



# Air Accident Investigation Unit Ireland

**SERIOUS INCIDENT REPORT**  
**Piper Super Cub, G-BIZV**  
**and X-AIR Microlight, EI-DGG**  
**Newcastle Airfield, Co. Wicklow**  
**9 May 2010**



**An Roinn Iompair**  
**Turasóireachta agus Spóirt**

Department of Transport,  
Tourism and Sport

Piper Super Cub, G-BIZV and X-AIR Microlight, EI-DGG,  
at Newcastle Airfield, Co. Wicklow, 9 May 2010

AAIU Final Report No: 2012-013

State File No: IRL00910031

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In accordance with the provisions of SI 460 of 2009, the Chief Inspector of Air Accidents, on 10/05/2010, appointed Mr. Graham Liddy as the Investigator-in-Charge to carry out a Field Investigation into this Serious Incident and prepare a Report. Due to his retirement, the Chief Inspector, Mr. Jurgen Whyte appointed himself, on the 29 February 2012, as the Investigator-in-Charge to complete the investigation. 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:	(1) Piper L18C Super Cub, G-BIZV (2) RAJ Hamsa X-AIR Microlight 133(1), EI-DGG
No. and Type of Engines:	(1) 1 x Continental C90-8F (2) 1 x Verner 133M
Aircraft Serial Number:	(1) 18-2001 (2) 899
Year of Manufacture:	(1) 1952 (2) 2003
Date and Time (UTC):	9 May 2010 @ 14.30 hrs
Location:	Newcastle Airfield (EINC), Co Wicklow
Type of Operation:	General Aviation
Persons on Board:	(1) Crew - 1
Injuries:	(1) Crew - None
Nature of Damage:	Minor to both aircraft
Commander's Licence:	(1) Irish PPL(Aeroplane)
Commander's Flying Experience:	(1) 299 hours, of which 79 were on type
Notification Source:	Airfield Owner
Information Source:	AAIU Pilot Report Form submitted by Pilot/Owner of G-BIZV and written report by owner of EI-DGG. AAIU Field Investigation.



## SYNOPSIS

The Pilot of G-BIZV was taxiing his tail-wheeled aircraft in the ramp/hangar area following a short local flight. As the aircraft was about to pass behind an unoccupied parked X-AIR microlight (EI-DGG), a sudden gust of wind from the right swung G-BIZV into wind and its propeller struck the trailing edge of the microlight's starboard aileron. There were no injuries.

## 1. FACTUAL INFORMATION

### 1.1 History of the Flight

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The Pilot reported that he was taxiing in along the 090°-270° taxiway at EINC towards the ramp/hangar area after a short solo flight. The wind, he recalled, was about 010° or 015° at 13-17 kts. As he approached the parking area he slowed with the intention of passing behind a parked microlight to his right-hand side. His aircraft was then subjected to a sudden gust of wind from the right, and the aircraft swung to the right into wind. Efforts to correct the swing and stop the aircraft failed and the propeller of the taxiing aircraft struck the trailing edge of the starboard aileron of the parked X-AIR. The engine stopped and the Pilot switched off the ignition. He exited the aircraft and was uninjured.

The Pilot reported no technical problems with his aircraft prior to the loss of control while ground manoeuvring. In a frank assessment of the cause of this occurrence, the Pilot considered that, *"..the sudden gust of wind caused me to 'weathercock' very quickly to the right. I had perhaps underestimated the potential strength of gusts in what appeared to be a steady enough wind. I was not taxiing very quickly, but in these conditions a slower pace would have been safer – things would not have moved so fast and I would have been able to react in time"*.

### 1.2 Damage to Aircraft

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The propeller of G-BIZV was heavily dented on both leading edges and the hub suffered a deep gouge. The front cowling had large dents and there were some dents on the propeller boss.

The microlight required replacement of the right aileron, the outer wingtip tube and associated components.

### 1.3 Aircraft Information

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G-BIZV had a Civil Aviation Authority (CAA) Permit to Fly, No. PR 005719/004, which was issued on the 19 November 2009 and valid until 18 November 2010. The Pilot had originally applied for a Permission<sup>1</sup> from the Irish Aviation Authority (IAA) on the 7 April 2010. Additional material was sought by the IAA, and a further Permission application (dated 8 May 2010) was received and processed by the IAA on the 11 May 2010. That particular Permission was issued on the 11 May 2010, two days after the accident and was valid until 11 August 2010.

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<sup>1</sup> Permission: The Irish Aviation Authority in exercise of its powers under Article 30 of the Irish Aviation Authority (Airworthiness of Aircraft) Order 1996, (SI No 324 of 1996) can exempt aircraft from the requirements of Article 7 of the said Order to the extent necessary to permit the mentioned aircraft to fly without a normal Certificate of Airworthiness.

## 2. DISCUSSION

The primary requirements for safe taxiing are that a pilot must be aware of the entire area around the aircraft in order to ensure that it will clear all obstructions and other aircraft, the pilot must exercise positive control, and retain the ability to stop or turn where and when desired without undue reliance for heavy braking.

Furthermore, a pilot must be fully attentive to the prevailing wind conditions and anticipate the effect the wind may have on the controllability of his/her aircraft.

Typically, an aircraft has a larger side area profile behind the main landing gear than forward of it. With the main gear acting as a pivot point and the greater surface area exposed to wind behind the pivot point, the aircraft will tend to turn (weathercock) into wind. This tendency is more prevalent on tail wheel aircraft, as the side surface area behind the main gear is larger than nose wheel type aircraft. In addition, this weathercock potential is more likely while taxiing directly crosswind in wind velocity above that of a light breeze.

As a taxiing aircraft transitions through the different wind directions, the effect on directional controllability will vary and as such different and appropriate control inputs must be applied by the pilot to counteract any tendency for the aircraft to drift or for the tail or wing to lift. Failure to counteract wind effect can lead to the aircraft weathercocking into wind or even inverting (**See AAIU Final Report 2012-008, EI-EMT**).

Specific to this particular occurrence, directional control was lost as the aircraft weathercocked into wind. The weathercock probably resulted from a combination of factors, including, taxiing speed, strength of wind gust and inappropriate or inadequate control input to counteract wind effect. In addition, it is clear that the proximity of the taxiing aircraft to the parked microlight was such that there was inadequate space or time to respond to an unexpected event such as weathercocking.

## 3. CONCLUSIONS

### (a) Findings

1. G-BIZV collided with EI-DGG, a parked microlight, while manoeuvring in the ramp/hangar area.
2. G-BIZV was subjected to a sudden gust of wind from its right side, resulting in the aircraft weather-cocking right into wind.
3. Directional control was lost and the propeller of G-BIZV impacted the trailing edge of the starboard aileron of EI-DGG.
4. The Pilot had no IAA Permission to operate the aircraft in Ireland on the day of the occurrence.

## 4. SAFETY RECOMMENDATIONS

This Investigation does not sustain any Safety Recommendations.

-END-

**In accordance with Annex 13 to the International Civil Aviation Organisation Convention, 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 these investigations is to prevent aviation accidents and serious incidents. It is not the purpose of any such accident 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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