



Accident to the CAMERON - Z350 registered F-HMIG

on 24 September 2018
at Estaires (Nord)

⁽¹⁾Unless otherwise stated, all times given in this report are in local time.

Time	Around 19:30 ⁽¹⁾
Operator	Ballons Migrateurs
Type of flight	Commercial Air Transport
Persons on board	Pilot and sixteen passengers
Consequences and damage	One passenger injured
This is a courtesy translation by the BEA of the Final Report on the Safety Investigation published in April 2020. As accurate as the translation may be, the original text in French is the work of reference.	

Injury to a passenger during landing

1 - HISTORY OF THE FLIGHT

Note: the following information is based mainly on statements.

The pilot, who was accompanied by sixteen passengers, took off from Boeschèpe mill (Nord) at about 18:30.

After a flight time of one hour, the pilot repeated to the passengers the instructions he had already given to them on the ground regarding the position to adopt for landing. At an estimated average speed of 10 knots, the pilot flew a high approach to avoid a few surrounding obstacles. On landing, the balloon bounced back up and then the basket came back down to rest in an upright position.

While disembarking, one passenger complained of knee pain. She was transported to the regional hospital where she was diagnosed with a knee fracture requiring surgery.

2 - ADDITIONAL INFORMATION

2.1 Pilot information

On the day of the accident, the 47-year-old pilot and managing director of the company, which holds an AOC, held a hot air balloon pilot licence (BPL) and an instructor rating (FI (B)) for balloons. He had logged about 1,310 ascents as pilot-in-command and about 510 flight hours on F-HMIG.

⁽²⁾The 58-year-old passenger was wearing trainers that were suitable for this type of activity.

After disembarkation, the spouse of the injured passenger⁽²⁾ indicated to the pilot that, prior to the accident, the injured passenger had already undergone several examinations, including X-rays, for knee pain, but no diagnosis had been established.

2.2 Meteorological information

The estimated conditions at the site on the day of the accident were as follows:

- northerly wind of between 5 kt and 10 kt;
- CAVOK, visibility over 10 km;
- temperature of 15 °C;
- QNH 1036.

The pilot was in possession of the meteorological information required for the flight.

2.3 Aircraft information

The basket is a double T-basket designed to carry a maximum of 19 people. The unit is certified in accordance with the EASA CS31-HB European regulation.

3 - CONCLUSIONS AND LESSONS LEARNED

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.

The investigation revealed that:

- The meteorological forecast in the pilot's flight file did not indicate any meteorological conditions that could have jeopardized the flight.
- The instructions on the position to be adopted for landing were issued both on the ground and shortly before landing.
- The landing was normal and the basket remained upright after landing. Only one person out of seventeen was injured during the landing.
- The injured person was wearing appropriate shoes for a balloon ascent. She appeared to have a pre-existing weakness in her lower limb, which had not been mentioned to the pilot before the flight.

The sometimes bumpy nature of balloon landings is not necessarily something that uninformed passengers are aware of. The injured passenger probably had no idea that her physical condition may not be suited to balloon flying, which is generally perceived to be a risk-free leisure activity.

Safety lessons

The Fédération française d'aérostation (French Balloon and Airship Federation) (FFAé) indicated to the BEA that work is underway to improve the awareness of people wishing to go on a balloon flight to get them to think about the compatibility of their state of health with balloon flying. Some operators already use their own form and the federation already recommends this practice to operators.

A questionnaire sent at the time of booking would enable:

- ❑ the future passenger to assess his physical condition and his ability to complete a balloon flight or not, give him time to think about it and consult his doctor if there is the slightest doubt; and
- ❑ operators to obtain physiological and other information that will allow them, based on their experience, to pre-screen those most “*at risk*”.

The BEA encourages the federation to pursue this work with the various stakeholders with a view to developing a standardised self-assessment questionnaire.