

ACCIDENT

Aircraft Type and Registration:	Piper PA-32R-301 Saratoga SP, G-RIGH	
No & Type of Engines:	1 Lycoming IO-540-K1G5 piston engine	
Year of Manufacture:	1998 (Serial no: 3246123)	
Date & Time (UTC):	21 August 2014 at 1805 hrs	
Location:	Strathallan Airfield, Perthshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Propeller blade, dents in leading edge of both sides, scrape on left engine side panel	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	75 years	
Commander's Flying Experience:	2,305 hours (of which 2,021 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 touched down a significant distance along the wet grass strip. The pilot was unable to stop it before it went off the end of the runway and crashed through a fence.

History of the flight

The pilot arrived at Strathallan Airfield having refuelled the aircraft to full tanks at Cumbernauld. The reported temperature was approximately 23°, pressure 1005 hPa with a light crosswind, there had been recent heavy rain and the grass strip was wet. The pilot reported that after a normal approach, the aircraft touched down "after considerable float", having landed a few knots fast. He then found the brakes were ineffective on the wet grass and he was unable to prevent the aircraft from departing the end of the runway, crashing through a fence and stopping approximately 15 m into the next field. The pilot was unhurt; he made the aircraft safe and vacated it normally.

Strathallan has a grass strip 620 m long with two landing runways, 28 and 10. The field slopes down to the east with a gradient of approximately 0.5%, with trees and higher ground to the west of the threshold of Runway 10. The surface temperature and pressure at the time of the accident resulted in an airfield density altitude of approximately 1,300ft.

Information provided by the manufacturer indicates that the normal landing distance from 50 ft for this aircraft, when fitted with a three-bladed propeller, is 479 m including a ground

roll of 309 m. The CAA Safety Sense Leaflet 7e '*Airplane Performance*', highlights that the landing distance required on short wet grass may increase by 60%, before additional safety factors are added. Published performance figures assume that the aircraft touches down in the correct place at the correct speed.

The pilot concluded that the main cause of this accident was not touching down in the correct place. The slipperiness of the short wet grass, the lack of any headwind, the gentle downward slope and the density altitude were contributory factors.