



Accident to the KUBICEK BB51
registered **F-HRLY**
on Saturday 2 March 2024
at Sallanches

Time	Around 10:00 ¹
Operator	Airshow
Type of flight	Commercial sightseeing flight
Persons on board	Pilot and six passengers
Consequences and damage	One passenger seriously injured

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.

**Hard landing, bounce, basket upset,
during a sightseeing flight**

1 HISTORY OF THE FLIGHT

Note: the following information is principally based on statements.

The pilot, accompanied by six passengers, took off at around 09:00 from Praz-sur-Arly ascent site (Haute-Savoie) for a sightseeing flight.

Prior to the flight, the pilot showed the passengers the landing position and visually checked that it was adopted.

For around 45 min, the balloon headed north-east at an altitude of between 5,000 and 6,500 ft². Arriving over Passy plain (Haute-Savoie), the pilot started the descent. He indicated that at a height of around 100 m, the wind pushed the balloon north-west towards Sallanches. As he did not want to fly over the town and worried that the wind might strengthen, the pilot decided to land. While he was looking for a field to land in, he observed that the wind speed varied and as he believed, around 15 km/h with gusts at 20 km/h. He indicated that the wind then got stronger during the approach. He asked the passengers to adopt the landing position. In order to avoid the building situated at the end of the chosen field, he increased the balloon's rate of descent. He indicated that the floor of the basket struck tree tops which slowed the balloon down. The pilot then used the rapid deflation system at a height that he estimated as around six metres³. During the landing, the basket struck the ground hard and then bounced before tipping over and coming to a stop. The pilot and the passengers, several of whom were complaining of leg pains, evacuated the basket.

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

² The glossary of acronyms and abbreviations frequently used by the BEA can be found on its [website](#).

³ The operating manual indicates opening the rapid deflation system at two metres from the ground during the landing.

2 ADDITIONAL INFORMATION

2.1 Pilot information and statement

The 64-year-old pilot held a balloon pilot licence obtained in 1993 associated with free hot air balloon ratings for groups A, B, C and D. At the time of the accident, he had logged approximately 2,800 flight hours including 25 hours in the previous 3 months. He knew the flight sector very well. He had been employed by the operator, Airshow, as a freelance pilot for several years.

He indicated that on the day of the accident, he had prepared his flight file which included the available weather forecasts (10:00 WINTEM and SIGWX charts, METAR), the verification of the NOTAMs and the drawing up of the weight sheet.

On the site where he was to meet the passengers, he had released a helium balloon which indicated that there was a light air flow coming from the south-west, following the direction of the valley. In his opinion, the aerological conditions were those usually found in the sector and compatible with carrying out the flight.

Before the take-off, he carried out a safety briefing with the passengers during which he explained and showed the landing position (back turned to direction of landing, knees bent, holding handholds). He then asked the passengers to test this position. During the approach, after informing the passengers of a possible hard landing, he checked that the latter were correctly positioned. The configuration of the basket divided into two compartments meant that all the passengers could adopt the required position.

2.2 Injured passengers information

The injured passengers were aged 54, 57 and 67. It would appear that their physical condition was compatible with the balloon flight. After the accident, they went to the medical centre for foot pains. Two had light injuries and the third person suffered a double fracture of the foot. The latter affirmed that she had been holding the position that the pilot had shown and that she had felt the basket make a very violent impact with the ground during the landing.

2.3 Meteorological information

The town of Sallanches is situated at around 1,800 ft, and Praz-sur-Arly at 3,400 ft.

The Météo-France 10:00 WINTEM charts which the pilot had at his disposal before the flight, forecast in the flight region:

- a south-south-easterly wind of 5 kt at FL 020;
- a southerly wind of 20 kt at FL 050.

Based on the data from Météo-France's AROME model, it was estimated that between 09:00 and 10:00, the wind was light to moderate with:

- a south-westerly wind of around 5 kt when taking off at Praz-sur-Arly;
- a south to south-westerly wind of around 10 to 20 kt at the balloon's cruise altitude;
- the wind progressively veering to the south-east, of around 10 kt in the very low layers on the balloon's flight path on approaching Passy. This variation explains the deviation of the balloon's path towards the north-west in the direction of Sallanches.

Based on the information provided by Météo-France, the sky was hazy with high clouds and the visibility was very good.

3 CONCLUSIONS

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

Scenario

On the day of the accident, the pilot considered that the meteorological conditions were compatible with the planned flight. Before taking off, he carried out a safety briefing and trained the passengers in the adoption of the landing position. During the descent, the wind changed direction and pushed the balloon towards Sallanches. It was not possible for the pilot to anticipate this change in flight path based on the weather forecasts. On approaching the town and in the face of strengthening wind, the pilot decided to land. The passengers adopted the position required for landing. The speed of the balloon and the presence of obstacles at the end of the field chosen for the landing obliged the pilot to increase the balloon's rate of descent and to use the rapid deflation system at a height above that recommended in the operating manual. During the landing, the basket struck the ground hard and a passenger broke her foot.

Safety lessons

This occurrence is a reminder of the vulnerability of passengers during balloon landings, in particular for those who are not familiar with this activity. As the BEA pointed out in its thematic review of balloon reports⁴, *"The landing can sometimes be quite dynamic and passengers are not always aware of this. Touchdown can prove rough, in particular when there is a strong wind or during an emergency descent with a high vertical speed. In these conditions, passengers may be surprised and their physical capabilities may be exceeded."*

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

⁴ Refer to the Safety Lessons [2023](#), [2022](#), [2021](#) and [2020](#).