

Accident to the Gaz'Aile 2 identified 17TA

on 28 September 2017

at Saint-Jean-d'Angély (Charente-Maritime)

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

Time	Around 08:00 ⁽¹⁾
Operator	Private
Type of flight	Local
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 published in December 2020. As accurate as the translation may be, the original text in French is the work of reference.	

Loss of engine power in initial climb, turn-around, loss of control, collision with the ground, fire

1 - HISTORY OF THE FLIGHT

Note: the following information is principally based on statements from an onlooker.

The pilot took off from runway 10⁽²⁾ at Saint-Jean-d'Angély aerodrome to fly aerodrome circuits.

During one of these circuits, in initial climb, after a touch-and-go, the microlight engine suffered significant loss of power. The pilot made a left U-turn. During this turn, the microlight lost height, collided with the ground then caught fire.

2 - ADDITIONAL INFORMATION

2.1 Meteorological information

The meteorological conditions estimated by Météo-France at the site of the accident, at 08:00, were as follows:

- surface wind of 150° for 5 to 10 kt;
- CAVOK;
- temperature 16°C;
- dew point 13°C.

⁽²⁾ Altitude 245 ft.
Unpaved runway
850 x 50 m.

2.2 Pilot information

The 83-year-old pilot held a fixed wing microlight pilot certificate issued on 25 October 2007.

He had logged 86 flight hours in a microlight, 32 hours of which as pilot-in-command. His recent experience is unknown.

He had held a Private Pilot Licence - Aeroplanes (PPL-(A)) between 1985 and 2000 and had logged approximately 1,200 flight hours in an aeroplane.

2.3 Microlight information

The Gaz'Aile 2 fixed-wing microlight is equipped with a four-stroke BMW two-cylinder engine fitted with a reduction gearbox and a composite three-blade propeller. The microlight is made principally of wood with some composite parts. This model was equipped with a main tank located under the instrument panel and a secondary tank under the pilot's seat.

2.4 Statements

A witness stated that he had seen the microlight flying aerodrome circuits. On the third take-off, he heard spluttering before the engine went silent. He thinks that he heard a restart attempt before he saw the microlight turn to the left and descend towards the aerodrome. He then lost sight of the microlight before seeing a plume of smoke rising.

2.5 Examination of site and wreckage

The wreckage, not dispersed, was located to the north and exterior of the runway, 50 m from the threshold of runway 28.



2.6 Examination of the propulsion system

The examinations conducted on the propulsion system were limited due to destruction caused by the fire that broke out on the ground after the accident. Several areas of damage observed in the mechanical reduction gearbox and obviously caused by the impact with the ground solely evidenced an axial load from front to rear. The engine unit had no fractured components.

3 - CONCLUSIONS

The conclusions are solely based on the information which came to the knowledge of the BEA during the investigation. They are in no way intended to apportion blame or liability.

Scenario

During the initial climb, the engine probably suffered a loss of power. The pilot turned around and lost control of the microlight, which collided with the ground.

The investigation was unable to identify the cause(s) of the probable engine power loss.

Contributing factors

The following factors may have contributed to the loss of control:

- The pilot's inappropriate decision to make a low-height turn-around after the loss of engine power to reach the runway and make a forced landing on the reciprocal QFU.

Safety lessons

A reduction in engine power during initial climb very rapidly affects the aircraft's speed. In the event of a major failure at take-off, maintaining a speed enabling the microlight to fly to the ground and adopting a path roughly aligned with the take-off path can avoid the risk of loss of control. This path must take any obstacles into account.

Between 2015 and 2019, the BEA recorded 14 occurrences, 12 of which were fatal accidents, during which a reduction in engine power at take-off was followed by a loss of control in flight. At least 11 of these losses of control (10 of which had fatal consequences) occurred during a significant alteration of heading, or even an attempted turn-around.

Furthermore, over the same period, the BEA recorded nine cases of reduction in engine power at take-off followed by a slight alteration of the heading or holding of the centreline. None of these cases resulted in fatal injuries.