



Accident to the CESSNA 340
registered **N340GJ**
on Monday 2 December 2024
at Pernand-Vergelesses

Time	Around 14:55 ¹
Operator	Private
Type of flight	Practical exam
Persons on board	Pilot and examiner pilot
Consequences and damage	Pilot and examiner seriously 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.	

**Loss of external visual references, collision with tree tops,
fire, during a practical exam**

1 HISTORY OF THE FLIGHT

Note: the following information is principally based on statements from the pilot, examiner and witnesses on the ground, radio communication recordings and radar data.

The candidate pilot and the examiner took off at 13:26 from Beaune – Challanges aerodrome for an examination flight with a view to obtaining a MEP² class rating. The flight was carried out under VFR. During the after take-off actions, the landing gear did not retract. They rejected the flight and landed at the departure aerodrome. The pilot indicated that once on the ground, the examiner descended to check the landing gear and observing that there was nothing blocking its movement, he decided to resume the examination keeping the landing gear down. They took off from Beaune - Challanges again at around 14:05 (see **Figure 1**, point **1**).

The examiner asked the pilot to carry out a series of exercises. In particular, he initiated simulated engine failures, south-west of the aerodrome, aiming at breaks in the clouds. After flying for 30 min (point **2**), the examiner asked the pilot to head for Dijon - Darois aerodrome to carry out touch-and-go exercises. On arriving close to the aerodrome, the weather conditions did not permit the planned exercises to be carried out. The pilot and examiner turned around at 14:47 (see **Figure 2**, point **3**). The examiner took charge of the navigation and guided the pilot.

According to the pilot, on the return leg, the examiner informed him that they were two minutes away from the aerodrome. The examiner asked him to descend (point **4**). The pilot, knowing that the aerodrome was at 600 ft QNH, started the descent at around 1,600 QNH. He lost sight of

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

² The glossary of abbreviations and acronyms frequently used by the BEA can be found on its [web site](#).

the ground before making out “green” ahead of him. He tried to level off the flight path but the aeroplane struck tree tops at an altitude of 1,175 ft at 14:57 (point 5) and finished its run in a vineyard.

The aeroplane caught fire. The examiner managed to evacuate the aeroplane unaided and then extracted the pilot who was still unconscious with the help of an eyewitness.

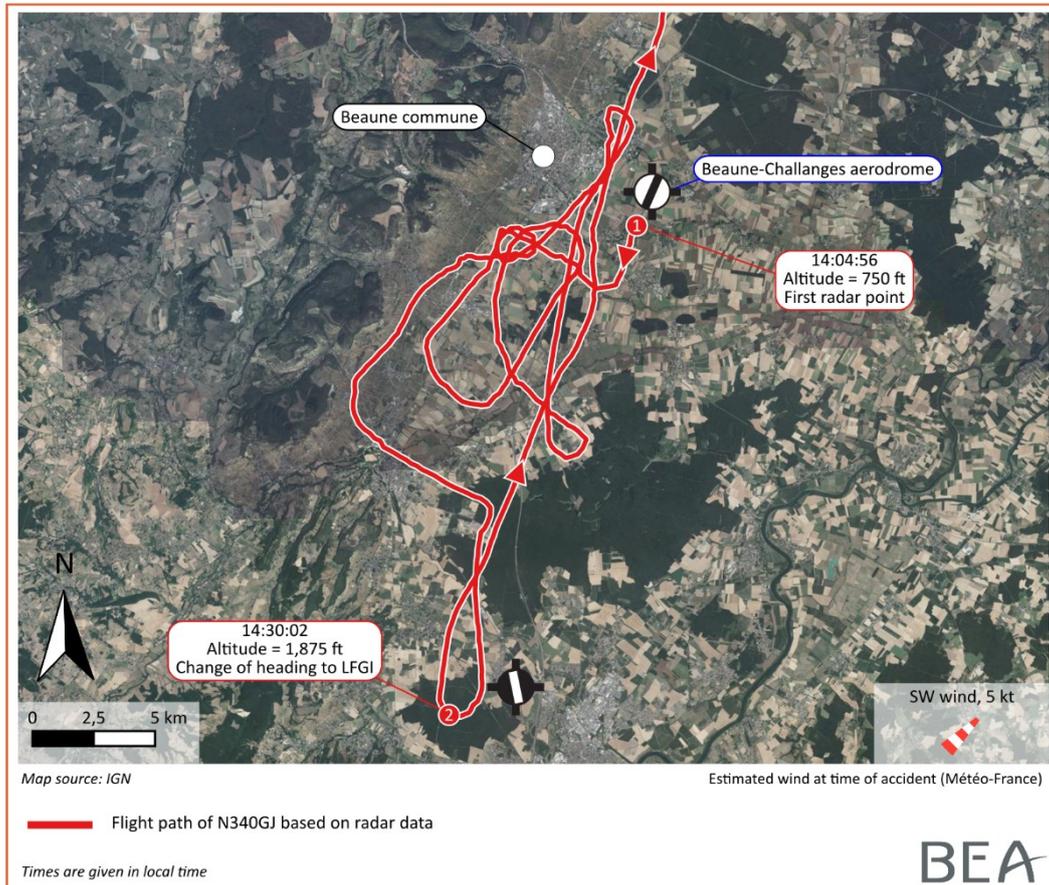


Figure 1: flight path of N340GJ part 1 (source: secondary radar, BEA annotations)

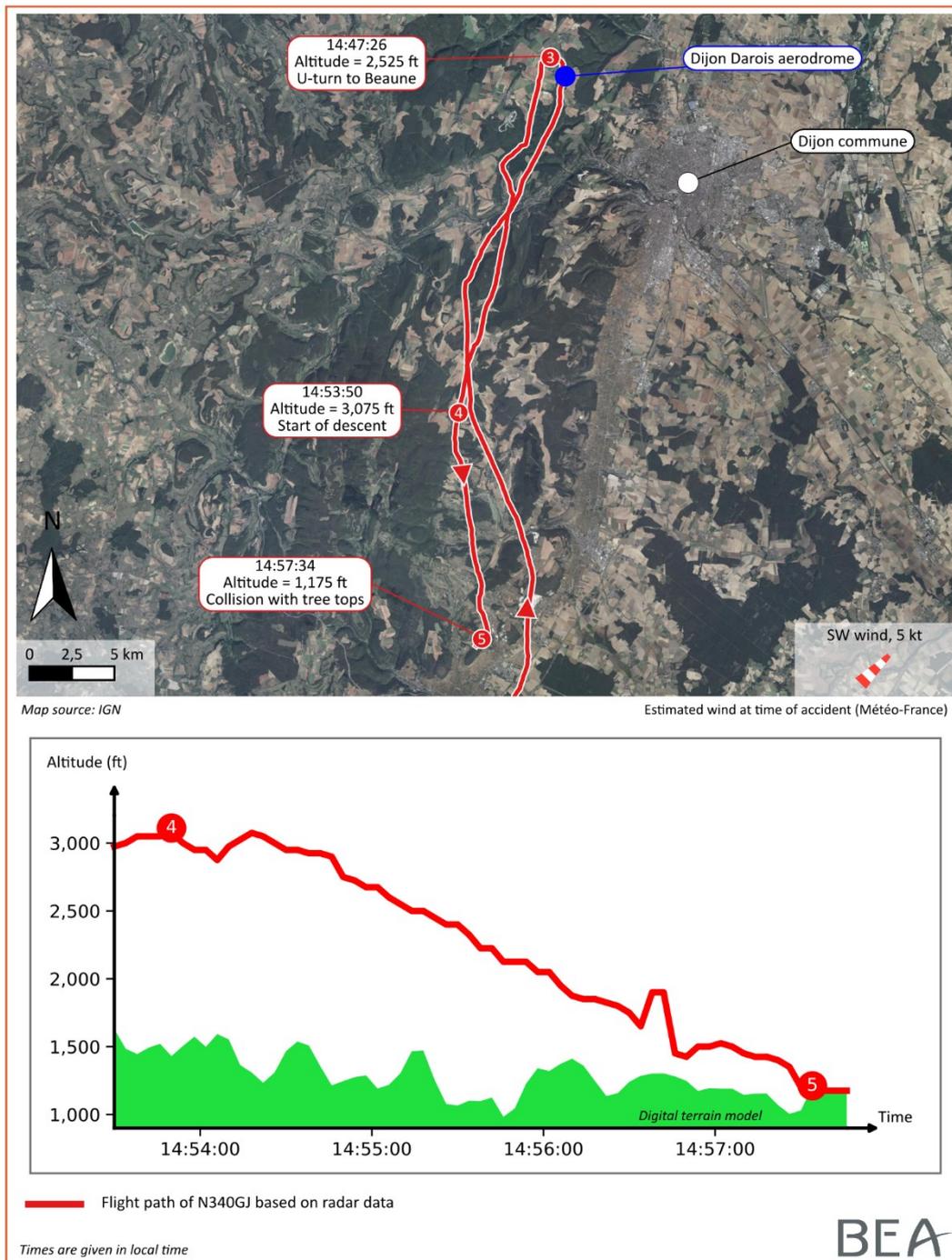


Figure 2: flight path of N340GJ part 2 and vertical profile
(source: secondary radar, BEA annotations)

2 ADDITIONAL INFORMATION

2.1 Site and wreckage information

The state of destruction of the wreckage meant that an examination for the continuity of the flight controls could not be carried out.

All the propeller blades were substantially deformed. These deformations were consistent with both engines transmitting torque at the time of the impact with the ground.

The marks in the vegetation and the debris collected indicated that the aeroplane struck the tree tops in straight horizontal flight over around 100 m in a south-westerly direction before the leading edge of the right wing struck a tree. The aeroplane then touched down 30 m further on and rapidly came to a stop as it was retained by the metal wires for trellising vines. A fire subsequently broke out.

The aeroplane was complete and the landing gear extended at the time of the collision with the vegetation and the ground.

The examination of the wreckage, which was only partial due to its destruction, did not reveal any anomaly which could explain the accident.



Figure 3: orthoimage of site (produced by means of BEA drone)

2.2 Meteorological information

2.2.1 Meteorological conditions at time of accident

According to Météo-France, a cold front was moving between Chalon-sur-Saône and Dijon at the time of the accident, bringing clouds and precipitation. Cumulonimbus were embedded in the cloud mass. The Pernand-Vergelesses area experienced a succession of rain showers, sometimes unstable, throughout much of the day, with a brief lull from 13:00 to 13:30. These fairly heavy rain showers, particularly at 14:15, continued until approximately 14:30.

Visibility was reduced in the rain showers between 1,500 and 3,000 m, at least temporarily.

The sky was overcast with several cloud layers. The air mass was humid in the lower levels with stratus clouds close to the ground locally, along with cumulonimbus and towering cumulus (TCU) embedded in the cloud mass.

Clouds may have been clinging to some high ground.

2.2.2 Information available when preparing flight

The 13:00 Dijon - Longvic METAR indicated visibility 3,400 m, mist, FEW at 600 ft and OVC at 7,600 ft. At 13:30, visibility was 4,200 m and the cloud cover was BKN at 400 ft and 1,600 ft and OVC at 2,100 ft.

The 13:00 Chalon - Champforgeuil METAR indicated visibility 9,000 m, drizzle and the presence of CB. At 13:30, visibility was 5,000 m with rain and mist, and cloud cover was BKN at 1,500 ft, 3,100 ft and 5,200 ft with the presence of CB.

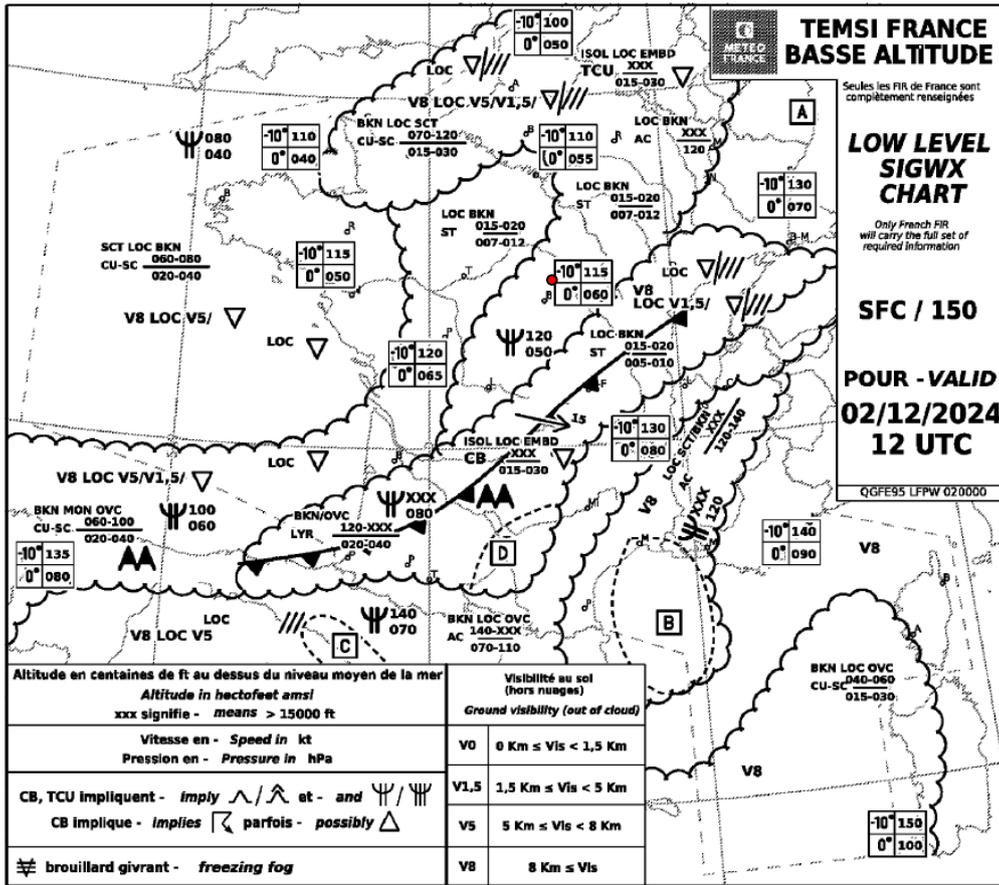


Figure 4: 13:00 SIGWX chart France

The investigation was not able to determine what weather information was obtained by the pilot and the examiner before undertaking the flight.

2.2.3 Witnesses on ground

A pilot in the Beaune flying club who witnessed the take-off, specified that it was raining hard, the ceiling was low and visibility was no more than 2 km on the runway axis. He saw the aeroplane take-off with a shallow slope and keep the landing gear extended. He rapidly lost sight of the aeroplane due to the poor visibility.

The vineyard labourers present on the accident site and in the vicinity all declared that there was a lot of fog.

2.3 Flight preparation

The pilot and examiner had initially scheduled to meet in Angoulême at 07:30 in order to fly to Dijon. As the weather was not suitable for carrying out the positioning flight, they travelled there by car. Once on their way, the pilot reported that the examiner changed the destination for Beaune. The pilot stated that he had not prepared a take-off from this aerodrome.

According to the pilot, during the several-hour drive, the examiner detailed the flight scenario, including the exercises to be carried out. Performance was not discussed; the examiner told the pilot that the procedures on the Cessna 340 were the same as on the Tecnam P2006 (the aeroplane on which the pilot had followed his MEP training, see paragraph 2.4). According to the pilot, when he twice expressed concern about the weather, the examiner initially replied that it was not a problem, that the aeroplane "could do it." The second time, the examiner added that it was the only day possible, as the aeroplane was scheduled to return to Corsica and the examiner would no longer be available.

According to the examiner, they arrived in Beaune at around 11:30³. He created his flight on the Foreflight application on his tablet. They found the owner of the aeroplane who had already prepared the paperwork for leasing the aeroplane in the pilot's name. The examiner had already flown on this aeroplane several times. He indicated that he carried out a briefing during which he described the flight manual, the normal and emergency checks and how the test was going to proceed.

The pilot and examiner carried out the walk-around inspection together and replenished the main fuel tanks. The secondary fuel tanks were half filled. This quantity of fuel provided an endurance of four hours in total.

2.4 Pilot information

The 41-year-old pilot held an aeroplane private pilot licence obtained in France in 2020. He intended to have a professional career and had passed the theoretical ATPL(A) in 2024. He then followed MEP training at the ATO, EAS Barcelona in Spain from 4 to 7 July 2024. He indicated that administrative problems had prevented him from taking the exam in Spain (see paragraph 2.6). Three months after his training, he decided to take the exam with an independent French examiner who he had met during his PPL training in 2019. With this examiner, the pilot had also carried out his approval flight to fly solo on the PA 28 in 2020, his night rating qualification in 2021 and other flights in 2022 and 2023. He indicated that he did not have the instrument flight rating but that he had already flown in clouds during flights with this examiner and that this had developed his confidence.

According to the pilot, part of the examination flight had taken place in the cloud layer, in particular during the return flight to Dijon - Darois. The pilot indicated that he used the aeroplane's checklists and that the examiner guided his actions.

On the day of the accident, the pilot had logged 160 flight hours including 6 hours on the TECNAM P2006 multi-engine during his MEP training course five months earlier. He had flown two and a half hours on single-engine aeroplanes in the three months preceding the accident flight. He had never flown on the Cessna 340.

³ The travel time by car between Angoulême and Beaune is a little over five hours without a break.

2.5 Examiner information

The 59-year-old examiner held an aeroplane commercial pilot licence obtained in 2003 along with SEP, MEP, IR, CRI, FI and IRI ratings. He was an examiner with the LAPL, MEP, PPL and SEP privileges and had been supervised on 28 March 2024. He had conducted 17 examinations in 2024, he had not conducted an MEP examination since 2017.

He knew the owner of the aeroplane and had flown 11 h 35 min over ten flights on N340GJ between September and October 2024. He indicated that he had organised for the pilot to lease this aeroplane. The examiner indicated in his statement that they had always stayed in VMC. He specified that they had continuously had sight of the ground even if the margins were sometimes small.

He had logged a total of 35,000 flight hours the day of the accident.

2.6 Training organization information

European Aviation School (EAS) Barcelona is a Spanish ATO providing various training courses (including PPL, CPL, ATPL, IR/ME, MEP, MCC, FI, CRI and IRI training courses). At the end of the training, an examiner from the ATO informed the DGAC of the future MEP practical exam in compliance with the procedure in force for training carried out by a pilot holding a French license in an EU non-French ATO⁴. As part of the investigation, the BEA had access to certain later exchanges between the pilot, the ATO, the DGAC and the examiner. The investigation was not able to determine why this request had not given rise to the examination.

On 5 October 2024, the candidate finally asked the ATO to provide him with a training course certificate in order to carry out the exam with a French examiner independent of the ATO.

2.7 Aircraft information

The Cessna 340A is a pressurized twin-engine with a total capacity of six seats and a maximum take-off weight of 2,719 kg. It is equipped with two Continental engines, each producing 310 hp. N340GJ was built in 1979. Its equipment included two Garmin GTN 750 navigation systems, a Garmin GWX 70 weather radar, an Aspen Pro 1000 primary flight display, a traffic warning system, a radio-altimeter and an ADS-B transponder.

The Cessna 340 has a stall speed of 82 kt.

According to the owner of the Cessna registered N340GJ, the radio-altimeter was not functioning on the day of the accident⁵. The pilot stated that he was not aware of this fault before the flight.

There is an emergency procedure should the landing gear not retract electrically, which requires the pilot to land *“as soon as practical.”*

⁴ [Procedure in force on the DGAC site](#)

⁵ The owner had not filed a minimum equipment list with the DGAC.



Figure 5: photo of N340GJ instrument panel (source: aeroplane owner)

The Tecnam P2006 used for the candidate's MEP training, is a twin-engine with a total capacity of four seats and a maximum take-off weight of 1,230 kg. It is equipped with two Rotax engines, each producing 100 hp.

The Tecnam P2006 stall speed is 49 kt.



Figure 6: Tecnam P2006 instrument panel (source: EAS Barcelona)

Based on statements from several experienced instructors gathered by the BEA during its investigation, the Cessna 340 is very different from the TECNAM P2006, particularly with regard to manoeuvring speeds, flight performance, cockpit instruments and procedures. These instructors thought that it would be difficult for a pilot trained on the P2006 to have a satisfactory level for a practical exam flight without prior training on the Cessna 340.

2.8 Regulations information

According to requirements FCL.725, FCL.720.A and FCL.725.A of EU regulation No 1178/2011⁶, the prerequisites for the MEP class rating require the pilot to have an aeroplane pilot license, a valid class 1 or 2 medical certificate and 70 hours of flight time as pilot-in-command. The pilot must then follow a theoretical training course ratified by a multiple-choice examination, and at least six hours of instruction on a twin-engine aeroplane, including two and a half hours of normal procedures and three and a half hours of abnormal procedures. The rating is obtained following a satisfactory flight examination.

This practical exam must take place within six months from the start of the training. If this date is exceeded, assessment measures or re-training are required to pass the practical test. The pilot's training had started on 4 July 2024 which created a calendar limit of 3 January 2025. The accident flight occurred one month before this date.

According to the EASA [type rating and licence endorsement list](#) and requirements AMC1 FCL.700 (b) and FCL.710, differences training is required to pass from the Tecnam P2006 to the Cessna 340. It is also defined in GM1 FCL.710 that differences training requires the acquisition of additional knowledge and training on an appropriate training device or the aircraft.

For the execution of the examination, it is specified on the DGAC practical examination form ([17FormExa -rev0 de 11/2022](#)), paragraph 12, that the examiner will not participate in any way in the operation of the aircraft, except in cases requiring intervention in the interest of safety or to prevent any unacceptable delay to other air traffic.

Consequently, for an examination flight, the candidate pilot must be able to independently, in the case of a single-pilot examination, handle the aircraft and perform the procedures. To do so, he must have previously completed differences training. The pilot had not completed this training.

The practical test to obtain the MEP class rating requires the completion of a number of in-flight exercises, which are listed on the DGAC form. Some of these, such as a go-around with one engine inoperative, require the execution of memory items including the retraction of the landing gear. Therefore, the examination was not compatible with an aeroplane experiencing a landing gear retraction failure.

Furthermore, several [safety manuals](#) for examiners, available on the DGAC website⁷, require in the general test conditions, an aeroplane in a good technical condition, with no known major failure. These manuals specify that should a real failure occur during the test, the test will be immediately stopped.

⁶ Commission regulation of 3 November 2011 laying down technical requirements and administrative procedures related to civil aviation aircrew ([Version in force the day of the accident](#)).

⁷ Available manuals: SET, MET and MER.

3 CONCLUSIONS

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

Scenario

The pilot, a candidate for the MEP class rating, had followed a training course with an ATO in Spain on the Tecnam P2006. His enrolment for the MEP practical examination had not given rise to the examination. The investigation was unable to determine the exact reasons for this. Three months after starting his training, the pilot asked the ATO to provide him with a training certificate in order to directly pass his practical examination with a French examiner.

The pilot made an appointment with an independent examiner, not affiliated to an ATO, with whom he had already passed his PPL(A). The pilot and the examiner met at Angoulême with the intention of flying by aeroplane to Dijon - Darois aerodrome. Due to the weather conditions, this flight by aeroplane was not possible. The examiner and the candidate therefore travelled by car from Angoulême to Beaune - Challanges where N340GJ was finally situated.

After travelling several hours by road together, the pilot and the candidate signed the lease documents on arriving at Beaune - Challanges aerodrome. The weather conditions were such that it was not possible to fly under VFR with a succession of sometimes unstable rainy and cloudy periods.

After taking off, as the landing gear would not retract, they turned around and landed without incident. The examiner descended from the aeroplane to inspect it. Observing no fault preventing the retraction of the landing gear, he decided to continue with the examination and carry out the test with the landing gear extended. The pilot and the examiner took off again from Beaune - Challanges. During the first part of the examination, the examiner asked the pilot to carry out a series of exercises, these included simulated engine failures. The pilot indicated that, not knowing the Cessna 340, he used the aeroplane's checklists and that the examiner guided his actions.

After a flight time of 30 min, the examiner guided the pilot towards Dijon - Darois aerodrome with the intention of carrying out touch-and-go exercises. On arriving close to the aerodrome, the weather conditions did not permit the execution of the exercises and the examiner guided the pilot to Beaune.

When they were at two minutes of flight from Beaune - Challanges aerodrome, the examiner asked the pilot to descend.

The pilot had initially intended to descend to 1,600 ft, i.e. 1,000 ft above the aerodrome altitude. During the descent, the pilot indicated that he entered a cloud layer. The descent was continued without external visual references. The pilot then made out green ahead of him and pulled on the stick but was unable to avoid the trees. The aeroplane collided with trees at an altitude of 1,175 ft and then with the ground before finishing its run in a vineyard. The aeroplane caught fire on the ground. The examiner was able to evacuate the aeroplane unaided and then with a witness on the ground, helped the pilot exit the aeroplane.

Contributing factors

The following factor may have contributed to a practical examination for a class rating being undertaken and continued despite meteorological conditions that were probably not compatible with a flight under VFR and with an aeroplane in an inadequate technical condition:

- the time pressure felt to carry out the MEP examination as result of the calendar limit of the pilot's training and the limited availability of the aeroplane and the examiner.

The following factor may have contributed to the loss of visual references while in flight and the collision with the ground:

- flying through cloud layers several times during previous flights carried out by the pilot with this examiner which could have led them both to consider that this type of situation was acceptable.

Furthermore, the choice of an aeroplane very different from the one used by the pilot during his training, and the lack of differences training meant that the pilot was not at ease and that the workload was increased for both the pilot and the examiner.

The lengthy car journey that morning may have caused fatigue for both the pilot and the examiner.

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