



Accident to ROLLADEN SCHNEIDER LS6-18w
registered **F-CPRN**
on Monday 5 August 2024
at Argentine

Time	Around 15:45 ¹
Operator	Association Aéronautique Provence Côte d'Azur (AAPCA), Les Planeurs du Pays de Fayence
Type of flight	Cross country
Persons on board	Pilot
Consequences and damage	Pilot seriously injured, glider 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.	

Attempted off-airfield landing, collision with ground

1 HISTORY OF THE FLIGHT

Note: the following information is principally based on the glider's FLARM data.

At 11:26, the pilot carried out a towed take-off from runway 10L at Fayence - Tourrettes aerodrome. He headed north, crossing the south Alps and at around 14:00, entered Maurienne valley at an altitude of around 2,700 m. He reached Saint-Jean de Maurienne around 45 min later at an altitude of 770 m (i.e. a height of 240 m with respect to the valley) and looked for uplifts there for roughly 30 mins. He left the sector at an altitude of around 1,000 m and continued north flying along the south-west face of the terrain. He used a slope uplift which enabled him to reach an altitude of 1,480 m (see Figure 1, point ①). He then branched left into a valley in the south-west before returning to the initial valley in order to resume his flight path north. During this manoeuvre, the pilot flew over Saint-Rémy de Maurienne aerodrome and the altitude of the glider decreased to 1,000 m (point ②). The altitude then continued to progressively decrease before distinctly decreasing with a vertical speed reaching -5 m/s. At an altitude of 570 m (i.e. a height of 215 m with respect to the valley, point ③), at around 2.5 m from the site of the accident, the pilot moved away from the terrain. He turned around at an altitude of 410 m (height of 80 m, point ④). The last recorded point was situated at a distance of 900 m from the accident site, at a height of 30 m (point ⑤).

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

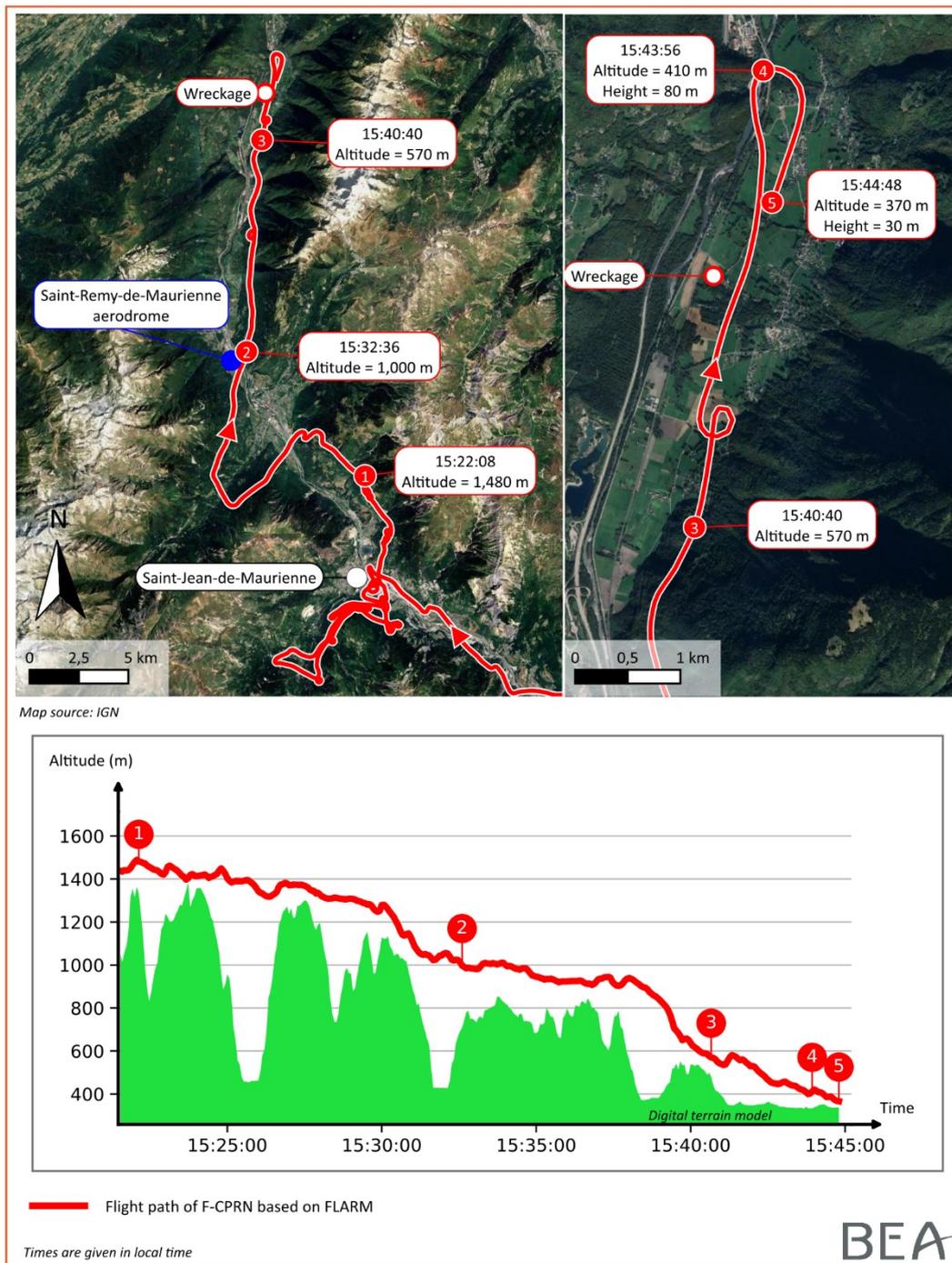


Figure 1: flight path of F-CPRN

2 ADDITIONAL INFORMATION

2.1 Site and wreckage information

The wreckage was complete and lying on its belly. It was located between a large oak tree and a power line, neither of which showed signs of an impact.

Two impact marks with the ground, at a distance corresponding to a wing span, were visible in the field close to the wreckage:

- one impact mark around one metre long corresponding to the right wing tip striking the ground; the tip was lying on the impact mark;
- a small crater corresponding to the nose of the glider striking the ground.

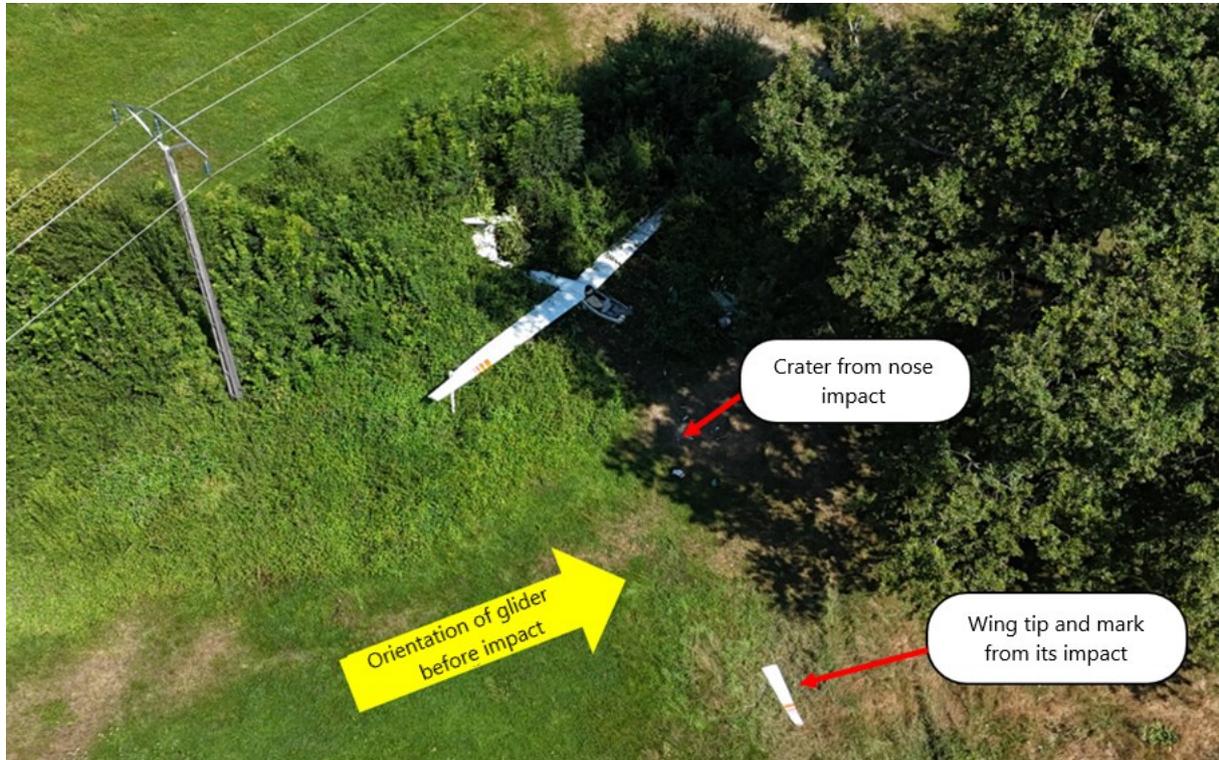


Figure 2: photo of accident site (source: GTA, annotations BEA)

It is probable that the glider struck the ground with a nose-down attitude of more than 30°, a right-hand bank and a 030° heading. It then pivoted to the right around its yaw axis before coming to a halt.

The examination of the flight controls found that these latter were continuous at the time of the impact.

The landing gear control was found in an intermediate position between “retracted” and “extended”. The damage to the landing gear meant that it was not possible to determine its position at the time of the collision with the ground. The flap control was in a position close to 0°, consistent with the position of the flaps. The airbrake control was in the retracted position, consistent with the position of the airbrakes.

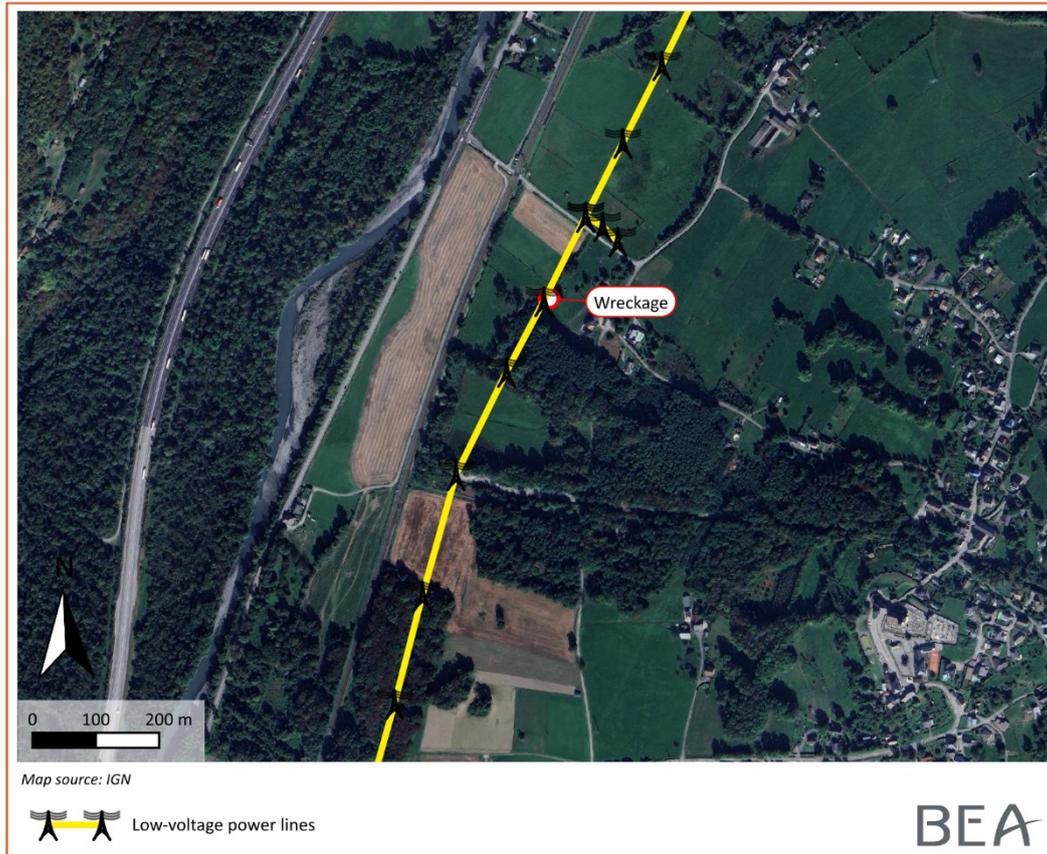


Figure 3: accident site

The accident site was surrounded by fields, most of them enclosed, and numerous low voltage power lines. Saint-Rémy de Maurienne aerodrome was situated around 14 km to the south. A field in the Aiton district, situated around 12 km north-west, was listed in the Guide to safe landing areas in the Alps (edition 4.1).

It was not possible from the examination of the site and the wreckage, to determine the strategy envisaged by the pilot for the off-airfield landing.

The first emergency responders and the local authorities indicated that they had not found bottles of water at the accident site.

2.2 Glider information

F-CPRN is a LS6– 18 W single-seater glider. It has an 18-m wingspan, a retractable landing gear and is equipped with upper surface speed brakes and wing flaps. Its maximum lift-to-drag ratio is 48. It belonged to the Fayence gliding centre (AAPCA) and had totalled around 3,700 flight hours at the time of the accident.

2.3 Meteorological information

The French met office, Météo-France, indicated that at the time of the accident, there was:

- a light surface wind up to an altitude of 4,000 m;
- visibility greater than 10 km;

- clear sky with a few cirrus at an altitude of more than 9,000 m and a few thin cumulus above the surrounding mountain peaks, indicating the presence of light thermal uplifts;
- an outside air temperature of 29°C on the ground;
- light turbulence;
- around the accident site, the presence of a few light uplifts on the windward slopes of the terrain and no uplifts in Maurienne valley.

2.4 Pilot information

The 75-year-old pilot held a sailplane pilot license obtained in 1968. He had logged around 6,400 flight hours. He had carried out 12 cross-country flights (70 flight hours) out of Fayence aerodrome in the previous month, including 3 (20 h) on F-CPRN. He had been an instructor between 1976 and 2015.

The pilot's state of health meant that it was not possible to collect his statement.

The chief pilot at AAPCA stated that the pilot had come to Fayence aerodrome each summer for the last five years or so and stayed for several weeks in order to fly. He was used to long cross-country flights, particularly in the south Alps. The examination of the pilot log book which gives detailed information about the circuits carried out, showed that the pilot had no or little experience in the Maurienne region. The chief pilot confirmed this and added that he had been surprised to see him flying in this sector.

2.5 Off-airfield landing technique

The glider pilot manual² recommends above flat land, that the pilot select a suitable field for landing as soon as the glider's height falls below 400 or 500 m. Once the field has been identified, the pilot can attempt to gain altitude within the limits of the local flight cone. It is recommended to stop spiralling at a height of less than 200 m.

3 CONCLUSIONS

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

Scenario

After flying cross-country for four hours in the Alps, the pilot, following a west-facing slope in the Maurienne Valley, encountered air conditions that were not favourable for thermodynamic flight³ due to the presence of high cloud cover reducing thermal convection and a light wind preventing dynamic lift. The glider's altitude gradually decreased, losing nearly 650 m during the last ten minutes of flight over a distance of approximately 15 km. The pilot continued the flight and left the local area of the nearest aerodrome and the referenced safe landing areas.

The pilot decided to abort the flight and moved away from the terrain to make an off-airfield landing. The glider collided with the ground during the attempted landing.

² Collectif, 14th ed. 2019, published by Cépaduès.

³ Combined use of wind along the terrain and thermals.

Contributing factors

The pilot's lack of experience in this flight sector may have contributed to the decision to continue the flight in unfavourable air conditions and to the collision with the ground during the off-airfield landing.

The investigation was unable to determine with certainty whether the pilot had water available during the flight. A lack of hydration could have impaired his cognitive abilities.

Safety lessons

Risks associated with dehydration

Dehydration can affect cognitive functions such as concentration, memory, attention and alertness, thereby compromising safe flight management. [Studies](#) have shown that even moderate dehydration (less than 2% of body weight) can lead to cognitive deficits, including difficulties in concentrating. The July 2020 "[Actions vitales](#)" bulletin published by the French glider federation (FFVP) reminds pilots of the need to carry water to regularly hydrate during flight. This is especially important in the summer and during periods of intense heat when dehydration occurs more quickly.

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