

**ACCIDENT**

<b>Aircraft Type and Registration:</b>	Thruster TST Mk 1, G-MTPY	
<b>No &amp; Type of Engines:</b>	1 Rotax 503 piston engine	
<b>Year of Manufacture:</b>	1987 (Serial no: 8107-TST-043)	
<b>Date &amp; Time (UTC):</b>	9 June 2013 at 1012 hrs	
<b>Location:</b>	Rhosgilwen Mansion, Pembrokeshire	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - 1
<b>Injuries:</b>	Crew - 1 (Serious)	Passengers - 1 (Serious)
<b>Nature of Damage:</b>	Substantial	
<b>Commander's Licence:</b>	Airline Transport Pilot's Licence	
<b>Commander's Age:</b>	63 years	
<b>Commander's Flying Experience:</b>	12,000 hours (of which 108 were on type) Last 90 days - 5 hours Last 28 days - 3 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

**Synopsis**

The pilot lined up on Runway 26 and set takeoff power. The aircraft became airborne and initially achieved the normal rate of climb but shortly after there was a marked reduction in the rate of climb. The pilot lowered the nose in order to maintain airspeed, but the aircraft struck a tree at the end of the runway before landing heavily, seriously injuring both people onboard.

**History of the flight**

The pilot and his passenger intended to carry out a flight to another microlight site to attend a social function. The aircraft had been operated out of the field near Rhosgilwen Mansion for about four years and even in the still wind conditions prevailing had always climbed out clearing the trees at the western end of the runway

by a safe margin. The runway surface was mown grass with a Takeoff Run Available (TORA) of 600 m orientated 08/26. There were trees at the western end of the runway with a narrow gap between them on the northern side. The aircraft normally lifted off after approximately 100 m at the maximum All Up Weight (AUW) of 380 kg. The AUW on the accident flight was 373 kg and the weather was CAVOK with a calm surface wind as indicated by the windsock at the midpoint of the runway.

The aircraft was lined up at the beginning of the TORA and takeoff power was set. Acceleration was normal and it lifted off at the expected point on the runway. The initial rate of climb was normal with clearance

of the trees assured but then the rate of climb reduced dramatically with no change in engine note or abnormal indications. The pilot lowered the nose to maintain airspeed and realised that he would no longer clear the trees. He attempted to manoeuvre through the gap in the trees, but struck the top of one of the trees. The aircraft descended rapidly, landing heavily and extensively damaging the structure. There was no fire and the pilot was able to isolate the fuel and electrical systems before crawling clear of the wreckage. Both the pilot and his

passenger onboard had suffered serious back injuries but were able to contact the emergency services using a mobile telephone and were evacuated to hospital by air ambulance.

The pilot could not identify the reason for the reduction in rate of climb. With the engine performing normally and the usual initial rate of climb it is possible that it encountered an unexpected tailwind component shortly after becoming airborne.