



**Accident** to the SCHEMPP HIRTH - VENTUS 2C  
registered **F-CIGJ**  
on Tuesday 22 August 2023  
close to Issoire - Le Broc aerodrome

<b>Time</b>	At 15:20 <sup>1</sup>
<b>Operator</b>	Aéroclub Pierre Herbaud
<b>Type of flight</b>	Local
<b>Persons on board</b>	Pilot
<b>Consequences and damage</b>	Pilot fatally injured, glider destroyed

This is a courtesy translation by the BEA of the Final Report on the Safety Investigation. As accurate as the translation may be, the original text in French is the work of reference.

**Pilot incapacitation while being towed, loss of control  
during final approach, collision with ground**

**1 HISTORY OF THE FLIGHT**

*Note: the following information is principally based on statements, examinations and the Open Glider Network (OGN) data.*

The pilot carried out a towed take-off from runway 36R of Issoire - Le Broc aerodrome. After a flight time of two minutes thirty seconds, he released the cable at a height of 350 m and headed towards the downwind leg while getting closer to the aerodrome. He turned onto the base leg and then the final approach. During the final approach, the glider suddenly nosed down and collided with the ground a few hundred metres before the runway threshold.

<sup>1</sup> Except where otherwise indicated, the times in this report are given in local time.

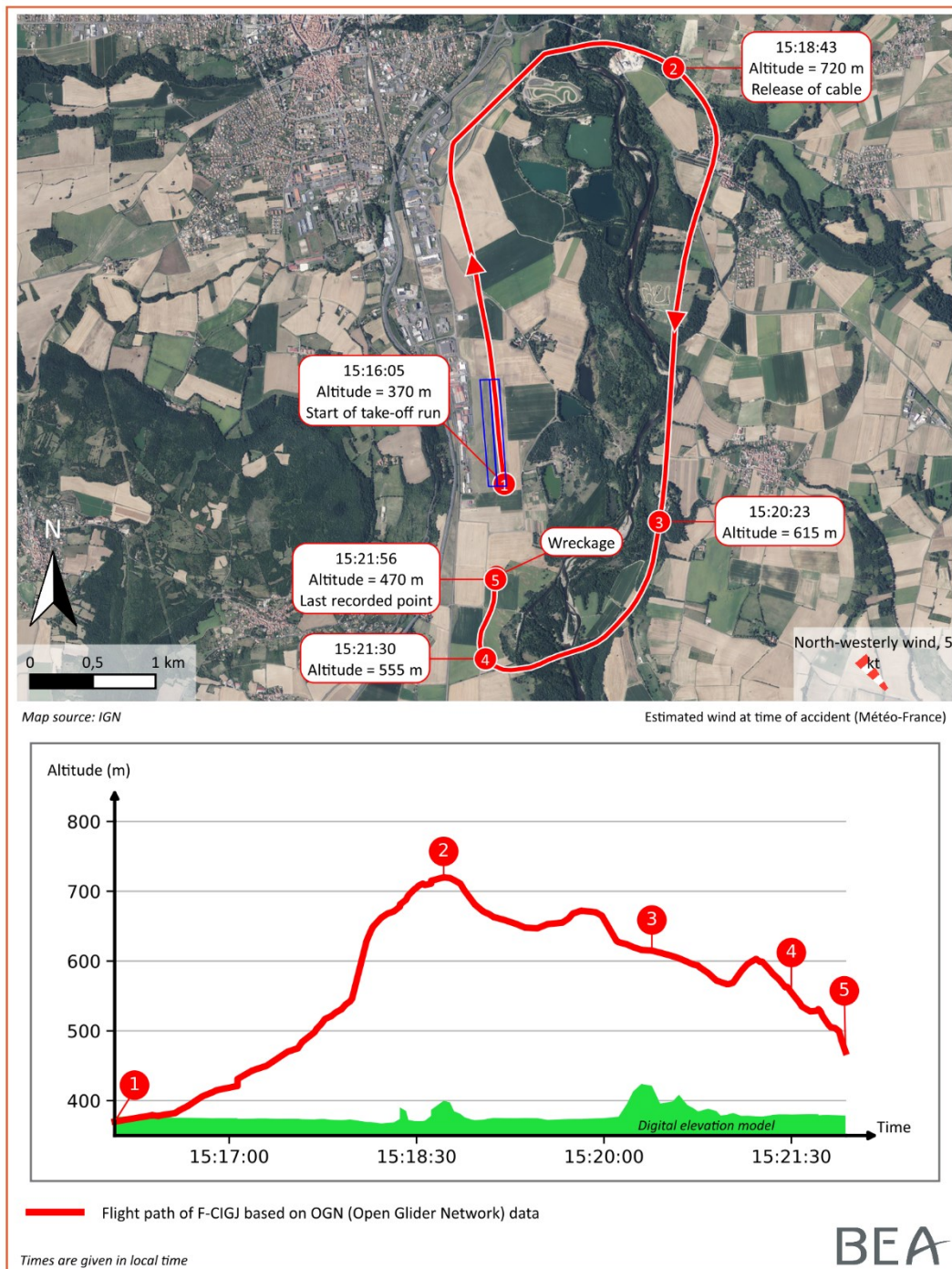


Figure 1: flight path of glider

## 2 ADDITIONAL INFORMATION

### 2.1 Examination of site and wreckage

The wreckage was grouped together and located in a field of corn at around 500 m from the threshold of and on the axis of runway 36. The glider collided almost vertically with the ground.

The forward section of the airframe up to the wing roots was substantially damaged. The fuselage had ruptured level with the trailing edge of the wings. The tail had ruptured in line with the tail fin.

It was not possible to determine the position of the flap controls and air brakes. The ruptures in the

control linkages (elevator, roll and rudder) corresponded to the structural ruptures of the glider and were the result of the collision with the ground.

## 2.2 Glider information

F-CIGJ was a Ventus 2C single-seat glider with a wingspan of 18 m, an empty weight of 306 kg and a maximum weight (without ballast) of 452 kg. The glider had a valid certificate of airworthiness and had logged 1,800 flight hours and 570 launches.

The last two flights recorded in the glider flight log book were dated 17 and 20 August 2023 for a flight time of 2 h 41 min and 2 h 49 min respectively. No comments had been made in the log book.

The glider did not have an air-conditioning system in the cockpit and the latter was not leaktight. During the flight, the pilot was exposed to the ambient air (humidity and temperature). The canopy was equipped with a small lateral window to allow the pilot, if necessary, to increase the air flow in the cockpit with outside air.

## 2.3 Pilot information

The 73-year-old pilot held a Sailplane Pilot Licence (SPL) obtained in 2015. He had logged around 1,460 flight hours, including 32 hours in the previous three months. He held a class 2 medical fitness certificate valid until May 2024 with the requirement to wear corrective lenses.

The last two flights recorded in the pilot's flight log book were dated 27 and 30 July 2023 for a flight time of 25 min and 4 h 34 min respectively, both carried out on the glider registered F-CIGJ.

The autopsy revealed that the pilot was subject to advanced generalised arterial atherosclerosis<sup>2</sup>, with a reduction in the calibre of his coronary arteries of more than 70% and old scarring of the heart muscle. Toxicological analyses did not reveal any drug substances. The pilot's wife indicated that he was not undergoing any medical treatment.

## 2.4 Meteorological information

The information provided by Météo-France indicated that France had been experiencing a heatwave for several days, which had become particularly intense in the east and south of the country. On Tuesday 22 August, a red heatwave warning was in force for 4 departments and an amber warning was in force for 49 departments. An amber weather warning had been in force for the department of Puy-de-Dôme for several days.

The data recorded by the weather station near the aerodrome at the time of the accident, indicated a north-easterly wind of 5 kt and a temperature of 36°C. According to witnesses, the conditions were CAVOK.

---

<sup>2</sup> Atherosclerosis is characterized by the deposit of a plaque essentially composed of lipids on the inner walls of arteries. (Source: [Inserm](#))

## 2.5 Statements

The tug pilot indicated that after taking off and during the climb, he noticed that the pilot was having difficulty correctly aligning behind the tug aircraft. He thought this was due to uplifts. He added that he turned right towards the south and observed that the glider was still a little too low and offset. He was about to contact the glider pilot when he heard the latter announce on the radio that he was going to release the cable. He indicated that he perceived the glider on his LH side, heading towards the downwind leg. He specified that he twice asked the glider pilot on the radio if there was a problem, but got no answer. He indicated that he landed on runway 36L, which is dedicated to aeroplanes, in order to leave runway 36R free for the glider. After landing, he listened to the radio and observed the glider. He saw the glider on the base leg and then turn onto the final approach. He noted that the descent gradient was not constant with the glider oscillating around the pitch axis, that the turn was wide and that the glider overshot the final path before returning to it. He reported observing that the glider had the air brakes extended on the final approach. He added that the glider then suddenly pitched down towards the ground. He stated that he heard radio messages from the person in charge of the gliders on the ground and that there had been no message from the glider pilot.

The person in charge of the gliders on the ground said that he had hooked the cable to the glider for towing and that he had not noticed any anomaly during the radio tests. While monitoring the radio frequency, he heard the glider pilot announce that he was releasing the cable. He explained that this release seemed premature to him as it is generally carried out at around 600 m. He added that he tried to contact the glider pilot by radio but received no reply. He specified that the glider pilot did not transmit any message to indicate his position in the aerodrome circuit. He added that during the circuit he observed that the glider's descent gradient was not constant, with large variations in pitch attitude and altitude. He also noted that the glider overshot the path during the last turn and that on lining up on the glider final approach, the glider was on a steep slope. He informed the glider pilot over the radio that he was too high and suggested that he extend the air brakes. He saw the air brakes extend and noted that the glider was still oscillating around its pitch axis, then he saw the glider suddenly pitch down towards the ground.

Other witnesses who had seen the glider pilot before the flight said that he did not look tired and that they saw him quench his thirst before taking off. They added that the pilot had complained about the strong heat, but that this did not seem unusual to them during a heatwave.

## 2.6 Organisation of activity

The gliders had been lined up at the threshold of runway 36R for a north facing take-off. A tent and seats had been set up next to the hanger to allow pilots to wait in the shade.

The towed take-offs started at 13:30 and F-CIGJ was the sixth glider to take off, at 15:16 according to the records.

### 3 CONCLUSIONS

*The conclusions are solely based on the information which came to the knowledge of the BEA during the investigation.*

#### Scenario

While holding on the ground and during the take-off, the high temperatures and lack of cloud exposed the pilot to difficult conditions. After the canopy was closed, in the confined space of the cockpit with limited ventilation, the effects of the ambient heat would have been amplified. These conditions would have drastically increased the workload of the heart and affected the pilot's hydration levels, and might have caused faintness.

The pilot probably realised that he was not able to continue the flight and released the cable early in order to return to the aerodrome quickly. The large variations in the glider's pitch attitude and altitude illustrate a possible deterioration in the pilot's performance, until the loss of control and collision with the ground.

It is likely that the pilot was unaware of the deterioration in his cardiovascular health.

#### Safety lessons

The BEA brought to light during the investigation into this accident, as in two other investigations (accident to the helicopter registered [F-GEST](#) in 2005 and accident to the aeroplane registered [F-PTTL](#) in 2020), the existence of a heart disease, conducive to the onset of faintness, of which the pilot was unaware.

Regularly carrying out sport activities does not necessarily guarantee good cardiovascular health. Likewise, the possession of a class 2 medical fitness certificate is not necessarily a guarantee of good cardiovascular health in the absence of any medical history or cardiovascular risk factor being reported by the pilot at the time of the medical examination.

For an individual with a cardiac predisposition, the physiological stresses inherent in the type of flight (aerobatics), in-flight manoeuvres (tight turns), general flight conditions (high temperatures) or even sudden stress during the flight might contribute to an in-flight incapacitation.

Cardiac pathologies, which can be conducive to the onset of faintness, can go undetected, and in-depth cardiological examinations are often necessary to detect them.

The report on the accident to the aeroplane registered F-PTTL urged aerobatic pilots to be more proactive in their medical check-ups. This recommendation can be extended to all pilots involved in sport activities such as gliding.

***The BEA investigations are conducted with the sole objective of improving aviation safety and are not intended to apportion blame or liabilities.***