Aviation Safety Investigation Report 199402856

Cessna Aircraft Company Centurion

05 October 1994

Readers are advised that the Australian Transport Safety Bureau investigates for the sole purpose of enhancing transport safety. Consequently, Bureau reports are confined to matters of safety significance and may be misleading if used for any other purposes.

Investigations commenced on or before 30 June 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with Part 2A of the Air Navigation Act 1920.

Investigations commenced after 1 July 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with the Transport Safety Investigation Act 2003 (TSI Act). Reports released under the TSI Act are not admissible as evidence in any civil or criminal proceedings.

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.

Aviation Safety Investigation Report

199402856

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: 199402856 **Occurrence Type:** Accident
Location: Bickerton Island
State: NT **Inv Category:** 4
Date: Wednesday 05 October 1994
Time: 1130 hours **Time Zone** CST
Highest Injury Level: None

Aircraft Manufacturer: Cessna Aircraft Company
Aircraft Model: 210L
Aircraft Registration: VH-APS **Serial Number:** 21059739
Type of Operation: Charter Passenger
Damage to Aircraft: Substantial
Departure Point: Bickerton Island NT
Departure Time: 1130 CST
Destination: Numbulwar NT

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command	Commercial	600.0	1100

Approved for Release: Friday, March 1, 1996

The aircraft took-off normally but climbing through about 400 ft it suffered a sudden, complete engine failure. The pilot carried out emergency procedure checks, which included changing from the left fuel tank to the right, but when this failed to immediately restore power he changed back to the left tank and pumped the throttle vigorously without success. The pilot then carried out a forced landing into the sea adjacent to the shore. All occupants evacuated the aircraft uninjured.

The aircraft had been refuelled the previous day to its maximum capacity of 330 litres, and then flew for 2.3 hours. The pilot then dipped the fuel tanks which showed 170 litres of fuel remaining. The next morning he did not recheck the fuel quantity using the dip stick, but relied on the fuel gauge readings which at times are inaccurate. These indicated 40 litres in the left tank and 80 litres in the right. The aircraft then flew for another .6 of an hour using the left tank. The engine failed during the next take-off.

An inspection of the aircraft revealed that the right tank contained fuel, but the left tank was empty. The fuel consumption rate was advised as being 70 litres/hour.

The pilot had not selected the tank which indicated the greater quantity of fuel for take-off, and when the engine failed he changed from the left tank to the right, but did not wait long enough for air to expel from the engine fuel feed line to allow resumption of fuel flow from the right tank to the engine. Pumping the throttle would not have had any effect on regaining power as the engine is fuel injected.