

# **Accident** to the KITFOX identified 27ADS on 8 March 2022 at Bernay Saint-Martin

Time	Between 16:00 and 16:30 <sup>1</sup>
Operator	Private
Type of flight	Unknown
Persons on board	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. As accurate as the translation may be, the original text in French is the work of reference.	

## Loss of control, collision with the ground

#### HISTORY OF THE FLIGHT

Note: the following information is principally based on statements.

Due to the lack of flight parameters and detailed information from the witnesses concerning the end of the flight, it was not possible to determine the type of flight and the exact sequence of the accident.

A witness at the aerodrome saw the pilot take off from runway 10<sup>2</sup>, which was the active runway. He said that he saw the pilot accelerate in level flight. He did not detect anything abnormal. He did not keep watching the microlight afterwards and did not see the accident. He stated that the microlight had taken off at around 16:00 and that the wind was calm with no gusts. Another witness<sup>3</sup> in his car on the D438 road, near the threshold of runway 28, saw the microlight at a very low height. He stopped shortly afterwards and informed a farmer in a nearby field that he had seen an aeroplane at a very low height without providing any further details. The farmer went to the aerodrome where he discovered the wreckage. He then alerted the emergency services at 16:34.

The wreckage was found a few metres past the threshold of runway 28, approximately three metres to the left of the runway 28 centreline. It was oriented on a heading of between 260 and 280°, in the opposite direction to the direction of take-off.

<sup>&</sup>lt;sup>3</sup> The identity of this witness is unknown, he did not give his name.



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

<sup>&</sup>lt;sup>2</sup> Bernay Saint Martin aerodrome has a grass runway measuring 1,200 x 80 m.



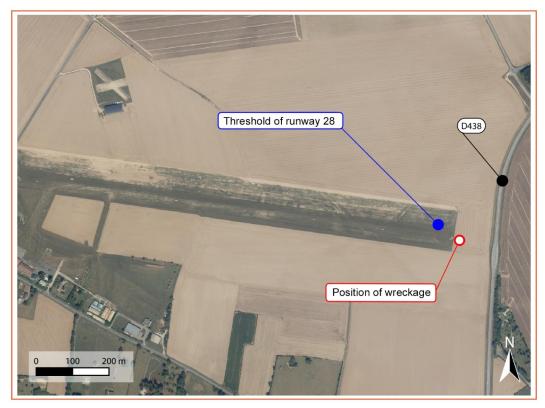


Figure 1: position of the wreckage (source: BEA)

## 2 ADDITIONAL INFORMATION

## 2.1 Examination of the wreckage

The wreckage was complete, the cabin was totally destroyed and the engine was embedded in the ground. Both wings were damaged, partly separated from the airframe, and their leading edges showed marks of contact with the ground. The ruptures observed on the flight controls (rudder, elevator and flaperons) showed that they had violently broken under the impact with the ground. The damage to the wings made it impossible to determine the position of the flaperons at the time of the impact with the ground. These observations showed that the microlight struck the ground with energy and a significant nose-down angle. The examinations carried out did not reveal any element that could have contributed to the accident.

The examination of the engine also did not reveal any element contributing to the accident.



Figures 2 and 3: photos of the wreckage (source: BEA)



A Garmin GPSMAP 296 portable GNSS computer was found in the wreckage. There were no flights recorded on the day of the accident.

#### 2.2 27ADS information

The aircraft was a KITFOX kit microlight built in 2006. This microlight had a conventional landing gear and a VW four-cylinder flat engine, produced by Limbach Flugmotoren. It was equipped with flaperons that provided the functions of ailerons and flaps.

The pilot had owned this aircraft since 2011. He had maintained the aircraft himself.

#### 2.3 Meteorological information

The analysis of the weather conditions provided by Météo-France indicated that visibility was greater than 10 km and the sky was clear in the area at the time of the accident.

The readings from the weather station located at the aerodrome, taken between 15:00 and 17:00 indicated that the wind at the time of the accident was from between 120 and 140°, with a mean strength of between 10 and 12 kt, gusting at around 20 kt.

#### 2.4 Pilot information

The 79-year-old pilot held:

- an Aeroplane Private Pilot Licence PPL(A) issued in 2005 by converting an A81 basic pilot licence issued in 1996;
- a fixed-wing microlight pilot licence issued in 1996 and passenger carrying privileges obtained in 2011.

His last medical fitness certificate (class 2) was issued in December 2012. This was valid until December 2013. From that date and without renewal of this class 2 medical fitness certificate, the pilot could no longer exercise the privileges of his PPL(A) licence.

The information available to the Licence department of the Aircrew technical division showed that the pilot had logged 216 flight hours, including 80 h as pilot-in-command on 29 November 2011 (date of the last update made by the pilot).

According to the pilot's relatives, he had decided to stop flying in a flying club and to buy his own microlight in 2011.

The investigation was not able to determine the pilot's total flying experience on microlights and certified aeroplanes. The pilot had started a logbook related to 27ADS in 2013. The logbook showed that he had logged 162 flight hours on this microlight between 2013 and the date of the accident. The last flight prior to the accident was on 24 October 2021 and consisted of six aerodrome circuits.

#### 2.5 Medical information

The pilot suffered from coronary artery disease complicated by fibrosis of the heart muscle. After 2012, he had one or more heart attacks and was monitored by a cardiologist.



This pathological condition could expose the pilot to two main types of complications: rhythm disorders related in particular to fibrosis, and the effects of sympathetic hypertonia (stress) on a deteriorated coronary network and heart muscle.

The pathological examination indicated that it is possible that the pilot experienced another cardiac event during the flight.

#### 2.6 Medical fitness rules

A pilot holding a PPL (A) may only exercise his/her privilege if he/she has a class 2 medical fitness certificate (requirements relating to medical aspects are set out in Annex IV - "Part-MED" of the European "Aircrew" Regulation<sup>4</sup>). For this purpose, it is necessary to consult an approved doctor qualified in aviation medicine.

An applicant for a class 2 medical fitness certificate who is asymptomatic after a myocardial infarction must undergo a satisfactory cardiological assessment. This assessment is made in consultation with the medical assessor of the licensing authority, in this case the French civil aviation safety directorate.

For the microlight pilot licence, no medical fitness certificate is required. However, in accordance with the Code of Sport, which covers the microlight activity, pilots who wish to join the French microlight federation (FFPLUM) must provide a medical certificate showing there is no contraindication to flying a microlight when they first apply for a federation licence. It is not necessary to consult an approved doctor qualified in aviation medicine for this.

When he joined the FFPLUM in 2011, the pilot provided a medical certificate showing no contraindication to flying a microlight, issued by a doctor. The BEA was unable to contact this doctor.

Thereafter, at each annual renewal of his membership, he completed the online health questionnaire<sup>5</sup>, answering "no" to all the sections. In the event that a pilot answers yes to one or more questions, he or she is invited to consult a doctor. In the interests of prevention, a federation doctor is available to FFPLUM members to examine with them the aspects of their medical condition relating to microlight flying. This doctor indicated that he was not contacted by the pilot.

#### 3 CONCLUSIONS

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

### **Scenario**

The investigation was not able to determine the causes of the accident.

The examination of the wreckage did not identify any technical failure that could have contributed to the accident. The weather conditions were favourable for the flight.

<sup>&</sup>lt;sup>4</sup> Consolidated Regulation 1178/2011 laying down technical requirements and administrative procedures related to civil aviation aircrew (Version in force on the day of the accident).

<sup>&</sup>lt;sup>5</sup> QS-SPORT.



Medical examinations showed that the pilot's health had deteriorated due to coronary disease and that he might have experienced a new cardiac event during the accident flight.

#### **Safety lessons**

Microlight flying does not require any medical check-up that could make the pilot aware of his health condition, his performance and the impact of either drug consumption or an emerging or evolving pathology on his activities.

This issue has already been identified in BEA investigations, including:

- Accident to the AVID identified 73-JU on 5 June 2014 at Albertville aerodrome (in French);
- Accident to the XL8 Bristell identified 44AXM on 16 August 2016 at Guérande (in French);
- Accident to the Comco Ikarus C42 identified 03AEN and to the Schleicher ASK21 registered
  F-CITS on 11 September 2019 at Itxassou;
- Accident to the replica of Fokker DR1 identified 59DPK on 28 December 2019 at Valenciennes-Denain;
- Accident to the ITV Boxer 2S identified 95AHL on 8 March 2021 at Persan-Beaumont.

These accidents are a reminder for pilots, of the importance of consulting an aviation doctor to assess their aptitude to fly when they are being treated for a particular pathology, or at least to discuss it with their family doctor.

The FFPLUM proposes to member pilots that they contact, if they wish, the federation medical commission to obtain advice, in complete confidentiality.

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