

**Aviation Safety Investigation Report
199402476**

**Piper Aircraft Corp
Arrow**

04 September 1994

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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.

The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

Occurrence Number: 199402476 **Occurrence Type:** Accident
Location: 42km NW Adelaide
State: SA **Inv Category:** 3
Date: Sunday 04 September 1994
Time: 1836 hours **Time Zone** CST
Highest Injury Level: Fatal
Injuries:

	Fatal	Serious	Minor	None	Total
Crew	1	0	0	0	1
Ground	0	0	0	0	0
Passenger	1	0	0	0	1
Total	2	0	0	0	2

Aircraft Manufacturer: Piper Aircraft Corp
Aircraft Model: PA-28RT-201
Aircraft Registration: VH-ESK **Serial Number:** 28R-8118073
Type of Operation: Non-commercial Pleasure/Travel
Damage to Aircraft: Destroyed
Departure Point: Ceduna SA
Departure Time: 1625 CST
Destination: Adelaide SA

Crew Details:

Role	Class of Licence	Hours on	
		Type	Hours Total
Pilot-In-Command	Private	70.0	220

Approved for Release: Thursday, February 23, 1995

The purpose of the flight, which had departed from Moorabbin earlier in the week, was to enable the pilot to achieve the required hours for the issue of a commercial pilot licence.

On the day of the accident the pilot had submitted a visual flight rules (VFR) flight plan before departing from Ayers Rock at about 1000 CST, accompanied by one passenger. The aircraft tracked via Nullabor to Ceduna, where a stop was made for fuel and lunch, then departed at about 1625 for Adelaide.

At 1754, in the vicinity of Cowell, the pilot contacted Adelaide Flight Service Unit requesting clearance to climb from 3,000 ft to 6,000 ft above mean sea level (AMSL). The Flight Service Officer (FSO) queried the request as 6,000 ft was non-hemispherical, and an IFR altitude, although no instrument flight rules (IFR) flight plan was held for the aircraft. After further discussions with the pilot, the FSO established that the flight was operating under VFR and the pilot amended the requested altitude to 5,500 ft.

The pilot was instructed to contact Adelaide Approach, and, as the aircraft approached 50 km from Adelaide, it was cleared to descend to 1,000 ft. The pilot advised commencing descent immediately. Several minutes later the aircraft was observed on radar, about 46 km north west of Adelaide over St Vincent Gulf, passing through 2,600 ft on descent. The radar return then disappeared and attempted radio contact with the aircraft was unsuccessful. A distress phase was initiated.

An IFR aircraft, departing Adelaide to the north, was diverted to the area in an effort to locate the missing aircraft. The pilot reported that the cloud base was 1,000 ft with patches to 600 ft. It was dark, and rain showers were in the area. The Bureau of Meteorology advised that isolated thunderstorms were also in the area.

An air and sea search found pieces of floating wreckage and other debris. Later searching discovered the wreckage on the sea bed in the vicinity of the point where the aircraft was last seen on radar.

Underwater photography showed that the aircraft had sustained extensive damage, indicating a high speed impact with the water. All extremities of the aircraft could be accounted for. The instrument panel was recovered from the wreckage for further analysis which revealed that all instruments had been serviceable, and that vacuum pressure was available for the gyro instruments. During inspection of the attitude indicator, witness marks indicated that the aircraft was probably in a wings level, 60 degree nose down attitude at impact.

No evidence has been found to suggest that the aircraft was other than serviceable prior to impact.

The recorded radar data was examined in detail and showed the aircraft descending to, then levelling at about 1,000 ft before commencing a steepening left turn with a very high rate of descent. The radar return was lost at about 300 ft. The radar data does not take the current QNH into consideration and indicated altitudes may not coincide with AMSL altitudes.

Approaching Adelaide, the pilot probably commenced an early descent in order to remain beneath the cloud base. The left turn observed on radar is consistent with an attempt by the pilot to regain visual reference following inadvertent entry to cloud.

The pilot may have been suffering from fatigue, having been on duty since early that morning and having flown for more than 6 hours, particularly as the latter part of the flight was in marginal VFR weather conditions.

Significant factors

1. It is likely that the pilot inadvertently entered instrument meteorological conditions.
2. While attempting to regain visual reference, control of the aircraft was lost at a height insufficient to effect recovery.