



Accident to the TL-ULTRALIGHT SRO - Sting Carbon
identified **95SN**
on 4 September 2021
at Woignarue (Somme)

Time	09:50 ¹
Operator	Private
Type of flight	Local
Persons on board	Pilot and passenger
Consequences and damage	Pilot and passenger fatally injured, microlight destroyed
This is a courtesy translation by the BEA of the Final Report on the Safety Investigation published in September 2022. As accurate as the translation may be, the original text in French is the work of reference.	

Stall in adverse weather conditions, collision with ground

1 HISTORY OF THE FLIGHT

Note: the following information is principally based on statements, the read-out of the microlight's computers and radar data.

The pilot planned to carry out a local flight to the Somme Bay with one passenger. At Eu-Mers - Le Tréport aerodrome (Somme), he talked to another pilot, who owned the Ekolot identified 76PV, and they decided to make this flight together. They agreed to communicate over the 123.45 MHz frequency.

The pilot of 95SN, accompanied by the passenger, took off from runway 05 at 09:46. The pilot of 76PV took off one minute later. The latter heard the pilot of 95SN announce over the frequency that he had a problem with his tablet. Shortly after, the pilot of 76PV informed the pilot of 95SN that he was turning back due to fog. He had no sight of 95SN and received no response from the pilot.

At 09:50, 95SN collided with the ground in a field, 5.8 km north-east of the aerodrome. The farmer who owned the field discovered the wreckage about 45 min after the accident and alerted the emergency services.

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

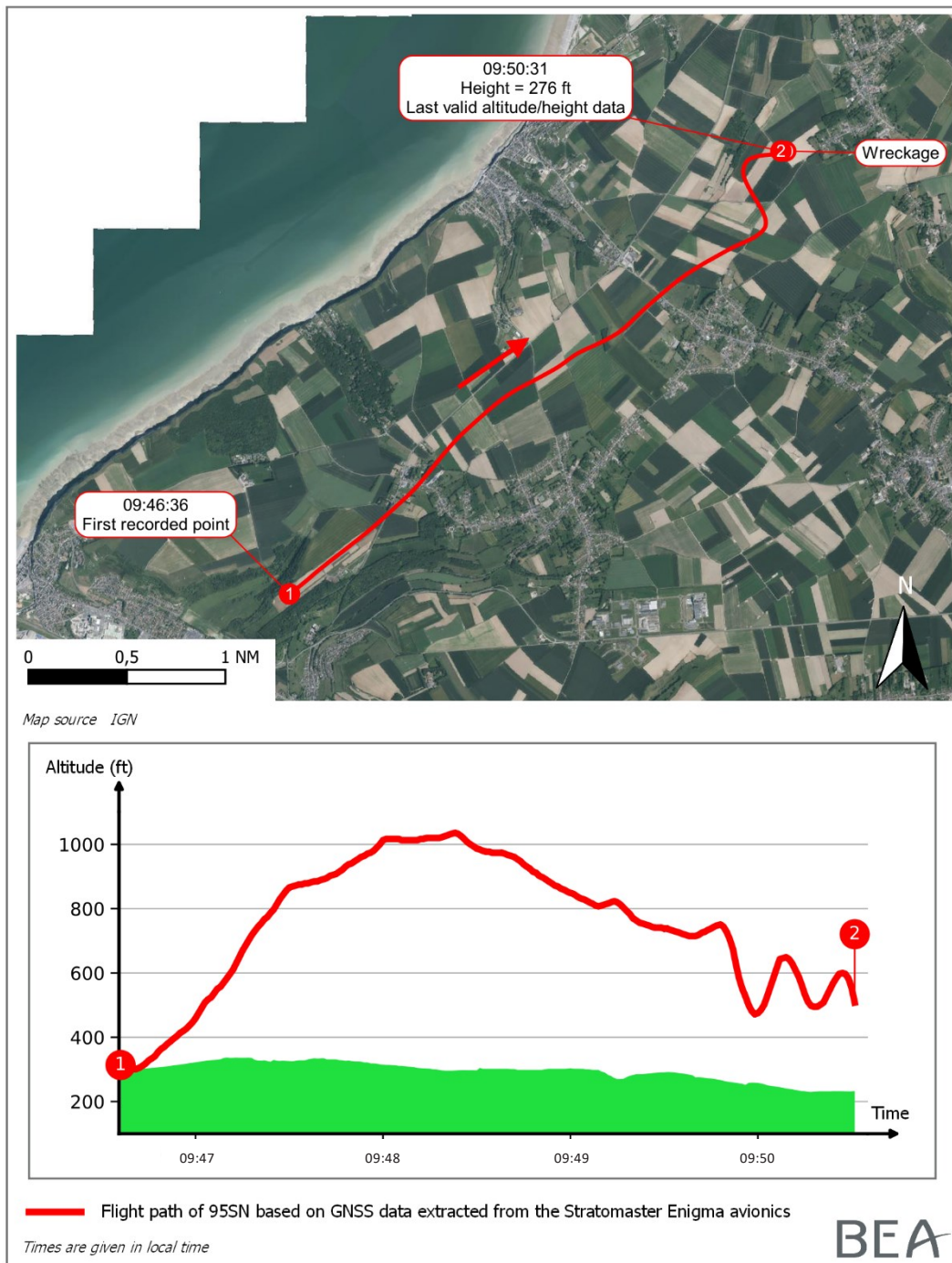


Figure 1: flight path of 95SN

2 ADDITIONAL INFORMATION

2.1 Examination of site and wreckage

The accident site was a field free of any obstacles. The general condition of the wreckage revealed that the microlight had hit the ground with a slight nose-down attitude and a small left bank angle. The landing gear struts were ruptured.

The aileron, flap, elevator and rudder controls were continuous prior to the impact with the ground. The examination of the flap and elevator trim controls indicated that they were positioned for landing prior to the collision with the ground.

The examination of the propulsion system did not reveal any failure that could explain a reduction in power or an engine shut-down.

Two Stratomaster Electronic Flight Instrument Systems (EFIS) as well as a tablet computer and two phones were removed for analysis at the BEA's premises.



Figure 2: wreckage of 95SN (source BEA)

2.2 Microlight information

The Sting Carbon is a three-axis, low-wing microlight with fixed landing gear.

The user manual indicates the following certification airspeeds:

- stall speed without flaps: 85 km/h;
- stall speed with flaps at 35° (second flap detent position, corresponding to the landing configuration): 70 km/h.

The microlight's weight and balance at the time of the accident were estimated within the limits defined by the manufacturer.

2.3 Computer examinations

The tablet computer was too damaged to be analysed. The two phones did not contain any aeronautical applications or photos and videos from the day of the accident.

Some of the parameters recorded in the EFIS were inconsistent and dated back several years before the accident². Only the pressure-altitude and GNSS altitude parameters, ground speed, indicated airspeed, vertical speed, engine rpm and oil temperature could be analysed.

² According to the statements made by several users of the aerodrome who knew the pilot, he did not use the on-board avionics of his microlight, as he preferred to use his tablet computer.

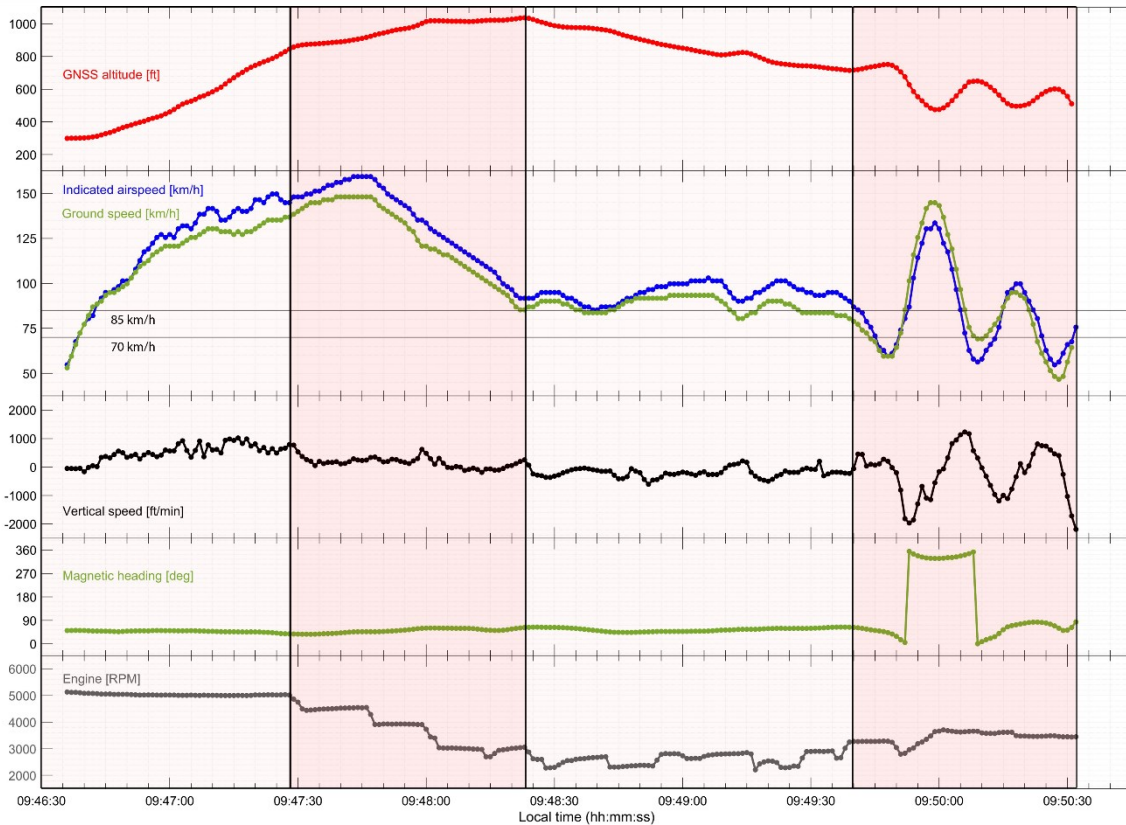


Figure 3: analysis of the 95SN flight parameters (source BEA)

Based on the 95SN information and radar data, it was determined that the flight had lasted 3 min and 55 s, which could be broken down into four flight phases.

The first phase, which lasted approximately 50 s, included take-off and a stable increase in engine speed to approximately 5,000 rpm, up to an altitude of 850 ft. The indicated airspeed increased to 140 km/h.

During the second flight phase, the flight data indicated a step-down decrease in engine speed, from 5,000 rpm to approximately 3,000 rpm. The microlight continued to climb with a lower vertical speed and reached the maximum altitude of 1,037 ft. The indicated airspeed decreased to 90 km/h.

During the third phase, the microlight gradually descended to approximately 700 ft with a reduced engine speed (between 2,200 and 3,250 rpm) and an indicated airspeed that fluctuated between 90 and 105 km/h.

During the last flight phase, the microlight made a turn of approximately 90° to the left, and then 115° to the right. During the turn, the engine speed increased in steps until it reached 3,700 rpm. Large fluctuations in altitude and speed were recorded. The indicated airspeed fell below 60 km/h three times. These variations in altitude, indicated airspeed and vertical speed revealed that the microlight had stalled three times before colliding with the ground.

2.4 Meteorological information

The successive METAR reports between 08:30 and 09:30 from Le Touquet-Côte d'Opale airport (Pas-de-Calais), located to the north-east and 80 km from the accident site, indicated the presence of fog and a ceiling at 600 ft.

The low level SIGWX chart for France at 08:00 indicated the presence of mist and fog locally in the coastal area with visibility locally less than 1.5 km.

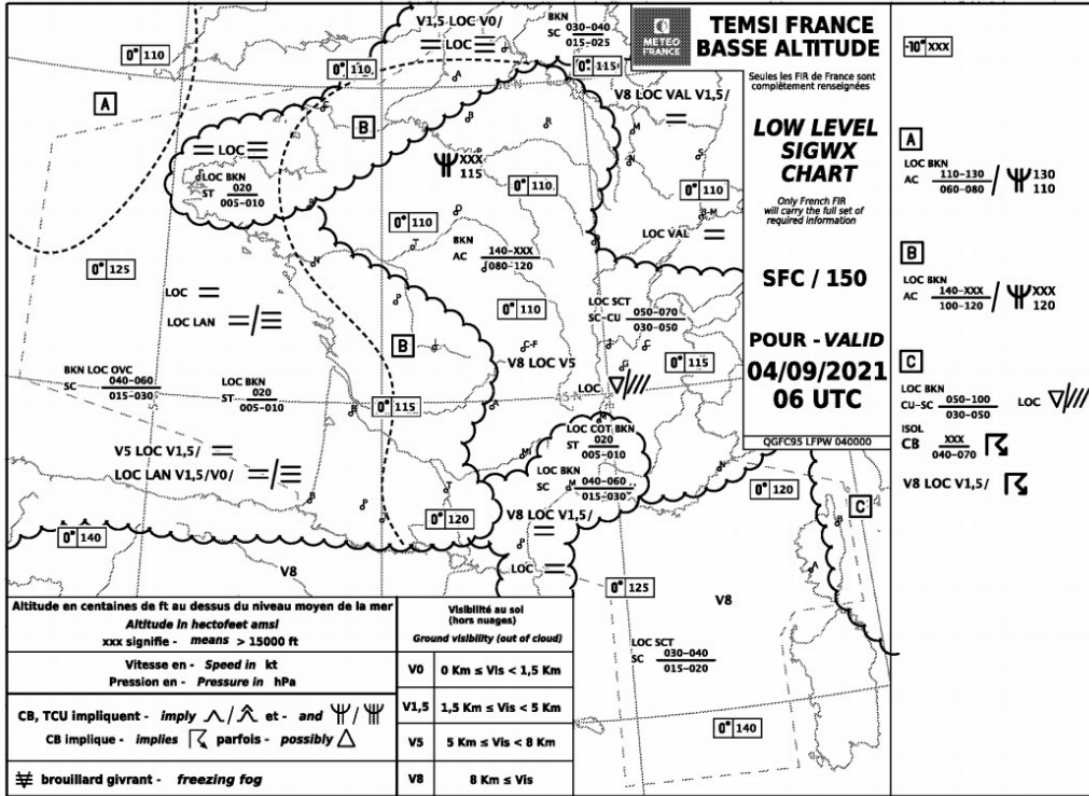


Figure 4: low level SIGWX chart for France at 08:00 (source Météo-France)

The analysis by Météo-France confirmed the presence of an area of mist and fog in the area at the time of the accident.

2.5 Pilot information

The 69-year-old pilot held a class 3 (fixed-wing) microlight pilot certificate issued in 2010, as well as passenger carrying privileges.

According to witnesses, he had totalled several hundreds of flight hours. He had owned 95SN for seven years and had parked it at Eu-Mers - Le Tréport aerodrome for two years.

The autopsy did not reveal any findings likely to have contributed to the accident.

2.6 Pilot of 76PV statement

The pilot of 76PV stated that the pilot of 95SN introduced his passenger to him as one of his friends for whom this was the first flight in a light aircraft. He specified that he did not know how the pilot of 95SN prepared this flight, and in particular whether he sought meteorological information. He stated that his own preparation had not included meteorological aspects.

As soon as he took off, he noticed a rapid deterioration in the weather conditions, in particular due to fog appearing. He tried (without success) to contact the pilot of 95SN to inform him of his decision to abort the flight and return to the departure aerodrome. He added that he had had no visual contact with 95SN due to the presence of fog.

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

On the day of the accident, the meteorological data available indicated adverse conditions for a flight under visual flight rules over the coast, with the presence of mist, fog and a low ceiling at 600 ft. Nevertheless, the pilot decided to make a flight bound for the Somme Bay, accompanied by one passenger.

It is possible that, having encountered weather conditions that were not compatible with continuing the flight in visual flight rule conditions, the pilot may have reduced speed and descended to maintain or regain sight of the ground. The microlight stalled several times at low speed before colliding with the ground.

The microlight was configured for landing during the flight, which may indicate that the pilot had intended to make a precautionary off-field landing.

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