

Aircraft type and registration: Cessna 150L G-AZHF (light single engined fixed wing aircraft)

Year of Manufacture: 1971

Date and time (GMT): 21 March 1985 at 1845 hrs

Location: Warehouse roof in Fortune Close, Kitts Green, Birmingham

Type of flight: Private

Persons on board: Crew — 1 Passengers — None

Injuries: Crew — Minor Passengers — None

Nature of damage: Aircraft damaged beyond repair

Commander's Licence: Private Pilot's Licence

Commander's Age: 32 years

Commander's total flying experience: 935 hours (of which 253 were on type)

Information Source: AIB Field Investigation and Aircraft Accident Report Form from the pilot.

On 21 March 1985 G-AZHF departed Prestwick with full fuel tanks at 1116 hrs intending to fly direct to Coventry. En route, trouble was experienced with low oil pressure and at 1455 hrs the aircraft landed at Liverpool where the problem was diagnosed and rectified. It left Liverpool without refuelling at 1728 hrs and at about 1840 hrs was in contact with Birmingham approach control. G-AZHF was identified on radar near the Northern SRA boundary at 2500 ft QNH and cleared to transit the SRA maintaining SVFR en route Coventry. Shortly after this the pilot declared an emergency with a rough running engine and was positioned by the radar controller for an approach to land on Runway 15 at Birmingham airport.

The aircraft commenced the approach with the engine giving intermittent bursts of power, but at about 500 ft and 1 to 1½ miles short of touchdown all power was lost. At this point the aircraft was over a congested area of housing and industrial estates; the pilot selected and aimed for an area showing no lights which was in fact a small football pitch bounded by trees adjacent to a large warehouse. At the last moment he pulled the control column fully rearward when the aircraft stalled through the top of a tree and cartwheeled on to the warehouse. The aircraft came to rest near the centre of the roof span with the engine and cockpit having broken through leaving the wings, rear fuselage and tail unit supported by the shattered roof covering and oil drums which were stacked to roof height in the warehouse. The pilot, who was secured by a seat belt and diagonal upper torso restraint, survived with cuts, bruises and a cracked rib; he was able to exit the aircraft and climb down the storage racks to the warehouse floor where he was found shortly afterwards by the Police who had been alerted by the fact that the aircraft crashing on the roof had activated the warehouse's burglar alarm system. At the same time Birmingham ATC had notified the Police and emergency services. As the main British Rail line into Birmingham ran adjacent to the scene of the incident all rail operations were suspended until the aircraft had been located.

The Midland area weather forecast for 21 March 1985 gave the 2000 ft wind 150° 35/40 kt and included a warning of moderate to severe turbulence at low levels. An actual weather observation at Birmingham at 1820 hrs gave the surface wind 110°/12 kt, visibility 2600 m with rain, 3 oktas cloud at 900 ft and 6 oktas 1600 ft. According to the pilot the aircraft had experienced strong adverse winds during its flight south together with turbulence and wind shear effects at the lower levels.

G-AZHF was fitted with long range fuel tanks, having a total usable capacity of 29 Imperial gallons (14.5 gallons per side). It departed Prestwick with full tanks and had flown for 5 hours, according to the times given for arrival and departure at Liverpool without making any allowance for taxiing or ground running. At the time the aircraft entered the Birmingham SRA it would have used about 24 gallons of fuel given usual levels of consumption, leaving an estimated 2½ gallons in each tank. In turbulent conditions with a small quantity of fuel surging in the tanks fuel starvation was a possibility. On initial inspection of the aircraft after the accident it was observed that the tanks had remained intact and were not leaking; the port tank which was the only one accessible contained about 2 gallons of fuel. The pilot was aware of his low fuel state approaching Birmingham and was already prepared to divert there. He attributed the failure of the engine to fuel starvation.