



Accident to the GLASER DIRKS DG800 B
registered **F-CHYD**
on Saturday 3 August 2024
at Blesle (Haute-Loire)

Time	Around 13:15 ¹
Operator	Private
Type of flight	Local
Persons on board	Pilot
Consequences and damage	Glider 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.	

**Loss of uplifts, late engine extension, forced landing,
collision with vegetation**

1 HISTORY OF THE FLIGHT

Note: the following information is principally based on statements and data from the OUDIE type computer on board the glider.

The pilot took off without assistance from Issoire - Le Broc aerodrome (Puy-de-Dôme) at 11:49 (see **Figure 1**, point ①). He used the uplifts and flew for 1 h and 15 min. While he was south-west of the aerodrome, searching for uplifts, he headed east and entered a valley (point ④). He made a few attempts to regain height and after ten minutes in the valley, he realised that the aerological conditions there were also adverse. He continued the flight, searching for a suitable field for an off-aerodrome landing so that he could extend the propeller.

He identified a field (see **Figure 2**, point ⑤), started his circuit and turned left (point ⑥). At the end of the turn, he extended the engine while at a height of around 20 m (point ⑦). Eight seconds later, the glider on the flight line collided with the top of the trees (point ⑧) and fell into a field.

¹ The times in this report are in local time.

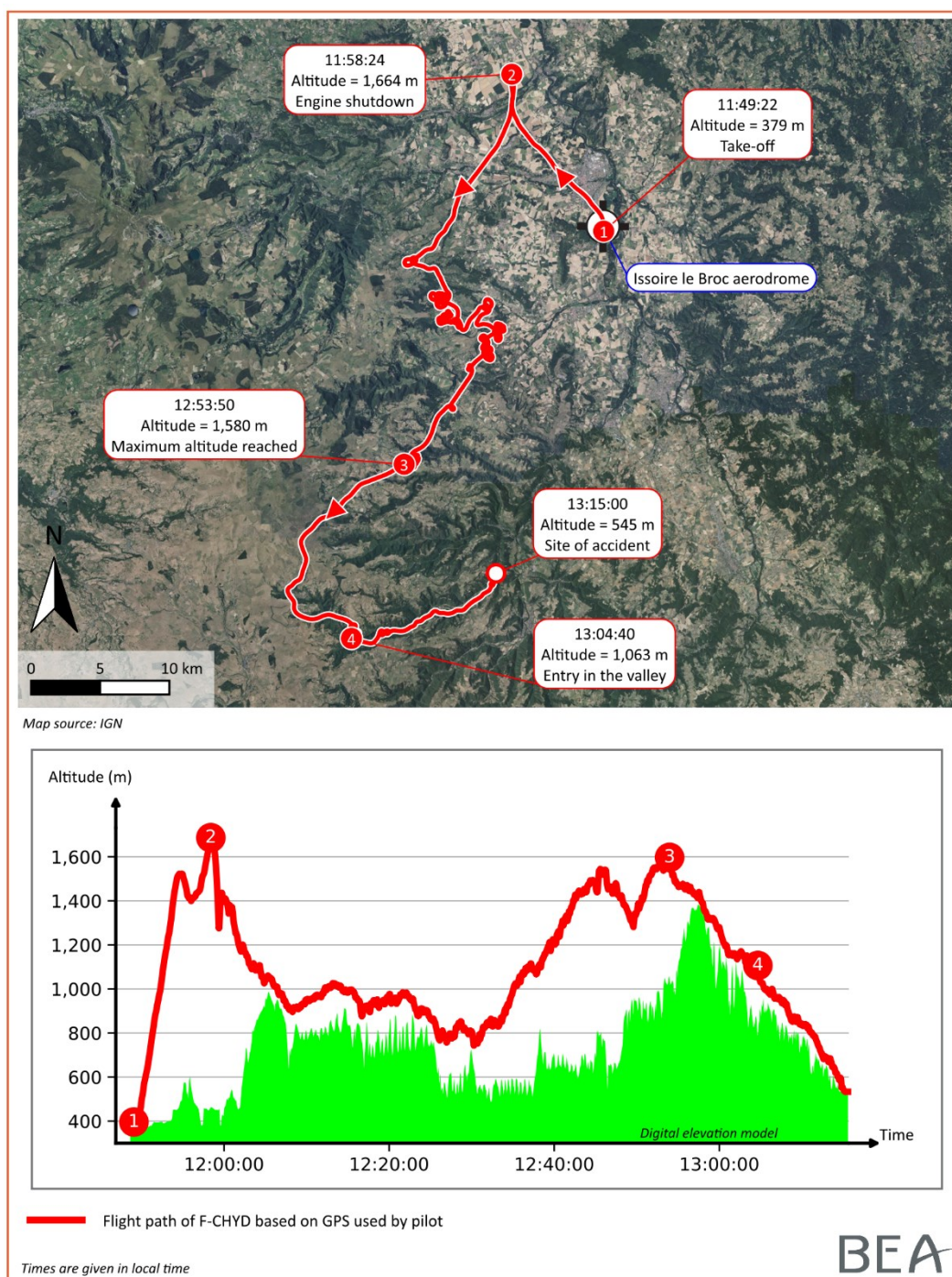


Figure 1: whole flight path

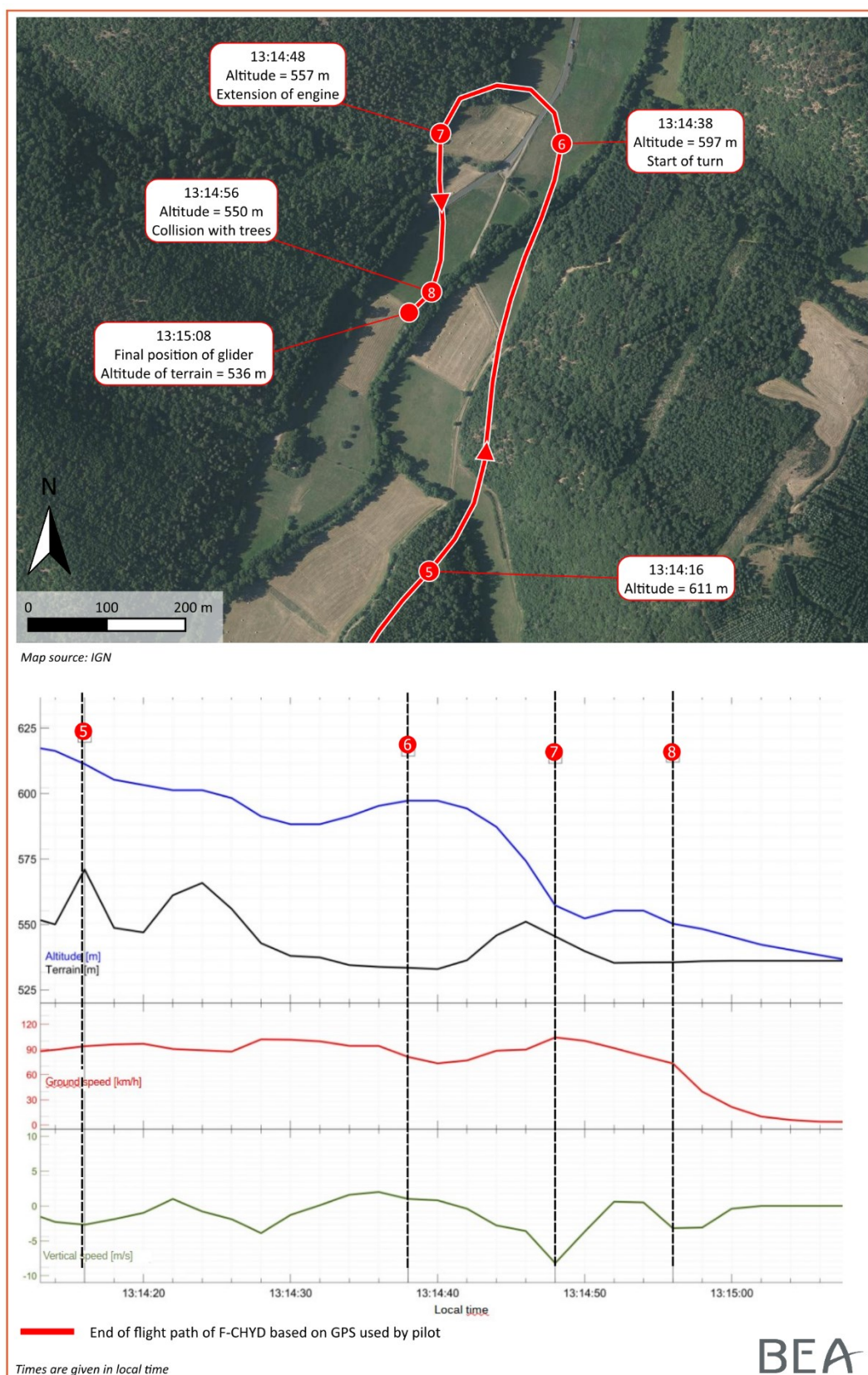


Figure 2: parameters recorded and path followed during the last five minutes of flight

2 ADDITIONAL INFORMATION

2.1 Accident site

The glider was lying on its right side at the edge of a field and of a row of trees about 20 m high. The glider's left wing was resting against the trees. The right wing was torn off, the tail fin was ruptured and the canopy was broken. The pylon supporting the engine was in the extended and locked position. Both blades of the propeller were damaged, and no signs of propeller rotation was found.



Figure 3: accident site (source: pilot)

2.2 Pilot information

The 73-year-old pilot held a Sailplane Pilot Licence (SPL) and had logged around 5,300 flight hours, 33 hours of which in the previous 30 days as part of seven flights, almost all on F-CHYD. The pilot had owned F-CHYD since 2006.

2.3 Pilot's statement

The pilot stated that he consulted various websites the day before to check the weather conditions. He added that on the day of the flight, the conditions were not as good as expected. He specified that the ceiling was quite low, the thermal uplifts were not very pronounced and difficult to detect. He stated that he waited until he identified a field before making an input to extend the propeller, specifying that the sequence lasts around ten seconds. He thought that he did not have time to start the engine between the start of the sequence and the collision with the trees. He added that he never had any problems with the engine.

The pilot specified that he usually extended the propeller only after joining the circuit to land in a field, then started the engine on final approach to the field to regain height and reject the landing, as for a go-around. The pilot stated that he was used to apply this technique so as to land safely in the field if the engine failed to start.

2.4 Glider information

F-CHYD is a DG-800 single-seat self-launching glider with a wingspan of 18 m (808 B variant). The self-launching system is composed of a combustion engine and a two-blade propeller assembled on a retractable pylon installed in the upper part of the fuselage, aft of the wings.

The glider had logged approximately 4,600 flight hours, with 1,573 take-offs, and its engine had logged 134 operating hours.

The Flight Manual indicates that propeller extension and engine start may be subject to malfunctions despite the presence of redundant systems. The manual specifies that in flight, pilots must adapt their path to have an area in which to land if necessary.

In chapter 4 of the Flight Manual (paragraph relating to propeller extension and engine start in flight), the manufacturer specifies that:

- with the propeller extended and the engine not started, the rate of sink at a speed of 90 km/h increases to 2 m/s (approximately 400 ft/min);
- propeller extension and engine start must be done close to an area suitable for landing and at a height of at least 400 m (1,320 ft);
- if the zone overflown does not have a suitable area, the procedure must be started at a height of 1,000 m (3,300 ft) so that, if the engine does not start, all the emergency starting procedures can be performed, including retraction of the propeller if necessary.

2.5 Meteorological information

The meteorological conditions at the site of the accident were as follows:

- clear sky;
- north-easterly wind of 5 kt to 10 kt at altitude;
- south-westerly wind of 5 to 10 kt in the valley close to the ground;
- temperature 20°C.

3 CONCLUSIONS

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

Scenario

During the flight, faced with adverse weather conditions and searching for uplifts, the pilot entered a valley, probably to get closer to the departure aerodrome. After several minutes of unsuccessful attempts to regain altitude and while at an altitude of 611 m², he found a suitable field for an off-aerodrome landing in order to extend the propeller.

The pilot started his U-shaped landing pattern. At the end of the turn and while on final at a height of around 20 m compared with the chosen field, he extended the propeller of his self-launching glider.

Before the pilot had time to start the engine, the glider struck the top of trees located before the selected field and then crashed into the trees at the edge of a field.

Contributing factor

The following factor may have contributed to the collision with the vegetation and then the ground:

- the pilot's strategy consisting in extending the propeller and using the engine, which was applied too late and did not comply with the recommendations in the Flight Manual.

² At this stage, the glider height was less than 100 m.

Safety lessons

Minimum safe height for extending the propeller and starting the engine

A number of glider accidents brought to light the fact that the flight interruption and the search for a suitable field occurred too late, leading to a collision with the vegetation.

Moreover, in the context of self-launching gliders, this decision to interrupt the flight may be delayed, or even set back, due to overconfidence in the self-launching system and/or lack of knowledge of the consequences on the glider's performance. In some cases, the pilot may decide to extend the propeller at a very low height, hoping to regain height to avoid landing outside the intended destination.

The safety investigation into the accident to the [DG1001M registered D-KVDG on 19 March 2017 at Le Vernet \(Alpes-de-Haute-Provence\)](#) concluded that the pilot probably started the engine pylon extension sequence in a range of altitudes and speeds that did not allow the sequence to be completed before collision with the trees and then the ground.

The safety investigation into the accident to the [SCHLEICHER - ASH26E registered D-KWAY on 25 July 2022 at Aspres-sur-Buëch \(Hautes-Alpes\)](#) brought to light a change of strategy by the pilot who, while on final approach to the aerodrome, decided to extend the propeller to regain height. During this extension, the engine did not start. The degradation in the glider's performance did not enable the pilot to reach the runway threshold, and the glider collided with the vegetation 30 m from the threshold.

Self-launching gliders' flight manuals generally recommend minimum heights for propeller extension, based on the environment and taking into account the risk that a malfunction occur. These heights may vary depending on the type of glider and the onboard self-launching system.

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