**ACCIDENT**

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| **Aircraft Type and Registration:** | Spitfire TR9, G-ILDA | |
| **No & Type of Engines:** | 1 Packard Motor Car Co Merlin 266 piston engine | |
| **Year of Manufacture:** | 1945 (Serial no: CBAF 10164) | |
| **Date & Time (UTC):** | 27 October 2017 at 1103 hrs | |
| **Location:** | Goodwood Aerodrome, West Sussex | |
| **Type of Flight:** | Private | |
| **Persons on Board:** | Crew - 1 | Passengers - 1 |
| **Injuries:** | Crew - None | Passengers - None |
| **Nature of Damage:** | Pitot mast distorted and slight damage to left wing tip | |
| **Commander's Licence:** | Commercial Pilot's Licence | |
| **Commander's Age:** | 48 years | |
| **Commander's Flying Experience:** | 4,100 hours (of which 73 were on type)<br>Last 90 days - 24 hours<br>Last 28 days - 1 hour | |
| **Information Source:** | Aircraft Accident Report Form submitted by the pilot | |

**Synopsis**

While flaring to land on a grass runway, the aircraft rolled left and the left wing tip and the pitot mast made ground contact before the pilot made an appropriate correction and completed the landing.

**History of the flight**

At the end of a 20 minute passenger flight, the aircraft was returning to land on grass Runway 32 in good visibility with the reported wind from 010º at 8 kt. The pilot made his final approach aiming to touch down just past the displaced threshold but, at approximately 100 ft agl and at a speed close to 90 mph (85 mph was the target approach speed), he encountered some turbulence which he believed was due to a change in the wind. He continued the approach but, while flaring to land, the right wing lifted, the aircraft dropped and the left wheel contacted the runway, short of the displaced threshold.

The grass was damp and the ground was soft, and the wheel seemed to dig in, pivoting the aircraft left and increasing the angle of bank before the pilot was able to make an appropriate correction and then to complete the landing without further incident. After the flight, minor damage was discovered on the left wingtip while the pitot head, which protrudes approximately 25 cm below the left wing and is near the wingtip, was distorted.

Examination of the grass surface revealed a mark from the left wheel plus an indentation approximately one metre long caused by the pitot mast. It was then apparent that the aircraft bounced before further landing marks were left by both mainwheels.

**Pilot's assessment**

The aircraft was fitted with an aft-facing video camera which recorded some instability in roll as the aircraft approached the airfield boundary and then, during the flare, the aircraft rolled to the right before rolling left quickly, just before the left wing apparently touched the surface.

Throughout the morning, the surface wind at Goodwood had been reported as being from 010º, with an indicated strength of 6-8 kt and, while the pilot believes the Runway 32 approach is not usually susceptible to turbulence in such a wind, he recalled feeling the wind dying away and then picking up again during his final approach. Over the preceding months he had been used to landing on alternative, shorter runways at Goodwood and had not experienced any difficulty operating in crosswinds up to the relevant limit of 15 kt.

Other pilots, with extensive type-experience, helped the pilot analyse the possible contributing factors, including limited forward visibility while in the landing attitude. However, he is fairly sure the instigating factor was the changing wind, which caused the aircraft to roll left, although he also believes that when the left wheel dug into the soft, damp surface the roll to the left was accentuated.