



Accident to the Air Création
GTE Trek 700E / Fun 450
identified **79HX**
on 09 August 2020
at Aslonnes

Time	Around 10:45 ¹
Operator	Private
Type of flight	Cross-country
Persons on board	Pilot and passenger
Consequences and damage	Pilot injured, passenger fatally injured, aircraft 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.	

**Approach with tailwind, turbulence on short final,
go-around, insufficient control of path, collision with a tree
then the ground, fire**

1 HISTORY OF THE FLIGHT

Note: the following information is principally based on the statement made by the pilot and on the statement made by a witness on the ground, near the accident site.

The pilot, accompanied by a passenger, took off at 10:05 from Niort-Marais poitevin airport (Deux-Sèvres) bound for Le Fort d'Aslonnes microlight strip (Vienne).

After 35 minutes of flight, he flew overhead the microlight strip at an altitude of 1,500 ft (i.e. at a height of approximately 1,000 ft) to conduct a reconnaissance of its facilities, before joining the start of the downwind leg for a right-hand circuit to runway 03. At the end of the base leg, he encountered turbulence and the microlight sank slightly. On short final, he encountered more turbulence, this time stronger. The microlight sank again and the passenger suggested to the pilot that he perform a go around. The pilot applied full power, the microlight deviated to the left of the runway axis, collided with a tree and then with the ground.

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

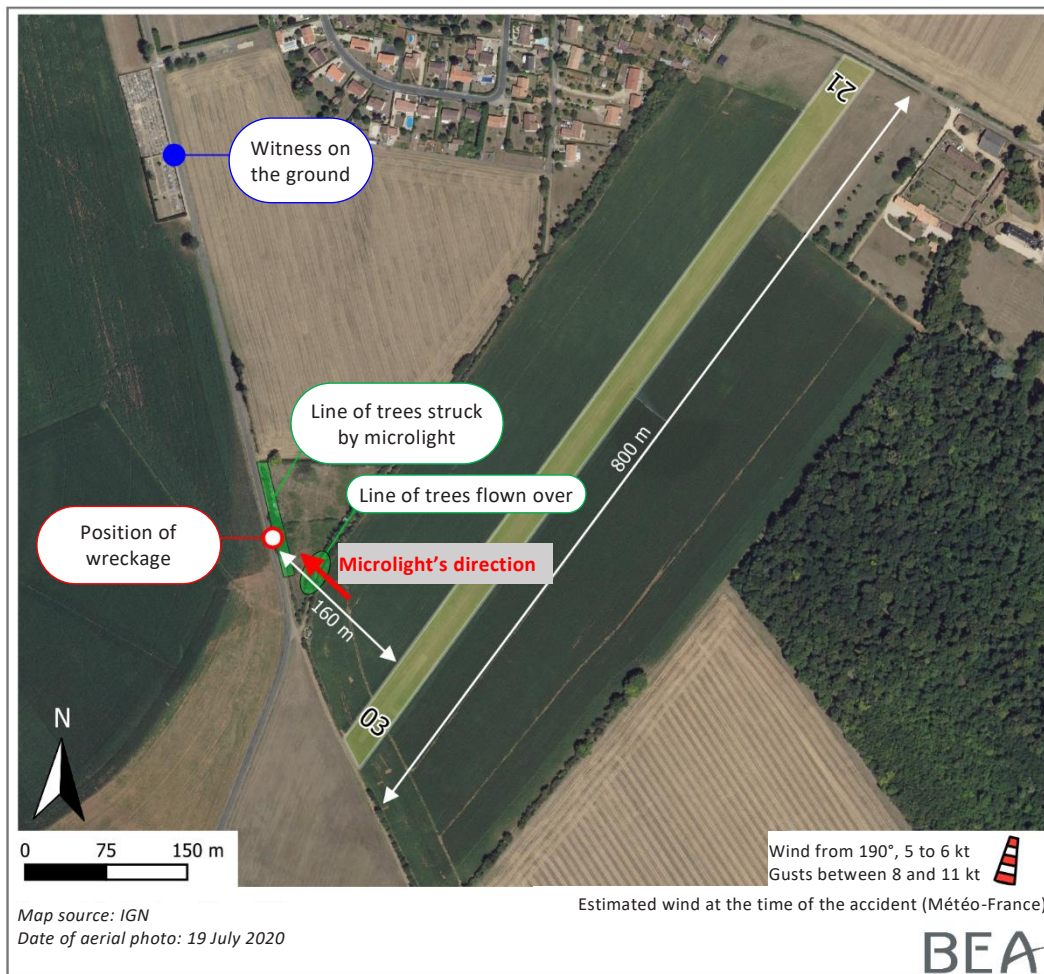


Figure 1: end of flight path of 79HX

2 ADDITIONAL INFORMATION

2.1 Site and wreckage information

The wreckage was located at the bottom of a line of trees about 10 m tall. Several severed branches were found on the ground around the wreckage. The first marks were found in the upper part of one of the trees.

The BEA did not examine the wreckage. According to the information gathered at the site and with respect to the wreckage, the latter was complete and not dispersed. All of the damage observed seemed to be the result of the collision with the vegetation and the ground and of the fire which ensued.

2.2 Persons on board information

The 44-year-old pilot held a microlight pilot certificate issued in 2002, along with a paramotor rating issued in 2002 and a flex-wing rating issued in June 2009. He specified that he had totalled 30 flight hours in paramotors and 350 flight hours in flex-wing microlights. This was the first time that he had used Le Fort d'Aslonnes microlight strip.

The 72-year-old passenger held a microlight pilot certificate along with a flex-wing rating issued in August 2004. His flight experience could not be determined.

2.3 Le Fort d'Aslonnes microlight strip information

2.3.1 Characteristics of the strip

Le Fort d'Aslonnes microlight strip is a private strip open to microlights. It has an unpaved runway 03/21 measuring 800 m long and 30 m wide.

The BASULM chart indicates that access to the strip is strictly subject to clearance from the manager. It also indicates that the circuit is flown to the east of the facilities. The chart does not indicate the presence of any windsock.

2.3.2 Strip manager's statement

The pilot called him on the morning of the flight expressing his wish to fly to the strip for the first time. The manager informed him of the specificities of this strip, insisting in particular on the circuit which must be flown to the east to avoid flying over the village of Aslonnes. The manager did not indicate any specificities concerning the windsock during this briefing.

After the accident, he told the BEA that the windsock is sometimes installed on the strip, although this was not the case on the day of the accident.

2.4 Meteorological information

The meteorological conditions estimated by Météo-France at the time of the accident in the immediate vicinity of Le Fort d'Aslonnes microlight strip were as follows: wind from 190° at 5 to 6 kt, gusts between 8 and 11 kt, visibility greater than 10 km, cirrus cloud cover of 5 to 6 oktas with a base at a height of 21,000 ft, temperature of 27 °C, dew point temperature of 18 °C, QNH of 1017 hPa, low turbulence between the ground and a height of 700 ft due to a convection phenomenon.

2.5 Microlight information

2.5.1 Microlight composition

The aircraft was an Air Création flex-wing microlight. It comprised:

- a "GTE Trek 700E" trike with two seats in tandem configuration, built by Air Création;
- a "Fun 450" delta wing built by Air Création;
- an "Arplast Ecoprop DS" pusher propeller;
- an "HKS700E" engine delivering a power of 60 hp;
- an emergency parachute.

2.5.2 Reference speeds

The recommended speeds for the initial climb and final approach were indicated in the wing operation and maintenance manual, but this was burned during the accident. It was not possible to obtain a copy of this version of the manual.

The only version (issued in March 2004) which is still available from the manufacturer does not indicate these speeds for the GTE Trek 700E trike/Fun 450 wing combination. In this version issued

in March 2004, the recommended final approach speed is 75 km/h and the stall speed is 55 km/h for the four trikes² shown in combination with the Fun 450 wing.

2.5.3 Engine effects

Since the pusher-type propeller turns clockwise when viewed from the rear of the flex-wing microlight, the latter tends to turn left on its roll axis when power is applied: this is the propeller torque reaction. This reaction is even greater when the engine rpm are high and the speed is low, such as during a go-around.

For flex-wing microlights, the engine effects are solely composed of this propeller torque reaction.

2.6 Pilot's statement

During the flight, the pilot heard over the A/A frequency that other pilots were landing on runway 06 at Chenay microlight strip, located 16 NM west of Le Fort d'Aslonnes microlight strip. On arriving near Le Fort d'Aslonnes microlight strip, he did not see any windsock. Considering that the wind would be more or less the same as at Chenay microlight strip, he decided to land on runway 03. He added that he compared the airspeed with the ground speed indicated by an aeronautical application installed on his tablet³, which reinforced his decision to land on runway 03. He estimated that the wind was approximately 15 km/h and coming from the right of runway 03. He did not use any other method to determine the wind.

He explained that the flex-wing microlight encountered moderate turbulence at the end of the base leg. He added that during the final approach, the airspeed was 70 to 80 km/h, which is the usual airspeed. On short final, the flex-wing microlight encountered stronger turbulence and lost height, as if encountering a downdraft. The passenger then said to the pilot that they would have to go around. The pilot initiated a go-around. He could not remember precisely what happened next, but he stated that:

- it was a very stressful situation;
- the microlight deviated to the left of the runway, potentially because of the wind that was coming from the right;
- he feared a collision with the maize field located to the left of the runway;
- the microlight climbed very slowly;
- he flew approximately 10 m above a first line of trees;
- after flying over this line of trees, he estimated the microlight to be “much higher” than the next line of trees, until he collided with one of its trees;
- the engine was operating normally.

2.7 Ground witness' statement

The witness was located approximately 500 m north of the threshold of runway 03, beyond the line of trees struck by the microlight. Although partially hidden by the trees, the microlight had a generally straight path towards the north-west and wings that were “swinging from right to left”, until it collided with the vegetation.

² Twin 503, Twin GTE 503 S - SL, Twin GTE 582-S-SL (Buggy Clipper), GTE 912/912 S (Clipper).

³ The pilot only used the aeronautical application to determine the ground speed and “find his path”. The flight path was not recorded.

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

On arriving near a microlight strip, which he was using for the first time, the pilot flew over its facilities. With no windsock installed, he decided to land on runway 03 based on radio messages from pilots landing on runway 06 at a nearby microlight strip. He compared the airspeed with the ground speed indicated by an aeronautical application installed on his tablet, which reinforced his decision.

During the final approach, the pilot did not identify that he was flying with a tailwind. On short final, he encountered turbulence and the microlight lost height. The pilot went around but could not remember precisely what he did or what happened next.

A tailwind with a right crosswind component along with turbulence, combined with the engine effects, may have made this flight phase more difficult to control.

Describing the situation as very stressful, the pilot was unable to control the path of the flex-wing microlight, which deviated to the left of the runway and did not regain sufficient height to avoid collision with a tree.

Safety lessons

Appreciation of meteorological conditions

This accident illustrates how important it is to correctly estimate the wind conditions at an aerodrome, especially for flex-wing microlights which are sensitive to wind effects. An incorrect estimation of the meteorological conditions may lead the pilot to make a final approach with a tailwind, thereby reducing the climb gradient in the event of a go-around. This can then result in a reduction in the obstacle clearance margin, or even, in some cases, in the pilot not being able to clear obstacles.

Rejected landing

This accident also illustrates how difficult it can be to manage a power increase during the landing phase. This topic, which was addressed by the BEA in the “Rejected landing and go-around” section of its [Accidentology safety lessons 2020](#) for light aeroplanes, shows that, of the accidents which occurred when landing on light aeroplanes, those resulting in serious bodily injury mostly happened when power was increased with insufficient control of the aircraft.

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