



Accident to the Cameron Z180
registered **F-HIII** operated by Montgolfières d'Anjou
on Wednesday 19 July 2023
at Longué-Jumelles

Time	Around 07:55 ¹
Type of flight	Passenger commercial air transport
Persons on board	Pilot and seven passengers
Consequences and damage	Basket 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.	

Power line strike during landing, incipient basket fire

1 HISTORY OF THE FLIGHT

Note: the following information is principally based on statements and GNSS² data from the application used by the pilot.

The pilot took off at 07:05 with seven passengers, for a flight of around one hour. There was a westerly/south-westerly altitude wind of less than 5 kt (with possibly gusts of 10 kt).

After a flight time of around 45 min, the pilot started to look for a landing site and reminded the passengers of the safety instructions who took up their landing positions in the basket. The pilot identified a field for landing, close to a farm allowing access for picking up the passengers and material. He detected two power lines, a 20,000 MV³ line (see **Figure 1**, point **1**) and a LV⁴ line (point **2**), nearly perpendicular to the flight path. In descent towards the field, he saw that behind the LV line that he was about to fly over, there were cables from another MV line that were higher than the LV line and with poles spaced further apart. He immediately made an input on the two burners. The balloon did not sufficiently climb and the lower part of the pilot's compartment came into contact with the cables of the power line (point **3**), at a height of around 8 m. The three cables of the line were severed. The pilot saw an electric arc in his compartment. The balloon continued its flight path and the pilot landed in the field a few seconds later less than 100 m after the line, with the basket and envelope vertical (point **4**). The pilot had the passengers exit the basket; this was done without any particular difficulty.

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

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

³ Medium Voltage.

⁴ Low Voltage.

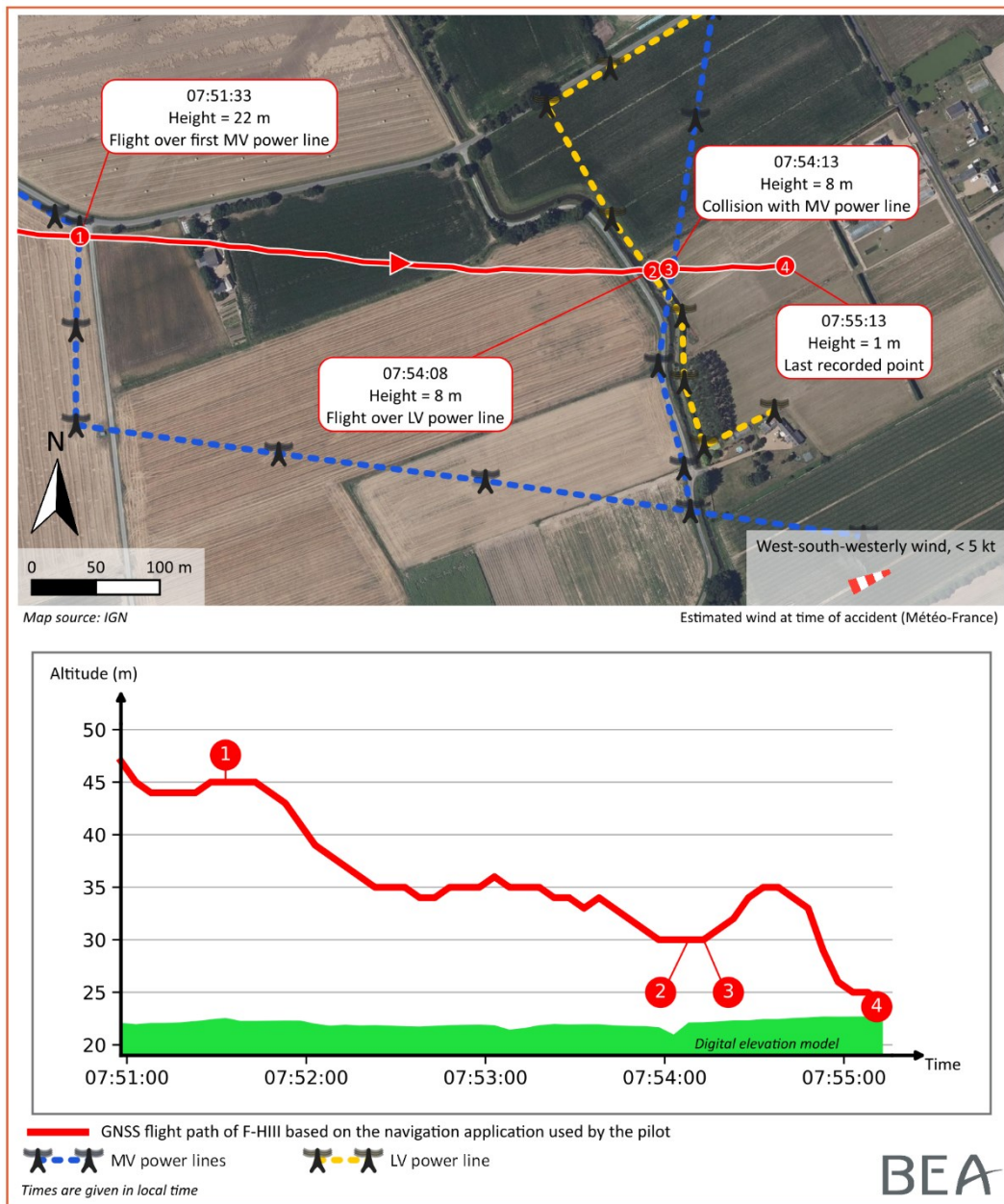


Figure 1: flight path of F-HIII

The pilot began to deflate the envelope and at the same time flames appeared in the lower right-hand corner of the basket compartment, which had come into contact with the cables. The pilot emptied the on-board fire extinguisher onto the wicker parts that were in flames. The pilot's support crew arrived and emptied another extinguisher, which completely extinguished the fire. The support crew and the pilot then removed the three propane cylinders from the nacelle before contacting the emergency services and ENEDIS.

2 ADDITIONAL INFORMATION

2.1 Pilot information

The 64-year-old pilot held a free balloon pilot licence with the hot air balloon A, B, C and D ratings. He had logged 445 ascents (437 flight hours) including 3 hours in the last 30 days (2 hours with F-HIII).

The pilot was self-employed and contracted his flight services as pilot to the commercial operator, Montgolfières d'Anjou.

2.2 Balloon information

F-HIII belonged to Montgolfières d'Anjou, a commercial operator registered with the DSAC. It was composed of a CAMERON Z 180 envelope and a CAMERON three-compartment wicker and steel basket which could carry a pilot and eight passengers. The balloon was equipped with three tanks located in the pilot's compartment and two burners.

The only damage that could be observed on the balloon was a hole and signs of soot at the bottom of the pilot's compartment which came into contact with the MV power line cables (see **Figure 2**).

Note: the MV and LV power lines are not shown on the ICAO and IGN maps. Only the Very High Voltage (VHV) power lines are shown.



*Figure 2: views from interior and exterior of burnt areas of pilot's compartment
(Source: BGTA)*

2.3 Meteorological information

The meteorological conditions estimated by the French met office, Météo-France, at the time of the accident and around the accident site were the following:

- overcast (7/8) with stratocumulus at 2,500 ft;
- westerly/south-westerly wind of less than 5 kt;
- visibility greater than 10 km;
- no precipitation;
- temperature 16°C and dew point temperature 13°C;
- QNH 1019.

3 CONCLUSIONS

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

Scenario

During the approach on a shallow approach slope (descent from a height of 45 m to 30 m in 2 min 30 s) to land in a field, the pilot saw and flew over a first MV power line. Before flying over another power line (LV) that he had identified at the beginning of the field, he detected the cables of a second MV power line, behind and higher than the LV power line. The pilot immediately made an input on the burners. However, the inertia of the balloon meant that it did not gain sufficient height to avoid contact between the bottom of the basket and the MV power line cables which ruptured. The pilot kept control of the flight path and landed a few metres after the power line. The pilot and passengers, unharmed, evacuated the basket.

Contributing factor

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

- the difficulty for a balloon pilot to visually identify, at low height and on a shallow approach path, all of the obstacles that could interfere with the landing and in particular, the MV and LV power line cables which are not mentioned on all the maps and which have cables and poles which can merge into the environment and vegetation.

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