

ACCIDENT

Aircraft Type and Registration:	Cessna 150M, G-BRNC	
No & type of Engines:	1 O-200-A Continental Motors piston engine	
Year of Manufacture:	1976	
Date & Time (UTC):	2 July 2006 at 1035 hrs	
Location:	Netherthorpe Airfield, Nottinghamshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Front engine cowling and propeller damaged	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	38 years	
Commander's Flying Experience:	143 hours (of which 137 were on type) Last 90 days - 15 hours Last 28 days - 4 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

During landing, the aircraft failed to stop within the runway distance available; it departed the runway to the left and struck a steel gate. The pilot, in a full and frank statement, attributed the accident to his failure to initiate a go-around at an early stage of the landing. He also considered that his approach speed, the wet grass runway and the lack of a headwind were contributory factors.

History of the flight

The pilot had flown the aircraft on an uneventful local flight and had positioned the aircraft to land on the grass Runway 06 at Netherthorpe; the wind was from 030° at 5 kt. He flew the approach without difficulty and landed 'on the numbers' with a reported airspeed of about 60 kt,

some 8 kt above the normal 50 ft threshold speed of 52 kt. The aircraft continued down the runway, past the intersection with Runway 18/36. At this point the pilot thought there was enough runway left on which he would be able to stop. However, it soon became clear to him that the aircraft was not slowing down enough to stop within the remaining runway distance. He was also beyond the point at which a go-around would have been possible. He continued to apply the brakes, and then purposely steered the aircraft to the left. It departed the runway and struck a steel gate causing damage to the engine cowl and the propeller. The pilot was uninjured.

Runway 06 at Netherthorpe has a grass surface and a declared landing distance available (LDA) of 407 m.

It also has a 1.9% downslope, and on the day of the accident the grass was wet.

According to the CAA Safety Sense Leaflet 7c '*Aeroplane Performance*', it is 'strongly recommended' that pilots of private flights apply the various factors to the landing performance information contained in the flight manual. This is because flight manuals for light aircraft usually contain unfactored performance information. For the landing of the accident flight the following factors were relevant:

'Wet grass', which has a factor of 1.35; with an increase of up to 1.6 for 'very short grass'.

A '2% downhill slope', which has a factor of 1.1

An 'additional safety factor' of 1.43.

For G-BRNC the flight manual had a declared landing distance required of approximately 330 m and applying the factors above gave the following distance:

$330 \text{ m} \times 1.35 \times 1.1 \times 1.43 = 701 \text{ m}$. This was 294 m longer than the declared LDA for Runway 06.

In addition, the faster approach speed in this case would further extend the landing distance required.

The pilot, in a full and frank statement, attributed the accident to his failure to initiate a go-around at an early stage of the landing. He also considered that his approach speed, the wet grass runway and the lack of a headwind were contributory factors.