



Air Accident Investigation Unit Ireland

FACTUAL REPORT

ACCIDENT
COMCO - IKARUS, C42 FB Microlight, EI-ETU
Carrickbrack Airfield, Letterkenny
Co. Donegal, Ireland.
27 December 2012



Aon Roinn Iompair
Turasóireachta agus Spóirt

Department of Transport,
Tourism and Sport

FINAL REPORT

AAIU Report No: 2013-006

State File No: IRL00912124

Report Format: Factual Report

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In accordance with Annex 13 to the Convention on International Civil Aviation, Regulation (EU) No. 996/2010 and the provisions of S.I. 460 of 2009, the Chief Inspector of Air Accidents Mr. Jurgen Whyte, on 27 December 2012, appointed himself as the Investigator-in-Charge to carry out an Investigation into this Accident and prepare a Report. The sole purpose of this Investigation is the prevention of aviation Accidents and Incidents. It is not the purpose of the Investigation to apportion blame or liability.

Aircraft Type and Registration: COMCO - ICARUS, C42 FB Microlight, EI-ETU

No. and Type of Engines: 1 x ROTAX 912-ULS

Aircraft Serial Number: PFA 322 - 13774

Year of Manufacture: 2001

Date and Time (UTC): 27 December 2012 @ 13:15 hrs

Location: Field adjacent to Carrickbrack Airfield, Convoy, Letterkenny, Co Donegal

Type of Operation: General Aviation

Persons on Board: Crew - 1 Passengers - 1

Injuries: Crew - Nil Passengers - Nil

Nature of Damage: Substantial

Commander's Licence: IRL/PPL issued by the IAA

Commander's Details: Male, aged 47 years

Commander's Flying Experience: 527 hours of which 487 were on type

Notification Source: National Microlight Association of Ireland (NMAI)

Information Source: AAIU Investigation
AAIU Report Form submitted by Pilot



SYNOPSIS

Following a longer than expected take-off run over wet/soft grassland, the aircraft became airborne and had insufficient height to clear a line of trees at the airfield boundary hedgerow. The right-hand wing-tip struck a holly tree and the aircraft subsequently impacted heavily into the adjacent field. Both occupants escaped without injury, but the aircraft was substantially damaged. There was no fire.

1. Factual Information

1.1 General

The Pilot, who is also the aircraft owner, had intended to conduct a local flight with the airfield owner, who is also a pilot. The private airfield comprises a wide open area; with one grass runway (RWY) of 600 m orientated RWY 08/26 and a second grass runway of 300 m orientated RWY 16/34. While the airfield itself is relatively level, it does slope down at the RWY 08 and RWY 16 ends. The Pilot stated that while the main strip is maintained by the field owner, the entire grass field is kept short and during winter months pilots were free to use whatever direction most suited the prevailing wind conditions. The Pilot reported the wind conditions on the day as '*a very light breeze*', at 120 degrees, with the '*windsock barely moving*'.

The Pilot stated that they took off across the airfield on a heading of 310 degrees and thus not along an assigned runway. He considered that the initial take-off roll was '*fine*' with the aircraft gathering speed normally. The aircraft then passed through an area of wet/soft ground and longer grass, and, although it slowed the aircraft down, the Pilot did not think he lost too much speed. The take-off run was continued and the aircraft began to feel light and ready for take-off as it passed through another patch of soft ground. The Pilot explained to the Investigation that at this stage he should have aborted the take-off, but because he had flown out of this strip in all weathers, he was still confident that he would clear the hedge and felt that he was committed to flight. The aircraft eventually took-off '*far too close to the hedge*' and began climbing. It became apparent that he would not clear the few isolated trees at the boundary, so the Pilot elected to pass between two trees to continue the climb. The aircraft struck a holly tree with the starboard wing and it impacted into the adjacent field from a height of approximately 15 ft.

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The aircraft was extensively damaged (**See Photo No. 1**). However, both pilots were wearing four-point harnesses and evacuated the aircraft uninjured.

An examination of the airfield identified that the ground conditions were of wet/soft grassland. Tyre rutting was evident in the ground along the take-off run and the point of take-off was approximately 63 meters from the boundary hedgerow.

The Pilot stated that there were no technical issues with the aircraft. Earlier in the month, the 3-blade propeller was found to be out of balance and a qualified engineer balanced and re-set the blades. The aircraft had run more smoothly and faster since, but the Pilot considered that he may have underestimated the effect of the new propeller adjustment on the take-off and climb out. This, combined with the ground conditions, led to the late take-off.

FINAL REPORT



Photo No. 1: Impact point and final resting position of EI-ETU

1.2 Safety Material

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The IAA has developed a [Safety Leaflet \(AED 1\)](#) on the subject of obstacles at unlicensed/private airstrips which includes a reference that the owner/operator should ensure that the condition of the surface is maintained to a safe standard i.e. grass kept at a suitable height and surface not waterlogged or otherwise contaminated. Additionally, the UK CAA has published a [Safety Sense Leaflet 12](#) which also deals with flying from unlicensed/private airstrips.

2. AAIU COMMENT

The AAIU has investigated and reported on a significant number of take-off and landing accidents that were specifically related to expected performance not being achieved due to prevailing weather and/or ground conditions. Many of these events have resulted in injury to persons on board, extensive damage, or even loss of the aircraft itself. Whilst in this case EI-ETU suffered extensive damage, it was fortunate that neither occupant suffered serious injury.

The high performance and short field capabilities of new generation microlight aircraft such as EI-ETU can lure individual pilots to operate into or out of restricted airstrips or operate in prevailing weather or ground conditions that are less than suitable. All aircraft regardless of size and/or performance are subject to degradation of field performance when operating from a wet/soft grassland surface. Furthermore, there are additional risks associated with operating off the defined and prepared runway strip. The open field would not normally be compacted by frequent use as would be the case on the prepared runway.



Furthermore, the grass may vary in length, there may be unknown areas of wet and/or soft ground and there may be tyre rutting across the take-off run.

In this specific case, the Pilot persisted with the take-off, in degraded ground surface conditions, in the hope that he would become airborne in time to clear the tree lined boundary hedgerow. In doing so he lost his aircraft, but more importantly compromised the safety of both his passenger and himself.

The General Aviation Safety Council of Ireland (GASCI) has been established to promote the safety of general aviation in Ireland. To achieve its aim, GASCI seeks to identify flight safety risks and minimise them through education, training and shared experience amongst the aviation community. With the continued expansion of operations to such airstrips within Ireland, the Investigation is of the opinion that it would be appropriate for the GASCI to produce some form of safety information publication to highlight the problems and potential dangers associated with operations to and from airstrips. A Safety Recommendation is made to that effect.

3. Safety Recommendation

No.	It is Recommended that:	Recommendation Ref.
1.	GASCI should consider the development and dissemination of safety information for the general aviation community specific to highlighting the potential risks associated with operating to and from airstrips.	IRLD2013009

[View Safety Recommendations for Report 2013-006](#)

In accordance with Annex 13 to the Convention on International Civil Aviation, Regulation (EU) No. 996/2010, and Statutory Instrument No. 460 of 2009, Air Navigation (Notification and Investigation of Accidents, Serious Incidents and Incidents) Regulation, 2009, the sole purpose of this investigation is to prevent aviation accidents and serious incidents. It is not the purpose of any such investigation and the associated investigation report to apportion blame or liability.

A safety recommendation shall in no case create a presumption of blame or liability for an occurrence.

Produced by the Air Accident Investigation Unit

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**An Roinn Iompair
Turasóireachta agus Spórt**

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