

ACCIDENT

Aircraft Type and Registration:	Jodel DR1051-M1, G-BHTC	
No & Type of Engines:	1 Continental Motors Corp O-200-A piston engine	
Year of Manufacture:	1964 (Serial no: 581)	
Date & Time (UTC):	4 August 2020 at 1430 hrs	
Location:	Saltford (Avon Lane) Airfield, Somerset	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Right wing severed off at crank position. Left wing spar broken	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	57 years	
Commander's Flying Experience:	1604 hours (of which 1057 were on type) Last 90 days - 9 hours Last 28 days - 8 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries made by the AAIB	

Synopsis

The aircraft was approaching touchdown at Avon Lane Airfield when, at 2 m agl, it rapidly rolled to the right. The pilot was unable to regain directional control and hit a nearby hedge. The impact broke the right wing and damaged the fuselage. The pilot made the aircraft safe and he and his passenger vacated uninjured. The probable cause of the accident was the effect of the airfield terrain and the airflow where the grass runway surface levels out after an upslope.

History of the flight

The aircraft was being flown to conduct a series of exercises with an instructor to enable its owner to renew his licence. This included a flight from Compton Abbas to Avon Lane Airfield near Keynsham.

Near Chippenham, the owner handed control to his instructor who was the pilot in command of the aircraft. They had not landed at Avon Lane before, so the instructor joined overhead Runway 27 to survey its suitability for a landing. The wind was estimated at 250° at 10 kt, similar to Compton Abbas and consistent with the forecast. He noted an upslope at the easterly end of the grass runway and anticipated low level turbulence due to the terrain but considered it safe to land. He then flew a left-hand circuit and descended slowly during

base leg. As anticipated, the aircraft encountered low level turbulence during the descent. He turned the aircraft onto final approach and aimed to touch down just before the top of the upslope. This was chosen in order to assist the aircraft retardation over the brow and on to the level part of the runway.

However, at about two metres agl, the aircraft rolled 30° to the right and, despite rapid application of stick and rudder, the aircraft contacted the ground and bounced upwards about one metre, and the right main wheel rolled over the left edge of a rubble bank at the side of the runway. Directional control had then been lost and the right wing hit a large bush. The impact broke the outer cranked portion of the right wing off (Figure 1), the aircraft swung to the right and came to a stop. Neither of the crew were injured, the aircraft was made safe and they were able to vacate the aircraft normally. Inspection of the aircraft found that the left main spar, fuselage and propeller had also been damaged.



Figure 1

Damage to the right wing

Discussion

The reason they were flying to this airfield was that the aircraft owner had been planning to keep his aircraft there. His instructor had spoken with the airfield owner prior to the flight and was briefed on the specifics of the airfield and its upslope at the easterly end of Runway 27. He noted that Avon Lane Airfield had some similar characteristics to the one at which he operated his own Jodel. Taking this into account, he considered it safe to operate this aircraft but was clear in his opinion that it requires “good handling skills leaving little room for error”.

In his own analysis as to the cause of the accident he considered that there were several factors as follows;

- The runway is relatively narrow with a difficult approach which requires a high level of concentration.
- The turbulence in the circuit was tolerable, but curlover from the flat portion of the runway caused increased lift from the left wing and hence the right roll.
- The roll took the aircraft off the centre line where it encountered the edge of the bank on the right side of the runway.
- The loss of directional control and the proximity of the hedge meant the landing could not be “rescued”.

AAIB comment

Satellite imagery and open source data show the layout of the airfield. The upslope rises approximately 14 m in 200 m making it a 1:14 (7%) gradient. The location of the bank can be seen, as well as the relative narrowness of the runway. These factors support his assessment that it is a difficult approach and requires a lot of concentration.