ACCIDENT

Aircraft Type and Registration: Pegasus Quik, G-GBEE
No & Type of Engines: 1 Rotax 912ULS piston engine
Year of Manufacture: 2004 (Serial no: 8039)
Date & Time (UTC): 23 March 2016 at 1243 hrs
Location: Redland Airfield, Swindon, Wiltshire
Type of Flight: Training
Persons on Board: Crew - 2  Passengers - None
Injuries: Crew - 1 (Minor)  Passengers - N/A
Nature of Damage: Extensive damage to trike pod and control frame
Commander's Licence: Private Pilot's Licence
Commander's Age: 60 years
Commander's Flying Experience: 3,408 hours (of which 82 were on type)
Last 90 days - 17 hours
Last 28 days - 13 hours
Information Source: Aircraft Accident Report Form submitted by the pilot and additional enquiries by the AAIB

Synopsis

During takeoff roll for a dual instructional flight the Pilot under Training (Pu/t), whose flying recency had lapsed for many years, decided to abort the takeoff but then attempted to take off again to avoid overrunning the runway. However, he then attempted to stop again but inadvertently kept his foot on the throttle at the same time. The instructor shut down the engine but was unable to prevent the aircraft from running into a hedge.

History of the flight

The purpose of the flight was to provide refresher training for a pilot who held a UK Private Pilot's Licence but had not flown weight-shift microlights for 14 years and wished to renew his microlight rating. He also wanted to be tutored on the differences between his newly-purchased Quik and the Mainair Flash on which most of his previous flying experience had been gained.

Whilst his instructor felt that his Pu/t's general handling was good, he had made some observations about him which included his takeoff technique. The instructor commented that the Pu/t tended to use to the technique he had used on the Flash, which was to push the control bar fully forward and apply full power until the aircraft became airborne. The Pu/t had been advised that this was not the correct technique when flying the Quik. His instructor had shown him, and he had demonstrated, that the correct technique was to
commence the takeoff roll with the control bar held in 'neutral' and, once sufficient speed had been achieved, to exert forward pressure on the bar to lift off.

On the day of the accident, the instructor briefed that they would practise circuits on Runway 06N at Redlands Airfield, having departed from Runway 06S (06S being shorter than 06N). As the aircraft was relatively heavy, the instructor felt that using the shorter runway would provide an opportunity to demonstrate the takeoff run required when the correct technique was employed.

The Pu/t taxied the aircraft to the runway and applied full power, holding the control bar in the neutral position as instructed. As airspeed built towards the figure which the instructor judged was appropriate to rotate the bar forwards, the Pu/t suddenly took the decision to abandon the takeoff. He closed the throttle, pulled back on the bar and applied the brakes. Although the instructor felt that this had been unnecessary, he was not concerned because he felt there was plenty of room to stop before the end of the runway, despite the fact that the mainwheels were skidding.

However, the Pu/t opened the throttle again, initially pushing forward on the bar in an attempt to lift off to prevent the aircraft overrunning the end the runway, beyond which was a boundary hedge. He then pulled fully back on the bar but still kept his foot on the throttle. The instructor, realising that contact with the hedge was now inevitable, turned off the magneto switches to kill the engine, which was rotating under full power; the aircraft struck the hedge before coming to an abrupt halt. With the help of other pilots at the airfield, both occupants freed themselves from the wreckage. The Pu/t was uninjured but the instructor had suffered a broken metatarsal in his right foot.

The Pu/t reported that in his view the aircraft would not have become safely airborne during the initial takeoff attempt. He felt that, even with stronger headwinds, his previous takeoffs on the longer Runway 06N had used the equivalent length of the shorter Runway 06S. He also added that the control bar had not felt as though liftoff was imminent during the takeoff roll.