



Accident to the AIR CREATION - IFUN16 SKYPPER
identified **974OW**
on Friday 15 September 2023
on Cambaie microlight strip

Time	Around 18:30 ¹
Operator	Private
Type of flight	Local
Persons on board	Pilot
Consequences and damage	Pilot fatally injured, aircraft 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.	

**Loss of control on final approach,
collision with a hangar, fire**

1 HISTORY OF THE FLIGHT

Note: the following information is principally based on footage from two security cameras.

The pilot took off at 18:11 from runway 23² of Cambaie³ microlight strip for a training flight. In an approximately 16-minute period, he carried out a series of twelve touch-and-go landings on runways 05 and 23. Then, after flying over runway 05, the pilot took a nose-up attitude and turned left. He then returned to runway 23 by a right-hand turn. When the microlight was close to the ground, before threshold 23, it banked right and deviated from the extended runway centreline. It then entered a high left bank, crossed the runway, struck a hangar and caught fire.

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

² Paved runway measuring 250 m x 20 m, extended by a paved strip measuring 220 m x 7 m at threshold 23.

³ <https://basulm.ffplum.fr/PDF/FM97402.pdf>.

2 ADDITIONAL INFORMATION

2.1 Site and wreckage information

The microlight collided with the roof of a hangar, at a height of around 3 m. This hangar is situated 70 m before threshold 23 and around 50 m from the extended runway centreline. The fire rapidly spread to the hangar and high temperatures were reached.



Figure 1: position of wreckage (source: Géoportail, annotations BEA)

The extent of the damage caused by the fire limited the observations on the microlight. The main wing structure was present, the fabric and the battens had been destroyed by fire. All of the cables were present and most of them were still connected. The engine was found lying on the ground, separated from its frame. The two carburettors had been torn off and had melted. The four propeller blades were found with substantial fire damage.



Figure 2: photos of wreckage (source: BEA)

2.2 Analysis of footage from two security cameras

Three security cameras on the microlight strip were operating at the time of the accident. Only cameras 1 and 3, each oriented towards an end of the runway, partially recorded the accident flight. These cameras did not have an audio recording.

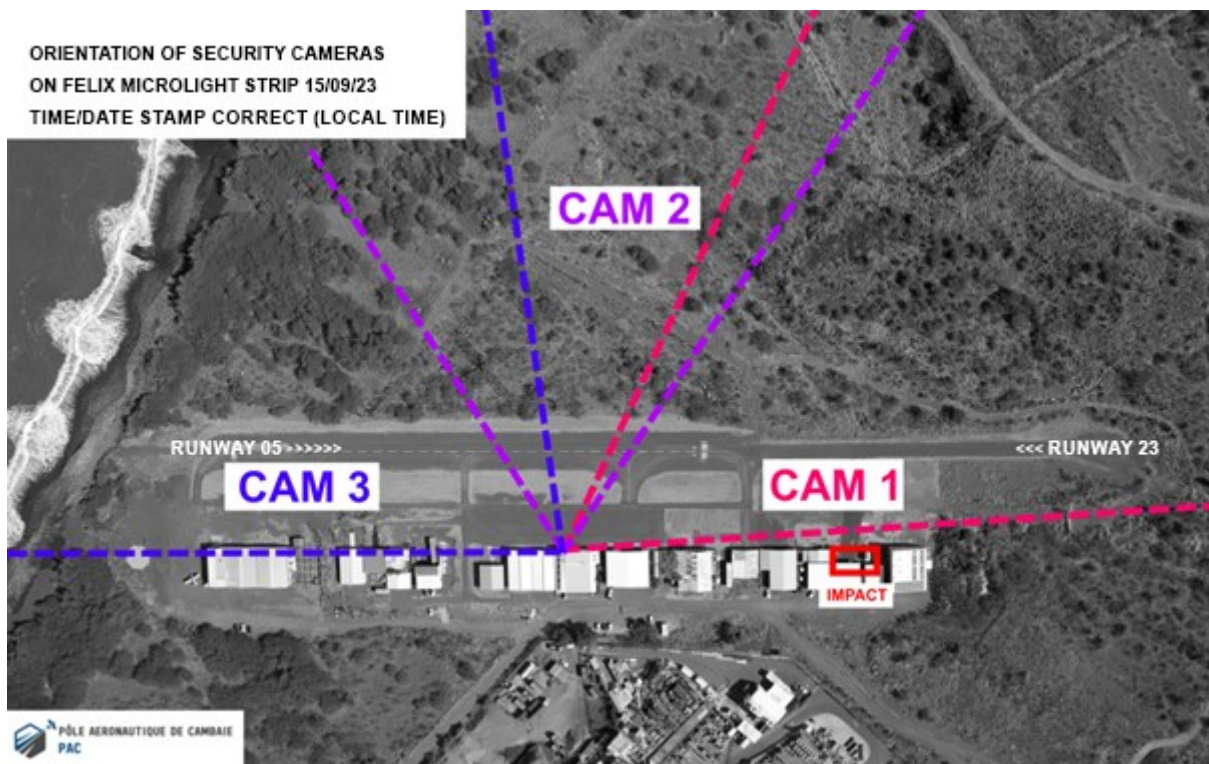


Figure 3: location and orientation of security cameras (source: Pôle Aéronautique de Cambaie)

In the footage, the pilot can be seen taking his microlight out of the hangar and then carrying out a roughly four-minute walk-around inspection. He then climbed on board the microlight, started the engine and taxied to the end of the paved strip situated roughly 200 m before threshold 23.

The pilot then carried out a series of 12 touch-and-go landings in a roughly 16-minute period, alternating between runway 23 and runway 05. Short take-offs and steep climbs could be observed.

The last three manoeuvres were touch-and-go landings on runway 05 followed by a U-turn and a touch-and-go on runway 23.

There were notable differences in the last flight sequence compared to the other touch-and-go landings. During the last approach to runway 05, the microlight flew over the runway at a very low height without touching it unlike the other touch-and-go landings. Towards the end of the paved strip, the microlight climbed and then turned left. It should be noted that the gain in height was much less than for the other touch-and-go landings on 05.

After a continuous turn of around 270°, the microlight seemed to turn right in descent towards the runway. The microlight then left the camera's field of view. When it was visible again, the microlight was roughly on the runway extended centreline, slightly banked to the right and at low height. The microlight then entered a steep left bank, without losing height, crossed the runway and left the camera's field of vision still in a steep bank.

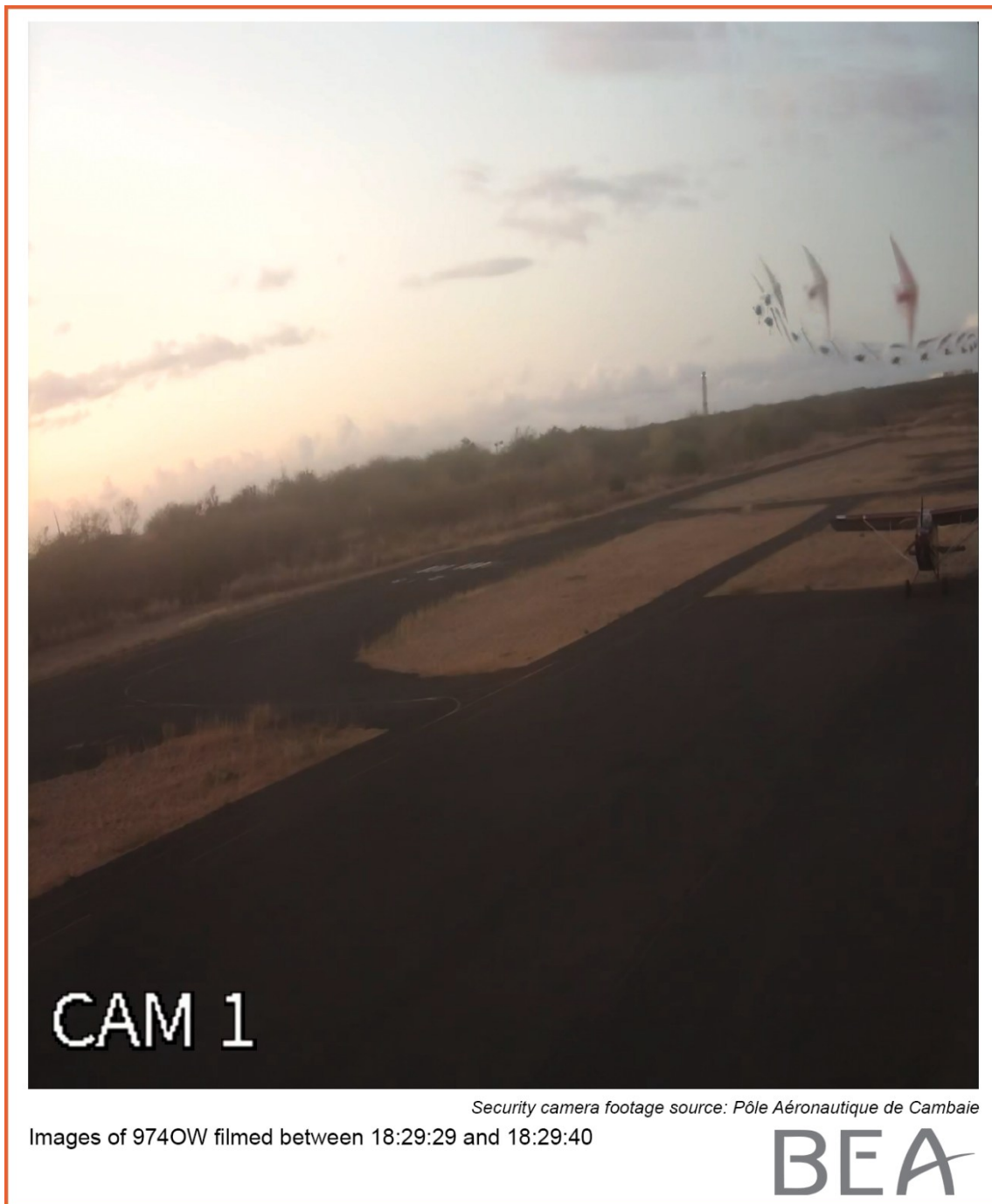


Figure 4: superimposed images taken from the security camera recording⁴ showing the attitude of the microlight at the time of the loss of control (source: Pôle Aéronautique de Cambaie)

Based on the footage, it was also possible to determine that there were no other aircraft in the runway circuit during the pilot's flight.

2.3 Microlight information

The flex-wing was composed of an Air Création IFUN 16 wing, a two-seater trike and a Rotax 582 engine equipped with an Arplast four-blade propeller.

⁴ The brightness of the image is not representative of the real light conditions.

According to the information collected, the pilot had purchased the wing identified 974OW in 2020 and had installed it on a trike which he already owned.

The mechanic who carried out the maintenance work on the flex-wing indicated that in November 2017, he had carried out substantial work to return it to operation after a long downtime period. Then in February 2022, at the pilot's request, he overhauled the engine (replacement of casing, cylinder and cylinder head) and the reduction gear. Between these two operations, i.e. a little more than four years, the engine had operated 42 h based on the hour meter readings.

2.4 Pilot information

The 61-year-old pilot held a microlight pilot certificate with a class 2 (flex-wing) rating obtained in 1997 and a class 3 (fixed-wing) rating obtained in 2009. The investigation was not able to determine the pilot's experience.

The pilot's wife indicated that after a period of not flying, the pilot had carried out a few flights with an instructor and that since then, he had flown regularly. She added that he was very sporty and had no particular health problems.

Several witnesses indicated that the pilot had not recently flown a lot.

2.5 Meteorological information

The Météo-France analysis of the weather conditions showed a relatively dry air mass and a moderate easterly trade wind on La Réunion island.

Météo-France estimated that the conditions on Cambaie microlight strip at the time of the accident were the following:

- north-east to north-west wind at around 5 kt;
- visibility greater than 10 km;
- few clouds;
- a temperature of 24°C.

A company based on the microlight strip had a weather station which notably recorded the wind measurements every five minutes. At the time of the take-off, the mean wind measured was around 4 kt with a maximum of 7 kt from 270°. The strength of the wind slightly decreased during the flight and the wind swung round to 245°.

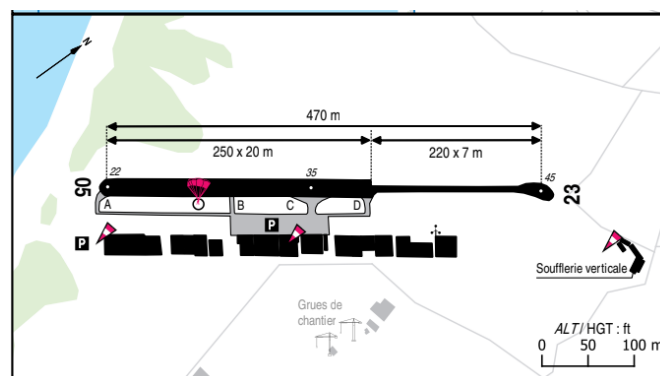


Figure 5: position of windsocks (source: Pôle Aéronautique de Cambaie)

At the time of the occurrence, the azimuth of the sun was 270° for a height of -4.75° . The sun set at 18:13 and the aeronautical night started at 18:28. The video recording by camera 3 oriented towards threshold 05, shows a sunset-like brightness, reduced by cloud cover.



Figure 6: excerpt from video recording⁵ of camera pointing towards threshold 05 at the end of the day (Source: Pôle Aéronautique de Cambaie)

⁵ As the camera was pointing towards the sun, the exposure of the image does not accurately render the actual lighting conditions.

3 CONCLUSIONS

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

Scenario

At sunset, the pilot undertook a sequence of twelve touch-and-go landings in less than twenty minutes of flight, carrying out the steep climbs which are possible with flex-wings. A state of elation⁶ may have then set in as the manoeuvres followed one after the other, with lower safety margins than for a standard circuit. In this context, after returning to the runway on the reciprocal QFU, the pilot lost control of the microlight at low height.

Contributing factors

The following factors may have contributed to the loss of control:

- the difficulty for the pilot to keep his visual references with, the aeronautical night drawing in, the ground in obscurity;
- a possible state of fatigue, after twenty minutes of particularly dense flight, with a substantial and continuous workload.

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

⁶ A state of progressive exhilaration that may be accompanied by impaired judgement, reduced perception of the risk and increasing difficulty in stopping the activity, in the context of a rapid succession of actions.