

**ACCIDENT**

<b>Aircraft Type and Registration:</b>	Reims Cessna F152 Aerobat, G-BFZT	
<b>No &amp; Type of Engines:</b>	1 Lycoming O-235-L2C piston engine	
<b>Year of Manufacture:</b>	1979	
<b>Date &amp; Time (UTC):</b>	2 November 2007 at 1445 hrs	
<b>Location:</b>	Near Weston, Shropshire	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - None
<b>Injuries:</b>	Crew - 1 (Minor)	Passengers - N/A
<b>Nature of Damage:</b>	Nosewheel broken off. Damage to fuselage, wings and propeller	
<b>Commander's Licence:</b>	Student Pilot	
<b>Commander's Age:</b>	59 years	
<b>Commander's Flying Experience:</b>	102 hours (of which 97 were on type) Last 90 days - 37 hours Last 28 days - 18 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

**Synopsis**

The student pilot was on a solo navigation exercise during which he encountered carburettor icing. The engine ran increasingly roughly on the application of the carburettor heat and the pilot returned it to the cold setting before carrying out a forced landing. After touchdown the nose leg broke off and the aircraft overturned.

**History of the flight**

The student was conducting a solo navigation exercise and, having had difficulty finding his first turning point, decided to abandon the exercise and return to Shobdon Airfield. He had flown the planned route with his instructor the previous day, during which

they encountered carburettor icing. The student stated that on his solo flight the aircraft again suffered from carburettor icing requiring frequent applications of carburettor heat. During the return leg to Shobdon the engine ran more roughly and the use of carburettor heat seemed less effective. The pilot returned the carburettor heat to the cold setting and decided to make a precautionary landing in a field.

He commenced an approach to his chosen field but went around when he realised there were sheep in it. An approach was made to a different field and he shut down the engine and switched off the fuel, master switch and magnetos when he was committed to land.

Touchdown appeared normal but the aircraft slowed rapidly before the nose leg dug into the ground and the aircraft pitched forward onto its back. Ground marks suggest the main wheels touched down first and that the nose gear collapsed after touch down as a result of digging in to the soft ground or hitting a hole.

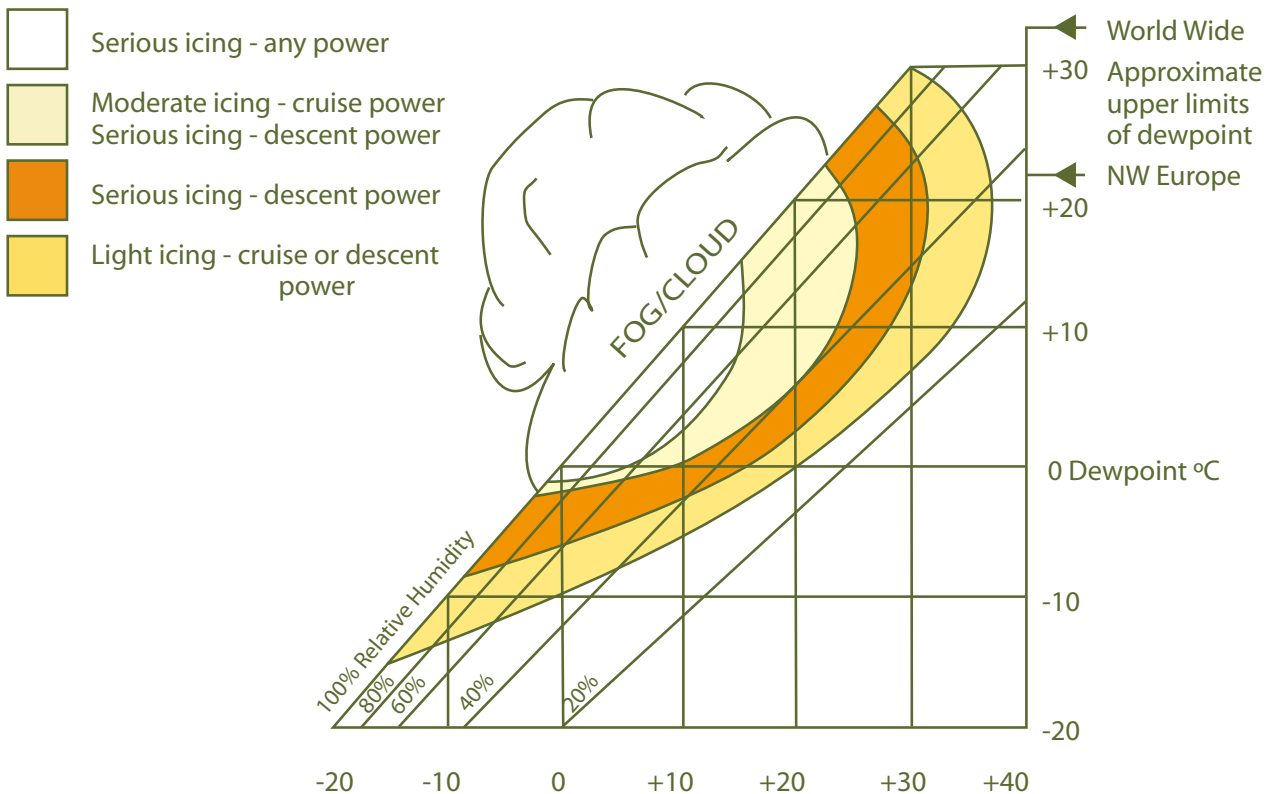
The pilot, who was wearing a four-point harness, received only minor injuries and was able to release himself from the harness and climb out of the aircraft through the passenger window. He had not made any distress calls over the radio but a passing motorist contacted the emergency services.

**Comment**

The forecast weather for the route predicted a temperature of +12°C and a dew point of +11°C.

This gives the potential for serious carburettor icing, irrespective of the power setting used (see Figure 1). The instructor had considered this when deciding whether the weather was suitable for the exercise. He decided the weather was suitable because the student had been trained to deal with carburettor icing and had dealt with it correctly the previous day. The instructor has now revised his briefing to students on the use of carburettor heat to include the fact that should the engine initially run more roughly, carburettor heat should still be maintained until the ice has cleared and the engine returns to normal.

**CARB ICING**



**Figure 1**

Chart taken from:  
CAA Safety Sense Leaflet No 14b