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INVESTIGATION REPORT

Accident to the TeST TST-3 ALPIN TM[1] identified 32DH

on 31 August 2020
at Condom Valence-sur-Baïse (Gers)

[1] Self-launching glider microlight (see § 2.3).

Time	Around 13:45[2]
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 January 2021. As accurate as the translation may be, the original text in French is the work of reference.

[2] Except where otherwise indicated, the times in this report are in local time.

Loss of control in initial climb, collision with the ground

1 - HISTORY OF THE FLIGHT

Note: the following information is principally based on statements, and data from a portable GNSS computer.

The pilot took off without assistance from runway 29[3] at Condom Valence-sur-Baïse airport. During initial climb, the microlight entered an autorotation before colliding with the ground.

[3] 850 x 50 m grass runway.

2 - ADDITIONAL INFORMATION

2.1 Examination of site and wreckage

The wreckage was found in a cultivated field, approximately 280 m from the end of runway 29, roughly in the centreline. It was oriented northwards. The left wing was broken at its tip; the right wing was broken in the centre of the spar and showed significant deformations. Observations made of the site and the wreckage indicated that the microlight collided with the ground with a steep nose-down attitude.

Only the continuity of the yaw flight control linkages was able to be established due to the wing breakages resulting from the impact.

The left pedal was pressed down. The air brakes were retracted.

The self-launcher was deployed. Observations of the propeller indicated that the engine was delivering power at the time of impact. The tank still contained two litres of fuel. The starter control was positioned at the halfway point and the throttle control was in low throttle position.

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2.2 Pilot information

The 66-year-old pilot held a microlight pilot certificate issued in July 1984. He had logged five flight hours between 2 June 2018 and 29 September 2018 in this microlight, which he owned. He had not flown in a microlight since 29 September 2018.

2.3 Microlight information

The TeST TST-3 Alpin TM is a class-3 single-seat glider microlight. It is equipped with a Hirth F33 combustion engine with a maximum output of 18 kW, installed on a retractable mount in the upper part of the fuselage and supplied by a 13 l tank.

According to the microlight's flight manual, the stall speed is 65 km/h. The microlight is not equipped with a stall warning system[(4)]. The flight manual specifies that the microlight will vibrate at the onset of stall.

[(4)] This is not required by the regulation.

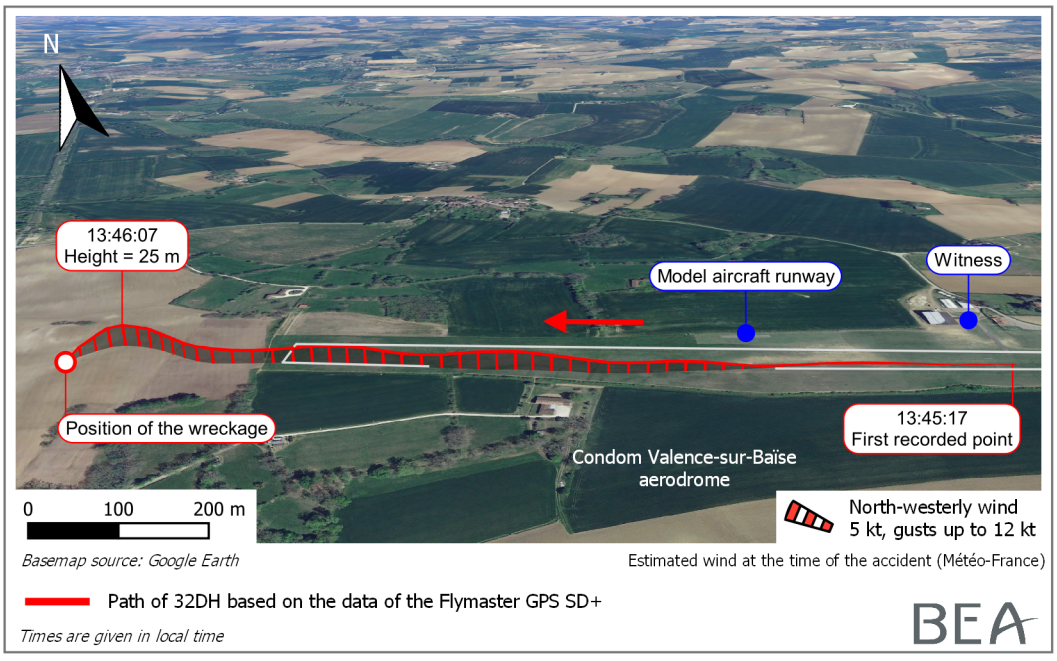
The procedure for take-off without assistance described in the flight manual specifies that pilots must wait for the speed to reach 65 to 75 km/h before lightly pulling on the stick to take off. The microlight must then be kept at a height of one metre and remain at this height until the speed reaches 80 to 90 km/h. When this speed is reached, the pilot must maintain an attitude that enables climb.

2.4 Meteorological information

The meteorological conditions estimated by Météo-France at the accident site were as follows: north-westerly wind for 5 kt, gusts of 12 kt, visibility greater than 10 km, scattered clouds, temperature 20°C.

2.5 Examination of computers

A portable GNSS computer was retrieved at the accident site. The path was able to be reconstructed based on data from the read-out of this computer.



Path

The read-out of this data shows that the pilot performed a short level flight acceleration (lasting two to three seconds) after take-off and that the ground speed of the microlight, after take-off, averaged 70 km/h.

2.6 Statements

The chief-pilot of the Condom flying club stated that the microlight had left the ground level with the model aircraft runway and had climbed without level flight acceleration. He had then seen the microlight descend and swing slightly before entering an autorotation. He added that he heard the engine up until the loss of control.

He specified that the pilot had installed a windsock to the west of the paved strip, approximately 400 m from the threshold, which he used as a marker for take-off. The pilot had planned to fly to the microlight strip at Forques (Lot-et-Garonne) which has a 500 x 30 m grass runway.

He stated that he had towed a glider just before the accident. During the initial climb, approximately 800 m from the end of the runway, he encountered a strong uplift.

He added that the pilot had flown a bit in a glider at the flying club in 2018, without ever going on to obtain a licence.

A glider pilot stated that he had encountered turbulence flying over the field in which the microlight was laying. He added that had spoken with the pilot in the morning and that the latter had reported not to have flown for a year and a half.

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

The pilot undertook a flight following a long period of inactivity.

He performed a short level flight acceleration after take-off (lasting two to three seconds) until he reached the recommended speed. He then adopted a climb attitude. The microlight's ground speed decreased and stayed at an average of 70 km/h, probably corresponding to the lower limit of the recommended air speed. Having flown over the end of the runway, the pilot initiated a right turn, probably in the direction of his destination. The speed of the microlight decreased and the pilot lost control of the microlight shortly after this. Other pilots reported turbulence in this location. The low flight height did not enable the pilot to regain control of the microlight and to avoid collision with the ground.

Contributing factors

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

- ❒ insufficient consideration of the microlight's performance;
- ❒ the pilot's recent lack of experience.

Safety lessons

In 2018, the FFPLUM[5] implemented an operation known as "*Back to Flying*" encouraging pilots to perform one flight hour with an instructor following a period of inactivity. This initiative is completely voluntary.

[5] French Microlight Federation.