ACCIDENT

Aircraft Type and Registration:	Tecnam P2002-JF Sierra, G-UFCM
No & Type of Engines:	1 Rotax 912-S2 piston engine
Year of Manufacture:	2011 (Serial no: 192)
Date & Time (UTC):	25 July 2013 at 1620 hrs
Location:	Playing field in Newtownards, County Down, Northern Ireland
Type of Flight:	Training
Persons on Board:	Crew - 1 Passengers - 1
Injuries:	Crew - 1 (Minor) Passengers - 1 (Minor)
Nature of Damage:	Damaged beyond economic repair
Commander's Licence:	Commercial Pilot's Licence
Commander's Age:	38 years
Commander's Flying Experience:	1,326 hours (of which 320 were on type) Last 90 days - 77 hours Last 28 days - 37 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

Synopsis

Whilst on final approach the engine spluttered and then cut out when the throttle was advanced. The aircraft struck the ground and overturned into an area of trees; both occupants suffered minor injuries.

History of the flight

Whilst the student was performing the pre-flight magneto check at 1,000 rpm, there was a large drop in rpm and the engine ran roughly. The engine speed was then increased to 1,600 rpm for 30 seconds. On repeating the magneto check the engine ran smoothly. This was the first time that the instructor had observed such engine behaviour on this aircraft type.

Three circuits were then flown without incident. On the fourth circuit the student carried out the downwind checks and noticed a difference in the fuel gauge readings. The fuel was selector was switched from the left to the right (fuller) tank and the instructor recalled checking that the fuel pressure had been maintained.

The aircraft was configured for base leg with the throttle closed, carburettor heat set to ON and the flaps set to 15°. The student turned onto finals at 700 ft and then selected flaps to 40°, and carburettor heat to OFF. The descent was continued at idle power. The instructor felt there was training benefit in demonstrating to the student the effect of selecting full flap early; this caused the aircraft to descend below the correct flight path. At

300 ft the instructor explained that they were too low and that more power was needed. The student applied power; however the engine spluttered and then stopped. The instructor transmitted a MAYDAY and selected an area on a playing field away from where some children were playing football. The aircraft struck the ground and overturned into an area of trees; both occupants suffered minor injuries.

Discussion

The Met Office supplied an aftercast which included information from several sources. Belfast Harbour Airport (EGAC) was reporting a temperature of 19°C and a dewpoint of 15°C; this would place the engine as being potentially at serious risk of icing at descent power (Figure 1). The instructor considered that the engine could have stopped due to carburettor icing, fuel starvation or spark plug fouling but it was not possible to determine which of these was most likely.

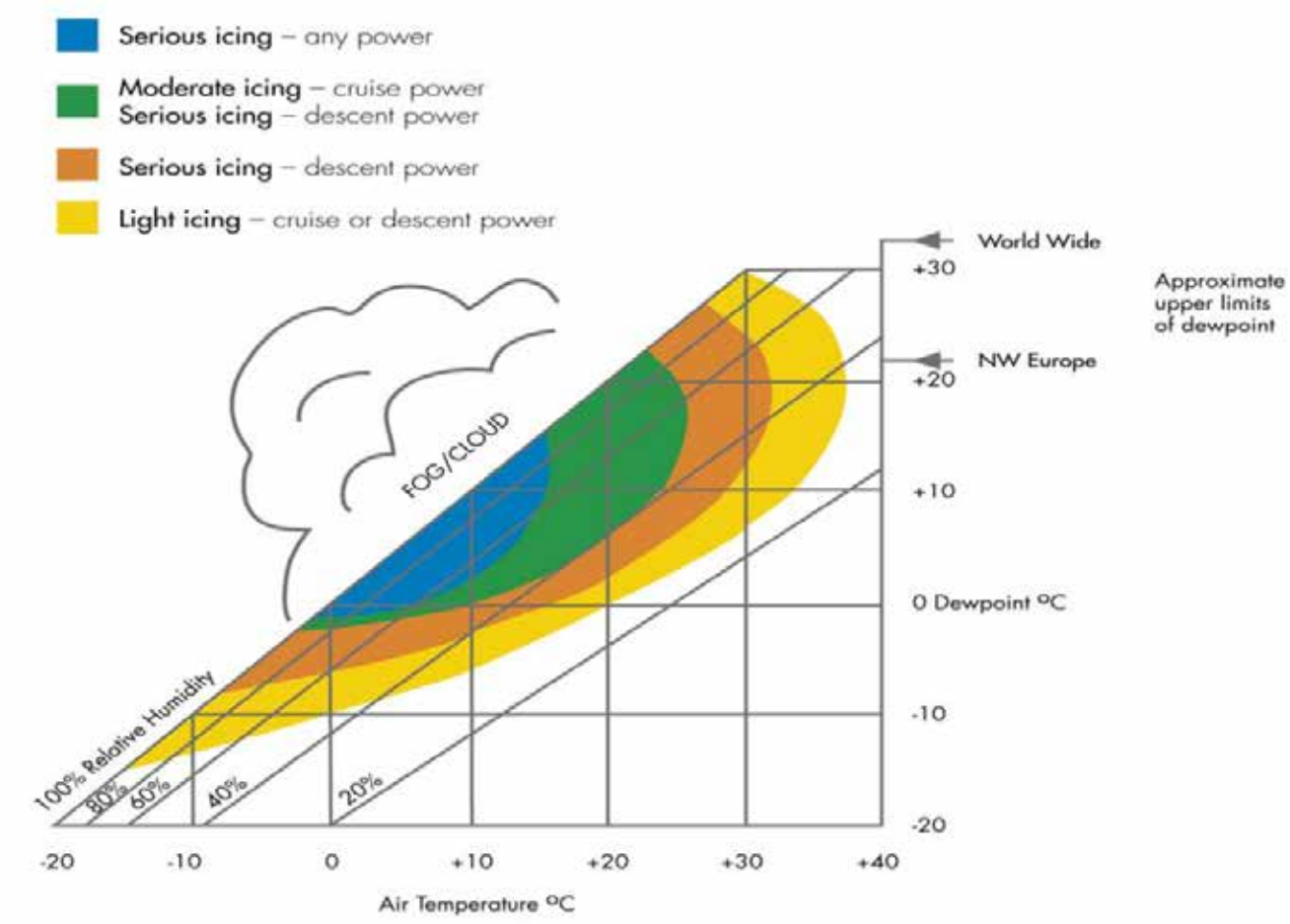

Figure 1