No: 4/89

Ref: EW/G88/09/19

Category: 1c

Aircraft Type and Registration:

Cessna F172M, G-BBXT

No & Type of Engines:

1 Lycoming O-320-E20

Year of Manufacture:

1974

Date and Time (UTC):

10 September 1988 1505 hrs

Location:

Darley Dale, Chesterfield

Type of Flight:

Private

Persons on Board:

Crew - 1

Passengers - 1

Injuries:

Crew - None

Passengers - None

Nature of Damage:

Damage to landing gear, propeller, engine and left wing tip. Aircraft

damaged beyond economic repair.

Commander's Licence:

Private Pilot's Licence Group A

Commander's Age:

29 years

Commander's Total

Flying Experience:

165 hours (of which 8 were on type)

Information Source:

Aircraft Accident Report Form submitted by the pilot and AAIB

telephone enquiries.

The aircraft was on a local flight from Netherthorpe Airfield, with the pilot and one passenger, who was also a qualified pilot, on board. The flight was planned to last for about one hour. Twenty minutes after take-off, while cruising at approximately 800 ft agl (1800 ft amsl), the engine spluttered and stopped.

In the ensuing forced landing the aircraft's ground run overran the chosen field, which was estimated to be about 400 m long. The attachments for the nose and the left main landing gears failed when the wheels ran into a low earth bank, and the propeller and left wing tip struck the ground. The two occupants, who were wearing harness with full upper-torso restraint, were uninjured and evacuated the aircraft without difficulty.

The pilot reported that the aircraft apparently ran out of fuel although the fuel gauges for the two tanks were indicating approximately $\frac{3}{4}$ full. He did not conduct a direct visual check of fuel tank contents before flight. Inspection after the accident reportedly revealed that the carburettor float chamber was empty and that both fuel tanks were almost empty.

The standard procedure taught at the flying club which owned the aircraft was for fuel tank contents indicated by fuel contents gauges to be cross-checked before flight by means of a direct visual check via the tank filler ports. The club noted that it had received no previous reports that the fuel gauges on this aircraft, which was flown regularly by the club's instructors, were abnormally inaccurate. The pilot noted that refuelling records for the aircraft were not readily available, and recommended the system, in operation at some flying clubs, where a running log of estimated fuel contents calculated on the basis of flying time since the last refuelling to a known quantity is carried on the aircraft and updated after each flight.