

**ACCIDENT**

<b>Aircraft Type and Registration:</b>	Tecnam P2002-JF, G-NESE	
<b>No &amp; Type of Engines:</b>	1 Rotax 912-S2 piston engine	
<b>Year of Manufacture:</b>	2006	
<b>Date &amp; Time (UTC):</b>	30 September 2007 at 1255 hrs	
<b>Location:</b>	Lude Farm, Blair Atholl, Perthshire	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - None
<b>Injuries:</b>	Crew - None	Passengers - N/A
<b>Nature of Damage:</b>	Substantial airframe damage	
<b>Commander's Licence:</b>	Private Pilot's Licence	
<b>Commander's Age:</b>	43 years	
<b>Commander's Flying Experience:</b>	185 hours (of which 76 were on type) Last 90 days - 27 hours Last 28 days - 9 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

**Synopsis**

During the takeoff roll, the aircraft went over a bump in the grass runway and the steerable nosewheel lifted off the ground. The aircraft then veered off the runway and was substantially damaged when it went into a ditch.

**History of the flight**

The aircraft was the last of a group of aircraft that were departing from Lude Farm, Blair Atholl. The runway in use was Runway 15 and its grass surface was dry; the weather conditions were good and the surface wind was calm. After completing the pre-takeoff checks and selecting 15° of flap, the pilot commenced his takeoff roll by applying full power and appropriate right rudder; directional control was via the steerable nosewheel. Whilst accelerating through approximately 15 kt the

aircraft went over a bump in the grass and the nosewheel left the ground. The aircraft veered to the left, the pilot reported that full application of right rudder was unable to prevent the aircraft from leaving the left side of the runway. The pilot closed the throttle, but the left main wheel had already entered the long grass at the side of the runway, which resulted in an immediate increase in the rate of turn to the left. After travelling two metres through the long grass the aircraft went into a drainage ditch at approximately 15 kt; this resulted in substantial damage to the aircraft. The pilot switched off the electrics and fuel and vacated the aircraft normally.

The pilot considered that increased forward deflection of the control column would have kept the nosewheel

on the ground, allowing him to maintain directional control.

### **Comment**

The Tecnam 2002 is a low-wing monoplane with a steerable nosewheel. Following this accident the AAIB sought information from the PFA regarding directional control authority for this type of aircraft at low speed. The PFA conducted ground trials, which concluded that there is adequate rudder authority at low speed on this type of aircraft.

However, the trial also demonstrated that on some of these aircraft it is possible to generate interference

between the 'all-flying' tailplane and the rudder. With full aft control column applied the tailplane's trailing edge up is fully up, and in this position the rudder trim tab's lower trailing edge is in contact with the tailplane.

This can cause a restriction in the rudder movement. The PFA have raised an Airworthiness Occurrence Report and a fleet-wide check has commenced.

Whilst there is no evidence of a rudder movement restriction in this accident this highlights the necessity for a thorough 'full and free' check of the flight controls, particularly a check of the freedom of the rudder with the control column fully aft.