

AAIB Bulletin No: 1/94

Ref: EW/G93/11/08

Category: 1.3

**Aircraft Type and Registration:** Cessna F172M Skyhawk, G-BAEW  
**No & Type of Engines:** 1 Lycoming O-320-E2D piston engine  
**Year of Manufacture:** 1972  
**Date & Time (UTC):** 12 November 1993 at 1432 hrs  
**Location:** Field, approximately 2 miles south east of Sywell, Northamptonshire  
**Type of Flight:** Private  
**Persons on Board:** Crew - 1 Passengers - 2  
**Injuries:** Crew - None Passengers - 1 Minor  
**Nature of Damage:** Damage to propeller and aircraft structure  
**Commander's Licence:** Private Pilot's Licence with IMC Rating  
**Commander's Age:** 38 years  
**Commander's Flying Experience:** 210 hours (of which 17 were on type)  
Last 90 days - 10 hours  
Last 28 days - 3 hours  
**Information Source:** Aircraft Accident Report Form submitted by the pilot

After a normal take-off from Sywell and initial climb to 500 feet agl the RPM seemed a little low, but the engine appeared smooth and the aircraft was climbing satisfactorily. As he approached 1,700 feet on the QNH the pilot levelled off and applied carburettor heat as he suspected carburettor icing as the cause of the slightly reduced RPM. There was an RPM drop but nothing dramatic and so, having trimmed for level flight, the pilot cancelled the carburettor heat.

The RPM increased, seemingly to a higher note than before and so the pilot reapplied the carburettor heat. After a couple of seconds there was a considerable reduction in power so the aircraft was turned immediately towards the airfield. Towards the end of the turn it became obvious that the power loss was considerable and that the aircraft would not reach Sywell, so the pilot selected a brown field and began to manoeuvre for a landing whilst making a Mayday call. During the approach to the field the engine stopped completely.

The landing was carried out with the weight kept off the nosewheel for as long as possible. However, the nosewheel finally dug into the soft earth at quite a low speed and the aircraft pitched forward and over onto its back. The two passengers and the pilot were able to evacuate the aircraft in a matter of seconds.

An aftercast gave the following weather conditions:

<u>Level</u> (feet)	<u>Temp/Dew Point</u> (Deg C)	<u>Relative Humidity</u> %
Surface	09/04	67
2000	04/ -1	70

An Icing Probability Curve gives 'serious icing at cruise power for float type carburettors' under these conditions.