

ACCIDENT

Aircraft Type and Registration:	P&M Aviation Quik GT450, G-MCFK	
No & Type of Engines:	1 Rotax 912ULS piston engine	
Year of Manufacture:	2014 (Serial no: 8696)	
Date & Time (UTC):	6 November 2014 at 1035 hrs	
Location:	Plaistow Airfield, Hertfordshire	
Type of Flight:	Private	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to propeller, pod and right spat, substantial damage to wing	
Commander's Licence:	National Private Pilot's Licence	
Commander's Age:	50 years	
Commander's Flying Experience:	1,390 hours (of which 561 were on type) Last 90 days - 28 hours Last 28 days - 11 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The purpose of the flight was to familiarise a reasonably experienced pilot of another type of weight-shift microlight with the Quik GT450. After an uneventful circuit and landing, the pilot told the passenger to taxi the aircraft to the runway and perform another, similar circuit. However, this time, contrary to the pilot's instructions, the passenger adopted an incorrect technique and, despite intervention by the pilot who eventually tried to abandon the takeoff, the aircraft had to be steered left to avoid over-running the runway. During the turn, the aircraft tipped onto its right side.

History of the flight

The pilot, who occupied the rear seat, was conducting a familiarisation flight on the GT450 for the benefit of a passenger who was also a pilot and who had 242 hours experience flying the P&M Aviation Quantum. The pilot briefed his passenger that one of the differences he would need to be aware of is that the control bar should not be pushed forward to initiate lift off at an indicated airspeed of less than 50 mph. With the passenger handling the aircraft, but with prompts from the pilot, they taxied to the threshold of Runway 30, stopped, levelled the wing and set it to neutral pitch. The passenger then set full power and released the brakes. The aircraft accelerated normally and at 50 mph indicated, the pilot told the passenger to start moving the control bar forward. The aircraft lifted off and the rest of the circuit and landing was uneventful.

The pilot then briefed the passenger that he should taxi the aircraft back to the threshold of Runway 30 and repeat the circuit as before. This he did but, instead of lining up and stopping once he reached the runway, the passenger immediately applied full power whilst pushing the control bar fully forward. The pilot immediately pulled the control bar back to neutral, telling the passenger that he needed to minimise the drag until 50 mph was reached, but the aircraft was under full power and seemed to be accelerating normally. Again, on reaching 40 mph, the passenger pushed the control bar forward as far as it would go, effectively stalling the wing, and the aircraft started to slow down.

The pilot pulled the control bar back to neutral and shouted that he had control – at this stage he believed that there was still enough runway left to take off safely. However, this time the acceleration was not as great as he expected and he called an aborted takeoff. In this aircraft, only the front seat occupant can control the brakes. The pilot felt the passenger apply them, immediately causing a skid on the wet grass. The passenger then released the brakes and the pilot instructed him to reapply them; he complied, but did not brake as strongly as previously.

The pilot now realised that they would not stop before the end of the runway and, rather than face a one metre drop onto a road, he steered the aircraft to the left (encountering some resistance from the passenger on the steering bar). Unfortunately, their speed was too great and the aircraft tipped on to its right side before coming to rest.

The passenger could not explain why he had done a rolling start with the control bar fully forward; neither could he explain why he had tried to lift off at 40 mph, beyond saying that “it felt about right”. He also admitted that he may have been resting his foot on the brake when the pilot re-took control.

The pilot believes that he may have been too relaxed about the situation because of misplaced confidence in his passenger, on account of the latter’s experience and the previously satisfactory circuit.