

## Accident to the BRM AERO - BRISTELL NG5 registered G-CLDO

on 12 May 2019  
at Montmorillon (Vienne)

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

<b>Time</b>	Around 11:10 <sup>(1)</sup>
<b>Operator</b>	Private
<b>Type of flight</b>	Cross country
<b>Persons on board</b>	Pilot
<b>Consequences and damage</b>	Aeroplane destroyed, pilot seriously injured

This is a courtesy translation by the BEA of the Final Report on the Safety Investigation published in March 2022. As accurate as the translation may be, the original text in French is the work of reference.

### Aborted landing, loss of control and collision with ground

#### 1 - HISTORY OF THE FLIGHT

*Note: the following information is principally based on data from the Dynon computer equipping the aircraft and the pilot's statement.*

The pilot took off at 09:15 from Les Mureaux aerodrome (Yvelines) bound for Limoges Bellegarde aerodrome (Haute-Vienne) under VFR. At the end of the en-route phase at an altitude of 3,500 ft, the pilot observed that the meteorological conditions at Limoges were not improving as quickly as indicated by the forecasts obtained during the flight preparation, and decided to divert.

After having envisaged continuing to Le Blanc aerodrome (Indre) and then Gajoubert microlight strip (Haute-Vienne), he finally headed towards Montmorillon microlight strip (Vienne), situated at a distance of 19 NM.

After flying over the airfield, the pilot joined the left-hand circuit for runway 35 on a circular descending flight path. On coming out of the last turn, the pilot intercepted the runway centreline at 0.5 NM from the threshold of runway 35, at a height of 170 ft.

At the end of the final approach, while flying over the runway, the pilot aborted the landing by applying full power. During this manoeuvre, he lost control of the aeroplane which collided with the ground on the left side of the runway, at the edge of the microlight platform grounds. Unable to exit the aeroplane unaided, the pilot contacted the emergency services using his mobile phone.

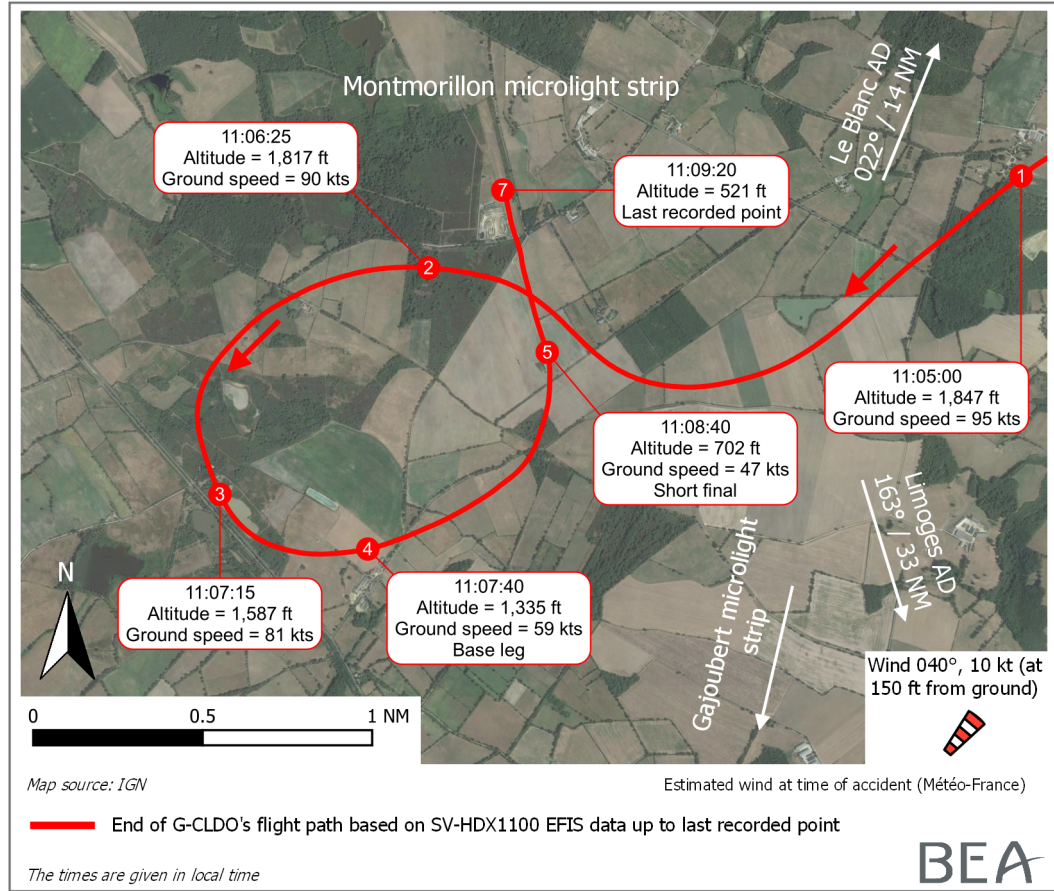


Figure 1: path of G-CLDO based on GPS data

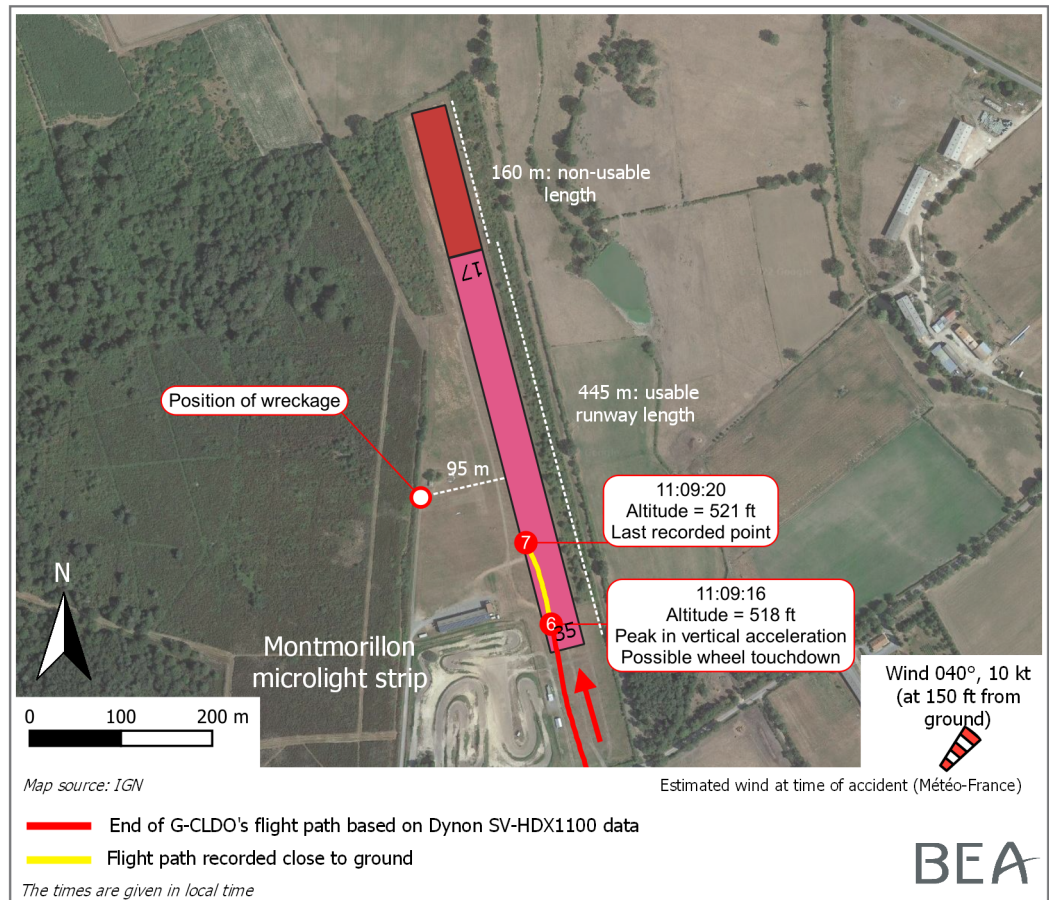


Figure 2: end of G-CLDO's flight path

## 2 - ADDITIONAL INFORMATION

### 2.1 Site and wreckage information

The wreckage was found to the left of the runway at a distance of 95 m from its lateral edge and about one third along its length. The flaps were found in the landing position and the pitch trims and ailerons equipping the aircraft were in neutral. The two engine control levers (power and mixture) were found in the maximum forward position. However, it cannot be excluded that their positions were modified on impact.

The examination of the wreckage did not find any any technical anomaly which could explain the loss of control or a malfunction.

### 2.2 Aircraft information

The BRM AERO Bristell is a two-seater aeroplane built by its owner using drawings and materials provided by BRM AERO who owns the rights for it. It is equipped with a 100 hp Rotax engine. In the United Kingdom Civil Aviation Authority (CAA UK) register, the aeroplane falls into the Amateur Built category, the equivalent of the CNRA certificate issued to kit-built aircraft registered in France. The CAA UK considers G-CLDO to be an aeroplane as the microlight classification does not exist in the United Kingdom.

The flight manual indicates that for grass runways, the landing distance is 190 m and the take-off distance is 540 m<sup>(2)</sup>. The length of the Montmorillon runway was therefore sufficient for both taking off and landing.

### 2.3 Microlight strip information

#### 2.3.1 Strip characteristics

Montmorillon microlight strip LF8651 has a grass runway oriented 170°/350°. At the date of the accident, the microlight strip information sheet indicated that the runway was 600 m long by 40 m wide. In reality, the length was reduced to 440 m by the white delimitation markings on the ground. The part which had become unusable, measuring a length of 160 m, was not maintained. It could be considered a clearway, i.e. a suitable area over which an aircraft may make its initial climb after take-off. It was symbolized by three white crosses on one of the photos of the LF8651 sheet.

The microlight sheet also specified that special precautions had to be taken when landing on runway 35 due to downdrafts.

The Vienne Prefecture order specifying the conditions of use of the microlight platform indicates in article 1 that its use was reserved for microlights. The pilot of G-CLDO had not obtained the authorization to use this strip with his personal aeroplane.

#### 2.3.2 Statement by director of Montmorillon microlight school

This director who was also a microlight instructor, declared that the town hall, which managed the strip, generally informally delegated to him the task of giving information to pilots who wanted to obtain the authorization to land on this microlight strip. When contacted, he informed the pilots of the local safety instructions, especially the actual usable run length of the grass strip and the risk arising from downdrafts on QFU 35. He indicated that the pilot of G-CLDO had not contacted him. He knew that this pilot had been a member of the microlight school situated not far from Montmorillon.

<sup>(2)</sup> These distances include flight through 15 metres (50 ft).

With respect to the dimensions of the Montmorillon runway, he specified that around ten years earlier, the north part had been damaged making this part of the grass strip unfit to be used for the ground run.

## 2.4 Meteorological information

### 2.4.1 At planned destination

The 07:00 Limoges TAF indicated visibility greater than 10 km, and a ceiling at 500 ft which would progressively improve during the morning, with the cloud base rising to 1,500 ft at 11:00 and then CAVOK conditions from 14:00.

At the time of take-off from Mureaux aerodrome, the last available Limoges METAR report indicated visibility of 8 km and a ceiling at 500 ft at 09:00, which was consistent with the weather forecasts. At the time of the accident, the visibility at Limoges was greater than 10 km and the cloud base was at 2,600 ft above ground level.

### 2.4.2 At selected alternate

The French Met Office, Météo-France, estimated visibility greater than 10 km, 1 to 2 octa of cumulus at 3,000 ft and a surface wind from 040° of 5 to 10 kt, gusting to 15 kt.

The president of the microlight club who arrived at Montmorillon strip at the beginning of the afternoon observed that there was a strong, turbulent northeasterly wind.

## 2.5 Pilot information

<sup>(3)</sup> National Private  
Pilot Licence.

The pilot held a NPPL<sup>(3)</sup> for aeroplanes issued by the CAA UK in June 2016. In the month preceding the accident, he had flown around 16 flight hours on the Bristell NG5. His total experience was 227 flight hours.

With respect to the flight, he remembered that he had not detected a failure or anomaly in the aeroplane's operation. With respect to the choice of alternate aerodrome, he indicated that he had flown to the Montmorillon microlight strip on about fifty occasions in the past, during his microlight training. The day of the accident, during his approach and after carrying out the pre-landing check-list, he specified that on short final, he had felt the left wing suddenly drop followed by the nose of the aeroplane pitching down. He declared that this had probably been caused by a loss of lift on the left wing. He affirmed that he had not tried to go around or take off again but cannot precisely remember the end of the flight. According to the pilot, at no time had he loss consciousness.

The pilot specified that he had not been hampered by the local aerological conditions. He also indicated that he could not remember if there may have been a wild animal or other obstacle on the runway which might have been the reason for his decision to carry out a go-around or abort the landing.

Furthermore, the pilot indicated that the electronic carbon monoxide detector warning was not activated at any time and that he was not under any time pressure.

## 2.6 Read-out of recorded data

The data recorded in the Dynon computer equipping the aeroplane showed in the last seconds, a rapid increase in engine power and manifold pressure to values close to take off values.

### 3 CONCLUSIONS

*The conclusions are solely based on the information which came to the knowledge of the BEA during the investigation. They are not intended to apportion blame or liability.*

#### Scenario

At the end of the en-route phase, the pilot thought that it was not certain that he would be able to land at his destination due to the meteorological conditions. He therefore decided to divert to Montmorillon microlight strip which he had flown to on several occasions during his microlight training.

The pilot joined a left-hand circuit for runway 35 in order to align the aeroplane on very short final, with the flaps in the landing configuration. The flight path was controlled until the aeroplane reached the runway threshold.

The pilot flared on crossing the runway threshold and then applied full power for a reason that the investigation was not able to determine. The pilot then lost control of his aircraft.

The presence of a right crosswind component accompanied by probable gusts, combined with the engine effects<sup>(4)</sup> may have made the control of this flight phase more difficult.

#### Safety lessons

##### Aborting a landing

This accident illustrates once again the difficulty of managing the re-application of power during the landing. This topic has been covered in several reports published by the BEA<sup>(5)(6)(7)</sup> which show that among the accidents which took place during the landing in a light aeroplane, those resulting in serious bodily injuries mainly occurred when power was reapplied with insufficient control of the aircraft.

##### Use of microlight strips

The use of microlight strips by aeroplanes, including those in the VLA<sup>(8)</sup> category, is not generally provided for in the prefectural orders defining the conditions of use of these strips. However, it is possible when faced with an emergency situation, if the pilot considers that this choice is preferable to the other options available to him, in particular that of an "off-field landing". In this case, the pilot must remain aware that the information provided on the microlight strip charts made available by the French microlight federation (FFPLUM)<sup>(9)</sup> may be obsolete, despite the federation's wish to see them updated by the people in charge of their management and operation<sup>(10)</sup>.

<sup>(4)</sup> Spiralling slipstream and propeller torque.

<sup>(5)</sup> [Accident to the Cirrus - SR22 registered PH-SJN on 28 July 2020 at Nancy-Essey](#)

<sup>(6)</sup> [Accident to the Robin DR400 registered F-GJZH on 17 December 2019 at Belfort - Chauv](#)

<sup>(7)</sup> [Accident to the FK Light FK9 MARK 4 identified 09BO on 23 July 2019 at Calviac](#)

<sup>(8)</sup> Very Light Aircraft.

<sup>(9)</sup> Can be consulted on [BASULM](#)

<sup>(10)</sup> See FFPLUM monthly safety bulletin [Lettre mensuelle de la Sécurité FFPLUM](#) dated March 2017.