

ACCIDENT

Aircraft Type and Registration:	YAK-52, G-SPUT	
No & Type of Engines:	1 Ivchenko Vedeneyev M-14P piston engine	
Year of Manufacture:	1991 (Serial no: 9111608)	
Date & Time (UTC):	13 April 2017 at 1550 hrs	
Location:	Brown Shutters Airfield, Somerset	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Propeller, engine and wing damage	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	49 years	
Commander's Flying Experience:	267 hours (of which 49 were on type) Last 90 days - 5 hours Last 28 days - 2 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

After landing, and whilst taxiing past the end of the designated grass runway surface, the pilot attempted to turn left at an estimated ground speed of between 20-25 mph. The aircraft slid sideways down a grass slope to the right, hit a mound and tipped onto its nose and a wingtip. The pilot was uninjured.

History of the flight

After an uneventful landing on Runway 33 the pilot taxied the aircraft off the end of the designated area of the grass runway. The pilot then started to turn the aircraft to the left but, with a reported estimated speed of approximately 20-25 mph the aircraft slid to the right down a grass slope and into a mound where it tipped onto its nose, damaging the propeller, engine and wing. The reported conditions at the time were dry with a light and variable wind and 10 km visibility.

The airfield's web page states that it is a challenging airfield due to the landing distance available (CAA Safety Sense Leaflet 07, '*Aeroplane Performance*', provides relevant guidance). The web page also highlights the need for prior permission to be sought and provides pilot briefing material and cautions together with contact details. Although not

close enough to affect the runway, there were infrastructure works taking place at that end of the airfield that day and, whilst they may have provided a distraction, the pilot did not refer to them in his statement.

The nosewheel of the Yak 52 is not steerable; the rudder mechanism is linked to a valve that distributes pneumatic brake pressure to the left and right brakes. The control for the total amount of braking is on the control stick. At taxiing speeds, differential braking is used for directional control and any contribution from the aerodynamic effect of the rudder will be largely dependent on the airflow over it from the propeller. No technical problems with the braking system were reported, but the pilot stated that braking was totally ineffective due to the slippery nature of the grass. He also advised that he did not take the slope or the lateral forces on the grass sufficiently into account.