

Cessna 152, G-BNJD

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| AAIB Bulletin No: 10/2003 | Ref: EW/G2003/08/06 | Category: 1.3 |
| Aircraft Type and Registration: | Cessna 152, G-BNJD | |
| No & Type of Engines: | 1 Lycoming O-235-L2C piston engine | |
| Year of Manufacture: | 1979 | |
| Date & Time (UTC): | 1 August 2003 at 1700 hrs | |
| Location: | Crosland Moor Aerodrome, near Huddersfield, North Yorks | |
| Type of Flight: | Private | |
| Persons on Board: | Crew - 1 | Passengers - 1 |
| Injuries: | Crew - 1 (Minor) | Passengers - 1 (Minor) |
| Nature of Damage: | Damage to landing gear, propeller, windscreen and slight damage to the wings | |
| Commander's Licence: | Private Pilot's Licence with Night Rating | |
| Commander's Age: | 42 years | |
| Commander's Flying Experience: | 132 hours (of which 44 were on type) | |
| | Last 90 days - 26 hours | |
| | Last 28 days - 10 hours | |
| Information Source: | Aircraft Accident Report Form submitted by the pilot and enquiries by the AAIB | |

Synopsis

In the final stages of an approach to Crosland Moor Aerodrome, the aircraft developed a high sink rate and struck the ground some 30 metres before the runway threshold, despite the pilot's attempt to go-around. The influence of a quarry, located before the threshold, on the local winds, and the pilot's unfamiliarity with the airfield were considered by the pilot to have contributed to the accident. Although reference was made to the quarry in the flight guide consulted by the pilot prior to flight, there was no mention of the possibility of downdraughts associated with the quarry when using Runway 25.

History of Flight

At the end of an uneventful flight from Prestwick Airport, the pilot joined the traffic pattern on the downwind leg for Runway 25 at Crosland Moor Aerodrome. The weather was good with a surface wind of 240°/ 20 kt. Runway 25 is 800 metres long with an asphalt surface for the first 550 metres and then 250 metres of grass. There is an upslope of 2.6° on the asphalt portion of the runway.

This would be the first time that the pilot had landed at the aerodrome and so he had consulted Pooleys Flight Guide for relevant information. One note in the guide was advice to pilots to land well beyond the threshold when Runway 25 was in use. There was no explanation with this advice but the pictorial display showed a quarry at the eastern end of the runway, which would be an indication of a source of possible wind variations.

During base leg, the pilot selected carburettor heat to 'Hot', the flaps to 20°, and then turned onto final approach intending to select the flaps to 30° later in his approach. Once established on final approach, his visual perception was that he was too high and he reduced power while maintaining about 55 kt. Shortly after, he was aware of an increased rate of descent and so he increased power. This appeared to have no effect on the rate of descent and he decided to go-around. He selected carburettor heat to 'Cold' and applied full power. His impression was that the rate of descent was still increasing and he retracted flap to 10°, just before the aircraft struck the ground about 30 metres before the threshold.

The pilot considered that the accident resulted from the wind effects of the quarry. However, other aspects may have been relevant. With no experience of the aerodrome, it would have been sensible to carry out a circuit and go-around before landing. Additionally, the upslope would have given an unusual visual aspect of the runway, which may have led the pilot to think that he was too high on approach. One final aspect was the retraction of the flaps to 10° in an attempt to arrest the final descent. On review, the pilot considered that it would have been better to maintain the aircraft configuration.

The Jeppesen Bottlang Airfield Manual also has an entry relating to Crosland Moor Aerodrome. This contained similar advice to pilots about landing well beyond the threshold of Runway 25 but also included a warning to pilots of *'possible downdraughts overhead the quarry 100 m from THR'*. A similar warning will be included in the Pooleys Flight Guide at the next amendment.