

ACCIDENT

Aircraft Type and Registration:	Rans S6-116 Coyote II, G-BUOK	
No & Type of Engines:	1 Rotax 912-UL piston engine	
Year of Manufacture:	1993 (Serial no: PFA 204A-12317)	
Date & Time (UTC):	20 June 2017 at 1230 hrs	
Location:	Bagby (Thirsk) Airfield, Yorkshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Both propeller blades broken, landing gear, engine, cockpit, windscreen and right wing distortion	
Commander's Licence:	National Private Pilot's Licence	
Commander's Age:	51 years	
Commander's Flying Experience:	422 hours (of which 17 were on type) Last 90 days - 17 hours Last 28 days - 12 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The aircraft had just taken off from Runway 24 at Bagby and was at a height of approximately 20 ft when the left wing dropped, the aircraft turned to the left, descended and hit the ground. The pilot was uninjured but the aircraft sustained significant damage. The pilot considered the accident was caused by insufficient airspeed coupled with a tailwind component leading to a left wing stall.

History of the flight

The aircraft accelerated normally and took off from Runway 24 at Bagby Airfield, reaching an estimated height of 20 ft when the left wing dropped. The aircraft then turned to the left, lost height and hit the ground. The pilot was uninjured but the aircraft sustained significant damage to its propeller, cockpit and canopy, right wing and landing gear.

Airfield conditions

The runway heading at Bagby was 240°, with 2.5% downslope. The local 'recommendation' at the airfield was to take off and get airborne on the grass section of the runway prior to a concrete paved section, which was approximately 230 m from the threshold. The pilot reported a 150°/8 kt crosswind, with gusts of 120°/12 kt, at the time of the accident. These backing wind conditions created a gusting tailwind component.

Discussion

The Rans S6, fitted with a Rotax 912 engine in this case, should have been capable of getting airborne with a takeoff run of 60 m. It has a cruising speed of 90 kt and a relatively low stall speed of 35 kt. With minimal or no headwind the airfield conditions would mean the aircraft could have easily taken off and achieved a safe airspeed well before the concrete section of the runway. However, as the pilot stated; "the probable cause for a wing stall was not enough airspeed for the wind conditions, coupled with a gusting tailwind".

It is likely that the pilot, mindful of the recommendation regarding the concrete section, got his aircraft airborne as soon as possible but with a slightly lower than normal airspeed. This, coupled with the resultant tailwind component, calculated to be gusting at approximately 5 kt, may have brought the relative airspeed over the left wing down to a speed at which a stall would be likely. The height and low inertia of this aircraft would make a recovery action in this situation extremely difficult.