COMMONWEALTH OF AUSTRALIA-BUREAU OF AIR SAFETY INVESTIGATION

AIRCRAFT ACCIDENT INVESTIGATION SUMMARY REPORT

REFERENCE NO. SI/811/1065

1. LOCATION OF OCCURRENCE

5 km north of Charleville Aerodrome, Qld		Elevation: 1000 feet
Date: 19.9.81	Time: 2031 hours	Zone: EST

2. THE AIRCRAFT

Make and Model: Cessna U206G	Registration: VH-RQV
Certificate of Airworthiness: Issued on 4.5.79	
Certificate of Registration Issued to: y	Operator: rien,
Degree of Damage to Aircraft: Destroyed	Other Property Damaged: Nil
Defects discovered: Nil	

3. THE FLIGHT

Departure Point:	Betoota	Time of departure:	1757 hours
Destination:	Charleville		
Purpose of flight:	Travel	Class of Operation:	Private

4. THE CREW

Name	Status	Age	Class of Licence	Hours on Type	Total Hours	Degree of Injury
	Pilot-in-Command	26	Private	200 (approx)	600 (approx)	Fatal
	Pilot	36	Private	35	438	Fatal

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

Name	Status	Degree of Injury
	Passenger	Fatal
	Passenger	Fatal
	Passenger	Fatal
	Passenger	Fatal
	Passenger	Fatal

6. RELEVANT EVENTS

It had been arranged that on 19.9.81 and five companions would fly from Charleville to Betoota, to attend the annual race meeting. Before departure, attended the Charleville Flight Service Unit (FSU) and submitted a flight plan which covered both outward and return stages of the proposed trip. As the return would not be completed before nightfall, he indicated that the final section of that flight would be completed under Visual Meteorological Conditions at Night procedures (Night VMC). VH-RQV was appropriately equipped and approved for Night VMC and also held the necessary Class IV Instrument Rating for this type of operation.

The flight to Betoota was completed without known incident and on arrival the aircraft was refuelled. During the day, , who had travelled to the race meeting by other means, received a message to return home urgently. He therefore asked to join the party for the flight back to Charleville. This was agreed although, as all six seats in the aircraft were occupied, it was necessary for him to travel in the baggage space behind the rear seats.

The departure from Betoota and flight to overhead Charleville were also without known incident. During the flight, routine position reports from the aircraft were received by Charleville FSU. These reports were made on high frequency (HF) radio and as reception was poor it was necessary for Longreach FSU to act as a relay on one occasion. Also, Charleville was scheduled to close down at 1900 hours but remained open until 1919 hours before VH-RQV was able to establish satisfactory radio communications with Brisbane FSU. When Charleville then closed, the aerodrome lights, including the main Runway 13/31 lights, were left on.

Weather conditions at Charleville were fine; the wind was calm and there was only one okta of cloud at about 7000 feet. It was a dark night, however, with no moon and no visible horizon. At 2027 hours, called Brisbane to report that VH-RQV was in the Charleville circuit area and to cancel the search and rescue watch on his aircraft. Reception of this transmission was poor and also partly interrupted by a call from another aircraft. It was necessary for to repeat his message twice more before it was understood and acknowledged. Brisbane then asked him whether he was aware of the movements of another aircraft which had also been at Betoota. replied in the negative. This was at 2030 hours. No further transmissions were received from the aircraft.

Persons on the ground observed an aircraft join the circuit at Charleville for an approach to Runway 13. Its navigation lights were illuminated and the engine noise sounded normal. However, shortly after it was aligned with the runway on the final leg of the circuit, the approach was abandoned and the aircraft turned left, apparently onto the downwind leg of a second approach. The aircraft appeared to be under normal control and it is likely that the approach was abandoned to permit to complete his radio exchange with Brisbane. After the aircraft was straightened onto a northwesterly heading, it was observed to enter a steady descent. This continued until the aircraft was lost from sight. A few seconds before it struck the ground, the aircraft flew over a house and the engine was reported to be spluttering.

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6. RELEVANT EVENTS

VH-RQV struck trees and the ground at moderate-to-high speed, descending at an angle between 6 and 20 degrees and on a track of 282 degrees magnetic. The aircraft broke apart and wreckage was spread over a distance of approximately 100 metres. Both wings broke away from the fusealge and caught fire. These fires were intense but localised, and most of the wreckage was not affected. Subsequent examination found no evidence of pre-existing mechanical defect or malfunction. Both the aircraft electrical system and the pilots' flight instruments were functioning at impact. The flaps were retracted. The engine and propeller were rotating at high rpm but it was not determined what power output was being produced by the engine.

Calculations indicated the aircraft had been at maximum allowable take-off weight when it departed Betoota but its centre of gravity was between 25 and 57 mm aft of the rear limit. There was no evidence that this had resulted in a loss of control or otherwise contributed to the accident.

Both and were suffering from viral infections. Although their condition was unlikely to have caused incapacitation it is known that such ill-health can increase susceptibility to spatial disorientation. It could not be determined whether or , who occupied the right-hand pilot seat, was flying VH-RQV at the time of the accident. While the left-hand control wheel was intact, both arms of the right-hand control wheel were broken off in a forward direction, consistent with them being held at ground impact. There was also evidence that on previous flights, had allowed to fly the aircraft from the right-hand seat. This included circuits at night, although she did not hold an instrument rating. A flight test in another Cessna U206G aircraft indicated that, if had been flying, she would have had difficulty judging the aircraft's attitude with no visible horizon and the lights of Charleville on the left side of the aircraft. When the test aircraft was placed in an attitude which appeared level to the occupant of the right pilot seat, it was descending at 500 to 750 feet per minute.

7. RELEVANT FACTORS

There is insufficient evidence to determine the causal factors of the accident.

Approved for publication under the provisions of Air Navigation Regulation 283(1)	P.E. Choquenot	Director	Date: 31.5.83