Piper PA-32-260 Cherokee Six, G-RAYE

AAIB Bulletin No: 7/2003	Ref: EW/G2003/03/02	Category: 1.3
Aircraft Type and Registration:	Piper PA-32-260 Cherokee Six, G-RAYE	
No & Type of Engines:	1 Lycoming O-540-E4B5 piston engine	
Year of Manufacture:	1966	
Date & Time (UTC):	1 March 2003 at 1430 hrs	
Location:	Panshanger Airfield, Hertfordshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Substantial to landing gear, port wing and propeller	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	53 years	
Commander's Flying Experience:	329 hours (of which 201 were on type)	
	Last 90 days - 37 hours	
	Last 28 days - 32 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

The aircraft was returning to Panshanger Airfield from Humberside Airport, Lincolnshire. The pilot obtained the Luton weather report from the Automatic Terminal Information System (ATIS) enroute, which indicated a surface wind from 170°, varying between 130° and 270°, at 11 kt. He joined the circuit at Panshanger on right base for Runway 29, a grass runway with 788 metres (2,585 feet) of landing distance available. Although not raining at the time the runway surface was wet.

The pilot turned onto final approach and noticed an aircraft taxiing on the runway. He asked for the aircraft to vacate the runway while he landed, and it taxied off to one side. There are some trees on short final approach for Runway 29 and the pilot was mindful of possible windshear effects from these. The combination of his anticipating windshear, with a possible tailwind, resulted in the aircraft floating along the runway before touching down approximately halfway along it, with a relatively high groundspeed. The pilot applied the brakes but the deceleration was minimal, so approaching the end of the runway he attempted to slew the aircraft round. The aircraft continued off the end of the runway and slid into a raised hedge and ditch on a heading of about 60° to the right of the landing direction.

There was substantial damage to the port wing and landing gear but the pilot, who was wearing a lapstrap and shoulder strap, was uninjured. He shut down the aircraft and was able to vacate normally with the fire services in attendance.

Document title

The General Aviation Safety Sense Leaflet 7B 'Aeroplane Performance' published on the Civil Aviation Authority website provides guidance to pilots regarding the performance implications of a number of different factors. The advice given is that wet grass, and particularly very short wet grass, may increase the landing ground run by up to 60%, and that a tailwind of 10% of the lift-off speed of an aircraft may increase the landing distance by 20%.