

Piper PA-38-112, G-JEFF, 9 February 2001

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Aircraft Type and Registration: Piper PA-38-112, G-JEFF

No & Type of Engines: 1 Lycoming O-235-L2C piston engine

Year of Manufacture: 1979

Date & Time (UTC): 9 February 2001 at 1400 hrs

Location: Baxterley Charity Farm, near Atherstone, Warwickshire

Type of Flight: Private

Persons on Board: Crew - 1 - Passengers - None

Injuries: Crew - None - Passengers - N/A

Nature of Damage: Aircraft damaged beyond economic repair

Commander's Licence: Airline Transport Pilot's Licence with Instructor Rating

Commander's Age: 37 years

Commander's Flying Experience: 2,089 hours (of which 48 were on type)
Last 90 days - 88 hours
Last 28 days - 41 hours

Information Source: Aircraft Accident Report Form submitted by the pilot and telephone enquiries by AAIB

Baxterley is a farm strip with a grass runway which has a declared distance of 600 metres that includes a right 'dog leg' positioned some 150 metres from the start of Runway 24, where it changes to Runway 25. The runway was reported to have a downhill slope of about 1 degrees over the 600 metres and had a ditch at its end, beyond which the ground increased in height. The pilot was unfamiliar with the strip and so had carefully calculated the take-off run required as 390 metres, allowing for 'wet' grass conditions since he considered that the grass was damp.

He decided to carry out a short field take off, with one stage of flap selected, and attained the required take-off speed of 53 kt before rotating the aircraft. However, after becoming airborne the aircraft climbed to about 10 feet agl, but then descended towards the rising ground, despite full power. The pilot therefore landed the aircraft on the rising ground beyond the ditch, but on contacting the ground the aircraft pitched onto its nose and came to rest inverted. The pilot, who was not injured, released his four-point harness and fell onto the inside of the cockpit canopy. He then switched off the fuel selector and the electrical system master switch. He stated that it 'took 5 kicks' to open the cockpit door before he was able to vacate the aircraft.

On contacting the pilot after the accident, he stated that there had been no loss in engine performance and that he considered that the take-off run had been normal. He considered that his pre-departure calculated take-off distance required of 390 metres had approximated to the distance that the aircraft had covered before becoming airborne. He concluded that he had probably rotated the aircraft to a higher than desired pitch attitude due to a combination of two factors: the first of which had been his concern over the proximity of the ditch at the end of the runway; and secondly his selection on lift off of a climb attitude relative to the approaching rising ground, instead of relative to the horizontal. As a result of the over-rotation on take off, the aircraft had then lost airspeed and climb performance. He also stated in his report form that, in retrospect, it would have been easier for him to have switched off the fuel and electrics whilst he had been hanging inverted from his harness in the cockpit, rather than after he had released his harness and fallen onto the inside of the cockpit canopy.