



Accident to the PIPER - PA-46 - 350P registered F-GUYZ

on 8 February 2019
at Courchevel (Savoie)

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

Time	Around 11:18 ⁽¹⁾
Operator	BigBlank Bluewings
Type of flight	Passenger commercial air transport
Persons on board	Two pilots and three passengers
Consequences and damage	One passenger injured, aeroplane damaged
This is a courtesy translation by the BEA of the Final Report on the Safety Investigation published in July 2021. As accurate as the translation may be, the original text in French is the work of reference.	

Runway overrun during landing, collision with a mound of snow

1 - HISTORY OF THE FLIGHT

Note: the following information is principally based on computer data and statements.

⁽²⁾The safety pilot
accompanies the
captain in order to
assist with certain
tasks (see § 2.5).

The captain, accompanied by a safety pilot⁽²⁾, took off under an IFR flight plan from Toussus-Le-Noble airport (Yvelines) bound for Courchevel mountain airfield (Savoie). The purpose of this flight was to transport three passengers travelling for business.

On passing abeam Geneva, he cancelled his IFR flight plan and continued his descent to Courchevel aerodrome. After the reconnaissance phase, the pilot followed the path published on the VAC chart.

During the landing on runway 22, the plane travelled along the runway without the wheels touching down. Touchdown occurred at about 270 m from the beginning of the runway. The speed of the plane was around 80 kt at this point. Despite hard braking, the pilot did not manage to stop the plane which overran the runway and collided with the mound of snow.

This mountain airfield can be used by planes subject to compliance with specific provisions:

- ❑ The pilots must hold the mountain wheel rating or failing that, have been acknowledged qualified to use the airfield with wheel-equipped aircraft by a mountain flight instructor after a flight test that shall be registered in the flight log.
- ❑ To maintain this aptitude, pilots must have used the airfield in the last six months as a captain, failing that, a new flight test will have to be performed in the same conditions.

2.2 Aircraft information

The Piper PA-46 Mirage registered F-GUYZ is a pressurized six-seat plane equipped with a 350-hp Lycoming TIO-540 piston engine and a Garmin 1000 avionics suite.

The flight manual indicates a final approach speed of around 80 to 85 kts with flaps fully extended and 95 kts with flaps retracted. The flaps have four positions: flaps retracted (0°), 1st detent position (10°), 2nd detent position (20°) and fully extended (36°).

For the accident flight, the weight and balance calculation showed that the aeroplane was overloaded on taking off and at the limit of the maximum allowable weight for landing.

Accessories (seat headrests, passenger welcome packs and umbrellas) with the Bluewings logo were on board the aeroplane for the flight.

2.3 Meteorological information

The meteorological conditions transmitted by the AFIS agent were: wind from 240° of 3 kt, visibility greater than 10 km, QNH 1018, temperature -1 °C.

The runway had been cleared of snow and was slightly damp over a width of around 30 m. A few patches of snow remained on the runway and in the parking area.

2.4 Bluewings web platform

BigBlank is a subsidiary of the Air France-KLM group. According to several news articles, it was created to become a business incubator⁽⁴⁾ for start-ups to create “the future of travel”⁽⁵⁾, whether it be private or professional. On creating a new start-up or web platform, the BigBlank directors validated the project. The BigBlank Chairman and CEO was an Air France pilot.

Bluewings.aero was a website created by BigBlank. The site was described as a platform for private flights, connecting aeroplane owners, pilots and passengers. Courchevel mountain airfield was the first destination proposed on the Bluewings website. At the beginning of the project, different options had been studied, such as flight sharing or the obtaining of an Air Operator Certificate (AOC). After meeting the various actors of the sector (DGAC, EASA, FFA), the designers decided to create a company bringing together aeroplane owners, pilots, and passengers. This permitted the viability of the project to be quickly tested. BigBlank did not hold an AOC, the flights were therefore of a private nature.

⁽⁴⁾ Or start-up studio.

⁽⁵⁾ Sources: <https://www.airfranceklm.com/en/news/air-france-klm-unveils-bigblank-start-studio-create-future-travel>

<https://www.tom.travel/2018/12/04/big-blank-le-startup-studio-dair-france-klm-veut-faire-decoller-4-a-5-startups-par-an/>

<https://business.lesechos.fr/entrepreneurs/communaute/0600199980593-bigblank-le-nouveau-start-up-studio-dedie-au-voyage-325332.php>

According to the Bluewings designers, BigBlank envisaged the following contract arrangements:

- ❑ A contract was to be signed between the pilot and the passengers. An invoice in the names of the passengers was then drawn up by the pilot for the service of flying the aircraft. The owner of the plane directly invoiced the passengers (second invoice) for the hire of the aircraft. No tickets were issued.
- ❑ The plane owner's insurance was to cover damages in the event of an accident. The Bluewings web platform did not provide additional insurance for the passengers, pilot or owner of the plane when reservations were made via the website. The company did not have an operations manual. The designers of the platform ensured that the planes were managed by a Continuing Airworthiness Management Organization (approval as per Part-CAMO).

The pilots had been recruited on specialized sites via adverts in which it was specified that the pilots had to hold at least a commercial pilot licence (CPL). The pilot was interviewed to check the level of qualifications and the licences along with the various type ratings and site authorizations. There was no theoretical or practical selection during the recruitment. The Bluewings designers wanted the flights to be performed by two pilots. There was no formalized division of tasks for the flights. In the event of a flight with two pilots, the latter were to agree with each other as to how the remuneration was to be shared.

The PA-46 registered F-GUYZ was initially leased by BigBlank for one month with a limitation of 15 flight hours.

The passenger who organized the flight had concerns in light of an accident to a PA-46⁽⁶⁾ which had occurred shortly before and been given a lot of media coverage. One of the designers specified that for the flight, the two qualified pilots knew the Courchevel mountain airfield procedures well. The passenger had been reassured by this.

Tickets were not issued for the passengers for the accident flight. Only one invoice was drawn up for the hire of the plane and the pilot services. It was in the name of BigBlank and carried the Bluewings logo. The payment was made by bank transfer. The bank account details indicated the name "Big Blank C/O Air France/KLM". This led the passenger to think that he was carrying out this flight under the auspices of Air France/KLM.

The Bluewings website page, at the time of the accident, described the site as a platform to put a passenger in contact with an aeroplane owner and a pilot. It was specified that Bluewings.aero was not an airline. It was indicated at the bottom of the web page, in small print, that Bluewings was a web platform allowing its users to organize their own-account flights by putting them in contact with an aircraft owner and a professional pilot.

⁽⁶⁾ This flight was not organized by Bluewings. The occurrence in question was the [accident to a PA-46 on 21 January 2019 near the isle of Guernesey, one of the victims being a professional footballer.](#)



Figure 3: Excerpt from bottom of homepage of Bluewings.aero website.

The web page indicated that the Bluewings' partner would be waiting at the foot of the plane, specifying that the chauffeur from the passenger's hotel would be waiting, perfectly synchronized with the plane's landing. While staying in the scope of private transport, this platform proposed services which could resemble complete commercial transport services, even including the airport-hotel transfer.

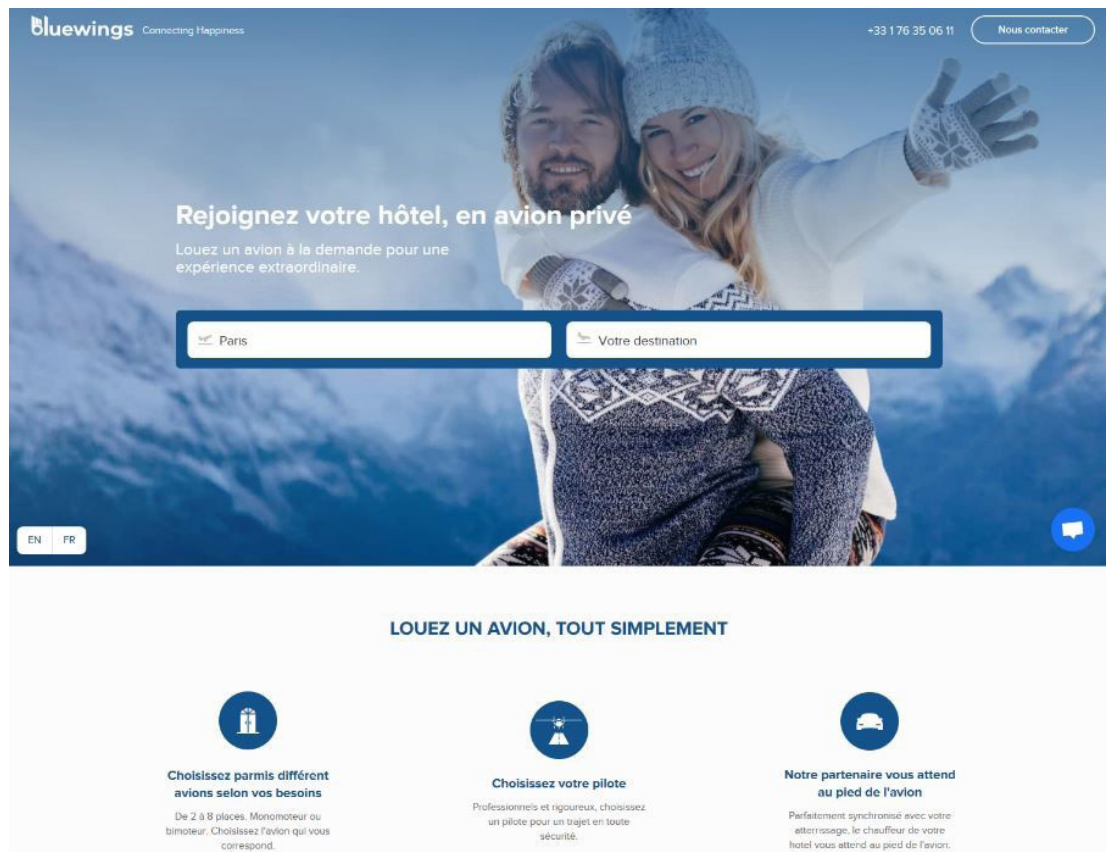


Figure 4: Excerpt from top of homepage of Bluewings.aero website.

2.5 Pilot experience

2.5.1 Captain's experience and information

⁽⁷⁾ The pilot had created a company in his name indicating that he carried out passenger air transport.

The 23-year-old captain indicated that he was a self-employed pilot⁽⁷⁾ and managed the planning of his flights himself. He held a commercial pilot licence with the instrument rating (IR) issued in August 2016. The day of the accident, he had logged approximately 398 flight hours of which 289 hours as captain, including 10 hours and 30 minutes in the last three months. The pilot had acquired this experience by principally carrying out glider towing flights or parachute drop flights.

(8) The instructor who gave the site authorization training specified that the landing configuration used during the site authorization training was with the flaps extended to the second of the four possible detents (flaps retracted 0°, 1st detent 14°, 2nd detent 35° and 3rd detent 55°).

The training to obtain the authorization to use the Courchevel mountain airfield site was financed by BigBlank, in charge of the Bluewings web platform (see § 2.4). The training took place on 11 and 12 December 2018 and was broken down into two parts, a half-day of theory followed by a day of practical training. The training had complied with the programme drawn up by the instructor based on the mountain rating training programme.

The examination of the captain's flight log showed that the practical training had been carried out over two flights in a Jodel D140:

- ☐ A flight of 1 h 20 min including 6 landings at Courchevel mountain airfield.
- ☐ A flight of 55 min from Albertville including 4 landings divided between Albertville aerodrome and Courchevel mountain airfield.

The pilot specified that the specific points covered during the training were the following:

- ☐ Always fly over the mountain airfield, check the condition of the runway, and the windsock.
- ☐ Prepare the plane on the outbound leg.
- ☐ Reduce speed before starting descent.
- ☐ Aiming point: bank at beginning of runway.
- ☐ Flaps fully extended on final⁽⁸⁾.

His first flight on the PA-46 as captain was made the day before the accident. On that day, he carried out two aerodrome traffic patterns at Orléans Saint-Denis-de-l'Hôtel with an instructor, for a total flight time of 25 minutes. BigBlank had provided him with the PA-46 flight manual beforehand (see § 2.4). The pilot indicated that the approach speed is 85 kt for the PA-46. During his skill-test flight on the PA-46 the day before the accident, the instructor had advised him to increase his speed by 5 to 7 kt for the approach to Courchevel. The latter did not hold the mountain instructor rating. The pilot had never landed on a mountain airfield with a plane other than the Jodel D140.

The pilot described Bluewings as being a web platform connecting aeroplane owners, pilots and passengers. The day of the accident only one pilot had been programmed. The pilot asked the designers of the Bluewings web platform for the assistance of a second pilot to ensure flight safety, he was referred to as the safety pilot by them.

The pilot indicated that he prepared the flight the day before.

The day of the accident, he joined the safety pilot at Toussus-Le-Noble aerodrome at around 08:10. He had been told that the safety pilot held a commercial pilot licence (CPL) with an instrument rating (IR). He had no particular role in piloting the plane. He was to manage the radio exchanges during the flight at the captain's request.

The captain carried out the pre-flight inspection of the aeroplane and added fuel. He called the Courchevel AFIS agent to obtain the latest weather information. The latter specified that the runway had been cleared of snow and that the cleared strip was suitable for the PA-46.

The captain boarded the plane last, after the passengers, and carried out a safety briefing. This covered the de-pressurization, use of the oxygen masks and the protocol for evacuating the plane in an emergency.

On arriving close to Courchevel, the pilot contacted the AFIS agent and flew over the installations. He confirmed that the wind was calm and the runway damp. He saw a few patches of snow. The AFIS agent informed him that the wind was about 3 kt.

The pilot considered that the final was stabilized and the speed was around 92 kt. The flaps were in the second detent position.

He indicated that during the flare, he maintained a small amount of thrust. On touchdown, he completely reduced power and pressed hard on the brakes. He added that he had felt the wheels locking which led him to release the brakes. He then braked again but was unable to avoid the mound of snow running along the end of the runway.

2.5.2 Safety pilot's statement

The 22-year-old safety pilot held a PPL issued in 2013, and had obtained a CPL after following a training course in the United Kingdom in 2018. At the time of the accident, he was waiting for the documents from the British authorities to officialize his situation.

He had logged around 260 flight hours, of which 150 hours as captain. He did not hold the mountain rating nor did he have an authorization to use Courchevel mountain airfield. He was not qualified for the PA-46.

One of his friends, who was also one of the Bluewings designers, called him to propose a flight on a PA-46, specifying that he would be safety pilot. He explained to the caller that he did not hold the site authorization for Courchevel mountain airfield nor the mountain rating nor the PA-46 rating. He specified that he had accepted for the pleasure of flying and that he had not been paid. One of the designers told him that it was just to reassure the passengers and to benefit from the flight.

The captain contacted him before the day of the accident to explain how the flight was going to be conducted.

The safety pilot specified that he did not take part in the preparation of the flight. He boarded the plane at the same time as the passengers. He carried out the take-off checklists with the captain and the radio communications at the latter's request. He specified that after Geneva, the captain managed the radio communications on his own. During the approach, he had read out loud the before landing checklist for the captain.

The safety pilot remembered reading and announcing 93 kts during the final. The captain reduced power and flared but the aeroplane "refused the ground" and climbed again without touching down.

After the impact, he turned around and saw that all the passengers had their seatbelts correctly fastened and that one passenger had trouble breathing.

He indicated that he had understood after the accident that the passengers had taken him for one of the pilots. He was wearing the same outfit as the pilot. He informed them that he was not part of the flight crew. He had not received documents relating to the flight or a ticket.

2.6 Statements

2.6.1 Passenger statements

The morning of the accident flight, the passenger and his two colleagues travelled to Toussus-le-Noble aerodrome. On their arrival, they were surprised by how young the pilots were and inquired about their respective experience. The captain told them that he had often been to Courchevel. The second pilot (safety pilot) confirmed to them that he had also been there.

During the start of the descent, the captain announced that they were going to land. One of the passengers indicated that one of the pilots asked them to check that their seatbelts were correctly fastened.

On arriving over the runway, the plane did not immediately land. The passengers saw through the window that they had passed the control tower, one of them said it was strange that they had not touched down. During the landing and before impact, the crew had not given any instructions. After the impact, one of the passengers opened the door to evacuate.

The rescue services asked each person to identify themselves and indicate their role on the plane. The safety pilot told them that he was not a pilot but a passenger. He then specified to the three other passengers that although the captain had the authorization to land at Courchevel, he himself had not returned since his training.

The passengers indicated that before the flight they had been reassured to know that Bluewings was linked to Air France. The same clothes (white shirt and navy pullover) worn by the pilots had reinforced their belief that they were travelling with an airline.

2.6.2 Bluewings platform designer statements

According to the Bluewings designers, the platform was an intermediary between pilots and passengers. For the accident flight, one of the creators of this platform had been contacted by one of the passengers in order that he organize a flight to Courchevel. The Bluewings designers had informed the passenger about how the company functioned⁽⁹⁾. They specified that the hire of the plane and the pilot's services were independent of each other. However, only one invoice was drawn up.

One of the Bluewings designers had been in contact with the captain the day before the flight. He had specified that if he did not feel comfortable about landing at Courchevel, he was not to take any risks and divert to Chambéry. The captain had requested an additional pilot to help him and make the passenger announcements. The latter, named the safety pilot, was not paid for the flight. The platform designers indicated that the company had financed the captain's training to obtain the site authorization with the aim of starting the project and proposing flights to Courchevel.

Up until the accident, only two planes had been used by the Bluewings web platform: a Beechcraft Bonanza and the Piper PA-46. The accident flight was the first flight in the PA-46 with passengers.

2.7 Read-out of flight data and analysis of videos

The aeroplane was equipped with a Garmin G1000 avionics suite. The data downloaded from the SD card of the computer was used to plot the curves shown in [Figure 5](#).

Videos were taken by the passengers during the flight. The analysis of these videos showed that the flaps were extended to 20° during the final approach and landing.

⁽⁹⁾ See [§ 2.4](#)
"Bluewings web
platform".

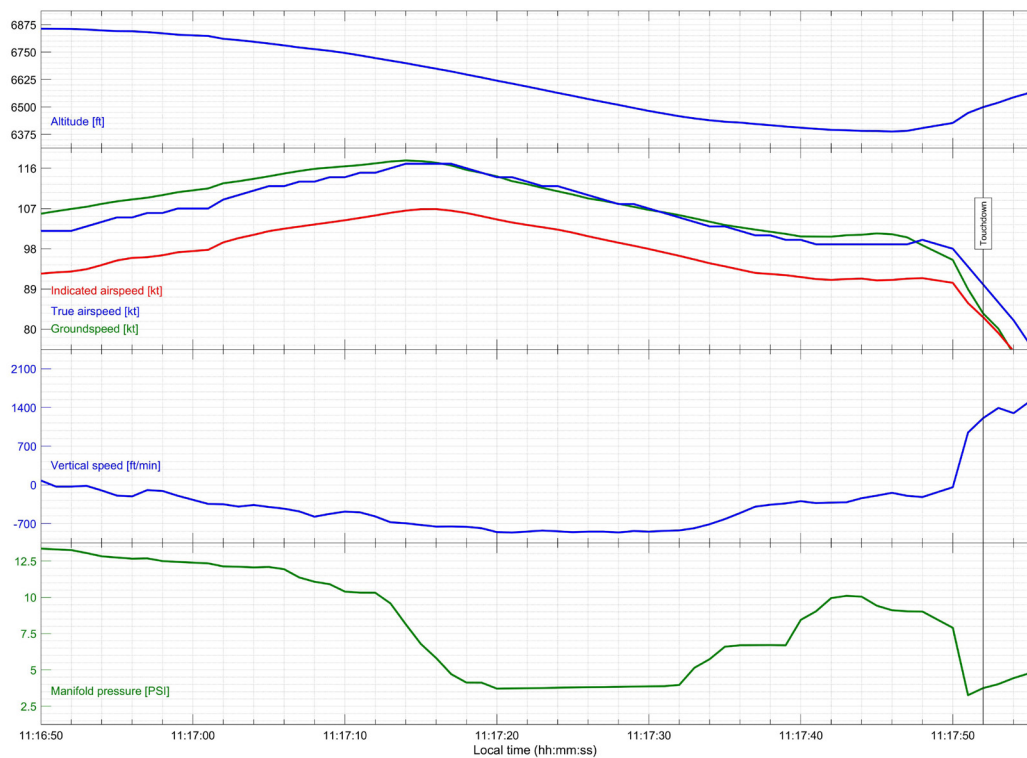


Figure 5: Parameters during final based on Garmin G1000 avionics suite

In final, at the beginning of the descent, the indicated airspeed was 85 kt which then increased up to 101 kt before re-descending to 91 kt. At the same time, the rate of descent globally increased with substantial variations until stabilizing at around -800 ft/min. It is interesting to note that during the last 20 s of the final, power was at idle. All these elements show that the approach was not stabilized.

When the aeroplane approached the upward sloping part of the runway, the pilot progressively increased power. The speed was stabilized at around 90 kt for approximately 10 s.

Two seconds after the reduction in power, the wheels touched down roughly half way along the runway. The speed was 79 kt.

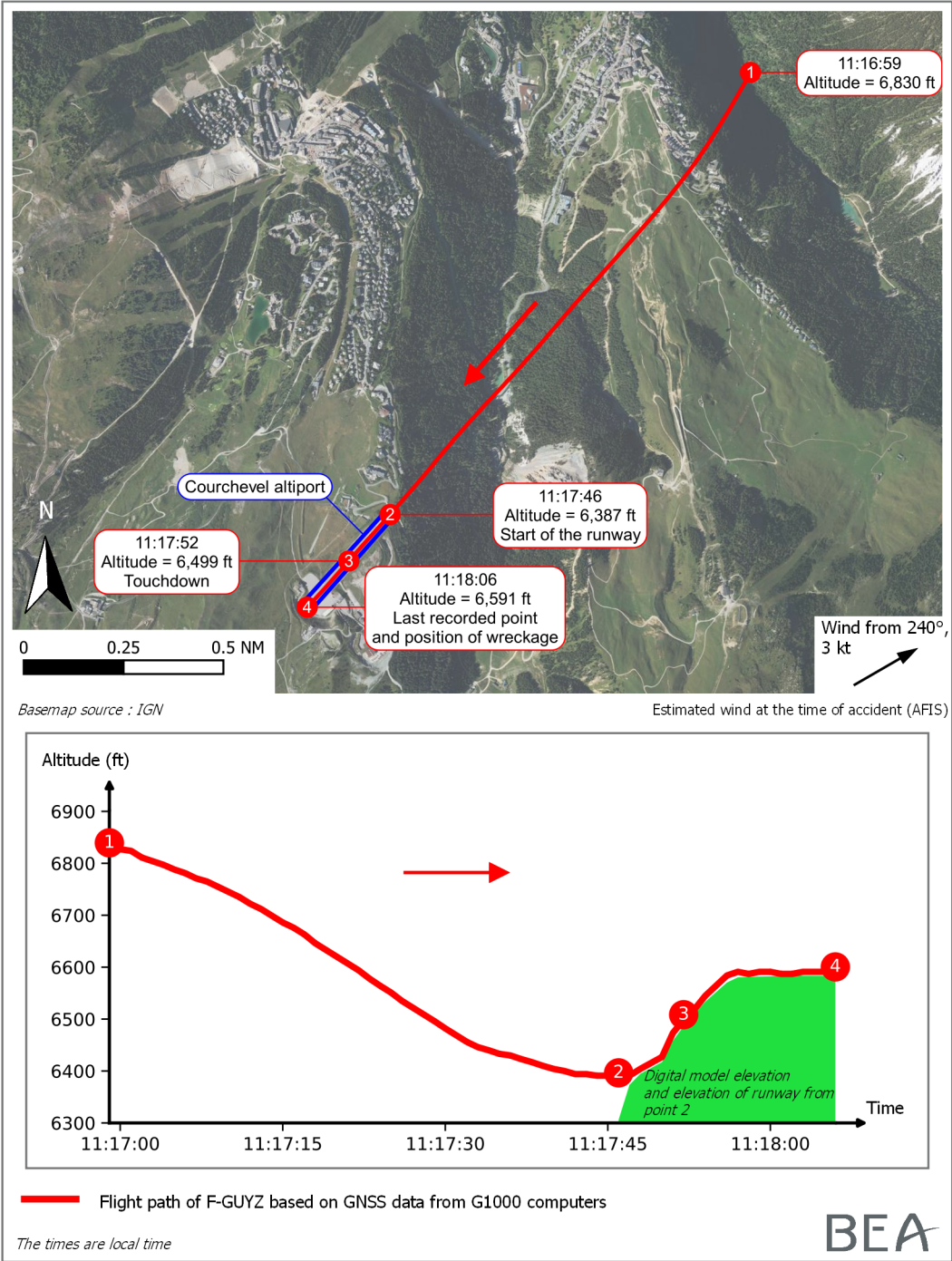


Figure 6: F-GUYZ final flight path at Courchevel

2.8 Definition and characteristics of commercial air transport

Commercial air transport is an aircraft operation to transport, from a departure point to an arrival point, passengers, cargo or mail for remuneration.

In commercial air transport, the operator must comply with the requirements in numerous areas such as the structure and supervision of the operations, the safety management system, the operations manual, management of the continuing airworthiness of aircraft and monitoring of crews. For example, an airline is responsible not just for crew training but also for recurrent crew training, flight and duty time limitations and rest requirements. The operator in commercial air transport is also responsible for transporting passengers from a departure point to an arrival point. The company must issue a ticket for each passenger.

2.9 Nature of accident flight

Illegal public transport is defined as air transport carried out in return for payment, by a service provider which does not hold the associated authorizations, in particular the Air Operator Certificate (AOC) and an operating permit. This is the case when a person purchases a transport service (aircraft and pilot) and this gives rise to a single invoice from a company not holding an operating permit or AOC.

For the accident flight, the hire of the plane and the pilot services were purchased from BigBlank via the Bluewings site, by one of the passengers. This company also chose the pilots, financed the captain's training both for the Courchevel site and the PA-46 and leased the plane. A single invoice, with the Bluewings logo, including the hire of the plane and the provision of the pilots was issued by BigBlank. Numerous elements could suggest that this flight was carried out under the auspices of Air France. However, this flight did not meet all the regulatory requirements of a commercial flight, as BigBlank held neither an AOC nor an operating permit.

From a technical point of view, the requirements with respect to the structure and supervision of the operations, the safety management system, the operations manual, and crew training, experience and monitoring did not meet the requirements applying to commercial air transport.

In this case, the company put passengers into contact with a pilot who had little experience of this type of flight, and provided the aeroplane.

For a pilot holding a CPL with little experience, the prospect of carrying out this type of flight was attractive. However, he did not benefit from the support of a structured commercial air transport company (air operations, training, continuing airworthiness, etc.). In addition, the intention of carrying out a flight for passengers led to operational pressure and non-negligible stress. These constraints can impair the captain's judgement and his risk management.

2.10 Oversight of the activity

The French civil aviation safety directorate (DSAC) is responsible for ensuring that the legislative and regulatory provisions are complied with. It intervenes in the fields of certification and air operations. The oversight activity consists in issuing the technical authorizations permitting French companies to operate their aircraft. The DSAC checks for compliance with the aircraft operating rules. It also carries out random aircraft checks at French aerodromes.

Companies which propose connecting passengers and pilots are not obliged to contact the civil aviation authorities before proposing the services. Only random checks permit the verification of the type of operations being carried out. In the scope of the investigation, the BEA was able to identify, by carrying out straightforward searches on flight-sharing platform type websites, proposals for flight operations which might be on the fringe with respect to commercial air transport regulations. The information obtained from this type of search could be used to carry out targeted checks.

As part of its missions, the air transport police can check aircraft and detect infringements of the regulations. A coordinated action between the air transport police and the appropriate departments of the DGAC could detect passenger transport flights which do not comply with the passenger commercial air transport requirements.

3 - CONCLUSIONS

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.

Scenario

The flight was organized by a company which had a recent web platform connecting aeroplane owners, pilots and passengers. The purpose of the flight was to transport three passengers, travelling for business, departing from Toussus-Le-Noble aerodrome.

During the final to Courchevel mountain airfield, the pilot extended the flaps to the second of the three detents. The plane's parameters were not stabilized. The speed on short final was consistent with the speed suggested by the instructor during the pilot's skill-test flight carried out the day before. After flaring, when the plane was parallel with the runway, the pilot throttled back late. This power reduction took place halfway along the runway, at around 270 m after the runway threshold when the speed was still 80 kt.

The remaining distance was insufficient to safely stop the aeroplane. Despite the pilot's inputs on the brakes to try to stop the aircraft, it overran the runway and collided with a wall of snow.

Contributing factors

The accumulation of a small amount of recent or total experience in various fields may have contributed to the long landing, in particular:

- ☐ The captain's absence of experience at Courchevel mountain airfield since obtaining the access authorization.
- ☐ The absence of experience of landing at a mountain airfield with a plane whose characteristics were different to those of the D140.
- ☐ The captain's small amount of experience on the PA-46.

The following factors may have contributed to the pilot and service provider company making an erroneous assessment of the risks associated with this flight:

- ☐ The absence of operational support for the pilot.
- ☐ The desire to show that they were able to carry out a first commercial service with passengers.

The following factor may have contributed to a passenger transport flight being carried out which did not comply with the commercial air transport requirements:

- ☐ The absence of oversight by the civil aviation authorities for this type of practice.

Safety lessons

Connecting aeroplane owners, pilots and passengers

This occurrence illustrates that for passengers, marketed flights where aeroplane owners, pilots and passengers are put into contact with each other, might look like a commercial air transport flight. However, they may be carried out in a private capacity and not offer the same safety and insurance guarantees as commercial air transport. The companies or web platforms may not be aware of the risks relating to this type of operation. Pilots with little experience may accept even more readily to perform these flights as it would allow them to increase their number of flight hours and to start working in the passenger transport sector. However, this type of flight leads to substantial operational pressure for the pilot.

Information for passengers

Passengers must ensure, for all passenger commercial air transport flights, that a ticket is issued for the flight to be carried out. Before taking any actions, passengers can obtain information from the DGAC via a page on the *Ministère de la Transition écologique* website. This page gives, in particular, the list of all the French operators which hold an Air Operator Certificate. This source of information does not seem to be widely known and is little used by passengers.

Shortly after the accident, the Blue Wings site was closed and BigBlank no longer proposes this type of service.

4 - RECOMMENDATIONS

Note: in accordance with the provisions of Article 17.3 of Regulation No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation, a safety recommendation in no case creates a presumption of fault or liability in an accident, serious incident or incident. The recipients of safety recommendations report to the issuing authority in charge of safety investigations, on the measures taken or being studied for their implementation, as provided for in Article 18 of the aforementioned regulation.

4.1 Access authorization to a mountain airfield

Although he had obtained the access authorization for Courchevel mountain airfield on the Jodel D140, an aeroplane in the same class as the PA-46, the pilot had no experience of landing at Courchevel as pilot flying on the latter. The characteristics of the PA-46 (weight, speed, systems) are vastly different from those of the D140. Between 2000 and 2018, at least five accidents on a mountain airfield were recorded by the BEA, involving pilots who carried out their training on a plane whose characteristics were different from those of the aircraft operated during the accident flight.

The characteristics of aeroplanes in the same class can be significantly different: take-off and landing performance, configuration, procedures and management of certain failures such as an engine failure.

Furthermore, a pilot holding an access authorization obtained on a single engine piston class aeroplane can land on a mountain airfield with a plane for which he is rated, of a different class or type, without additional training.

Consequently, the BEA recommends that:

- **whereas a site authorization obtained on a specific class of aeroplane can be extended to other classes of aeroplane;**
- **whereas the sometimes significant differences in characteristics between planes of the same class can have an impact in a confined space, for example when landing at a mountain airfield;**

the French civil aviation authority (DGAC) impose that supplementary training or experience criteria are required when using an aeroplane whose class, type or performance is significantly different from the class or type of aeroplane used for the site authorization training.

[Recommendation FRAN 2021-005]

4.2 Oversight of the activity

The companies or web platforms which put aircraft owners, pilots and passengers into contact with each other are not obliged to make a declaration or to contact the DGAC. The services proposed can appear to be similar to those of commercial air transport for an uninformed passenger. The operating constraints associated with the flights are often substantial and can exert pressure which is difficult for a pilot to manage without operational support. They may also lead to the pilots in question accepting and undertaking flights where they do not sufficiently control the risks.

The safety requirements associated with these activities are not at the same level as those for commercial air transport, in particular with respect to the assessment and training of pilots.

The French civil aviation safety directorate (DSAC) and the air transport police (GTA) carry out independent aircraft checks and may detect infringements of the regulations. The actions currently carried out do not actively search for and identify air operations proposed or organized by web platforms which resemble commercial air operations without meeting the regulatory requirements in force. During the investigation, the BEA was able to identify flight operation proposals on websites connecting passengers and pilots, which might be on the fringe of air transport regulations. This information could be used to organize targeted checks. A coordinated action between the GTA and DSAC would permit the implementation of such checks.

Consequently, the BEA recommends that:

- **whereas the growing development of platforms connecting passengers and pilots, with certain flights resembling passenger commercial air transport without necessarily providing the expected safety level;**
- **whereas certain platforms permit the development of the light aviation activity while complying with the rules in force and thus participate in the development of an aeronautical culture in France;**

- whereas the GTA is placed under the Civil Aviation Director General;

the DGAC formalize a coordinated action plan between its relevant services and the GTA to actively search for and identify air operations proposed or organized by web platforms which resemble commercial air operations without meeting the regulatory requirements in force, then clearly rule on the legality of these operations and bring to an end the operations which do not guarantee the required safety level.

[Recommendation FRAN 2021-006]