

# **BRITISH GLIDING ASSOCIATION**

## **GLIDER ACCIDENT REPORT**

**No 2018055**

Glider type                      Schempp-Hirth Ventus CT

Registration                      G-CFZH                      Fin Markings FZH

Place of Accident                      On runway 34 at Lasham Airfield about 400 metres  
North of the threshold

Date and Time of Accident    15 May 2018 at 11:50 Hrs Local Time

### **1.0    Factual Information**

#### **1.1    History of the flight**

The aircraft was positioned on the grass to the east of the launch control caravan which was sited close to the threshold of Runway 34 at Lasham Gliding Site. The launch cable was attached to the belly hook of the glider and the left wing was then lifted into the wings level position. The launch was initiated with a "take up slack command" from the wing tip holder. The launch point controller relayed this instruction to the winch driver by a visual light signal backed up with a radio call. Once the cable became taught the "all out" command was similarly relayed. The glider accelerated wings level for a short distance and then the left wing momentarily dropped to just contact the ground. It then rose a little but not back to the wings level position before again dropping and contacting the ground much more firmly. The glider then yawed abruptly to the left and the right wing continued to rise until the wings achieved near vertical ie about 90 degrees of bank. The cable "back released" and the glider rolled to near inverted and impacted the hard runway surface with little forward speed.

#### **1.2    Injuries to Persons**

The pilot was very severely injured in the accident. His injuries were mainly to his head caused by impact and abrasion on the hard runway surface.

#### **1.3    Damage to aircraft**

The aircraft was damaged beyond economic repair. The cockpit area was substantially destroyed with other serious damage to both wings and the empennage. Further damage occurred in recovering the aircraft after the accident but this had no effect on the possibility of a repair.

#### **1.4    Other damage**

There were a number of minor scrapes on the runway surface considered to be insignificant.

## **1.5 Personnel information**

Ventus CT      G-CFZH: Tail-letters FZH

Pilot in Command      65 years

Pilot Flying Experience	Total	1300 Hrs total	2600 launches
	Previous 12 months	14 hours	69 launches
	Previous 30 days	2 hours 8 mins	6 launches

### **1.6.1 General**

The aircraft was required to hold an EASA Certificates of Airworthiness (CofA). Additionally a current annual Airworthiness Review Certificate (ARC) was required to ensure that the aircraft complied with all current airworthiness rules. The aircraft was correctly certificated.

## **1.7 Meteorological information.**

It was a fine day with good visibility and no significant cloud. There was a steady Northerly surface wind of 10 kts. The maximum shown on the data recorder at the airfield during the period was 12 kts. This gave a 3-4 knots crosswind component.

## **1.8 Aids to navigation**

Not applicable

## **1.9 Communications**

All of the personnel at the launch point communicated by voice. Communication between the launch point and the winch was by light signals backed up by radio.

## **1.10 Aerodrome information**

Lasham is a large and very popular gliding site. It has a number of take-off and landing options to account for differing wind directions.

## **1.11 Flight Recorders**

Not applicable

## **1.12 Aircraft examination**

The wreckage of the Ventus was examined at the site by both the BGA and AAIB inspectors. Additionally a Senior BGA Aircraft Inspector later examined the release mechanism to determine if there was evidence of a pre-crash failure. The mechanism was intact and functioned correctly and there was no evidence of wear on the hook at the heart of the system which would have increased the pull force required to achieve release.

#### **1.13 Medical and pathological information**

The pilot was fit and well for the planned flight and well rested.

#### **1.14 Fire**

There was no fire.

#### **1.15 Survival aspects**

Lasham Gliding Society the owner and operator of the site had a comprehensive crash and disaster plan which was initiated with a radio call to the administrative office in the club-house. The emergency services responded in a very timely manner as did the local air ambulance. The club members present at the launch point also responded quickly and rendered first aid. The life saving effort was taken over by the air ambulance doctor and paramedics on arrival and the pilot was stabilised as much as possible before transfer to hospital by helicopter. A great deal of effort was expended in the following weeks by the medical services such that the pilot currently assesses that he is back to 80+% fitness and continues to improve. The club members should be applauded for both their effective response and their initiative in providing the means to extricate the pilot from the wreckage by lifting the tail of the aircraft onto the retrieve buggy.

#### **1.16 Tests and research**

Not applicable

#### **1.17 Organisational and management information**

The sport of gliding is governed in the United Kingdom by the British Gliding Association (BGA). This organisation actively pursues a number of safety initiatives in areas where it perceives the risk of a serious accident exists. One such area is where a wing drops during the take-off run and comes into contact with the surface. In these situations the only effective course of action is to immediately release from the launching cable. The BGA published a pamphlet in October 2005 called Safe Winch Launching which highlighted the risks and detailed current teaching on the subject. This document has been revised and updated on 5 occasions since and is widely available to the membership.

## **1.18 Additional information**

Nil

## **1.19 Useful and effective investigation techniques**

A detailed survey of the accident site was made possible by the AAIBs recently acquired UAV.

## **2.0 Analysis**

The geometry of the accident is relatively easy to recreate from detailed witness statements of the club members present at the launch point. There is little discrepancy between any of them. These witness statements are corroborated by the witness marks on the ground and the debris trail. Unfortunately the pilot has no memory of the day in question other than parking his car at the launch point and deploying his glider ready to fly. He is adamant that he invariably self briefed on launch eventualities (Action in the event of any incident during the launch). Thus he would of self briefed that in the event of a wing drop he would immediately release. He is equally adamant that it was his practice to hold the yellow release handle during the launch to reduce any delay in this process. This is critically important as the release mechanism can sometimes be difficult to reach if full aileron deflection is applied. This can commonly happen during the launch as the ailerons lack effectiveness early in the part of the launching process when the speed is low. As a gliding instructor he would routinely cover all of these briefing points with his students thus I am convinced that this was his Standard Operating Procedure (SOP).

The reason that the launch cable must be released immediately on wing drop is that the profound increase in resistance of a wing in contact with the ground and in particular with long grass causes the aircraft to yaw at a high rate. This in turn causes the tension in the cable to increase at a similarly high rate. Thus the amount of physical effort required to affect release rises exponentially with the yaw angle. Any knotting of the release hook adds to the problem. In this case there was no noticeable wear in the release mechanism nor was the grass longer than the recommended length of 10 cms. However, it is clear that any delay at all in releasing adds to the problem.

Regretably we will never know why this launch was not abandoned but it is clear that the safety message promoted by the BGA had been absorbed.

### **Survival Aspects**

The reactions and initiative of the club members had a profound effect on the survivability of this accident. They should be congratulated on their efforts.

## **2.1 Location**

The accident occurred at the Lasham Gliding Site.

### **3.0 Conclusions**

The accident happened because the launch was not abandoned when the left wing came into contact with the ground.

### **4.0 SAFETY RECOMMENDATIONS**

#### **SAFETY RECOMMENDATION**

That the BGA continue to promote the safety messages in the Safe Winch launching protocols.

C V J Heames  
BGA Senior Accident Investigator

28 October 2018