

**Aviation Safety Investigation Report
198803507**

Cessna 441

18 December 1988

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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:	198803507				Occurrence Type:	Accident			
Location:	Brisbane Airport QLD								
Date:	18 December 1988				Time:	2025			
Highest Injury Level:	Minor								
Injuries:									
		Fatal	Serious	Minor	None				
Crew	0	0	1	1					
Ground	0	0	0	-					
Passenger	0	0	5	1					
Total	0	0	5	2					

Aircraft Details: Cessna 441
Registration: VH-TFW
Serial Number: 4410023
Operation Type: Regular Public Transport
Damage Level: Substantial
Departure Point: Thangool QLD
Departure Time: 1918
Destination: Brisbane QLD

Approved for Release: 14 April 1989

Circumstances:

The pilot noticed that during the descent and instrument approach the windscreen had become fogged up by condensation on the internal and external surfaces. Cabin temperature had been maintained at about 30 degrees Celsius during the flight in an attempt to reduce this effect. The weather at Brisbane at the time was drizzle with visibility reduced to 5000 metres, cloud 5 octas of stratus at 600 feet, 5 octas of stratus at 1000 feet, and 6 octas of strato cumulus at 1500 feet. Relative humidity was 95 per cent. After landing on runway 19, the aircraft was slowed to a slower than normal taxiing speed, due to the reduced visibility, and was taxied off the runway via taxiway "Alpha 5". The aircraft was not fitted with a windscreen defogger blower, which necessitated wiping the inside of the windscreen clear with a cloth in an attempt to improve visibility. There was no means of clearing the external surface. The aircraft was starting a right turn to enter taxiway "Bravo 5" when the Surface Movement Controller requested the pilot to enter the apron behind a Boeing 727 which was under tow. The pilot was unable to sight the Boeing 727, and forward visibility was severely reduced at that time by the effect of the bright apron floodlighting, which the pilot was facing. The result was, that after entering "Bravo 5", the aircraft ran off the taxiway, crossed the grass verge, and came to rest in a 2 metre deep drainage channel.

Significant Factors:

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

1. The weather conditions at the time were conducive to the formation of condensation on the windscreen which was cold soaked.
2. There was no aircraft equipment available for the pilot to remove the condensation which had severely restricted visibility.

3. Forward visibility from the cockpit was further reduced by the glare effects from bright apron floodlighting combining with moisture on the external windscreen surface.

4. The pilot attempted to manoeuvre the aircraft without sufficient visual reference.

Reccomendations:

1. The Cessna 441 aircraft may be fitted with a windscreen defogger blower. This particular aircraft was not so fitted and windscreen fogging is a continuing problem. There is no provision for removal of moisture from external windscreen surfaces, and the combination of both problems is considered to represent a safety hazard. It is recommended that the Civil Aviation Authority considers a requirement to make the fitment of windscreen defogging equipment on the Cessna 441 aircraft mandatory.