

ACCIDENT

Aircraft Type and Registration:	Robin R2160, G-OCFC	
No & Type of Engines:	1 Lycoming O-320-D2A piston engine	
Year of Manufacture:	2002 (Serial no: 374)	
Date & Time (UTC):	27 May 2015 at 1100 hrs	
Location:	Bodmin Airfield, Cornwall	
Type of Flight:	Training	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Damage to wings, fuselage and nosewheel assembly	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	85 years	
Commander's Flying Experience:	18,348 hours (of which 552 were on type) Last 90 days - 35 hours Last 28 days - 15 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The aircraft was about halfway along the runway during its takeoff roll when the instructor sensed that it was no longer accelerating. He abandoned the takeoff but could not prevent the aircraft from over-running the end of the runway. A change in wind direction and inadvertent use of brakes by the student may have been causal factors.

History of the flight

The aircraft taxied to grass Runway 31, which has an available takeoff run of 610 m. The wind was observed to be from 230° at 10 kt and the instructor told his student to use the full length of the runway, including the displaced threshold.

During the first part of the takeoff roll, acceleration appeared to be normal and by halfway along the runway the indicated airspeed was about 50 kt. At this point the aircraft swerved to the left and the instructor intervened to regain the runway heading, but the airspeed appeared not to increase. Despite an attempt to rotate the aircraft and lift off, it remained on the ground and the instructor realised that it would over-run the runway despite hard braking. The aircraft came to rest in a gorse bush and both occupants vacated it by jettisoning the canopy. Neither was injured.

The instructor looked at the windsock and saw that the wind direction had changed 180°, such that there was a tailwind during the attempted takeoff. He stated that the windsock

was not visible from Runway 31 until about halfway along its length and that flying for the rest of the day was carried out from the shorter Runway 21. In the 'Remarks' section, the aerodrome chart for Bodmin states:

Warning: *In strong wind conditions windshear and turbulence may be encountered on the approaches to all runways. Downdraught effect and sudden changes in surface wind velocity are possible in light wind conditions in summer months due to the effect of sea breezes from both coasts.'*

The instructor thought the student may have been inadvertently applying brake, accounting for the swing to the left, and that this and the change in wind direction was responsible for the apparent shortfall in performance. He stated that the still-air takeoff distance for this aircraft should have been approximately 400 m.