

ACCIDENT

Aircraft Type and Registration:	Rans S6-ESD Coyote II, G-MYBA	
No & Type of Engines:	1 Rotax 503 piston engine	
Year of Manufacture:	1992	
Date & Time (UTC):	10 May 2008 at 1321 hrs	
Location:	Chilbolton Flying Club, Hants	
Type of Flight:	Private	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Extensive: landing gear broken off, propeller shattered, engine and cowlings damaged	
Commander's Licence:	National Private Pilot's Licence	
Commander's Age:	65 years	
Commander's Flying Experience:	360 hours (of which 7 were on type) Last 90 days - 8 hours Last 28 days - 4 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and subsequent AAIB enquiries	

Synopsis

The aircraft stalled and struck the ground shortly after becoming airborne. The investigation showed that aircraft performance, a slight tailwind, high temperature and long grass on the runway contributed to the accident.

History of the flight

The pilot and his passenger boarded the aircraft for a private flight to a nearby airfield. With two occupants on board and 30 litres of fuel, the aircraft weighed 400 kg (its maximum takeoff weight was 430 kg). The weather was fine with a light north to north-easterly wind, good visibility, a temperature of +28°C and a

QNH of 1012 mb. The pilot used Runway 24 for takeoff; this grass runway is approximately 490 m long with an uphill slope. Although the grass at the eastern end of the runway was only about 80 mm high, the grass at the western end of the runway was considerably longer, up to 230 mm high.

The pilot reported that although the engine rpm was normal during the takeoff roll, the aircraft seemed to accelerate less rapidly than expected. The aircraft became airborne but only reached a height of 30 ft and a speed of 50 mph (previously noted as its stalling speed) by the upwind end of the runway. Shortly

after, the aircraft stalled and struck the ground in a level attitude. Although the aircraft was substantially damaged, both occupants were protected by the structure around the cockpit and vacated the aircraft without injury. There was no fire.

The aircraft manufacturer did not publish any performance information relevant to the aircraft type. However, an experienced Rans S6 pilot stated that on a short grass runway, he would expect the takeoff ground roll of this aircraft to be approximately 400 m. Examination of the aircraft's Permit to Fly flight test

records, and those from similar aircraft¹, showed that the accident aircraft's climb rate was less than than the others.

The CAA's Safety Sense Leaflets 12d, entitled '*Aeroplane Performance*', includes advice regarding the factors which influence takeoff distance. The high temperature, slight tailwind component and long grass would all have lengthened this distance. The pilot reported, some time after the accident, that he planned to have his aircraft repaired and fitted with a larger engine. He also stated that he had undertaken further training on stalling with a flying instructor.

Footnote

¹ Aircraft of the same type and fitted with the same engine and propeller.
