance chart for the aircraft indicated that the strip was of sufficient length for take-off under dry conditions. However, there was no information available to the pilot as to what allowance should be made for long wet grass conditions. In the event, the aircraft became airborne near the end of the strip, probably before the correct speed had been reached. This accident was not the subject of an on-site investigation and this report is based on information provided by the pilot.

Significant Factors:

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

1. The strip was wet and covered with grass 10-15 cm long.

2. There was no information available to the pilot as to the increase he could expect in take-off distance due to long wet grass.
3. The pilot misjudged the aircraft's speed and the strip distance remaining and did not abort the take-off.
4. The aircraft became airborne without sufficient speed for proper climb or control.

Reccomendations:

The Civil Aviation Authority make available to pilots of light aircraft, material that lists guideline factors for variable conditions, that can be applied to takeoff and landing figures obtained from the performance charts. Variable conditions include short, long, wet and dry grass, soft ground and hard wet surfaces. Publications similar to the UK CAA AIC No 52/1985 (Pink 76) 5 September and the UK CAA General Aviation Safety Sense leaflet No7 Aeroplane Performance ISSN 0266-1519 of 1986 are recommended.