BEA
Bureau d'Enquêtes et d'Analyses
pour la sécurité de l'aviation civile
www.bea.aero
@BEA_Aero

SAFETY INVESTIGATION REPORT

Accident to the BILLY XS identified 44AXU on Saturday 23 September 2023 at Blain

Time	Around 10:25[1]
Operator	Private
Type of flight	Local
Persons on board	Pilot
Consequences and damage	Pilot fatally injured, paramotor damaged
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.	

Collision with a power line

1 HISTORY OF THE FLIGHT

Note: the following information is principally based on the GNSS data recorded by the pilot's telephone[2].

The pilot took off facing west at 09:36 from a field around 1 NM[3] north-west of Blain. He landed 35 min later in a field situated on the other side of a main road to the field from which he had taken off.

Fifteen minutes later, at 10:26, the pilot took off facing south from the field in which he had landed. He turned left shortly afterwards to follow a south-easterly route and came into contact with, at a height of eight metres and less than a minute after taking off, the cables of a 20,000 V medium voltage (MV) power line.

[1] Except where otherwise indicated, the times in this report are in local time.
[2] The vertical profile data was not valid, only the horizontal profile data was used.
[3] The glossary of abbreviations and acronyms frequently used by the BEA can be found on its web site.

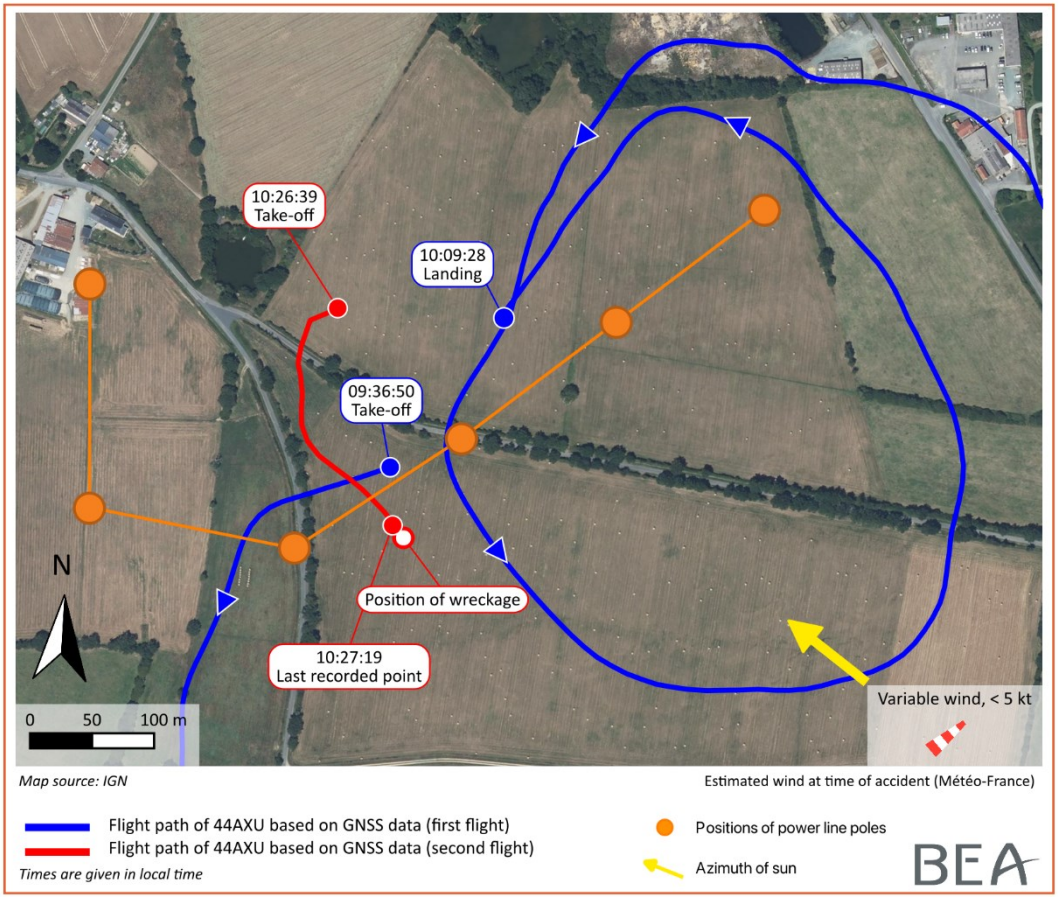

Figure 1: flight paths followed and positions of power lines and the sun

2 ADDITIONAL INFORMATION

2.1 Site and wreckage information

The wreckage was located in a field with no visible crop. A main road separated the field from which the pilot had just taken off and the field where he struck the MV power line. The road was lined with trees; the height of some of these trees was close to that of the poles. The power line was on a north-east/south-west axis, perpendicular to the flight path followed by the pilot. It was composed of 13-m high concrete poles and three cables. The two poles either side of the accident site were located in a row of trees (see **Figure 2**) at a distance of 150 m from each other. The damage to the three power line cables was characteristic of contact with an object at a height of around eight metres.

Figure 2: one of the two poles either side of the accident site (source: BEA)

Figure 3: marks on paramotor chassis from contact with one of the power line cables (source: BEA)

Except for the marks caused by the paramotor chassis coming into contact with one of the power line cables (see **Figure 3**), the damage observed on the paramotor was the result of the collision with the ground.

2.2 Pilot information

The pilot held a microlight pilot licence obtained in August 2009. He obtained the passenger carrying privileges in September 2014. It was not possible to determine the pilot's experience with precision. According to his relatives, he had flown regularly up until September 2022, the date of his last flight, before the two flights the day of the accident.

The pilot was not wearing sunglasses during the flight.

The pilot's contact with the power line cables and then his fall to the ground left him with no chance of survival.

2.3 Meteorological information

At the time of the accident and at the accident site, the position of the sun was:

- azimuth of 120°, facing the pilot after his LH turn shortly after take-off;
- height above horizon of around 25°.

The estimated meteorological conditions at the time of the accident were the following:

- wind varying in direction and of less than 5 kt;
- CAVOK;
- ground temperature 14°C, dew point temperature 10°C;
- QNH 1019;
- slight turbulence.

2.4 Paramotor information

The pilot was the owner of the paramotor 44AXU. He had acquired it in September 2015. This paramotor was composed of a BILLY XS paraglider wing and a chassis.

3 CONCLUSIONS

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

Scenario

The pilot took off from the field where he had landed a few minutes previously after a first flight of around 35 min. He passed over a road and then flew over the field from which he had taken off for his first flight of the day. He turned left and into the sun. Visually hampered by the position of the sun, the pilot was probably not able to detect, or detected belatedly, the presence of the power line. The pilot and the chassis came into contact with the three cables of the power line before the collision with the ground.

The investigation was not able to determine why the pilot was flying at a low height.

Contributing factors

The following factors may have contributed to the collision with the power line:

- the pilot forgetting, after probably having detected it during his first flight, the MV power line in the field that he was going to fly over;
- flying at low height on a flight path into the sun limiting the detection of obstacles such as power line cables.

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