

**Aviation Safety Investigation Report
198904024**

Boeing 737-376

14 May 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: 198904024
Location: Mackay Qld
Date: 14 May 1989
Highest Injury Level: Nil
Injuries:

Occurrence Type: Incident

Time: 2230

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

Aircraft Details: Boeing 737-376
Registration: VH-TAZ
Serial Number: 23491
Operation Type: Regular Public Transport
Damage Level: Nil
Departure Point: Rockhampton Qld
Departure Time: 2205
Destination: Mackay Qld

Approved for Release: 19th December 1989

Circumstances:

The aircraft departed Rockhampton at 2205 hours for Mackay and was cleared to fly at Flight Level 240. At 2223 hours the pilot called Mackay Tower and reported on descent to 9000 feet. The tower controller instructed the pilot to make a DME (Distance Measuring Equipment) arrival and to report at 10 DME. He advised the pilot that there was a rain shower at the field, moderate rain, and that the visibility was about 6000 metres. At 2227 hours the controller advised the pilot that the weather was improving and the rain showers were mostly to the south-west of the field. He then gave the pilot a choice of left or right circuit and advised that there were a few low patches of cloud. At 2229 hours, the pilot advised that he would be making a left hand circuit for runway 14, (runway 14 is aligned on a magnetic heading of 147 degrees) and the tower controller instructed the pilot to report on final approach. Approximately one and a half minutes later the controller asked the pilot to confirm that the aircraft was making a missed approach. The response from the pilot was "negative". Following this response the controller advised the pilot that the aircraft was very low to the west of the aerodrome and suggested that the aircraft climb. The pilot later reported that he now had the runway in sight and would make another approach. A left circuit was carried out for runway 14 and the aircraft landed without further incident at 2236 hours. Examination of Flight Data Recorder information has shown that at approximately 2231 hours the aircraft was in a landing configuration and aligned with Broadsound Road (part of the Bruce Highway). It subsequently descended to an altitude of 168 feet on the radio altimeter (radio altimeters indicate altitude above ground level). During the latter part of the descent the aircraft was heading 180 degrees magnetic, the same magnetic heading as Broadsound Road, and the computed airspeed reduced to about 137 knots. Witness reports confirm that the aircraft was flown over the highway in a southerly direction, and at very low altitude. An inspection of the area surrounding Mackay Airport and Broadsound Road was carried out in an attempt to ascertain if there were similarities between the runway and the road. Runway 14 is 1981 metres in length and is lit by side variable intensity white lights 65 metres apart. The runway is also

equipped with T-vaxis approach lights which are used by pilots to determine if the aircraft is above or below the specified three degree glidepath. Broadsound Road is lit by post mounted street lights on either side of the road (approximately 30 metres apart) these run for a distance of about 1200 metres before becoming a single row of lights. The northern end of Broadsound Road is flanked either side by two 24 hour service stations. These provide a intense pool of light either side of the road. There was no similar lighting at the threshold of runway 14. Also, there was no lighting in the area of Broadsound Road that resembles a T-vaxis system. It is apparent that the pilot flying the aircraft at the time (the Captain) misidentified Broadsound Road as Mackay runway 14. The flight crew declined to make themselves available to the investigators for interview, apparently under direction from their industrial association. This action by the crew hampered the investigation and resulted in the reasons for the misidentification of the runway not being determined.

Significant Factors:

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

1. The pilot flying the aircraft misidentified Broadsound Road for Mackay runway 14.
- 4.
2. Neither pilot became aware of this error until late in the landing approach.

Reccomendations:

During the initial phase of the investigation the following recommendation was made That the Civil Aviation Authority should take immediate steps to survey the lighting situation at Mackay, to establish if corrective action needs to be taken to prevent a recurrence of this nature.