



**Accident** to the PIPER PA28  
registered **F-HDYN**  
on Saturday 8 July 2023  
on Lognes - Émerainville aerodrome

<b>Time</b>	Around 15:10 <sup>1</sup>
<b>Operator</b>	Club Air Pilot
<b>Type of flight</b>	Sightseeing flight, commercial
<b>Persons on board</b>	Pilot and two passengers
<b>Consequences and damage</b>	Passengers slightly injured, aeroplane 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.

**Balked landing, flight on the backside of the power curve,  
collision with obstacles situated after the end of the  
runway, during a local flight for remuneration**

**1 HISTORY OF THE FLIGHT**

*Note: the following information is principally based on the statements made by the pilot, passengers and witnesses on the ground along with the analysis of a video of the accident filmed by the passenger sat in the rear left seat. This video showed the speed information displayed on the airspeed indicator and the actions on the controls.*

The pilot, accompanied by two passengers, took off from runway 26<sup>2</sup> of Lognes - Émerainville aerodrome at around 14:15 for a local flight in an easterly direction. The aerodrome uses the A/A frequency. On returning to Lognes - Émerainville, she flew overhead the aerodrome and then joined the downwind leg to land on runway 26.

During the final approach, the pilot extended the flaps to the landing position (40°). On short final, at point ① on Figure 1, the speed was 78 kt. The pilot explained that she chose an aiming point slightly before the runway so as to touch down at the beginning of the runway.

<sup>1</sup> Except where otherwise indicated, the times in this report are in local time.

<sup>2</sup> Paved runway measuring 700 m x 20 m. The take-off and landing distance available is 700 m.



Figure 1: flight path of aeroplane

The aeroplane touched down on the runway at point ②, 230 m after the runway threshold and bounced. The flare was not very pronounced. The aeroplane bounced five times between points ② and ⑦, without the pilot making a nose-up or nose-down input on the wheel.

Just after point ⑦, at around 250 m from the end of the runway, when the video taken by the passenger stopped, the aeroplane was on the ground and the pilot retracted the flaps by two detents to the take-off position (10°) in order to, she explained, adhere to the runway and have better braking.

A few seconds later, the pilot decided to carry out a balked landing as she was worried about a runway excursion. She increased power and made a nose-up input. The carburettor heat was left switched ON. A high nose-up pitch was held according to a witness in an aeroplane on the ground. On board, the stall warning was triggered. The aeroplane reached no more than a height of two metres when it passed over the end of the runway. It then struck the aerodrome's perimeter fence which slowed it down. It finally touched down just before finishing its path under the crash barrier of the main road, N104<sup>3</sup>, adjacent to the aerodrome, 375 m after the end of the runway.

<sup>3</sup> At this point, the main road has nine lanes.



Figure 2: wreckage (Source: BEA)

## 2 ADDITIONAL INFORMATION

### 2.1 Meteorological information

Lognes - Émerainville aerodrome's "west" windssock was visible on the video taken by the passenger. It was vertical at the time of the accident, indicating that there was no wind at this location. The aerodrome's "east" windssock was not visible on the video.

The 15:00 METAR for Paris-Orly airport situated 11 NM south-west of Lognes - Émerainville aerodrome indicated wind from 160° of 7 kt, varying in direction between 110° and 200°, CAVOK, temperature 33°C, no forecast changes in the following two hours. The Paris-Charles de Gaulle METAR gave practically the same parameters.

### 2.2 Aircraft information

The Piper PA28-181 Archer II registered F-HDYN was equipped with a 180-hp Lycoming O-360-A4M engine. It was owned by Club Air Pilot (see paragraph 2.3).

The flaps of the PA28 can take four positions:

- flaps retracted, 0°;
- 1st detent, 10°, position used for take-off;
- 2nd detent, 25°, position used for take-off on short or grass runways;
- 3rd detent, 40°, position used for take-off.

The take-off speed with flaps 10° is between 48 and 53 kt according to the weight of the aeroplane. The maximum take-off weight of the aeroplane is 1,157 kg. During the landing, the weight was estimated as being around 1,050 kg.

The flaps 40° approach speed is 66 kt. In the conditions of the day, the landing distance (maximum braking) with flaps 40° was 420 m. The manual specifies that braking is more effective when the flaps are retracted and on applying rear pressure to the wheel which makes the major part of the aeroplane's weight rest on the main wheels.

In the conditions of the flight, the stall speeds indicated in the flight manual are the following:

- flaps 0° = 50 kt;
- flaps 10°: not mentioned;
- flaps 25° = 47 kt;
- flaps 40° = 44 kt.

The manual specifies that an approaching stall is indicated by a stall aural warning which is activated between 5 and 10 kt above the stall speed.

## 2.3 Operator information

### 2.3.1 Flights proposed

The limited liability company, Club Air Pilot did not hold an AOC or an operating licence (see paragraph 2.5.1) and in its statutes, there was no mention of the promotion of aerial sport or leisure aviation. At the date of the accident, Club Air Pilot proposed the rent of aeroplanes and “light instruction flights” in partnership with several on-line sites proposing group activities and/or gift boxes.

For the rent of an aeroplane, the rates charged by Club Air Pilot, including fuel, were as follows:

- HR200 (the company operated two of them) = 132 €/h;
- PA28 (the company operated one of them) = 180 €/ h.

For the “light instruction flights”, the company’s website indicated: *“Venez prendre votre envol avec Club Air Pilot ! Guidé par un instructeur professionnel, prenez les commandes de l’un de nos avions. Chaque séance débutera par un briefing afin de vous mettre à l’aise [...] .”*

The company thus proposed “light instruction flights” with a professional instructor with each session starting with a briefing and including 30 min of flight for the price of:

- 109 € on the HR200;
- 150 € on the PA28.

The company also proposed “light instruction flights” for 45 and 60 min, packages composed of a theoretical lesson<sup>4</sup>, simulator session and taking the controls, and a flight-with-friends package with each person having a 30 min control familiarisation session followed by a flight from Lognes, to Nangis, Coulommiers and then Lognes, with each person having the possibility of taking the controls, for the price of 540 € (price for three people): *“suivre entre amis une expérience inoubliable. Une prise en main des commandes pendant 30 minutes par personne. Ensuite, un petit tour en avion au départ de Lognes avec une prise en main des commandes en situation réelle, arrêt à l’aérodrome de Nangis pour un changement de pilote, puis Coulommiers, pour un retour sur Lognes. Tous auront la possibilité de prendre les commandes en situation réelle.”*

The accident flight had been sold to the two passengers via a marketplace/gift box type internet site proposing leisure activities, on behalf of Club Air Pilot. The description indicated that during this sightseeing flight at Lognes, the passenger will take the controls of an aeroplane accompanied by a professional instructor: *“Durant ce baptême de l’air à Lognes, vous prenez les commandes d’un avion en compagnie d’un instructeur professionnel.”*

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<sup>4</sup> The company manager indicated that in fact this consisted of explanations about the flight.



And that it was an introduction to flying with 30 min theory and 30 min practice. The price applied, based on passenger weight, was set at €119 for the female passenger and €179 for the male passenger, i.e. €298 for the one-hour flight (two combined 30-minute flights).

The female passenger in the front seat specified that she had held the controls while in cruise<sup>5</sup>. The pilot explained that this was standard practice, and that passengers did not touch the rudder pedals. She kept her hands resting on the controls.

### 2.3.2 Organisation of Company

Club Air Pilot shared the same premises and the same aeroplanes as the flying club and FFA-affiliated Declared Training Organisation (DTO), Club Aéro Formation<sup>6</sup>. This flying club provided BIA, LAPL and PPL training, but did not declare any “introductory flight” activities (see paragraph 2.5.3). The manager of Club Air Pilot was the DTO's head of training.

The manager of Club Air Pilot indicated that the “light instruction flights” were carried out by two private pilots holding a PPL and an instructor. These flights were equally divided between these three pilots. She specified that there was no operations manual for this activity within the company. She added that the pilots were under no obligation to carry out the flights. The manager explained that the majority of the “light instruction flight” activities was in the form of cost-shared flights (see paragraph 2.5.2).

## 2.4 Pilot information

The 47-year-old pilot held a PPL(A) obtained in November 2021. The pilot did not hold a commercial pilot licence nor was she an instructor. She had logged 440 flight hours. In the month preceding the accident, she had totalled:

- 19 flight hours on the HR200;
- 3 flight hours on the PA28.

During her PPL(A) training carried out with the DTO, Club Aéro Formation, she performed her first supervised solo flight after 58 flight hours and the practical examination was carried out after she had logged 117 flight hours. Her instructor was the DTO head of training.

The majority of the flights recorded in the pilot's logbook were local flights lasting around 30 min or 60 min. On a single day, she sometimes carried out up to four flights. The logbook listed more than 100 flights carried out in the first half of 2023<sup>7</sup>. The pilot indicated that she had carried out around 350 “light instruction flights” for Club Air Pilot between November 2021 (after obtaining her PPL) and June 2023, i.e. over a period of 20 months. This activity was in addition to her professional activity. She generally flew from Friday to Sunday.

The pilot explained that she carried out these flights because they helped the flying club financially, and kept aircraft rent rates affordable for flying club members. Other flying club pilots also carried out this type of flight, so the pilot thought it was a normal part of flying club life. These flights also enabled her to increase her experience so that she could eventually become an instructor or take

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<sup>5</sup> A similar request was made by the female passenger when joining the runway circuit, but the pilot refused at this stage of the flight.

<sup>6</sup> Club Aéro Formation declared 942 flight hours for the year 2023 in the AERAL report (see paragraph 2.5.3).

<sup>7</sup> Club Air Pilot specified that the pilot had only carried out around 40 light instruction flights for the same period.

instrument flight training, and to introduce passengers to aviation. The pilot indicated that she knew that there were rules governing introductory flights in a flying club. The manager had told her that the flights were carried out within the framework of the company and that she was “an unpaid employee”.

She was feeling a certain pressure, as the frequency of the flights had intensified from the end of 2022, the other pilots being less available to carry out these flights. She had to ensure passenger safety and satisfaction, and also organise the rescheduling of flights in the event of cancellation (due to weather conditions, for example). She also mentioned the pressure of passenger reviews on Internet.

The pilot did not pay Club Air Pilot anything for her flights. However, she explained that she had to pay for additional flight minutes when the duration of the flight exceeded the duration paid for by the passengers.

On the day of the accident, the pilot had carried out two other flights on behalf of Club Air Pilot:

- an “light instruction flight” with three passengers on F-HDYN, from 09:04 to 09:59. The flight was initially planned for two passengers, but a third person had turned up. The pilot agreed to include him;
- a flight with a passenger in the Robin HR200, from 11:42 to 12:32, as part of a “theoretical lesson, simulator session and taking the controls” package. The passenger had already turned up once for this flight, but it had been cancelled due to weather conditions.

The pilot had then planned an “light instruction flight” with a passenger at around 13:00, followed by another flight at 15:30. As the passenger had not yet arrived, the pilot indicated that at the manager’s request, she dealt with a reservation for the two passengers of the accident flight. The pilot asked these two passengers to come the next day. The passengers were very keen to carry out the flight on the same day, as it was the date of an anniversary. As the passenger scheduled for 13:00 had still not arrived, the pilot finally suggested to the two passengers of the accident flight that they come quickly, ideally around 13:30, due to the time of the following flight. The two passengers had told the pilot that they lived close to the aerodrome. They arrived around 14:00. The pilot did not provide the 30 minutes “theoretical lesson” before the flight, due to the late scheduling of the flight.

Thus, on the day of the accident, the pilot's busy schedule included several hours of flying in addition to “theory training” to be given to the passengers.

## **2.5 Regulations covering context of flight**

### **2.5.1 Commercial operation**

Public (or “commercial”) air transport is defined as an aircraft operation to transport, from a departure point to an arrival point, passengers, cargo or mail (combination of articles [L. 1000-3](#), [L. 6400-1](#) and [L. 6412-1](#) of the French Transport Code, and regulation (EC) No 1008/2008<sup>8</sup>).

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<sup>8</sup> Regulation (EC) No 1008/2008 of the European Parliament and of the Council of 24 September 2008 on common rules for the operation of air services in the Community ([Version in force on the day of the accident](#)).

In article 2 of regulation (EU) No 965/2012<sup>9</sup> known as “Air Ops”, commercial operation is defined as, “any operation of an aircraft, in return for remuneration or other valuable consideration, which is available for the public or, when not made available to the public, which is performed under a contract between an operator and a customer, where the latter has no control over the operator.”

The European and national regulations define all the requirements operators must comply with to carry out commercial air transport. In particular, for this type of operation, in addition to complying with certain requirements regarding insurance, an operator must hold an Air Operator Certificate (AOC)<sup>10</sup> and an operating licence. Club Air Pilot did not hold these two documents.

Derogations exist however, two of them are explained in the following paragraphs.

### 2.5.2 Cost-shared flights

The Air Ops regulation specifies in Article 6, Derogations, paragraph 4a that, “By way of derogation [...], the following operations with other-than-complex motor-powered aeroplanes and helicopters” are not obliged to comply with the specific commercial air transport requirements:

*“(a) cost-shared flights by private individuals, on the condition that the direct cost is shared by all the occupants of the aircraft, pilot included<sup>11</sup> and the number of persons sharing the direct costs is limited to six.”*

Guidance Material for this regulation specifies that direct cost “means the cost directly incurred in relation to a flight, e.g. fuel, airfield charges, rental fee for an aircraft. There is no element of profit.”

The regulation does not indicate whether the costs should be equally shared between the pilot and the passengers.

The accident flight and very probably the other “light instruction flights” were not carried out in the scope of cost-shared flights given:

- the pilot’s statement that she was asked for no payment except when the initially-fixed flight time for which the passengers had paid was exceeded;
- the context in which the flights were proposed and orders placed;
- the fees applied by Club Air Pilot;
- the Air Ops which restricts cost-shared flight to private individuals.

### 2.5.3 Introductory flight

In the same Air Ops Article 6, Derogations, it is indicated that, “By way of derogation [...], the following operations with other-than-complex motor-powered aeroplanes and helicopters” are not obliged to comply with the specific commercial air transport requirements:

*“(c) introductory flights, parachute dropping, sailplane towing or aerobatic flights performed either by a training organisation having its principal place of business in a Member State and referred to in Article 10a of Regulation (EU) No 1178/2011, or by an organisation created with the aim of promoting aerial sport or leisure aviation, on the condition that the aircraft is operated by the organisation on the basis of ownership or dry lease, that the flight does not*

<sup>9</sup> Commission Regulation of 5 October 2012 laying down technical requirements and administrative procedures related to air operations ([Version in force on the day of the accident](#)).

<sup>10</sup> For operators wishing to carry out circular flights under VFR by day with a light aeroplane, a [guide](#) provided by the DSAC is available to inform them of the conditions that have to be met to request the AOC.

<sup>11</sup> The exemption applies to flights where the pilot is acting as a private individual and not on behalf of a company.

*generate profits distributed outside of the organisation, and that whenever non-members of the organisation are involved, such flights represent only a marginal activity of the organisation.”*

The interministerial decree of 18 August 2016<sup>12</sup> sets out the application rules in France. They are also indicated in the [Guide du dirigeant - vols de découverte en aéroclub](#) and in an information sheet published by the FFA, [Fiche pratique – Vols de découverte](#) (available at the date of the accident)<sup>13</sup>. The main points are:

- introductory flights are local flights carried out in daytime only, for a flight time of no more than 30 min from take-off to landing<sup>14</sup>, at a distance of no more than 40 km<sup>15</sup> from the aerodrome, with the take-off and landing at the same airfield without any stops;
- only civil aviation-approved organisations, and in particular affiliated flying clubs that are up to date with their annual activity report (AERAL declaration) and keep up to date the safety management document specific to this activity, may carry out introductory flights;
- the flying club may not advertise or prospect for a fee. Thus, paid advertising in newspapers and paid radio announcements are tantamount to commercial practices, and are not authorised in the context of the flying club activity. In particular, these flights must not be the subject of any commercial offer in the form of gift boxes;
- this introductory flight activity may not exceed 8% of the organisation's total flight hours for the calendar year;
- the organisations shall draw up and keep up to date documents on their activity and safety risk assessment, which must be made available to the local civil aviation service;
- a minimum experience of 200 flight hours since obtaining the license is required, with a recent experience of 25 flight hours (aeroplane pilots) in the 12 months preceding the flight.

As Club Air Pilot was not a training organisation, nor an organisation set up to promote sport and leisure aviation (see paragraph 2.3.1), it was not eligible to carry out introductory flights.

## 2.6 Authority oversight

General aviation activities, carried out privately by pilots or private companies such as Club Air Pilot, are not subject to a priori or programmed oversight by the DSAC. However, the DSAC is responsible for overseeing training organisations such as the DTO, Club Aéro Formation. In this respect, the DSAC had planned to inspect the DTO in early 2023, but the inspection was postponed to the end of 2023 for workload reasons.

The monitoring of activities, and in particular the fight against illegal passenger transport<sup>16</sup>, is entrusted to the judicial authority.

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<sup>12</sup> Order concerning the items left to the discretion of the competent national authority by Commission Regulation (EU) No 965/2012 of 5 October 2012 laying down technical requirements and administrative procedures related to air operations pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (Version in force on the day of the accident).

<sup>13</sup> A [new version of the guide](#) and a [new information sheet](#) were published in May 2024 by the FFA.

<sup>14</sup> The accident flight lasted 55 min.

<sup>15</sup> According to the data taken from the aeronautical application used by the pilot, the maximum distance from Lognes - Émerainville aerodrome was 48 km.

<sup>16</sup> For more details, see <https://www.ecologie.gouv.fr/transport-public-ou-prive>.



### 3 CONCLUSIONS

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

#### Scenario

On short final, the aeroplane's speed was more than 10 kt higher than the approach speed recommended in the flight manual. During the landing with a shallow flare, the aeroplane bounced five times without the pilot making an input on the wheel. After the last bounce, the pilot partially retracted the flaps with a view to improving braking effectiveness. Concerned about running over the end of the runway, the pilot decided to carry out a bailed landing rather than proceeding with it. This late change in strategy was decided on when the remaining runway length was around 200 m. The air temperature was high. The pilot did not cut off the carburettor heating and took a steep nose-up attitude. The aeroplane stayed on the backside of the power curve and the stall warning was activated. The plane reached a maximum height of around two metres, struck the aerodrome fence and then finished its run under the crash barrier of a very busy road adjacent to the aerodrome.

Furthermore, the investigation found that Club Air Pilot was selling "light instruction flight" services, notably the accident flight, outside any regulatory framework. This operating context exposed the pilot, for a large number of flights, to the risks and constraints associated with the carriage of passengers and providing a commercial service, even though she only had experience as a private pilot. In addition, the information given to the passengers before the flight did not enable them to correctly evaluate the safety level of the flight that they were purchasing.

#### Safety lessons

##### Rejected or bailed landings

In its [Safety Lessons General Aviation](#) section, the BEA identified the topic of staying on the backside of the power curve during take-off in its [2023](#) review, loss of control during initial climb, on approach or during a go-around in its [2022](#) review and rejected landings and go-arounds in its [2020](#) review concerning light aeroplanes.

This accident illustrates once again, the difficulty of managing power increases during the landing. Among the accidents which occurred when landing in a light aeroplane, those resulting in the most serious consequences mainly took place when power was increased with insufficient control of the aircraft.

##### Services for third parties

Air transport regulations, particularly in a commercial context, aim to protect the passengers transported and third parties on the ground. Knowledge and implementation of these regulations contribute to aviation safety.

In its Safety Lessons General Aviation section, the BEA identified the topics of pressure induced by the carrying of passengers and the group effect in its [2023](#) review, and services for third parties in its [2021](#) review concerning light aeroplanes. These reviews illustrate the constraints to which private pilots are exposed when taking charge of passengers they do not know, or who are expecting a service they have paid for.

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

