Cessna F172L, G-AZJV

AAIB Bulletin No: 5/98 Ref: EW/G98/02/09Category: 1.3

Aircraft Type and Registration:	Cessna F172L, G-AZJV
No & Type of Engines:	1 Lycoming O-320-E2D piston engine
Year of Manufacture:	1972
Date & Time (UTC):	13 February 1998 at 1445 hrs
Location:	Near Cardiff Airport, Wales
Type of Flight:	Private
Persons on Board:	Crew - 1 - Passengers - 1
Injuries:	Crew - None - Passengers - None
Nature of Damage:	None
Commander's Licence:	Private Pilot's Licence
Commander's Age:	55 years
Commander's Flying Experience:	1,194 hours (of which 847 were on type)
	Last 90 days - 10 hours
	Last 28 days - 6 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

The aircraft was on a flight from Gloucester to Cardiff and sincethe conditions were considered conducive to carburettor icingthe pilot selected carburettor heat at frequent intervals, althoughhe did not detect any evidence of icing. ATC clearance was receivedfor a descent from 2,000 feet to "not above 1,500 feet"in the Cardiff Control Area (CTA). The pilot applied carburettorheat, reduced power and descended to 1,400 feet before reapplyingcruise power. Approximately four minutes later, the engine suddenlyand smoothly ran down to 800 RPM. The pilot immediately transmitteda 'Mayday' call and carried out the engine failure drill, whichincluded changing the fuel selector from 'right tank' to 'both'. He then found that by vigorously pumping the throttle, the enginerpm increased to around 1800 for a few seconds, before decayingto 800 RPM. Further pumping of the throttle produced more shortbursts of power and although this had the effect of reducing therate of descent, it became clear that the aircraft would not beable to reach the airfield, which was some 6 nm distant. Thepilot therefore turned the aircraft away from built-up areas andselected a field into which he made a successful forced landing.

The emergency services had been alerted following the 'Mayday'call, with the result that a Royal National Lifeboat Instituteinshore rescue craft had been placed on standby and a Police Supporthelicopter landed in the field within 30 seconds of G-AZJV comingto rest. In addition, fire, ambulance and local police vehicleswere on site within 20 minutes.

A licensed engineer subsequently carried out extensive checksof the induction system and flushed out the carburettor. Howeverno fault was found and the engine ran normally, with the resultthat the aircraft was flown out of the field on the followingday.

The engineer considered that the engine failure may have beenthe result of severe carburettor icing, although the pilot feltthat there was an additional possibility of a foreign object havingtemporarily caused a blockage within the carburettor.