ACCIDENT

Aircraft Type and Registration:	Zenair CH 701UL, G-EOIN	
No & Type of Engines:	1 Rotax 912-UL Piston Engine	
Year of Manufacture:	2000 (Serial no: PFA 187-13490)	
Date & Time (UTC):	9 May 2018 at 1230 hrs	
Location:	Lamb Holm Airfield, Orkney Islands	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Damage to propeller, nose landing gear and floor panel	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	61 years	
Commander's Flying Experience:	11,850 hours (of which nil were on type) Last 90 days - 9 hours Last 28 days - 4 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

After touching down, the aircraft departed the left side of the runway and struck a fence, despite the pilot attempting to press the right rudder bar, to try to prevent the left turn. It was the pilot's first flight in command of this aircraft and the first time he had flown it from the left seat. He subsequently realised that his right foot slipped, and he had pressed the left rudder bar installed for a pilot in the right seat, instead of his right rudder bar.

The pilot had not completed differences training for this microlight aircraft, because there did not appear to be a requirement for him to undertake such training. As a result, the CAA has published clarification that pilots without a microlight class rating must complete differences training, prior to acting as pilot in command of any microlight class aircraft.

History of the flight

This was the pilot's first flight in this aircraft as pilot in command, but he had previously handled the aircraft during a one hour flight in the right seat. He had not flown any other microlight types, but he had recorded 690 flying hours in Single Engine Piston (SEP) class aircraft. On this occasion he was flying with another pilot, with type experience, who was a passenger in the right seat.

Following a short local flight, the pilot returned to the airfield and completed one uneventful touch-and-go. However, after touching down for his second landing, the pilot attempted to

keep the aircraft straight by pressing the right rudder bar, but the aircraft turned left. He quickly surmised that the rudder was ineffective, due to insufficient airflow across it, and he added power to increase the propwash, while simultaneously pressing harder with his right foot. In response the aircraft veered sharply left, departed the runway and struck a fence at low groundspeed. Upon hitting the fence, the aircraft tipped forward, causing the propeller to strike the ground and damaging the nose landing gear and an adjacent floor panel. The pilot and his passenger vacated the aircraft without difficulty.

Post-flight inspection of the rudder bars led the pilot to believe that during the second landing, his right foot had slipped and was resting on the left rudder bar which is installed for a pilot in the right seat. Thus when he pressed with his right foot, he had moved the rudder bar in the opposite direction to that intended. All his previous SEP flying had been on types equipped with rudder pedals rather than rudder bars. On this aircraft the right rudder bar for the left seat occupant is situated close to the left rudder bar for the right seat occupant (Figure 1) and the pilot had not identified this before flight. He also noted that space in this cockpit is restricted and that his legs, being fairly long, may not have been positioned ideally.

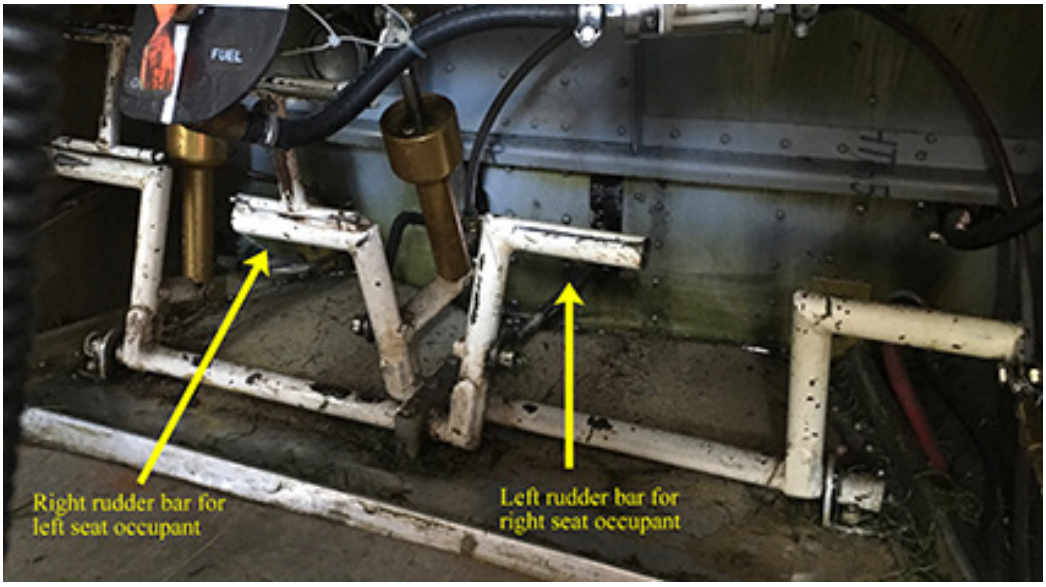

Figure 1

Rudder bars in G-EOIN, with left rudder applied

Differences training

Operation of this non-EASA aircraft is subject to the UK Air Navigation Order (ANO) and Article 150 states:

> *'A Part-FCL licence with single-engine piston aeroplane privileges is not deemed to be rendered valid for a microlight aeroplane unless the holder of the licence has undergone differences training in accordance with Chapter 2 of Part 2 of Schedule 8, appropriate for a microlight aeroplane class rating.'*

The relevant section in the quoted reference (Chapter 2 of Part 2 of Schedule 8) is titled '*Microlight class rating*' and this states that before a pilot can exercise the privileges of a microlight class rating they must '*complete appropriate differences training*' with a flight instructor, who must endorse and sign their logbook, but one accompanying condition states this training is required:

> *'If the aeroplane has … three axis controls and the holder's previous training and experience has only been in an aeroplane with flexwing or weightshift controls.'*

Both the pilot and a flight instructor whom he consulted, believed that, because the pilot was experienced flying SEP aircraft with three-axis controls, there was no regulatory requirement for him to complete differences training to fly a microlight with three axis controls. When the pilot learnt that the CAA's view is that such differences training is required, he noted that he could have undertaken such training on a different type of microlight, with different rudder controls, and still had this accident. In his view, the important safety lesson is that pilots should seek instruction if required or, alternatively, ensure they are familiar with a particular aircraft's handling characteristics, systems operation and emergency procedures before flying a type or variant for the first time.

Pilot Coaching Scheme

This microlight aircraft was operating on a Permit to Fly administered by the Light Aircraft Association (LAA). The LAA's '*Pilot Coaching Scheme*'[1] is available to help pilots achieve familiarisation or differences training and the scheme's publicity material states:

> *'Look closely in the mirror, and ask yourself if you have sufficient experience to ensure that you can safely operate your new aircraft without any coaching. If you would like some guidance, and training from experienced instructors, give the Pilot Coaching Scheme a call. We're here for you!'*

CAA reference material and comment

The CAA's interpretation of the ANO is that any pilot without a microlight rating must complete differences training, before flying as pilot in command of a microlight.

Until August 2016, the CAA published CAP 804 '*Flight Crew Licensing*' as a '*current*' document and this stated that a UK/Part-FCL licence holder, with a SEP class rating, could exercise the privileges of their licence on microlight aircraft subject to differences training with a suitably qualified instructor. CAP 804 was '*cancelled*' on 24 August 2016 because of references to a previous version of the ANO and to outdated EASA regulations. However, the CAA continues to treat it as a '*reference*' document, with a similar status as EASA '*Guidance Material*', and it can still be accessed on the CAA's website, providing a search is made for '*cancelled, superseded, withdrawn and reference only*' documents. The CAA intends that CAP 804 will be updated, but no timescale has been set.

Footnote

[1] Further information regarding the LAA's Pilot Coaching Scheme can be obtained by emailing coaching@laa.uk.com or by reference to http://www.lightaircraftassociation.co.uk/PCS/pcs.html (accessed August 2018).

Safety Action

On 4 July 2018 the CAA issued a '*Skywise alert*' titled '*Differences training for EASA and National licence holders - microlight aeroplanes*'. This alert includes a link to a CAA webpage which states:

> *'Article 150 of ANO 2016 requires the holder of an EASA licence with a valid Single Engine Piston Class Rating to complete differences training with an appropriately qualified Instructor prior to flying as pilot in command of a microlight aeroplane. This includes three axis microlights as well as weightshift microlights'.*

There are similar statements relating to holders of both EASA Light Aircraft Pilot's Licences and UK National Private Pilot's Licences.

The LAA and the British Microlight Aircraft Association (BMAA) have updated the relevant guidance material on their websites to further assist pilots to understand the regulatory requirements.