



Accident to the DTA Dynamic – 15/430 identified 67BLZ

on 7 June 2020

at Sarrebourg-Buhl (Moselle)

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

Time	Around 18:07 ⁽¹⁾
Operator	Aéroclub de Batzendorf Ultra-légers
Type of flight	Cross country
Persons onboard	Pilot
Consequences and damage	Pilot fatally injured, microlight destroyed
This is a courtesy translation by the BEA of the Final Report on the Safety Investigation published in February 2021. As accurate as the translation may be, the original text in French is the work of reference.	

Loss of control in turn during approach, collision with the ground

1 - HISTORY OF THE FLIGHT

⁽²⁾ VFR navigational
preparation and aid
application on tablet.

Note: the following information is principally based on statements and GNSS data from the SDVFR⁽²⁾ application installed on a tablet found on board.

The pilot took off at 17:25 from the microlight strip at Batzendorf (Bas-Rhin), where he was based, bound for Sarrebourg-Buhl aerodrome (Moselle). As part of a group excursion organised by the flying club, seven other microlights were making the same flight. After 40 minutes of flight, the pilot flew over the aerodrome at an altitude of nearly 1,800 ft to conduct a reconnaissance of its installations ❶, before joining the start of downwind leg for a right-hand circuit at approximately 1,600 ft ❷ to land on unpaved runway 22. The microlight's path during downwind leg was downward to reach the published aerodrome circuit height. At an altitude of approximately 1,350 ft and a distance of approximately 700 m from the threshold of runway 22, the pilot initiated a turn with an estimated right bank angle of approximately 30° in descent ❸. The turn was pursued in continuous descent to the ground (❹ and ❺). The microlight collided with the ground (❻).

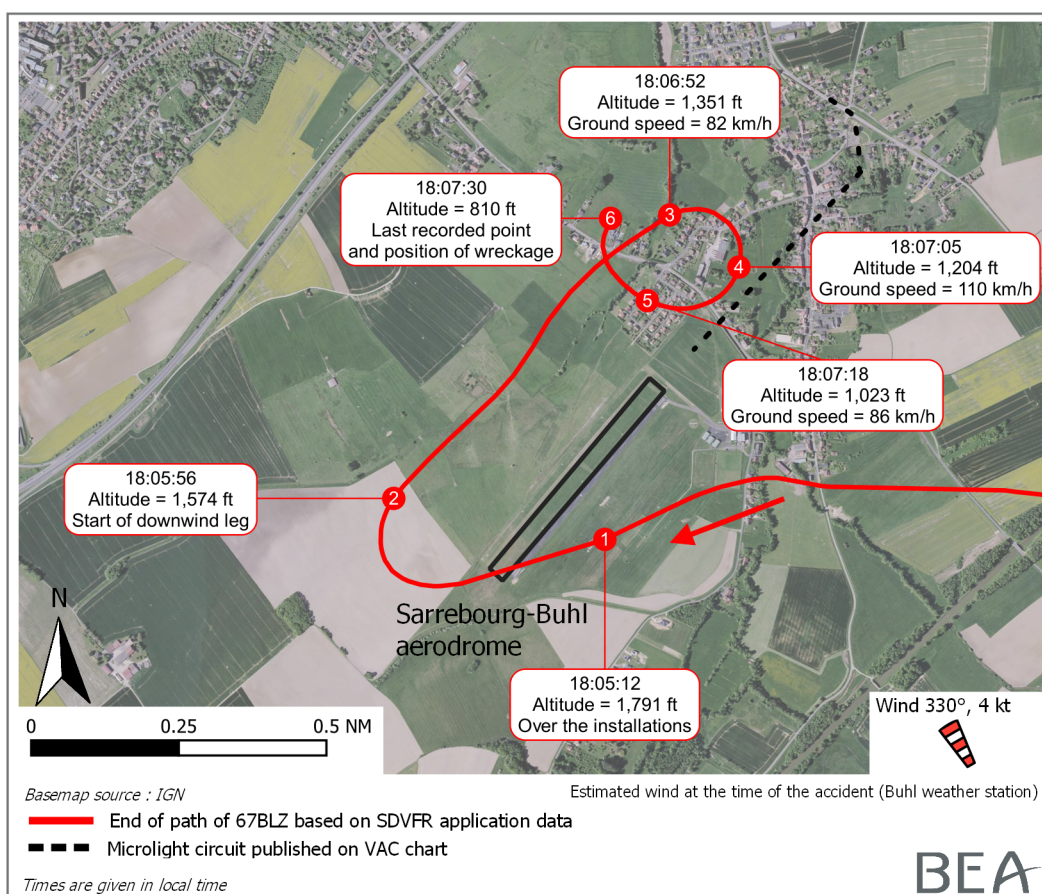


Figure 1: Path of end of accident flight

2 - ADDITIONAL INFORMATION

2.1 Site and wreckage information

The microlight wreckage was found in the garden of a private residence. A swimming pool enclosure located around 30 metres from the wreckage showed signs of impact.

The technical examination of the wreckage enabled the following facts to be established:

- ☐ the microlight was intact when it collided with the ground;
- ☐ the flight control linkages were continuous prior to impact;
- ☐ the propulsion system suggested that the engine was transmitting torque to the propeller when the microlight hit the ground.

The technical examination revealed no anomaly on the microlight that may have contributed to the accident.

2.2 Pilot information

The 55-year-old pilot started his flex-wing microlight pilot training in June 2019. He obtained his microlight pilot licence in December 2019 after around 20 flight hours. His instructor stated that he had logged five to eight flight hours in solo flight in the three months that followed the issuance of his licence. At the end of May, following a period of around two months without flying, he performed three resumption flights under instruction, as well as a solo flight a few days before the accident.

The pilot's instructor stated that the pilot was performing his first long solo cross-country flight with a view to taking a longer flight in the summer, and was landing for the first time at Sarrebourg-Buhl aerodrome. They had prepared the flight together with the others in the group, analysing in particular the aerodrome's VAC chart. As usual, they had agreed that they would adhere to the indications of the published aerodrome circuit. However, the instructor specified that, given the configuration of the microlight strip at Batzendorf, the pilot was trained to perform very short runway circuits, comprising a continuous turn at 30° to align for final, followed by a total reduction in engine power for a short final.

Furthermore, the autopsy carried out on the pilot's body after the accident revealed a pre-existing heart condition that may have caused him to feel faint.

2.3 Aerodrome information

Sarrebourg-Buhl aerodrome is an uncontrolled aerodrome open to public air traffic, used on the A/A frequency 123,500 MHz. It is located at an altitude of 873 ft. It has a paved runway and an unpaved runway oriented on 04/22, 740 m and 770 m long respectively. The aeroplane and microlight aerodrome circuits are made at different altitudes and on either side of the runway.

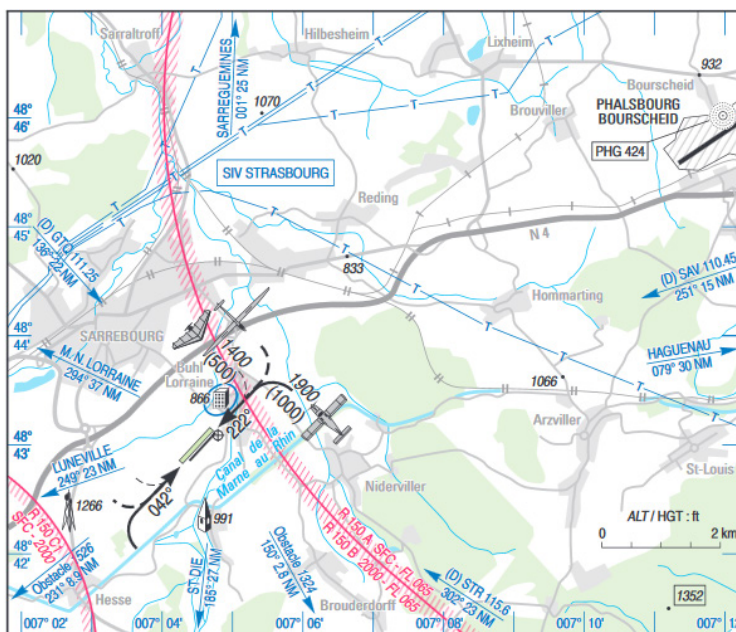


Figure 2: Extract from the Sarrebourg-Buhl aerodrome VAC chart

2.4 Microlight information

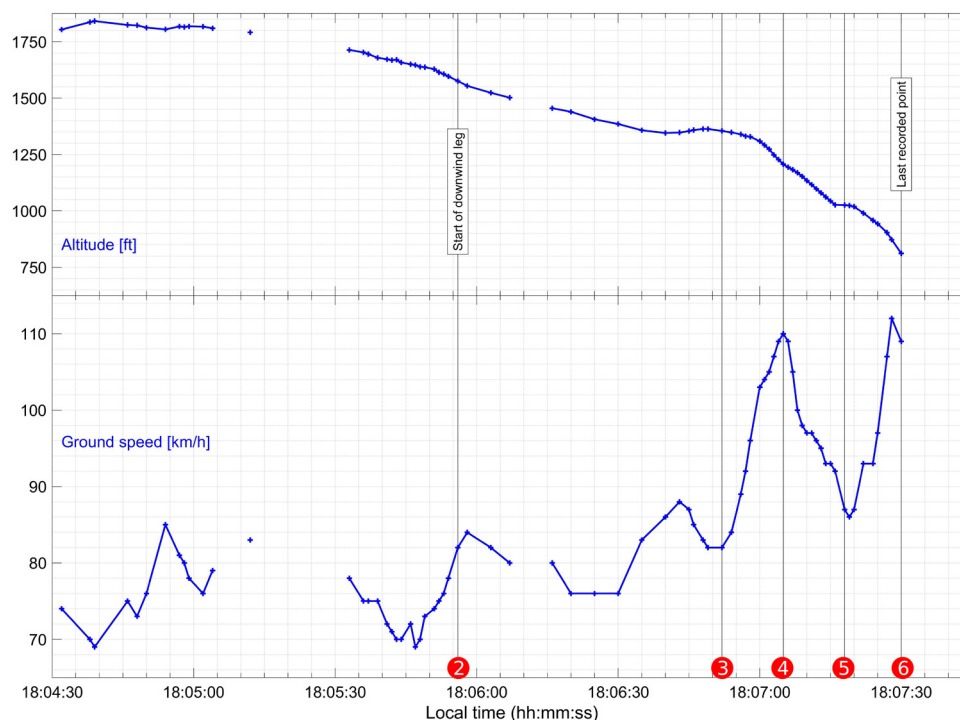
The microlight was equipped with a ROTAX 582 engine delivering a power of 65 hp and with a composite three-blade propeller.

The pilot had co-owned the microlight since January 2019. The other co-owner stated that the microlight had been reconditioned after purchase. The microlight had logged around 100 flight hours at the time of the accident since it was reconditioned. The co-owner, who monitored the maintenance of the microlight, stated that he had flown in the microlight on the day of the accident and had observed no anomaly.

2.5 Meteorological information

The information provided by the METAR reports at Nancy and Metz airports indicated CAVOK meteorological conditions at the time of the accident. These conditions were confirmed by the other pilots present. Data from Buhl meteorological station indicated an average wind of 330° for 4 kt at 18:00.

2.6 Read-out of flight parameters



Source: SDVFR

Figure 3: Change in parameters of the accident flight

⁽³⁾ The aerodrome's published circuit altitude is 1,400 ft.

- ❑ **2** Downwind, the path of the microlight was descending, from 1,600 to 1,350 ft⁽³⁾. The microlight's ground speed varied between 75 km/h and 88 km/h.
- ❑ The pilot initiated his right turn 700 m from the threshold of unpaved runway 22 **3**; after 180° performed in 14 s, corresponding to a turn with an estimated bank angle of approximately 30°, he reached an estimated descent rate of approximately 7 m/s (nearly 1,400 ft/min).
- ❑ When it was in the runway centreline during the turn, the microlight was at an altitude of 1,190 ft and 430 m from the threshold of runway 22 **4**, putting it in a steep final approach path (around 20% to land at the threshold of the runway and 12% to land halfway along the runway); the turn was pursued.
- ❑ Around 100 metres from the ground, the descent rate decreased during the turn and the ground speed decreased to 86 km/h **5**.
- ❑ The ground speed rapidly increased up to the last point recorded **6**.

2.7 Statements

The pilot of the microlight flying behind 67BLZ reported to have heard its pilot announce on the A/A frequency that he was flying over the installations, then in downwind leg and base leg. He also stated that another pilot had then announced that he was in left-hand base leg for runway 22. This message seemed to come from an aircraft that was not one of the eight microlights in the club excursion convoy. The pilot of 67BLZ then announced that he was making a 360° turn.

The other pilots taking part in the group excursion reported that they had not heard any further radio messages after the pilot had announced that he was in the base leg. The absence of a recording of the A/A frequency did not enable the information obtained from the statements to be confirmed. No aircraft landed at the aerodrome. Moreover, the recorded radar data showed no aircraft flying in the region at the time of the accident.

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 a cross-country flight, the pilot joined the downwind leg of the destination aerodrome. He made a U-shaped approach to align on final to land on unpaved runway 22. The pilot initiated his right turn in descent and with insufficient distance in relation to the runway threshold, putting him on a steep approach path on final. The pilot continued the turn and was unable to avoid collision with the ground.

The investigation was unable to determine the reasons why the pilot continued the turn, notably whether this was intentional or the result of a loss of control of the microlight after an uncontrolled start of turn.

The hypothesis of an intentional 360° turn to delay landing due to traffic present in the opposite base leg cannot be ruled out.

Possible faintness experienced by the pilot during the turn can also not be ruled out.

Contributing factors

The little flight experience of the pilot, who was also making his first long cross-country flight solo to an aerodrome he had never before used may have contributed to the inadequate management of the path and to loss of control of the microlight.