

ACCIDENT

Aircraft Type and Registration:	Pegasus Quik, G-XJMM	
No & Type of Engines:	1 Rotax 912ULS piston engine	
Year of Manufacture:	2007	
Date & Time (UTC):	2 March 2011 at 1205 hrs	
Location:	Near Manchester Barton Airport, Cheshire	
Type of Flight:	Training	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - 1 (Minor)	Passengers - 1 (Serious)
Nature of Damage:	Severe structural damage	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	45 years	
Commander's Flying Experience:	6,911 hours (of which 2,870 were on type) Last 90 days - 52 hours Last 28 days - 12 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

During a training detail on practice forced landings, the student pilot operated the control bar of the weight shift microlight aircraft in the opposite direction to that required for the go-around and pitched the aircraft nose-down. The instructor was unable to arrest the high rate of descent in time to prevent the aircraft from striking the ground at high speed. The nosewheel assembly failed and the aircraft turned over and it was severely damaged. The student pilot suffered serious injuries and was airlifted to hospital. The instructor sustained minor injuries. Both occupants were wearing helmets and lap straps.

History of the flight

The student had completed approximately six hours of training on weight shift microlight aircraft and had, five years previously, completed approximately 20 hours of flying training on fixed wing light aircraft. Prior to this lesson, the student had worked a night shift in their job as a firefighter and had reported for duty at 1800 hrs the day before. The shift finished at 0900 hrs on the day of the accident. A period of rest from 0000 hrs to 0700 hrs was scheduled, subject to operational demands. During the rest period, the student was called out in the early hours of the morning to a serious incident that involved finding and rescuing a person from a burning building and was later deployed to another incident. After finishing the shift, the student went home, had a meal and rested before the lesson which commenced at 1100 hrs.

The airfield was approximately 15 minutes away from home. On arriving at the airfield the student reported feeling fine, but a bit more fatigued than normal.

The instructor was aware the student had worked a night shift prior to the lesson and was therefore a little tired. The lesson progressed well and after a demonstration by the instructor, the student completed the first approach and go-around without incident. The second approach was without incident until the instructor called for a go-around to be flown from around 100 ft agl. The student applied full power with the foot throttle and pulled back on the control bar instead of pushing it forward. Despite telling the student to relax their grip, the instructor was unable to push hard enough on the training bars to arrest the descent before the aircraft stuck the ground.

Discussion

The student's incorrect control input may have been due to reverting to a previously learnt response appropriate for a fixed wing aircraft, or as a result of a simple error. The student's performance on the day may have been seriously affected by the lack of sleep and the nature of the work activities undertaken the previous night.

Pilots and instructors should be alert to the effects of fatigue and stress on performance and be prepared to take appropriate mitigating actions. CAA Safety Sense Leaflet 24, '*Pilot Health*', gives advice on the subjects of stress and fatigue and provides a basic checklist for pilots to use in assessing their fitness to fly.