



Accident to the Robin DR400-160
registered **F-HOLE**
on Wednesday 9 July 2025 at Bessan

Time	13:00 ¹
Operator	Aéroclub de Béziers
Type of flight	Local, aerodrome circuit
Persons on board	Pilot
Consequences and damage	Aeroplane destroyed, pilot injured
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.	

Reduction in engine power, forced landing

1 HISTORY OF THE FLIGHT

Note: the following information is principally based on statements, radiocommunication recordings, radar data and data from the fleet management application, Click & Take Off.

The pilot took off at 12:30 from runway 27 of Béziers - Vias aerodrome to carry out a few runway circuits. He carried out four aerodrome circuits and four touch-and-go landings. During the fifth circuit, the controller informed him of the arrival of a commercial aeroplane and asked him to extend the downwind leg. The pilot continued level flight to an extended base leg and then indicated to the controller, by transmitting a distress message, that he had an engine problem.

On final, aware that he would not be able to reach the runway, he identified a field to the north of his position and tried to carry out a forced landing. He flew along the side of it before crashing into a vineyard field situated a few metres to the right-hand side of the chosen field.

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

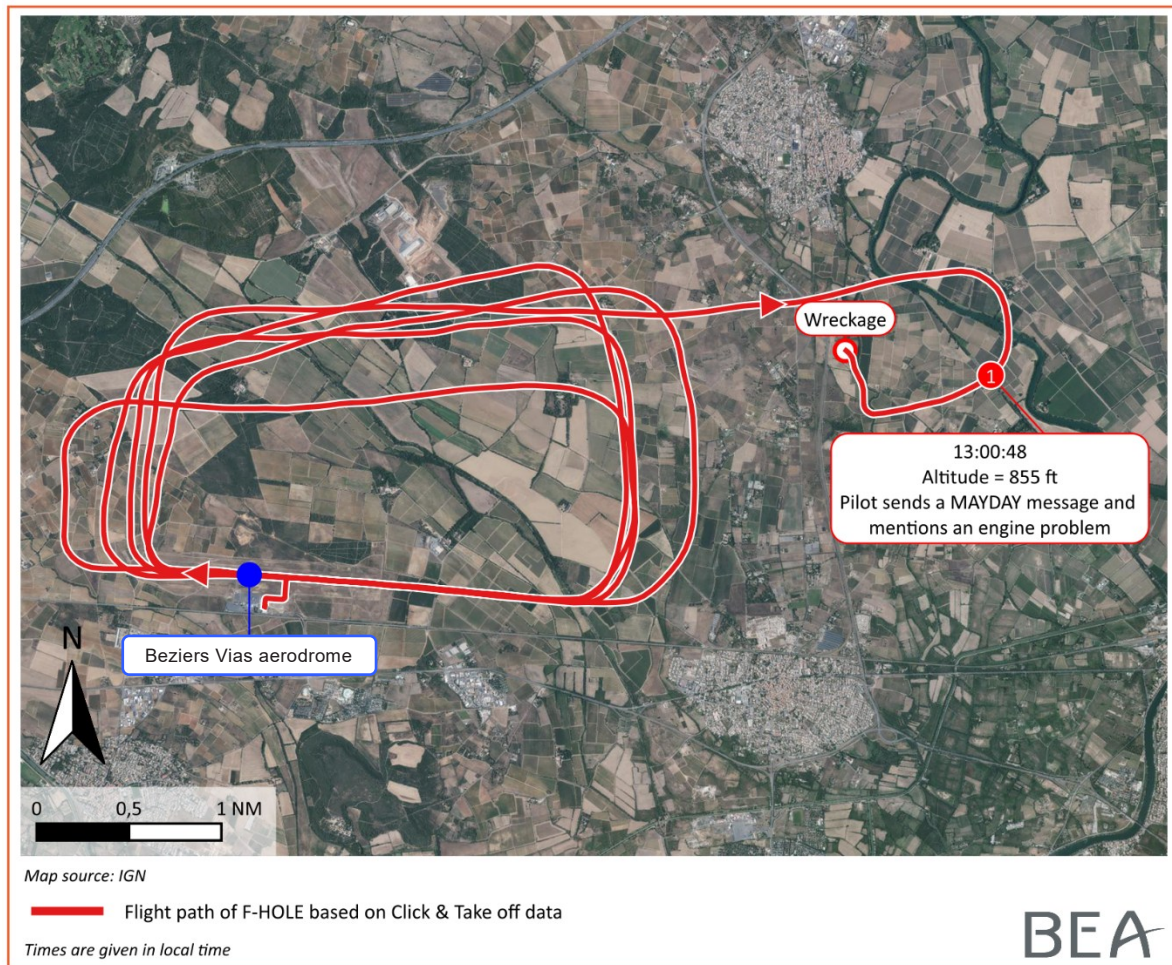


Figure 1: flight path of F- HOLE of occurrence

2 ADDITIONAL INFORMATION

2.1 Aircraft information

F-HOLE was a Robin DR400-160 equipped with a Lycoming O-320 engine and a Sensenich two-blade, fixed-pitch, metal propeller.

The aeroplane is equipped with three fuel tanks:

- a 110 l main fuel tank situated at the rear of the cabin;
- a 40 l fuel tank situated at the root of the left wing;
- a 40 l fuel tank situated at the root of the right wing.

The total capacity of the fuel tanks is 190 l, including 1 litre of unusable fuel.

The fuel system includes a selector, situated in the cabin, with four possible stable positions: CLOSED, RIGHT, LEFT or MAIN. This selector allows the pilot to choose the fuel tank which will supply the engine and to close the fuel system. The start-up button is situated below the CLOSED position. To access it, the selector must be outside the CLOSED position. When the selector is positioned between two positions, the fuel flow section is more or less reduced depending on the position.

2.2 Procedure information

The “In-flight engine failure” checklist asks the pilot to check the position of the fuel selector, switch on the electric pump, select full rich, set the power lever to 1/4 and check that the magneto switches are set to L+R (both). It specifies that if the propeller is rotating, the engine should start again. It is not necessary to use the starter when the propeller is turning.

If the engine does not start again, the procedure requires the pilot to prepare for an off-field forced landing. The optimal glide speed (maximum lift-to-drag ratio) in the flap retracted configuration is then 150 km/h.

2.3 Site and wreckage information

The accident site was situated at the edge of a vineyard field, close to a field of stubble, around 3 NM north-east from the end of runway 27.

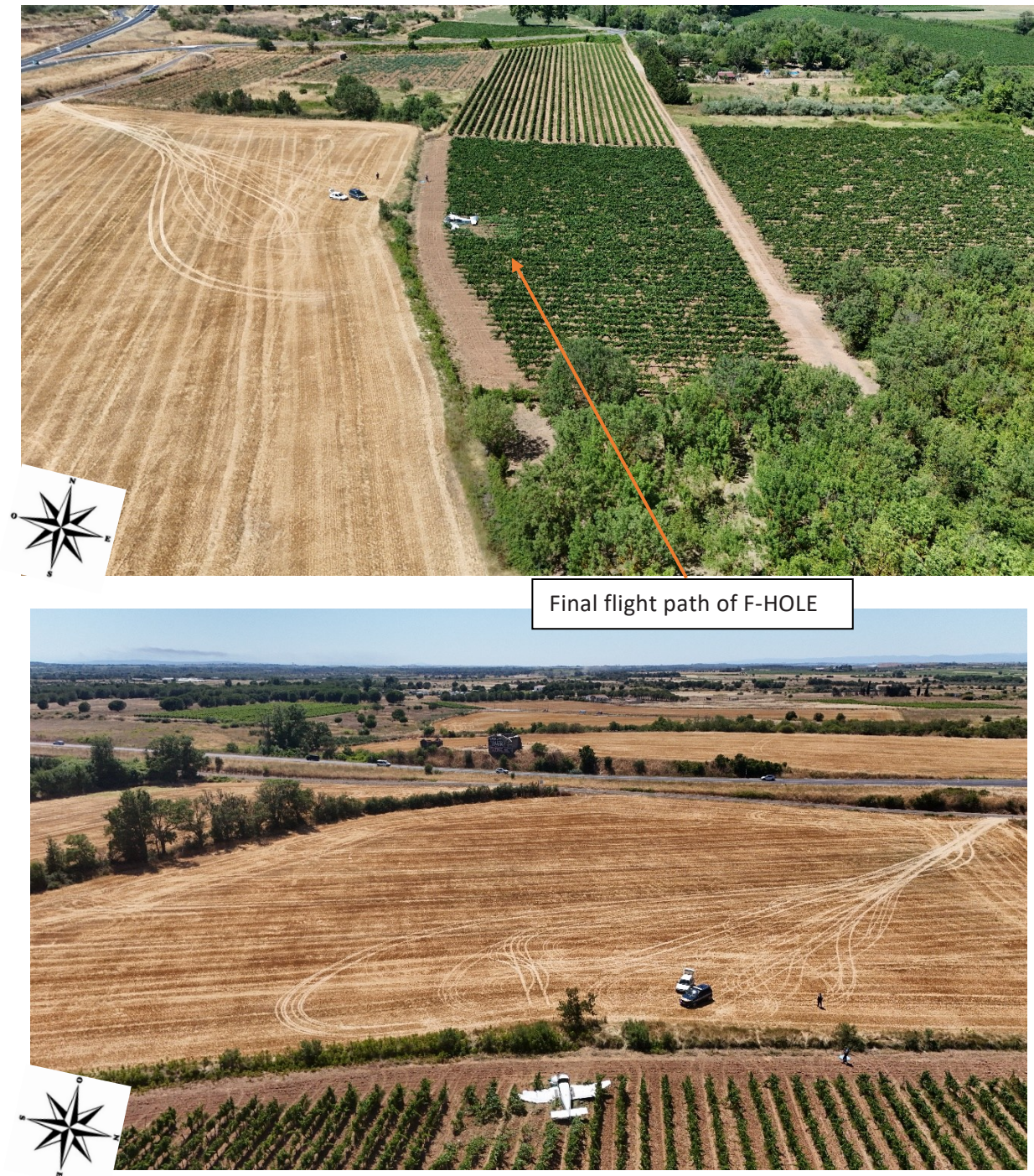


Figure 2: site and wreckage of F- HOLE (source: BEA)

The fuselage had ruptured in line with the firewall.

The deformations found on the two propeller blades bore witness to the absence of engine torque when the aeroplane collided with the ground.

The left-hand wing had ruptured in line with the landing gear. The right-hand wing was in position, but its leading edge was largely destroyed. The right-hand landing gear was folded towards the rear. At the front, the floor was destroyed and deformed.

The flaps were extended to flaps 1 (take-off position).

In the cabin, the controls were in the following positions:

Carburettor heat	Pushed in against the instrument panel (not activated)
Throttle control	Pulled corresponding to idle position
Mixture control	Close to “Full rich” position
Fuel selector	CLOSED position <i>The system associated with the selector was deformed making it impossible to change the selector’s position after the collision with the ground (see paragraph 2.4.2).</i>



Figure 3: fuel selector in CLOSED position (source: BEA)

The pilot indicated that the witness who came to help him had seen leaking fuel.

2.4 Examination information

2.4.1 Engine test

The engine test on the dedicated test bench did not reveal any malfunction which could explain a non-controlled in-flight reduction in power.

The engine started without difficulty, no leak was observed and no unusual vibration was detected. The engine parameters observed, whatever the speed, corresponded to those given by the manufacturer.

2.4.2 Examination of fuel selector

The following points were observed:

- the fuel tank selector was in position under the fuselage;
- the hose between the electric pump and the selector had ruptured in line with the latter;
- the hose between the selector and the left-hand fuel tank had ruptured in line with the selector.

This damage was the consequence of the accident.

The selector was still mechanically connected to the control in the cabin, by means of a metal rod. The latter was deformed. Due to this deformation, the control was no longer functional. It was not possible to move it when on site or during the examinations due to this deformation which was very probably the result of the collision with the ground.

In order to extract the fuel tank selector, the metal rod, connecting the selector to the cabin control, was cut. Once extracted, the selector was once more functional.

2.4.3 Examination of fuel

A borescope examination of the left and right-hand fuel tanks was carried out by the BEA. No contamination was detected.

On disassembling the right-hand fuel tank drain, 250 millilitres of fuel were recovered. The recovered fluid had a bluish tint, consistent with AVGAS 100LL fuel. This fluid was single-phase, the presence of free water² was not observed.

The main fuel tank contained a substantial quantity of fuel, the latter was not measured however. The hose between the selector and the main fuel tank was disassembled in line with the selector. The fuel ran out freely. This fluid, like that collected in the right-hand fuel tank, had a bluish tint and was single-phase.

2.4.4 Read-out of *Click and Take Off* software data

The Click & Take Off application uses data from a unit equipped with a GNSS receiver and an accelerometer which, when it is installed on aircraft, enables pilots and training centres to access statistical data and to analyse it.

In data recording mode, the GNSS data is sampled at a fixed frequency of one measurement per second.

F-HOLE was equipped with this software and the read-out of the recorded data made it possible to extract the flight path of the accident.

² The term “free water” refers to a volume of water that is separate from the volume of fuel. The presence of free water is made possible when the amount of water in the fuel exceeds a certain level. This level is not defined as a specification. According to the laboratory contracted by the BEA, for a water content above 5,000 mg/kg, the appearance of free water is highly likely. As the density of water is higher than that of the hydrocarbon in question, this volume of free water will be located at the bottom of the drum or fuel tank.

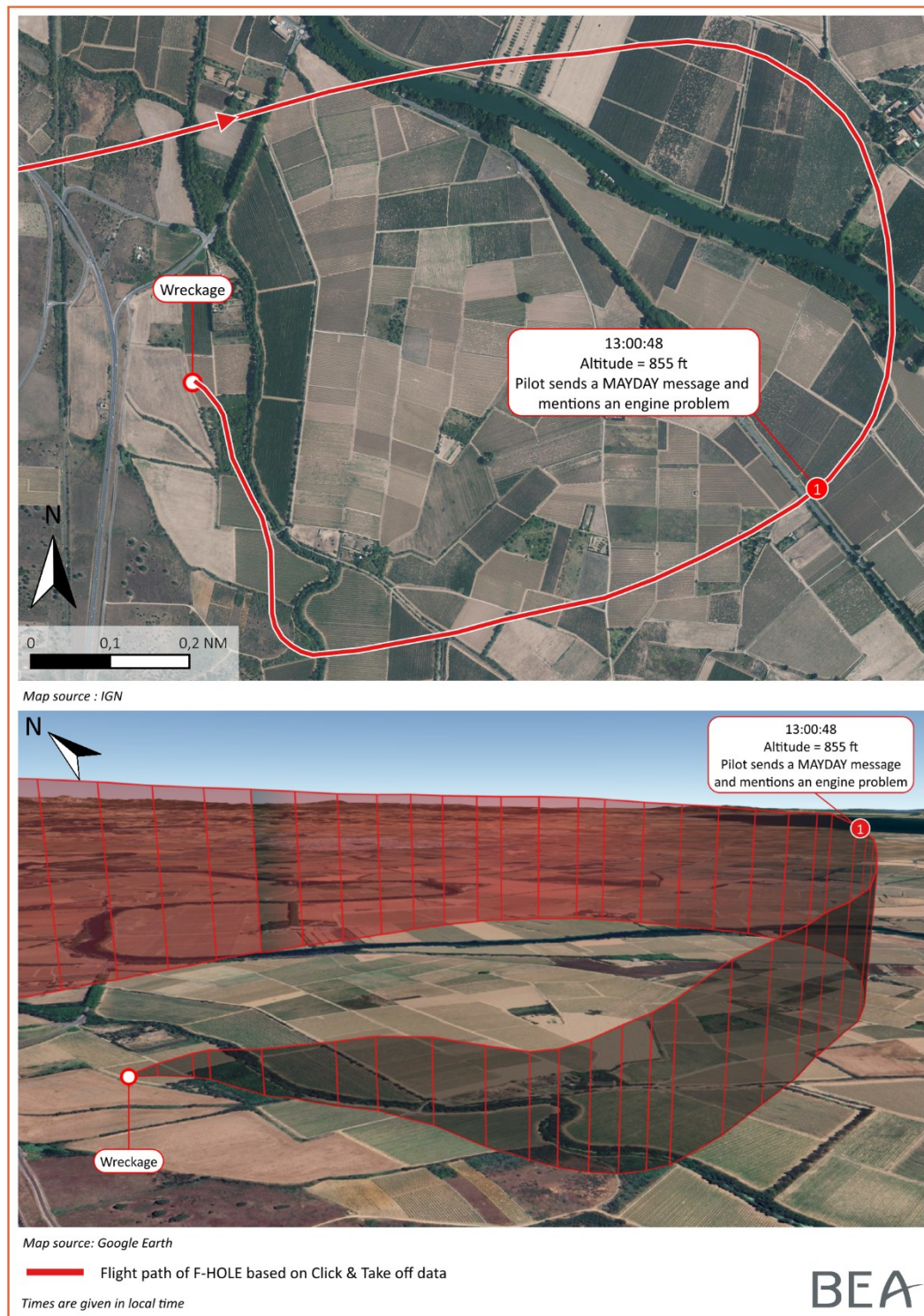


Figure 4: final flight path of F-HOLE

2.5 Meteorological information

At 13:00, the Béziers - Vias aerodrome controller transmitted the following parameters:

- mean wind 020° at 6 kt;
- QNH 1018.

2.6 Pilot information and statement

2.6.1 Pilot

The 74-year-old pilot held an aeroplane private pilot licence (PPL(A)) obtained in 1980 along with a single engine piston (SEP) rating valid until the end of July 2025³ and a valid class 2 medical certificate. He had logged approximately 760 flight hours including 60 hours on the DR400.

His flight hour record for 2025 indicated that he had flown 1 h 30 min as pilot-in-command and 3 h in dual control. His last flight (45 min), with an instructor on the DR 400, was carried out in May 2025.

2.6.2 Statement

The pilot explained that he had reserved a slot at 12:00 by Internet, using the club application to reserve an aeroplane and ask for an instructor. The instructor did not reply to his request and was not available. At 12:15, without news from the instructor, he decided to take off to carry out a few runway circuits. He specified that he checked the fuel level during his walk-around inspection⁴ and started the engine by selecting the left-hand tank. He did not subsequently change the fuel tank selection. He estimated that he had at his disposal half of the main fuel tank and around 30 l in each of the wing tanks. He indicated that he carried out the engine tests before taking off.

He carried out four aerodrome circuits and four touch-and-go landings. He specified that during the fifth take-off, he had the impression that the acceleration was slower than usual and suspected an engine anomaly. He continued his take-off and decided to carry out a full-stop landing at the end of this runway circuit.

In the downwind leg, abeam the tower, he realised that he had not changed the fuel tank selection since the beginning of the flight. He indicated that he selected the right-hand fuel tank after engaging the electric pump.

The controller asked him to extend the downwind leg due to the presence of an arriving commercial aeroplane and to inform him when he was on the base leg. The pilot specified that he had sight of the 737. He extended the downwind leg and adjusted the power to hold the altitude of 1,100 ft.

He added that he reduced power in the base leg but judging that he was below the descent slope, due to his extended flight path, he resumed level flight and re-adjusted the power. He then observed that the engine speed had not changed and that the propeller was turning.

He checked the parameters. He indicated that he actioned the starter twice. He mentioned that he changed fuel tanks by selecting the left one and actioned the starter again, without success. He explained that to action the starter, the selector had to be in a position other than CLOSED, otherwise the starter button would not have been accessible.

³ The impending expiry of his SEP may explain his decision to undertake this flight alone, whereas he had initially planned to fly with an instructor.

⁴ He mentioned fuel above the “strips”. On certain DR400, the “strips” refer to the visual fuel gauges (or graduated sticks) integral to the fuel tank. They are used to visually check the quantity of fuel present in the fuel tank. F-HOLE was not equipped with these.

He added that he identified a field of stubble to the north of his flight path and headed in that direction at a speed that he estimated at 110 km/h⁵. He thought that his left wing struck vegetation during his left-hand turn to reach the field. He crashed into the vineyard field next to the field of stubble. He released his seatbelt and set the battery and alternator to OFF. He specified that he then cut off the magnetos and set the fuel selector to CLOSED.

Note: This last action is incompatible with the deformation preventing the fuel selector from being moved after the impact. It is therefore very probable that the fuel selector was already in the CLOSED position before the collision with the ground.

The pilot exited the cockpit with the help of a witness.

⁵ The stall speed (weight 1,050 kg), flaps set to flaps 1 is 97 km/h with zero bank and 104 km/h with 30° bank.

3 CONCLUSIONS

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

Scenario

The reduction in engine power was very probably the result of the pilot making an erroneous action on the fuel selector. Wanting to change the fuel tank selection at the end of the downwind leg, he may, in error, have positioned the selector close to the CLOSED position. As the reduction in power was not instantaneous, the pilot only perceived it when he rejected the descent and asked for more power.

He then carried out memory actions to process the failure, without success. It is very probable that the pilot did not move the fuel selector while processing the failure.

He then concentrated on the management of his flight path but did not manage to reach the field selected for a forced landing. While flying over a group of trees and then a vineyard field in a northerly direction, parallel and in the immediate vicinity of the field of stubble that he was aiming for, the pilot struck vegetation and lost control of the aeroplane which crashed into the vines.

Contributing factors

The following factors may have contributed to the erroneous position of the fuel selector not being detected:

- a probable confirmation bias of an engine failure due to the perception of the engine operating in an unusual manner during the previous take-off and based on the knowledge that the aeroplane was carrying what was considered a sufficient quantity of fuel;
- incomplete or inappropriate compliance with the “In-flight engine failure” procedure, notably with regard to the selected speed, linked to his limited recent experience and possibly an ineffective check of the fuel selector position.

Safety message

The annual feedback in the form of [safety lessons](#) available on the BEA site regularly mentions occurrences linked to the consequences of mechanical malfunctions or fuel exhaustion.

Combinations of several factors, such as limited experience and following an unsuitable flight path are identified in these safety lessons and can be the cause of loss of control.

Other publications from the FFA [Info-Pilote](#) safety section illustrate [occurrences](#) where there were errors in using the fuel selector.

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