

**Aviation Safety Investigation Report
199703511**

**Gippsland Aeronautic Pty Ltd
Fatboy**

20 October 1997

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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: 199703511 **Occurrence Type:** Accident
Location: 40km SE Jerramungup, (ALA)
State: WA **Inv Category:** 4
Date: Monday 20 October 1997
Time: 1320 hours **Time Zone:** WST
Highest Injury Level: None

Aircraft Manufacturer: Gippsland Aeronautic Pty Ltd
Aircraft Model: GA-200
Aircraft Registration: VH-YPL **Serial Number:** 2009620
Type of Operation: Commercial Aerial Agriculture - Other
Damage to Aircraft: Substantial
Departure Point: Jerramungup WA
Departure Time: 1250 WST
Destination: Jerramungup WA

Crew Details:

Role	Class of Licence	Hours on	
		Type	Hours Total
Pilot-In-Command	Commercial	507.0	3251

Approved for Release: Tuesday, June 9, 1998

The aircraft was being used to spray crops approximately 600 m from the strip being used for takeoffs and landings. The aircraft engine lost power during a spray run and the pilot elected to land straight ahead into the field of barley. After touchdown, the aircraft groundlooped, causing some damage to the port wing trailing-edge and aileron. The pilot noted after landing that the fuel transfer warning light was illuminated and he later found that there was only a small amount of fuel in the main fuel tanks.

The pilot reported that he had noted the aircraft's low fuel state before takeoff but decided to fly until the fuel transfer warning light illuminated. The fuel transfer warning light illuminates when the fuel pressure at the inlet to the header tank falls below approximately 14 kpa for a sustained period, indicating that the mechanical fuel pump is not delivering fuel to the header tank or that the main fuel tanks have run dry. The pilot believed that he could return to the strip before fuel exhaustion caused the engine to fail.

With regard to the fuel transfer warning light, the aircraft flight manual states in part:

"In the latter case, although the contents of the header tank has been declared "unuseable fuel" due to certification regulations, the remaining 12 litres of fuel in the header tank should in fact be available and sufficient for at least 12 minutes of further flight at normal power settings and aircraft attitudes".



The aircraft was fitted with a Global Positioning System (GPS) tracking bar with a series of red lights to indicate lateral displacement from the desired flight path. The GPS bar assists the pilot to correctly align the swath runs. The pilot reported that each of the GPS bar lights was similar in appearance to the fuel transfer warning light located in the coaming above the instrument panel. The fuel transfer warning light glowed a steady red when illuminated.

The GPS bar was mounted in the accident aircraft such that it was directly in the pilot's line of sight, appearing just to the left of, and very near to, the fuel transfer warning light. The pilot reported that during the spray runs, he was concentrating on avoiding powerlines and was referring to the GPS bar. He had not noticed the illumination of the fuel transfer warning light during the flight.

The pilot noted after landing that the fuel transfer warning light was on; therefore, it had probably operated correctly. However, because the pilot's attention was drawn to avoiding powerlines as well as using the GPS bar, he failed to notice the illumination of the fuel transfer warning light during the flight. The proximity and similarity of the GPS bar lights to the fuel transfer warning light probably contributed to the pilot not noticing the illumination of the fuel transfer warning light. The pilot's decisions to rely on the fuel transfer warning light and to plan the use of the header tank fuel were probably encouraged by the aircraft's flight manual wording on unuseable fuel. The wording indicates that the unuseable fuel is useable.

SAFETY ACTION

The Bureau is considering the safety implications of the wording contained in the aircraft flight manual regarding the use of "unuseable" fuel from the header tank. Any safety action arising from the investigation of this matter will be forwarded to the relevant action agencies and will be published in the Bureau's Quarterly Safety Deficiency Report.

