

**ACCIDENT**

<b>Aircraft Type and Registration:</b>	Ikarus C42 FB80 Bravo, G-SAMC	
<b>No &amp; Type of Engines:</b>	1 Rotax 912-UL piston engine	
<b>Year of Manufacture:</b>	2012 (Serial no: 1207-7213)	
<b>Date &amp; Time (UTC):</b>	25 August 2018 at 1140 hrs	
<b>Location:</b>	Compton Abbas Airfield, Dorset	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - 1
<b>Injuries:</b>	Crew - None	Passengers - None
<b>Nature of Damage:</b>	Damage to nose leg, propeller, main landing gear and left wing	
<b>Commander's Licence:</b>	National Private Pilot's Licence	
<b>Commander's Age:</b>	53 years	
<b>Commander's Flying Experience:</b>	68 hours (of which 68 were on type) Last 90 days - 14 hours Last 28 days - 6 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

**Synopsis**

The aircraft bounced twice following the initial touchdown at Compton Abbas Airfield. The right wing then started to lift, which the pilot controlled with rudder and at the same time applied full power to go around. However, the aircraft continued to descend and landed heavily, sustaining damage. The pilot and passenger were uninjured.

**Description of Compton Abbas Airfield**

Compton Abbas Airfield is situated on high ground with trees to the south of the main runway and sloping ground to the north (Figure 1). It has one grass runway, 08/26, with a Landing Distance Available of 803 m and an unlicensed extension of 100 m at each end. A wind sock is located at each end of the runway and aircraft are parked parallel to the south side of the runway.

The airfield operates General Aviation (GA) and microlight circuits (Figure 1). The airfield plate advises microlight and GA traffic to join dead-side and to cross the upwind runway numbers at 800 ft QFE. Microlight aircraft using the microlight circuit are required to descend to 600 ft on the crosswind and to give way to aircraft using the GA circuit, particularly on the base and final legs.

The airfield operates an Air/Ground VHF communication service, 'Compton Radio'.

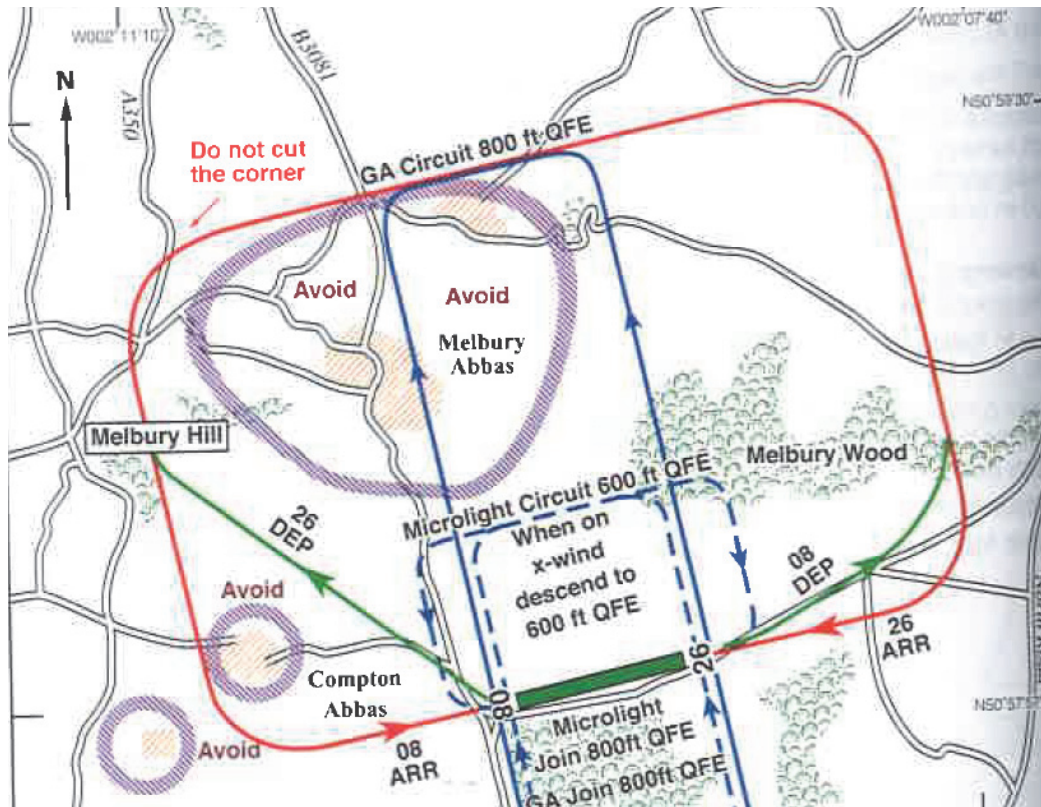


Figure 1

GA and microlight circuit patterns at Compton Abbas Airfield

### History of the flight

The pilot had recently obtained her NPPL (A) licence and had 19 hours as PIC on the Ikarus C42. She had previously flown into Compton Abbas as a passenger on a GA aircraft, which is why she chose this destination, but this was her first landing as the handling pilot at this airfield. This was also the passenger's first flight in a light aircraft; the pilot reported that the passenger was of great assistance in helping her look for other aircraft flying in the circuit at Compton Abbas.

The pilot departed Membury Airfield for a flight around the south of England and changed radio frequency to Compton Radio when approximately 10 nm from the airfield. From the communication on the radio the pilot was aware that there was a high level of activity and joined the microlight circuit from the south to land on Runway 26, aware that there was one other microlight ahead and several aircraft in the GA circuit. As the pilot turned onto base leg the radio operator informed her of conflicting traffic joining from the south. The pilot was unsuccessful in sighting the traffic and realised when approaching the turn onto the final approach that she was too high and therefore flew onto the dead-side before repositioning onto the microlight circuit.

During the second circuit the pilot observed an aircraft landing on Runway 26 and extended her downwind leg because she did not want to go around again. There were also several aircraft transmitting their positions from both circuits and it was difficult keeping track as

to where each aircraft was. Nevertheless, she continued the circuit and was on the final approach at approximately 300 ft before the aircraft ahead cleared the runway. The radio operator had given the wind as “north-west 10 kt”, which was a little stronger than the pilot expected from information passed to other aircraft. The pilot later stated that she did not correctly make the mental connection between the wind direction of north-west and the compass direction of 315°, with the result that she underestimated the strength of the crosswind. The pilot configured the aircraft with two stages of flaps and prepared to land in what she believed was a light crosswind. The pilot reported that she felt the workload was very high.

The pilot reported that, in her recollection, the aircraft then touched down shortly after the runway threshold but unexpectedly lifted off again. The plane then touched down and bounced a second time. At this point the pilot became concerned and no longer focused on the crosswind but instead applied a small amount of power to control the third touchdown. The right wing then started to lift, which the pilot attempted to correct with full right rudder while at the same time applying full power to commence a go-around. However, by this stage the airspeed was very low and the aircraft descended heavily onto the runway, breaking the nose landing gear leg. The aircraft slewed to the left side of the runway, stopping short of the parked aircraft.

### **Pilot’s home airfield**

The pilot had learned to fly at an unlicensed airfield that did not have a notified ground frequency. Instead pilots at this airfield would broadcast on SAFETYCOM (135.475 MHz) at key points in the circuit to inform other pilots of their position. The wind conditions would also be estimated by the pilot from the two windsocks located on the airfield.

### **Radio communication**

Compton Abbas operates an Air/Ground communication service (Compton Radio) provided by a radio operator who would hold a CAA Certificate of Competence to operate radio equipment on aviation frequencies. CAP 452 (Aeronautical Radio Station Operators Guide). provides a glossary of terms to be used during radio communications and states that “*the wind direction for landing and take-off*” should be given in ‘*degrees magnetic*’. However, there is an exception regarding the format of wind reports for airfields such as Compton Abbas which do not have wind direction dials and rely on the use of windsocks.

### **Analysis - Human factors**

An experienced individual has greater capacity to deal effectively with an accumulation of tasks before their performance starts to become affected. The pilot on this accident flight would have been used to interpreting the wind conditions at her home airfield from the wind sock and by the heading of the aircraft during the final approach. The fact that on this occasion she had difficulty in forming a mental picture when the wind direction was passed as “north-west” is an indicator that her workload was sufficiently high to affect her performance.

There were a number of factors during this flight which on their own would not have presented a problem, but the cumulative effect may have placed the pilot under some pressure with the consequence that she made the decision to go around from the second approach too late.

Task-related factors included:

- The airfield operated two circuit patterns.
- The circuit was busy.
- The wind information was passed to the pilot in a form that required her to make a mental computation that she was unused to doing.
- The aircraft was part-way down the final approach before the aircraft ahead cleared the runway.

Factors that reduced the pilot's ability to cope with the situation included:

- The pilot was relatively inexperienced.
- The pilot made a mental decision after the first go-around to land from the second approach.

The resulting effect on the pilot's performance was:

- The pilot had difficulty identifying the position of some of the traffic in the circuit from the radio communication.
- The pilot miscalculated the crosswind.
- The aircraft bounced several times during the second landing.
- The pilot made a late decision to go around.

### **AAIB comment**

This accident shows how an accumulation of small tasks and events can reach the stage where a pilot's performance is affected. While each individual has a different threshold, low experience or a lack of recent currency (not relevant in this accident) are factors that can affect the number of tasks an individual can handle before their performance is affected. In this case the pilot might have given herself more time to complete the numerous tasks and establish a stable approach by flying the GA circuit.

Given their low inertia, microlights can slow down quickly when power is reduced during the flare. It is therefore important to be prepared to make an early decision to apply full power and go around following a bounced landing.