



## Accident to the ROBIN - DR400 - 140B registered F-GHYQ

on 21 March 2021

near the Fort of Montgilbert (Savoie)

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

<b>Time</b>	Around 10:15 <sup>(1)</sup>
<b>Operator</b>	Aéroclub d'Albertville
<b>Type of flight</b>	Local
<b>Persons on board</b>	Pilot and three passengers
<b>Consequences and damage</b>	Pilot and passengers injured, aeroplane destroyed
This is a courtesy translation by the BEA of the Final Report on the Safety Investigation published in October 2021. As accurate as the translation may be, the original text in French is the work of reference.	

## Collision with the top of trees when flying over a pass

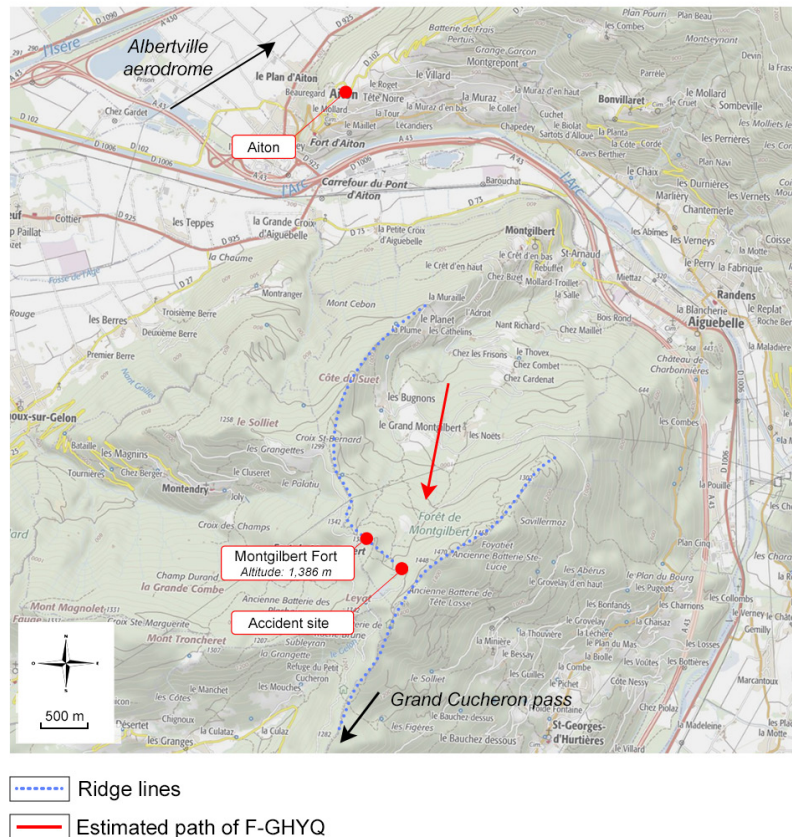
### 1 - HISTORY OF THE FLIGHT

*Note: the following information is principally based on the pilot's statement.*

The pilot, accompanied by three passengers, took off from runway 23 at Albertville aerodrome (Savoie). In climb, the pilot flew overhead the town of Aiton and Montgilbert forest (see [Figure 1](#)). Whilst continuing the climb facing the ridge line, the pilot identified a pass to the south east of Montgilbert Fort to join the Belledonne massif. He realised too late that he was too low to clear the pass. Estimating that he could not make a U-turn, he attempted to gain altitude with a variation in nose-up attitude. The speed decreased and the stall warning sounded. The pilot stated that he was initiating a turn with a slight left bank angle and the stall warning continued to sound. He tried to increase the speed by reducing the aeroplane's attitude. The aeroplane hit the pine trees and ended its course in the snow.

## 2 - ADDITIONAL INFORMATION

### 2.1 Examination of site and wreckage



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Figure 1: General map of the accident site

The accident site was located 7 NM to the south of Albertville aerodrome at an altitude of 1,340 m. To the east, the ridge line of the Hurtières range peaks at over 1,400 m. To the west, a second ridge peaks at 1,386 m and Montgilbert Fort sits atop its summit. The two ridge lines start off parallel to each other then join to form a cirque. The pass on which the accident occurred is located at the junction of the two ridge lines.

The area is densely wooded with pine trees towering more than 20 metres high.

The wreckage was resting on its left side in a wooded and snow-covered area on the western slope of the ridge line of the Hurtières range. Signs of collision with the pine trees were observed around 60 m before the wreckage. The first elements torn off were the right aileron and the left wing several metres further on. The centreline of the path formed by the elements on the ground and the impact marks in the trees was oriented south-east.

Pine branches were broken directly above the wreckage and a number of branches were sagging close by, indicating that the aeroplane had fallen practically vertically through the vegetation at the end of its path.

The propeller spinner was broken. The two blades were undamaged. The engine shaft could rotate freely.

The flight control linkages were continuous prior to impact.

The examination of the wreckage revealed no anomaly that may have contributed to the accident.

## 2.2 Pilot experience

The 56-year-old pilot held a Light Aircraft Pilot Licence - Aeroplanes (LAPL(A)) and had logged around 340 flight hours, 300 hours of which as pilot-in-command and two hours and 15 minutes of which in the last three months.

The read-out of the information written in the logbook showed that:

- ☐ the pilot had started his training in 1993 at the Aéroclub de Chambéry Challes-les-Eaux;
- ☐ since 2015, he had logged all of his flight hours on the DR400 registered F-GHYQ and departing from Albertville aerodrome;
- ☐ he was generally accompanied by two or three passengers;
- ☐ over the last five years, he had logged around 20 flight hours per year.

## 2.3 Meteorological information

The SIGWX chart and the WINTEN chart on the day indicated the following meteorological conditions: a slight south-easterly wind, a north to north-easterly wind of 10 to 15 kt at FL050 (i.e. 1,500 m), CAVOK, and a temperature of around 0°C at FL050.

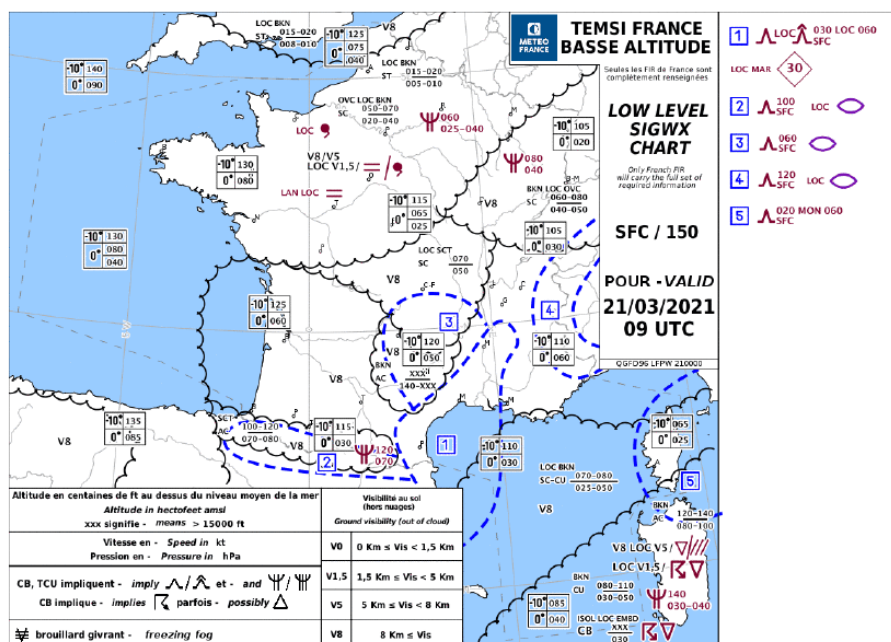


Figure 2: SIGWX chart at 09:00 UTC

## 2.4 Statements

### 2.4.1 Pilot's statement

The pilot stated that, initially, the flight had been planned with two passengers in the Mont Blanc sector. On the morning of the flight, a third passenger (a friend of the other two passengers) was added to the passenger list. The pilot explained that in light of the turbulent conditions forecast on the SIGWX chart in the Mont Blanc sector and with this additional third passenger, he had decided to change the destination and to not add fuel to remain within the permitted weight and balance limits. The flight, lasting around one hour, was to take place in the sectors of the Belledonne and Chartreuse massifs. He estimated that he had approximately 70 litres of fuel.

The pilot stated that after the take-off from runway 23, in climb with a rate of approximately 500 ft/min, he had headed towards Aiton then towards the Grand Cucheron pass. Still in climb, he had identified a crossing point (pass) between Montgilbert Fort (to his right) and the ridge line of the Hurtières range (to his left). He stated that the indicated airspeed had been around 70/75 kt and that he had headed towards this crossing point. He had realised too late that he was too low and that he could neither turn back nor increase the rate of climb without risking stalling. He had tried to turn slightly to the left to position the aeroplane parallel to the ridge line<sup>(2)</sup>, the stall warning had continued to sound. He had reduced the aircraft's attitude to gain speed just before colliding with the pine trees.

<sup>(2)</sup> This turn resulted in the pilot finding himself facing the western slope of the second ridge line.

### 2.4.2 Other statements

An instructor from the flying club stated that considering the mountainous environment around Albertville aerodrome, pilot training includes training in mountain flying, and more specifically in the practice of clearing passes or ridge lines.

## 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

After taking off from Albertville aerodrome, the pilot started the climb towards the Belledonne massif. He flew over the town of Aiton then entered a cirque heading towards a pass in the vicinity of Montgilbert Fort. As he was approaching the pass, he realised too late, whilst still in climb, that the aeroplane's altitude would not be sufficient to clear it. Estimating that he could not turn back due to the terrain, the pilot attempted to gain altitude by increasing the aeroplane's attitude. This resulted in a reduction in speed towards the stall speed. He next initiated a turn to the left to fly parallel to the ridge line, thus reducing the stall margin once again. He then found himself facing the western slope of the second ridge line. The aeroplane collided with the pine trees and ended its course in the snow.

### Contributing factors

The following factors may have contributed to the approach to a pass with an insufficient altitude:

- ☐ insufficient knowledge of mountain flying practices;
- ☐ the pilot's insufficient consideration of the aeroplane's performance when choosing the path.