

**Aviation Safety Investigation Report
199000029**

Cessna 172 RG

26 November 1990

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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: 199000029
Location: Rye Park' Carabost NSW
Date: 26 November 1990
Highest Injury Level: Nil
Injuries:

Occurrence Type: Accident
Time: 1150

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	2
Total	0	0	0	3

Aircraft Details: Cessna 172 RG
Registration: VH-KDO
Serial Number: 172RG0641
Operation Type: Private
Damage Level: Substantial
Departure Point: Canberra ACT
Departure Time: 1135
Destination: Essendon VIC

Approved for Release: 7th August 1991

Circumstances:

The aircraft, being flown by a pilot who had just completed type endorsement, was enroute Canberra - Talbingo - Albury at 6000 feet. Approaching Talbingo the pilot noticed that the fuel gauges, which had each indicated three quarters full at Canberra, were indicating that only a small quantity of fuel remained. Suspecting that either a severe leak had developed or he had made a serious error in fuel planning, the pilot elected to carry out an emergency landing in the Carabost area. To accurately report his position, the pilot attempted to tune the radio navigation aids to the Albury VOR, DME and ADF, without success. He then initiated descent and attempted, unsuccessfully, to transmit a MAYDAY call to Wagga Flight Service, Albury Tower and to broadcast on 121.5 MHz. On final approach to the selected landing point the pilot applied power but the engine failed to respond. The aircraft touched down short of the intended landing point, bounced over a fence and landed heavily in a paddock, collapsing the landing gear. The occupants evacuated the aircraft without assistance. Inspection of the aircraft the next day revealed that it had an adequate quantity of clean, water-free fuel in the tanks. Sufficient battery voltage was available to raise the flaps. The landing gear tracks on the ground indicated that the main landing gear had extended but had not locked down prior to landing. The descent had been carried out with throttle closed, mixture rich, carburettor heat on and cowl flaps open. To conserve fuel the pilot did not warm the engine during the descent. Consequently, low engine temperature, possibly combined with fouled spark plugs, prevented the engine from responding when the pilot sought power on final approach. The indication of low fuel quantity, combined with the inability to receive navigation aids and to transmit a radio message, plus the failure of the main landing gear to lock down are consistent with an electrical malfunction or low battery voltage. Overnight, the battery could have recovered sufficient charge to permit the flaps to be raised. Thus an electrical malfunction and/or a loss of battery voltage, affecting the fuel quantity indicating system and misleading the pilot into believing that his fuel state was critically low, may have occurred.

Significant Factors:

The following factors were considered relevant to the development of the accident

1. An electrical malfunction and/or a low battery voltage may have occurred in flight.
2. The pilot was inexperienced.
3. The pilot misinterpreted the symptoms of the electrical problem as a low fuel state.
4. The pilot elected to carry out a forced landing in difficult terrain.
5. Following a prolonged descent at idle power with rich mixture, the engine suffered a loss of power on final approach. This accident was not the subject of an on-scene investigation.