

**Aviation Safety Investigation Report
199401742**

**Cessna Aircraft Company
U206G**

06 July 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: 199401742 **Occurrence Type:** Accident
Location: 83km S Whyalla
State: SA **Inv Category:** 3
Date: Wednesday 06 July 1994
Time: 1050 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	0	0	1	0	1
Total	1	0	1	0	2

Aircraft Manufacturer: Cessna Aircraft Company
Aircraft Model: U206G
Aircraft Registration: VH-KFF **Serial Number:** U20604106
Type of Operation: Commercial Aerial Mapping/Photo/Survey
Damage to Aircraft: Destroyed
Departure Point: Whyalla SA
Departure Time: 0815 CST
Destination: Whyalla SA

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command	ATPL	500.0	3122

Approved for Release: Tuesday, March 5, 1996

FACTUAL INFORMATION

During the evening of the day prior to the accident the aircraft was refuelled with 350 litres of aviation gasoline (AVGAS) which apparently filled the main tanks and half filled the tip tanks. Fuel samples taken the next morning, during the preflight inspection, were free from contamination.

The pilot was appropriately licenced and qualified to conduct the flight and the company had the necessary approvals to conduct low level survey operations.

The aircraft was equipped with a life raft and life jackets, all of which were approved types and correctly maintained in accordance with the Civil Aviation Orders.

The aircraft departed at about 0815 CST and proceeded to a designated test range area near Iron Knob to carry out equipment calibration. The crew comprised the pilot and a data technician. After about 45 minutes the aircraft returned to Whyalla and commenced a further low level calibration flight over Spencer Gulf. The first run was in a southerly direction for 83 km to abeam Wallaroo then north to Whyalla where it turned south and repeated the run back to Wallaroo. These runs were carried out at heights between 150 and 500 ft for specified periods of time. Abeam Wallaroo the aircraft, which was maintaining 500 ft, was again turned north. It had been on this run for about 3 minutes at 110 kts when the engine suddenly lost power.

The data technician stated that following the loss of engine power the pilot changed fuel tanks from left to right then switched the boost pump on but the engine failed to respond. The pilot transmitted a mayday call on the very high frequency radio stating the aircraft's approximate position south of Whyalla. The pilot and the data technician were not wearing shoulder harnesses and during the descent the pilot advised the data technician to remove his seat belt. However, the data technician kept his seat belt fastened and braced himself for the impact. He was not sure if the pilot had removed his seat belt. The estimated time from the mayday call to the ditching at 1050 CST was about 20 seconds.

The pilot sustained facial injuries. He and the data technician were wearing life jackets and they evacuated the aircraft through the right window and climbed onto the wing. Several unsuccessful attempts were made to retrieve the life raft that was stowed behind the pilot's seat, but within minutes of the ditching the aircraft sank. Both crew members then commenced swimming towards the shore. On several occasions they saw helicopters flying within 600 m of them but despite waving to attract attention they remained unseen.

After many hours the data technician lost contact with the pilot, who had been having difficulties swimming and keeping his head above water. Just after dusk the data technician was found by a fisherman and a short time later the body of the drowned pilot was found by a search vessel.

The aircraft was snagged by a fishing trawler's net but subsequent searching with the aim of retrieving the wreckage failed to find it and further search attempts were abandoned.

ANALYSIS

The pilot was not wearing a shoulder harness and may have removed his lap belt prior to the ditching. As he was not wearing a shoulder harness to provide upper body restraint it is likely that the pilot sustained the facial injuries during the ditching. These injuries may have subsequently affected his ability to swim and keep his head above water.

The duration of the flight was 2 hours 30 minutes and the data technician believed that the aircraft had been operating from the left fuel tanks when the engine failed. The left tanks had a total fuel quantity of 175 litres (169 litres usable) at departure, which should give an endurance of 2 hours 36 minutes at the calculated consumption rate of 63 litres per hour.

The duration of the flight was about the same as the endurance calculated for the quantity of fuel in the left tank. If the left tank had been used exclusively during the flight the engine may have suffered fuel starvation. At a height of 500 ft there may have been insufficient time for the engine to regain power after changing tanks.

The reason(s) for the loss of engine power could not be determined.