

ACCIDENT

Aircraft Type and Registration:	Cessna 182Q, G-BWRR	
No & type of Engines:	1 Continental O-470-U piston engine	
Year of Manufacture:	1978	
Date & Time (UTC):	11 August 2006 at 1310 hrs	
Location:	Lower Withial Farm, Pennard, Somerset	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 3
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Damage to horizontal stabiliser, right strut, lower engine cowling and nosewheel spat	
Commander's Licence:	National Private Pilot's Licence	
Commander's Age:	63 years	
Commander's Flying Experience:	1,946 hours (of which 224 were on type) Last 90 days - 40 hours Last 28 days - 16 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The aircraft was landing shortly after a rain shower had passed overhead the airfield. Following a normal touchdown the aircraft became airborne again having hit an undulation in the grass surface. The pilot made a small power application to arrest the descent and touched down again further down the strip. On brake application the pilot perceived little braking effect due to the slipperiness of the wet grass. The aircraft overran the runway causing slight damage. There were no injuries.

History of the flight

The flight was planned from Fishburn, County Durham to Lower Withial Farm. The weather was as forecast, with a wind from 320° at 25 kt, a cloudbase of 3000 ft,

and unlimited visibility. Lower Withial Farm has a grass Runway 05/23 which is 500 m in length with a slight upslope towards the east. There is a 10 ft high hedge at the approach end of Runway 23.

On arriving to the north of the farm strip the pilot noted scattered rain showers in the local area and circled for five minutes to allow the rain showers to clear towards the south. The forecast wind for the area was from 320° at 8 kt which accorded with the actual conditions reported on the Bristol ATIS broadcast and the indications from the windsock. The pilot made an initial approach onto Runway 05; however his GPS indicated a tailwind of 5 kt so he aborted the approach and repositioned for an

approach to Runway 23. The aircraft was configured with flaps selected to 40° and an approach speed of 60 kt was used. The GPS indicated a headwind of 5 kt.

The approach was normal and the aircraft touched down in the first third of the strip, however during the landing roll the aircraft struck an undulation halfway along the strip and became airborne again. The pilot applied a small amount of power to arrest the descent which had the effect of using up more of the remaining length of the strip. When the aircraft touched down again the pilot applied the brakes. There was little deceleration due to the slipperiness of the wet grass following the recent shower. The aircraft was by this time approaching the end of the runway, beyond which was an electric fence. The pilot considered it would be too risky to attempt a go-around. He tried to steer the aircraft, with minimal effect, and the aircraft passed through the electric fence, striking a parked car before coming to rest approximately 10 m beyond the fence. The pilot shut down the aircraft and all the occupants exited the aircraft unaided.

Aircraft performance

Information in the Pilots Operating Handbook gives a 40% landing distance increase for operation on a dry grass runway. Applying this factor, performance figures from Cessna give a landing distance from 50 ft of 582 m, which includes a ground roll of 256 m. They stated that for:

'wet grass there would be little or no braking. Also, if the grass was fairly wet, then the pilot could experience hydroplaning.'

The Civil Aviation Authority Safety Sense Leaflet 7c 'Aeroplane Performance' details variables affecting performance. It states:

'Landing on a wet surface, or snow, can result in an increased ground roll, despite increased rolling resistance. This is because the amount of braking friction is reduced, due to lack of tyre friction. Very short wet grass with firm subsoil will be slippery and can give a 60% increase (1.6 factor).'