

**Aviation Safety Investigation Report
198502525**

Cessna 404 Titan

18 March 1985

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: 198502525
Location: Canberra ACT
Date: 18 March 1985
Highest Injury Level: Nil
Injuries:

Occurrence Type: Accident

Time: N/A

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	6
Total	0	0	0	7

Aircraft Details: Cessna 404 Titan
Registration: VH-TMP
Serial Number:
Operation Type: Supplementary Airline
Service
Damage Level: Substantial
Departure Point: Canberra ACT
Departure Time: N/A
Destination: Williamtown (Newcastle)
NSW

Approved for Release: May 30th 1986

Circumstances:

In order to avoid thunderstorms in the immediate vicinity, the pilot requested take-off from a runway direction giving a slight downwind component. Light rain was falling at the time, but increased in intensity shortly after the aircraft commenced to roll. The initial stage of the take-off run was normal, but the aircraft then failed to accelerate. The take-off was abandoned at about 65 knots Indicated Air Speed, however braking effectiveness was reduced because of the wet runway conditions. A ground loop was attempted, the nosegear subsequently became detached and the aircraft slid sideways into the aerodrome boundary fence. No fault or defect was subsequently found with the aircraft engines, propellers or braking system which might have contributed to the development of the accident. A detailed engineering study revealed that under the existing conditions the wind velocity, rainfall rate and runway slope combined to prevent normal drainage off the runway. As a result, water tended to pool on the runway to a greater depth than anticipated. Quantitative estimates indicated that under these conditions, the rate of acceleration of an aircraft could be reduced by up to 50 percent. When the pilot abandoned the take-off attempt and applied the brakes, the depth of water present was such that the aircraft commenced to aquaplane.