

**Aircraft type and registration:** Gardan GY-30 Supercab G-BHLZ

**No & Type of engines:** 1 Continental C90 piston engine

**Year of Manufacture:** 1954

**Date and time (UTC):** 3 October 1986 at 1446 hrs

**Location:** Near Bethersden, Kent

**Type of flight:** Private (pleasure)

**Persons on board:** Crew — 1                      Passengers — 1

**Injuries:** Crew — 1 (fatal)                      Passengers — 1 (fatal)

**Nature of damage:** Aircraft destroyed

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

**Commander's Age:** 23 years

**Commander's Total Flying Experience:** 186 hours (of which 22 were on type)

**Information Source:** AIB Field Investigation

It was planned that the aircraft, which had been based at Cranfield airfield, should be relocated at Headcorn/Lashenden airfield on Thursday 2 October 1986. On that day, the aircraft was refuelled at about 1200 hrs, the pilot operating the refuelling nozzle himself. An invoice records the fuel uplift as 32 litres of 100LL aviation gasoline. It was observed that some fuel was spilled during the refuelling, as if the tank had been filled to its capacity of 63 litres. This would be sufficient for about 3 hours flying. No fuel was loaded into the tip tanks because they had a history of not transferring equally. As the weather was unsuitable at Headcorn, the positioning flight was postponed until the next day. Instead, the pilot took off at 1218 hrs and flew visual circuits at Cranfield, landing at 1233 hrs.

At 1249 hrs, on Friday 3 October 1986, the aircraft departed from Cranfield to fly to Headcorn, with two persons on board. The passenger stated that the fuel gauge was reading full on departure. The flight was as planned and uneventful, landing at Headcorn at 1345 hrs.

The aircraft was not refuelled at Headcorn and, at 1435 hrs it took off, with a different passenger, for a short flight in the local area. Just before 1445 hrs, the aircraft was seen heading north in a shallow climb at approximately 2000 feet above ground level. The engine noise stopped abruptly and the aircraft was seen to turn to the left and descend in what was described as a lefthand spiral. It straightened, momentarily, in a steep dive, but soon entered another spiral, the direction of which was not determined. The aircraft crashed into a newly sown field approximately 5 nautical miles east of Headcorn at 1446 hrs.

Examination of the accident site showed that the aircraft had struck the ground in an erect attitude, about 15° nose down and rolled slightly to the left. It had been in a descending flight path, about 30° to the horizontal and slipping to the left. Both the flaps and undercarriage had

been retracted and the propeller showed no evidence of having been turning at the moment of impact. Witnesses who had been at the scene about 10 minutes after the crash stated that there had been no smell of fuel. It was noted that the magneto switch was in the 'OFF' position at impact.

Examination of the wreckage revealed that the aircraft had been structurally intact before impact and no evidence of any pre-impact failure or malfunction was found in the flying control system. Strip examination of the engine confirmed that it had not been rotating at impact, and although it was badly worn, there was no indication of there having been a mechanical failure sufficient to stop it.

It was found that there was no fuel in the main tank (which was ruptured and flattened) nor in any of the pipes running from it. There was no evidence of any pre-impact rupture or disconnection of any of the fuel system components. Although the fuel tank and the filler neck had been completely flattened in the accident, the brass filler cap was undamaged and showed no evidence of having been screwed on to the neck at the time it was flattened. There was also evidence that the filler cap had been cross threaded onto the fuel tank neck at some time.