

COMMONWEALTH OF AUSTRALIA-BUREAU OF AIR SAFETY INVESTIGATION
AIRCRAFT ACCIDENT INVESTIGATION SUMMARY REPORT

REFERENCE NO
SI/792/1040

1. LOCATION OF OCCURRENCE

1.7 km south of Goulburn Aerodrome, N.S.W.		Elevation: 2140 feet
Date: 15.5.79	Time: 1851 hours	Zone: EST

2. THE AIRCRAFT

Make and Model: Cessna 340A	Registration: VH-TDU
Certificate of Airworthiness: Issued on 30.9.74	
Certificate of Registration Issued to:	Operator:
Degree of Damage to Aircraft: Destroyed	Other Property Damaged: Nil
Defects discovered: Open circuit in the gyro motor of the pilot's turn co-ordinator instrument	

3. THE FLIGHT

Departure Point: Goulburn	Time of departure: 1850 hours
Destination: Sydney	
Purpose of flight: Carriage of passengers	Class of Operation: Charter

4. THE CREW

Name	Status	Age	Class of Licence	Hours on Type	Total Hours	Degree of Injury
	Pilot-in-Command	41	Commercial	Not known	3500 (approx)	Fatal
	Second Pilot	23	Commercial	3	1060	Serious

5. OTHER PERSONS (ALL PASSENGERS AND PERSONS INJURED ON GROUND)

Name	Status	Degree of Injury
	Passenger	Minor
	Passenger	Minor
	Passenger	Minor
	Passenger	Minor

6. RELEVANT EVENTS

The pilot/operator had contracted to fly a group of persons from Melbourne to Sydney via Ballarat, Bendigo, Albury and Goulburn on 15.5.79. Four aircraft were involved in the task and, although they were all approved for single-pilot operations, the hirer required that second pilots be carried. It was planned to conduct the flights in accordance with the Instrument Flight Rules (IFR). [redacted] held a valid Class One instrument rating. It was arranged that [redacted], who also held a Class One instrument rating, would be the second pilot on VH-TDU, although his licence was not endorsed for the Cessna 340A and he had not previously flown this type of aircraft. In addition to being the pilot-in-command of VH-TDU, [redacted] was responsible for co-ordination of administrative arrangements associated with the operation of all four aircraft.

The four aircraft were positioned at Essendon Airport on 14.5.79. Because of a fuel shortage some difficulty was experienced in arranging refuelling but this was eventually resolved. The crews were staying overnight at the same hotel and dined together that evening. The meal ended at about 2300 hours and the pilots went to their rooms shortly afterwards. Both [redacted] arose between about 0430 and 0500 hours and, on checking the weather, learnt that Ballarat Aerodrome was unsuitable because of fog. [redacted] therefore implemented a contingency plan, whereby the passengers made the first part of their journey, as far as Bendigo, by bus.

During the morning, the four aircraft proceeded independently to Bendigo. The passengers arrived at the aerodrome shortly before 1300 hours, were embarked and flown to Albury. By arrangement, VH-TDU was the last aircraft to depart. On the two previous positioning flights, when passengers were not carried, [redacted] had performed most of the flying from the left pilot seat. From Bendigo, [redacted] moved to the left seat and flew the aircraft, including navigation and radio communication duties. [redacted], occupying the right pilot seat, briefly handled the controls when the aircraft was at altitude on this and the subsequent flight stage but did not otherwise assist [redacted]. No arrangement was made for [redacted] to monitor the actions of the pilot-in-command or otherwise act in a back-up safety capacity.

At Albury, the passengers proceeded on their business and the pilots were taken into town for lunch. Some additional fuel was also obtained for VH-TDU. The passengers returned to the aerodrome at about 1600 hours and the aircraft proceeded to Goulburn. VH-TDU was again last, arriving at 1719 hours. On this occasion the pilots remained at the aerodrome while the passengers completed their business, returning just before 1830 hours. By this time, [redacted] had been on duty for some 14 hours.

The weather conditions at Goulburn were fine; the wind was a light southeasterly, there was some scattered cloud at about 8000 feet. However, it was very dark, and although the stars were visible there was no moon. Take off on Runway 22 was towards an unpopulated area and the horizon was not visible. It was necessary to rely on flight instruments to maintain spatial orientation.

The first three aircraft departed from Runway 22 without incident, at approximately five minute intervals. The pilot of VH-TDU contacted Sydney Flight Service Centre at 1849 hours, advised he was also taxiing for Runway 22 and that he would call again on departure.

6. RELEVANT EVENTS

No further transmissions were received from the aircraft. VH-TDU completed an apparently normal take off and the landing gear was retracted. Shortly after it became airborne, it entered a gradual descending left turn and flew into the ground. The initial impact was on the left wing tip, approximately 1700 metres south of the departure end of Runway 22, at a speed of about 125 knots. The aircraft bounced, rolled inverted and again struck the ground some 100 metres further to the east. It then slid across the ground for a further 230 metres. A small fuel-fed fire broke out in the right wing but died out after several minutes.

Examination of the wreckage found no evidence of pre-existing mechanical malfunction or defect, apart from an open circuit in the gyro motor of the pilot's turn co-ordinator instrument. The instrument was not subjected to mechanical damage during impact and it is likely the fault existed prior to the accident. It could not be determined whether the pilot was aware that the instrument was unserviceable. All other instruments, including the primary flight instruments used in aircraft attitude control, were found to be serviceable and calibrated within specified limits.

There was no evidence of pilot incapacitation prior to impact.


Injuries were such that he was unable to recall details of the final flight. The passengers were not aware of any abnormality until the aircraft struck the ground.

The pilot's current log book was not located. Therefore, while it is known that he had considerable experience at flying Cessna 340 aircraft, his hours on this type are unknown.

7. OPINION AS TO CAUSE

There is insufficient evidence to establish the cause of the accident but the most likely explanation is that the pilot, influenced by fatigue, did not adequately refer to the flight instruments during the take-off and initial climb.

Approved for publication under the provisions of Air Navigation Regulation 283(1)


(G.V. Hughes) Director

Date:

7.3.83