

## ACCIDENT

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|--|---|-------------------|
| <b>Aircraft Type and Registration:</b> | Piper PA-18-150, N162AW   |                   |
| <b>No &amp; Type of Engines:</b>       | 1 Lycoming O-320-A2B piston engine  |                   |
| <b>Year of Manufacture:</b>            | 1948  |                   |
| <b>Date &amp; Time (UTC):</b>          | 25 July 2019 at 1415 hrs  |                   |
| <b>Location:</b>                       | Private strip, Isle of Mull   |                   |
| <b>Type of Flight:</b>                 | Private   |                   |
| <b>Persons on Board:</b>               | Crew - 1  | Passengers - 1    |
| <b>Injuries:</b>                       | Crew - None   | Passengers - None |
| <b>Nature of Damage:</b>               | Aircraft destroyed  |                   |
| <b>Commander's Licence:</b>            | Commercial Pilot's Licence  |                   |
| <b>Commander's Age:</b>                | 22 years  |                   |
| <b>Commander's Flying Experience:</b>  | 1,870 hours (of which 385 were on type)<br>Last 90 days - 90 hours<br>Last 28 days - 59 hours |                   |
| <b>Information Source:</b>             | Aircraft Accident Report Form submitted by the pilot  |                   |

## Synopsis

The aircraft had landed at a remote field site on the Isle of Mull. During preparations for departure the aircraft unexpectedly left the ground. Despite the application of full power and right aileron the aircraft rolled left, struck the ground and rolled inverted. Both occupants were uninjured.

## History of the flight

The aircraft was operating from Glenforsa Airfield on the Isle of Mull to remote field sites. The site where the accident occurred was to the west of Ben More, at an elevation of approximately 1,500 ft amsl and had been visited earlier in the day. Each occupant had a pilot's licence and the passenger flew the aircraft into the landing site. There was no local meteorological information available, but the commander had obtained a forecast wind for the area of 170° at 9 kt. He assessed the wind at the sites as being 190° at 14 kt.

The pilot lined up the aircraft for takeoff and assessed that there was a slight crosswind from the right. While preparing for takeoff the aircraft suddenly lifted into the air and rolled left. The pilot stated that he instinctively applied full power and attempted to correct the left roll. The left wingtip struck the ground, followed by the nose. The aircraft then overturned about the wingtip and nose coming to rest inverted. Both pilots vacated the aircraft unhurt. In his report the pilot stated his belief that a strong, unexpected gust of wind affected the aircraft.

The aircraft was badly damaged by the accident and damaged further during its recovery from the site by helicopter. The damage was subsequently assessed as being beyond economic repair.

### **Aircraft information**

The aircraft was a modified PA-18-150. Its short takeoff and landing characteristics gave it a stalling speed below the minimum speed, 40 mph, that could be displayed by the airspeed indicator. The aircraft was fitted with large diameter tyres to allow operation from unprepared sites.

### **Information from the pilot**

The pilot assessed that a gust of 25 kt would be sufficient to lift the aircraft into the air but that “in a pre-take-off scenario there is not the necessary airspeed to the ailerons to counteract a rolling tendency once the wind has lifted the aircraft into the air.”

### **Meteorology**

A summary of findings from a Met Office review of the area meteorology is as follows:

*‘From the information available, the most likely weather conditions across the Island of Mull at around 1415 UTC on Thursday 25th July 2019 were generally fine, good or very good visibility with few or scattered amount of cloud with bases above 3000 ft. The wind direction would have been from a south-east or south-south-east direction, with mean surface speed most likely to be 15-20 Knots, increasing to 20-30 Knots at 2000 ft. The air would have been stable hence gusts would have been unlikely.’*

### **Analysis**

The aircraft had a very low stalling speed and would have been capable of flight at very low airspeeds, and the pilot believed that a gust of 25 kt could lift it into the air. Although the Met Office considered gusts unlikely, its report suggested that the freestream wind at 1,500 ft amsl might have been about 20 kt. It is possible that local wind effects, influenced by the terrain, caused the strong gust of wind near the ground reported by the pilot.

### **Conclusion**

The aircraft rolled out of control at low airspeed, struck the ground and inverted.