Aviation Safety Investigation Report 198803448

Aero Commander 500-S

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

Occurrence Number: Location: Date: Highest Injury Level: Injuries:		Mt Goonaneman (13 km NE Bigg 16 April 1988			Occurrence Type: Accident enden) QLD Time: 1235 (Approximately)	
Ū			Fatal	Serious	Minor	None
		Crew	2	0	0	0
		Ground	0	0	0	-
		Passenger	0	0	0	0
		Total	2	0	0	0
Aircraft Details: Registration: Serial Number: Operation Type: Damage Level: Departure Point: Departure Time: Destination:	VH-EX 3157 Aerial V Destroy Gaynda	TH Work ved hh QLD Approximate				

Approved for Release: January 23rd 1989

Circumstances:

The aircraft departed Gayndah at 0632 hours on a survey flight. This was the first flight of the day. The survey was terminated near a position about four kilometres north of Mt Goonaneman and the aircraft landed at Gayndah at 1138 hours. The crew assisted the oncoming crew to refuel and prepare the aircraft for the next flight. The aircraft was seen departing Gayndah shortly after 1200 hours. At about 1235 hours witnesses saw a column of smoke in the vicinity of Mt Goonaneman and notified Biggenden Police. The accident site was located by the police about 40 minutes later. The survey flights were being conducted at 80 metres above ground level and traversed the survey area on a flight path which was orientated in a north-easterly/south-westerly direction. The tracks being flown were about 40 kilometres long and 200 metres apart. The accident location indicates that the aircraft was on the first survey line adjacent to the position at which the earlier flight had finished, and was travelling in a north- easterly direction towards the mountain when the accident occurred. Witness observations were not conclusive in establishing the final flight path, however, some of the hearing reports were consistent in describing an unusual noise from the aircraft immediately before the accident. The engine noise was heard by one witness to cease and then recommence twice in quick succession. This could have been caused by a serious engine malfunction or changes made to engine controls by the pilot. Another witness reported seeing the aircraft make what he described as a steep climb and a sharp "U" turn near the mountain. This was not a normal manoeuvre for the aircraft to make and this witness may have observed the aircraft during the accident sequence. Unfortunately the time of this observation could not be established in relation to the time of the accident. The examination of the wreckage was hampered by the extensive destruction resulting from the post impact fire. Dust that was found in the fuel injectors from the left engine could have caused an engine malfunction but this could not be positively established. The right engine could not be fully examined due to fire damage. The propellers from both engines indicated that substantial power was being delivered at the time of impact. The nature of the ground impact was indicative of very low

forward speed, high vertical speed, in a steep nose down, right wing low attitude. The pilot was very experienced, and it is considered to be most unlikely that he would allow such a situation to develop, or that he would attempt any unusual manoeuvre at low altitude near the mountain. There is no evidence to suggest that aircraft may have failed structurally, or that the pilot would not have been able to cope with any situation, other than that which had the potential to cause a sudden loss of consciousness. Pathology disclosed evidence of a heart condition in the pilot which could have caused sudden death or incapacity. The pilot's last medical examination, conducted in February 1988, had included an ECG. Had the pilot suffered incapacitation, the crewman, seated in the cabin behind the pilot would have had insufficient time, due to the low operating altitude, to correct the situation.

Significant Factors:

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

1. Control of the aircraft was lost whilst it was in close proximity to the mountain. The cause of the loss of control could not be determined.