

**Aviation Safety Investigation Report
199504247**

**Aero Commander Div
Shrike Commander**

12 December 1995

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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: 199504247 **Occurrence Type:** Accident
Location: Horn Island, Aerodrome
State: QLD **Inv Category:** 3
Date: Tuesday 12 December 1995
Time: 0918 hours **Time Zone** EST
Highest Injury Level: Fatal
Injuries:

	Fatal	Serious	Minor	None	Total
Crew	1	0	0	0	1
Ground	0	0	0	0	0
Passenger	0	0	0	0	0
Total	1	0	0	0	1

Aircraft Manufacturer: Aero Commander Div
Aircraft Model: 500-S
Aircraft Registration: VH-UJP **Serial Number:** 3074
Type of Operation: Non-commercial Practice
Damage to Aircraft: Destroyed
Departure Point: Horn Island, QLD
Departure Time: 0910 EST
Destination: Horn Island, QLD

Crew Details:

Role	Class of Licence	Hours on	
		Type	Total
Pilot-In-Command	Commercial	119.0	11740

Approved for Release: Tuesday, October 15, 1996

FACTUAL INFORMATION

History of the flight

At approximately 0910 EST, the aircraft took off from runway 32 at Horn Island and commenced a normal climb. Shortly after, it adopted a nose-high attitude and commenced a wingover type manoeuvre to the right. Witnesses described the aircraft as being in a nose-low attitude, and at a height of approximately 600 ft to 700 ft above ground level after the completion of this manoeuvre. It then abruptly adopted a level attitude and rapidly entered a spin to the left.

Witnesses on the ground reported that at approximately the same time as the aircraft entered the spin, engine power became asymmetric, with the right engine continuing to deliver considerable power. The aircraft continued to descend in a fully developed flat spin, with no observed signs of an attempt to recover. The impact was heard shortly after the aircraft descended behind vegetation to the north-west of the aerodrome. The accident was reported to Flight Service by radio at 0918.

The wreckage was located on a beach approximately 2 km to the north-west of the aerodrome. The aircraft was destroyed by impact forces and the pilot sustained fatal injuries.

Wreckage examination

Examination of the wreckage indicated that the aircraft had impacted the ground in an almost flat attitude while rotating in an anti-clockwise direction.

Examination of the airframe and flight control systems did not reveal any pre-impact malfunction or defect which may have contributed to the accident.

Damage to the right engine, and propeller blade slash marks on the trunks of trees at the accident site, indicated that the right engine was producing considerable power at impact. The left propeller was in the feathered position. The left engine and propeller were removed from the wreckage for further examination. There was no evidence of pre-existing defects. Subsequent tests determined that the engine was capable of producing power prior to impact.

Maintenance history

A review of the aircraft, engine and propeller logbooks found nothing to suggest any irregularity that was likely to have affected the normal operation of the aircraft during this flight.

Pilot information

The pilot was the holder of an Australian commercial pilot licence for aeroplanes. He held a valid medical certificate, multi-engine command instrument rating and grade one instructor rating. At the time of the accident, he was the chief flying instructor for the company's flying school and carried out check-and-training duties for the company's charter operations. He had accumulated approximately 11,740 flying hours, of which 7,750 hours were acting as pilot in command of multi-engine aircraft.

The pilot was endorsed on the Aero Commander 500S on 15 October 1993 and had accumulated in excess of 119 hours on type. He had flown the accident aircraft on a number of occasions.

Results of the post-mortem and toxicological examination of the pilot did not indicate signs of incapacitation due to a medical condition or the presence of drugs or alcohol.

A review of the pilot's activities in the 72 hours prior to the accident established that he had been flying for another company in Cairns during the previous weekend. He had a late night on Sunday and was observed to consume a considerable amount of alcohol and smoke heavily on this occasion, activities which he reportedly had not engaged in for some time. He was described as in good spirits on Monday morning and departed for Horn Island during the afternoon. Monday evening was spent with other company employees at the local motel. During this period he was not observed to consume alcohol. He returned to the company's accommodation on the island with one of the company pilots. They spent a short time talking before retiring at approximately 2200.

On the morning of the accident, the pilot was rostered to train one of the company pilots on the Aero Commander 500. After arriving at the airport by bus at approximately 0900 EST, he was observed to walk through the terminal and proceed directly to the aircraft. He was not wearing his uniform. Shortly after, the pilot was observed to start the engines of the aircraft and taxi to the runway holding point. Witnesses reported that they did not observe the pilot carry out a pre-flight inspection of the aircraft or any pre-takeoff engine checks.

Weather

At the time of the accident the wind was a light south-easterly and there was scattered cloud with a base of approximately 1,800 ft. The weather was not considered a factor in this occurrence.

ANALYSIS

The investigation established that the aircraft was capable of normal operation prior to impact. No evidence was found to indicate that the performance of the pilot was affected by any physiological condition which may have adversely influenced his ability to carry out his tasks.

As a result of discussions with a number of witnesses and friends of the pilot, it is apparent that his behaviour immediately prior to the accident was not in keeping with what most described as his thorough and professional attitude to aviation. Witnesses and friends also stated that they had never known the pilot to commence a flight when not wearing his uniform and without having carried out a pre-flight inspection of the aircraft or any pre-takeoff engine checks.

The aircraft entered a flat spin at a height from which recovery may have been possible. The reason the aircraft entered the spin and subsequently crashed could not be determined.

CONCLUSIONS

Findings

1. The pilot held a valid pilot licence and medical certificate.
2. The pilot was endorsed on the aircraft type.
3. The aircraft entered a flat spin to the left with no reported signs of an attempt to recover.
4. The aircraft struck the ground whilst established in a flat left spin.
5. The right engine was producing considerable power prior to impact.
6. Indications were that the left engine was producing little or no power. Its propeller was in the feathered position prior to impact.
7. No evidence was found to indicate a malfunction or pre-existing defect with the aircraft or its systems which may have affected normal operation during this flight.
8. No evidence was found to indicate pilot incapacitation as the result of a medical condition or the presence of alcohol or drugs.
9. The pilot's behaviour on the morning of the accident was not consistent with what was generally accepted to be a thorough and professional attitude to aviation.