

No: 6/91

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Category: 1c

**Aircraft Type and Registration:** Reims Cessna F172L, G-AZLM

**No & Type of Engines:** 1 Lycoming O-320-E2A piston engine

**Year of Manufacture:** 1972

**Date & Time (UTC):** 23 March 1991 at 1105 hrs

**Location:** Near Badminton Airfield, Avon

**Type of Flight:** Private (parachute dropping)

**Persons on Board:** Crew - 1 Passengers - 3

**Injuries:** Crew - Minor Passengers - Minor

**Nature of Damage:** Beyond economic repair

**Commander's Licence:** Private Pilot's Licence

**Commander's Age:** 47 years

**Commander's Flying Experience:** 359 hours (of which 141 were on type)

**Information Source:** Aircraft Accident Report Form submitted by the pilot

The accident occurred on the second parachute dropping flight of the day, the first flight having been carried out by a different pilot and completed without incident. The weather was fine with good visibility, scattered cloud at 2500 to 3000 feet, and a surface wind of 360°/12 knots. The temperature was 7°C. The grass runway 25 was in use and the surface was damp.

The pilot reports that he carried out a thorough pre-flight check and, after asking for some minor rectification to the pilot's seat which had partially detached from its rail, he started the engine and taxied towards runway 25 with three parachutists on board. The aircraft's weight was estimated to be 2298 lbs. The maximum permitted take off weight is 2300 lbs. A full power engine check was carried out, including the operation of carburettor heat and all indications were normal. The flaps were selected to 10°.

The pilot commenced the take off run, which he describes as longer than normal due to the slight tail wind component and the aircraft was rotated at 55 mph. It lifted off at 60 mph when it was flown level in order to increase speed. Upon commencing the climb the airspeed began to reduce to 55 mph and the nose was lowered in order to restore climbing speed. The initial climb out from runway 25 is over

a clear path through a 150 feet wide gap in a line of trees which are about 50 feet in height. The pilot's attention was concentrated in ensuring that the aircraft passed through the gap, which he reports that it did at a height that was just above tree top level, although the airspeed would still not increase above 55 mph.

Beyond the trees the ground rises slightly before falling away more steeply at the edge of the Cotswolds Ridge. However, the pilot was aware of the presence of electricity pylons in that direction and, as the aircraft was still not climbing, he decided to make a precautionary landing. The nearest available field was grass pasture land but it was unsuitable due to the position of a building. The next field was long and flat but had been cultivated. The pilot elected to land in this field and so he reduced power and put the mixture control to LEAN. After crossing a dry stone wall the aircraft landed firmly on the soft soil. After a short ground run the nose landing gear dug into the soil and the aircraft pitched over and came to rest inverted. All four occupants released themselves from the wreckage having sustained minor injuries.

The aircraft's flap control system is electrically operated and the flaps can be operated to any position between fully up and 40° down. Subsequent examination of the aircraft wreckage revealed that the left side wing flap had been damaged in the impact and was free moving. The right side wing flap was firmly attached and locked into a position greater than 10°, and measured as between 15° and 18°. However, it could not be positively established that this had been the position at take off.