

# Piper PA-28-161, G-BPRV

## AAIB Bulletin No: 6/97 Ref: EW/G97/03/24 Category: 1.3

<b>Aircraft Type and Registration:</b>	Piper PA-28-161, G-BPRV
<b>No &amp; Type of Engines:</b>	1 Lycoming O-320-D3G piston engine
<b>Year of Manufacture:</b>	1983
<b>Date &amp; Time (UTC):</b>	29 March 1997 at 1144 hrs
<b>Location:</b>	Mid-Wales Airport, Welshpool, Wales
<b>Type of Flight:</b>	Private (Training)
<b>Persons on Board:</b>	Crew - 1 - Passengers - 3
<b>Injuries:</b>	Crew - None - Passengers - None
<b>Nature of Damage:</b>	Substantial to wing, nose landing gear and propeller
<b>Commander's Licence:</b>	Basic Commercial Pilot's Licence with FI Rating
<b>Commander's Age:</b>	27 years
<b>Commander's Flying Experience:</b>	500 hours (of which 250 were on type) Last 90 days - 71 hours Last 28 days - 23 hours
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot

The aircraft was on a training flight from Welshpool to Liverpool. The weather was CAVOK with a surface wind of 300°/15 kt. The pilot had paid particular attention to the weight and balance of the aircraft to ensure that take-off performance was adequate for a departure from Runway 22 (asphalt surface; 830 x 18 metres).

After taxiing to the holding point, take-off flap was selected, and a satisfactory power check was carried out. The aircraft was lined up at the start of the runway and held on the brakes until full power was established. The controller confirmed that the surface wind was 300°/15 kt (aircraft cross-wind limit is 17 kt) as the aircraft commenced its take-off run. Acceleration was normal, the aircraft rotated at 55 kt and a positive rate of climb was observed on the VSI. The pilot reported that after a few seconds 'the lift seemed to decrease and the aircraft was forced back onto the runway'. It briefly became airborne again briefly but settled on the runway with little distance remaining. With the airspeed decreasing rapidly the aircraft was steered towards and collided with a privet hedge on the aerodrome boundary. After coming to rest the fuel, magnetos and mixture were selected 'off' and the aircraft evacuated without injury to the pilot or passengers.

The pilot considered that the accident had occurred due to windshear caused by local topographical features. The aerodrome is located in the River Severn Valley with high ground rising to 400 feet at 1,600 metres to the west and 250 feet at 1,500 metres to the east. Furthermore, the aerodrome terminal and hangars, which are situated to the west of and close to Runway 22 threshold, could have had a further effect on the local wind pattern.