

**ACCIDENT**

<b>Aircraft Type and Registration:</b>	Cessna 152, G-BHYX	
<b>No &amp; Type of Engines:</b>	1 Lycoming O-235-L2C piston engine	
<b>Year of Manufacture:</b>	1978 (Serial no: 152-81832)	
<b>Date &amp; Time (UTC):</b>	19 May 2014 at 1327 hrs	
<b>Location:</b>	Westfield Farm, 7 miles SSW of Cranfield Airport	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - 1
<b>Injuries:</b>	Crew - None	Passengers - None
<b>Nature of Damage:</b>	Damage to propeller, fuselage, engine mounting frame, engine cowlings, front and rear screens, rudder and tailplane	
<b>Commander's Licence:</b>	Private Pilot's Licence	
<b>Commander's Age:</b>	29 years	
<b>Commander's Flying Experience:</b>	173 hours (of which 165 were on type) Last 90 days - 43 hours Last 28 days - 21 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

**Synopsis**

Following a loss of engine power the pilot conducted a forced landing during which the aircraft struck a bush and entered a ditch, at low speed, at the boundary of the field.

**History of the flight**

The pilot was approximately 45 minutes into the flight, and flying in the cruise at approximately 2,300 ft, when the engine started to run rough and the rpm slowly reduced. After confirming that the engine indications were normal, and the mixture control was in the rich position, the pilot reports having applied carburettor heat for 15 to 20 seconds. The engine rpm reduced when carburettor heat was selected ON and recovered when selected OFF.

After a further three to four minutes the engine rpm reduced again and the pilot was unable to maintain height. The throttle was moved to the fully forward position and the pilot confirmed that the magnetos were at the BOTH position and the fuel primer pump was closed and locked. A MAYDAY call was made to Cranfield Approach, who had been providing a Basic service, and the aircraft was positioned for a field landing. During the approach the pilot noticed telegraph poles in the selected field and therefore repositioned to land in a second field. While the aircraft touched down approximately one third of the way along the field, the pilot was unable to stop the aircraft before it ran into some bushes and a ditch at the field

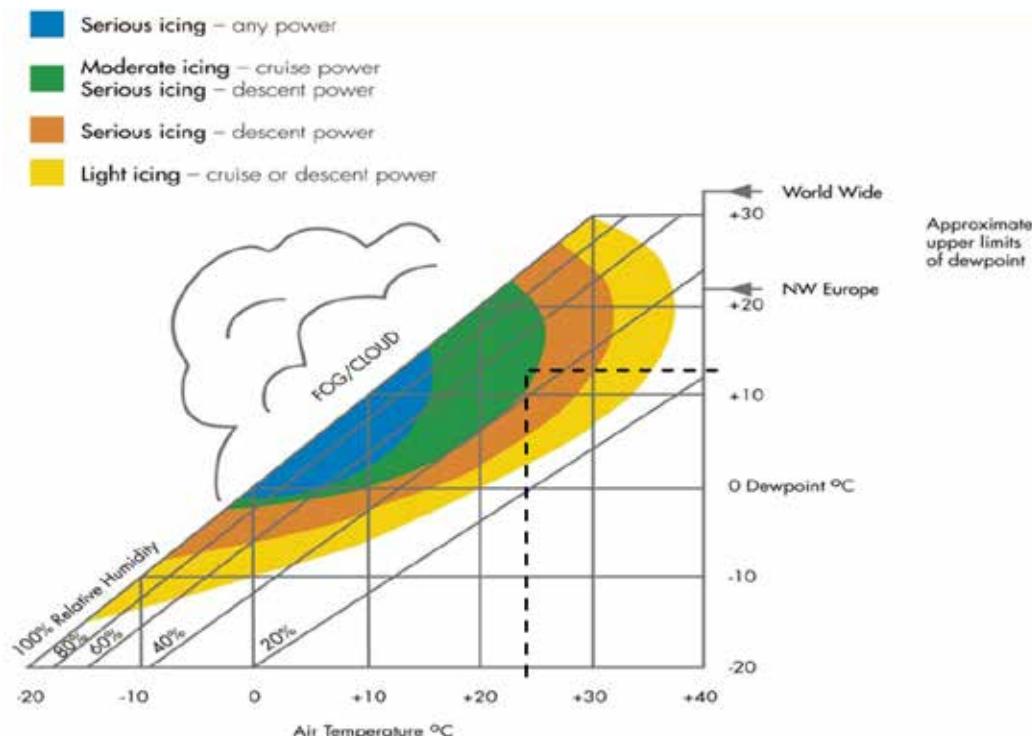
boundary. The propeller, nose leg and engine mounting frame were damaged. The pilot and passenger were both uninjured.

The cause of the loss of engine power has not been established.

### Carburettor icing

The pilot reported that the temperature and dew point were 24°C and 12°C and that 'FREDA' checks had been carried out frequently, during which the carburettor heat was applied by the passenger, who was also a qualified pilot, for 15 to 20 seconds. It is therefore unclear whether carburettor icing was the cause of the engine power loss.

CAA Safety Sense Leaflet 14 provides advice on carburettor icing and at the temperature and dew points reported at the time of the accident there would have been a moderate risk of icing during the cruise. Figure 1 shows the CAA Carburettor icing chart. The CAA advise that carburettor heat should be applied for at least 15 seconds in order to prevent and clear any carburettor icing.



**Figure 1**  
CAA Carburettor icing chart