Aviation Safety Investigation Report 198200063

Cessna 210/5

30 September 1982

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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 <u>www.atsb.gov.au</u>.

Occurrence Number: Location:		198200063 Near Cairns QLD			Occurrence Type: Accident Time: 1500	
Date:		30 September 1982				
Highest Injury Level:		Fatal				
Injuries:						
			Fatal	Serious	Minor	None
		Crew	1	0	0	0
		Ground	0	0	0	-
		Passenger	4	0	0	0
		Total	5	0	0	0
Aircraft Details:	Cessna	210/5				
Registration:	VH-BPO					
Serial Number:		C C				
Operation Type:	Travel					
Damage Level:	Missing - aircraft not					
	recovered					
Denarture Point•	Mt Isa OLD					
Donarturo Timo	1500					
Departure rille.	Atherton OLD					
Desiliauoli:						

Approved for Release: 10th August, 1984

Circumstances:

Prior to departing for Atherton the pilot had submitted a flight plan, indicating that the expected flight time was 3 hours 7 minutes. The weather forecasts were satisfactory for flight under visual flight rules, but there were areas of reduced visibility because of smoke associated with bush fires on the latter part of the route. The pilot elected fo fly on the direct track from Mount Isa to Atherton, although the terrain over this route is relatively featureless, making visual navigation difficult. The aircraft departed Mount Isa at 1500 hours EST, giving an expected arrival time at Atherton (about 740km to the northeast) of 1807 hours. At 1727, the pilot amended his arrival time to 1830 hours, but gave no indication of the reason for this delay. At 1810 he advised Cairns Flight Service Unit (FSU) that he intended descending from the cruising altitude of 9500 feet to "about 6000" because of smoke haze. At 1817 hours he advised that he was approximately 20 miles from Atherton and expressed doubts about being able to land there because of extremely thick smoke. In response to queries from the FSU he indicated that the radio navigation aid fitted to the aircraft was not operating properly; and that he had undergone some training, but was not qualified, for night cross-country operations. The published end of daylight at Atherton was 1836 hours, however the smoke in the area would have effectively brought this time forward. The aerodrome was not equipped with any runway lighting, and Cairns FSU relayed a suggestion to the pilot from the Townsville Senior Operations Controller (SOC) that the aircraft proceed to Cairns (50km north north east of Atherton), the nearest aerodrome with runway lighting and an aerodrome beacon. The pilot accepted the suggestion and proceeded on a heading calculated by the SOC. Efforts by the SOC to determine the position of the aircraft were hampered because the pilot apparently had not maintained an in-flight record of positions, times and headings flown. However, at 1834 hours the pilot reported that he was passing between two towns, and advised three minutes later that he thought the towns could have been Atherton and Mareeba. Unfortunately, neither he nor the SOC appeared to consider the desirability of diverting the

aircraft and circling over one of the towns in order to positively establish the position of the aircraft. Had the towns been Atherton and Mareeba the pilot should have been able to sight the lights of Cairns in less than 10 minutes, however no alteration to the assigned heading was given until 1859, at which time the pilot was told to orbit. Discussion took place between the FSU operator and the SOC on the possibility that the aircraft had crossed the coast and was over the sea. The SOC instituted the Distress Phase of Search and Rescue procedures at 1900 hours and at 1905 he gave instructions for the pilot to take up a westerly heading. Shortly afterwards the pilot established communications with Cairns Tower. During the following 90 minutes the SOC relayed numerous messages to the aircraft through Cairns Tower; other aircraft conducted an airborne search and the Cairns meteorological station radar was activated in efforts to locate the aircraft. At 1945 hours the pilot confirmed that the aircraft was over water and the aircraft apparently remained over water for the remainder of the flight. The engine subsequently failed from fuel exhaustion and the pilot advised he was descending over a "fairly smooth sea". The final transmission from the aircraft was made shortly before 2037 hours, at which time it was passing through 400 feet. An intensive search was commenced the following morning and continued for several days, however no trace of the aircraft or its occupants has been found.

Significant Factors:

- 1. Adverse weather conditions (smoke), increasing difficulties with visual navigation.
- 2. Radio navigation equipment not functioning correctly.
- 3. The pilot did not maintain an accurate navigation log.
- 4. The pilot became uncertain of his position.
- 5. Inadequate navigation assistance was provided to the pilot by the responsible operational control facility.