

No: 4/90 **Ref: EW/G90/02/04** **Category: 1c**

Aircraft Type and Registration: Cessna 172B, G-ARLW

No & Type of Engines: 1 Continental Motors Corp O-300-D piston engine

Year of Manufacture: 1961

Date and Time (UTC): 20 February 1990 at 1430 hrs

Location: Barton Aerodrome, Manchester

Type of Flight: Private

Persons on Board: Crew -1 Passengers -1

Injuries: Crew - None Passengers - None

Nature of Damage: Nose landing gear collapsed - propeller tip bending

Commander's Licence: Private Pilot's Licence

Commander's Age: 65 years

Commander's Total Flying Experience: 119 hours (of which 15 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot

The pilot reports that, after an hours flight in the local area, on his return to Barton aerodrome he decided to carry out a further circuit and landing on runway 20. As the aircraft crossed the runway threshold, at a height of about 8 feet above ground level, the right wing started to drop. Before the pilot had completed corrective action the aircraft landed heavily on the nose landing gear which collapsed. It came to rest after a ground run of approximately 20 feet and, after the pilot had completed the emergency shut down drill, both occupants vacated the aircraft without injury.

The weather conditions at the time were partly cloudy with a surface wind variable between 190 and 220/15 gusting to 25 knots.

attention was again drawn to it by a change in its engine note, which he described as rising in a crescendo until it seemed to be screaming. He turned round again just in time to hear the aircraft hit the ground and to see smoke rise from it. Another witness who was about half a mile to the south-west of the aircraft's track described the aircraft as flying an aerobatic manoeuvre before diving to the ground. He could not describe the manoeuvre precisely but thought it might have been either a loop or a barrel roll, during which the aircraft seemed to be fully under the control of the pilot.

Analysis of radar information showed that the aircraft followed a straight track between Southend and Stansted. Its mean groundspeed was approximately 128 kt until about 30 seconds before the accident, when it appeared to reduce to about 112 kt.

The aircraft had struck the ground at moderately high speed, in a steeply banked attitude with the nose pitched over 30 degrees below the horizontal. The airframe was completely broken up in the impact, and the subsequent ground fire had destroyed much of the wood and aluminium airframe. At impact the engine had been developing considerable power and the aircraft had been complete, with all control surfaces attached and properly connected to the control column. The flying control surface attachments were examined and no evidence was found of any looseness or other defect. Because of the fire damage, the possibility of a control jam could not be excluded, but no evidence of any such defect, or any other unserviceability prior to the impact, was found. The propeller was found to have been at the fine pitch end of its operating range at impact but no damage to indicate engine overspeeding was found.

There was no evidence that the pilot suffered from any medical condition that could have contributed to the accident.