FINAL REPORT

of civil aviation safety investigation

CLASSIFICATION

Accident

Operator
Private

Manufacturer
ATEC v.o.s., Cehia

Aircraft Type
Zephyr 2000

Registration country
Romania

Registration
YR - 5083

Location
Comana commune, Giurgiu County

Date and time
20.10.2012 / 22.45 LT
ACKNOWLEDGEMENT

This REPORT presents data, analysis, conclusions and recommendations on civil aviation safety, of the Civil Aviation Safety Investigation Commission appointed by the General Director of AIAS.


The sole objective of civil aviation safety investigation is preventing the occurrence of accidents and incidents, by effective determination of causes and circumstances that led to this occurrence and establishing the necessary recommendations for civil aviation safety.

Civil aviation safety investigation does not establish guilty, individual or collective responsibilities.

As a consequence, the use of this REPORT for other purposes than preventing the occurrence of civil aviation accidents and incidents might generate misinterpretations.
COLLISION WITH AN OBSTACLE DURING A NIGHT FLIGHT

<table>
<thead>
<tr>
<th>Aircraft / registration</th>
<th>ZEPHYR 2000 / YR-5083</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date and time</td>
<td>20.10.2012 / 22.45 LT</td>
</tr>
<tr>
<td>Operator</td>
<td>S.C. ECSO &amp; EXO S.R.L.</td>
</tr>
<tr>
<td>Flight type</td>
<td>Private flight</td>
</tr>
<tr>
<td>Persons onboard</td>
<td>Pilot / 52 years</td>
</tr>
<tr>
<td>Victims</td>
<td>The pilot died at the hospital</td>
</tr>
<tr>
<td>Pilot</td>
<td>ULM flight license / Valid</td>
</tr>
<tr>
<td>Damages</td>
<td>The aircraft was completely destroyed</td>
</tr>
<tr>
<td>Location</td>
<td>In the NW end of a flight field near the Comana locality, Giurgiu County</td>
</tr>
<tr>
<td></td>
<td>Coordinates: Latitude: N 44°12'0.64&quot;</td>
</tr>
<tr>
<td></td>
<td>Longitude: E 026°08'16.16&quot;</td>
</tr>
</tbody>
</table>

1. HISTORY OF OCCURRENCE

On the evening of 20 October 2012, in the building located in the boundary area of the flight field known as “Comana aerodrome” in the vicinity of Grădiștea locality, Giurgiu County, several pilots and ultra-light aircraft owners were invited to attend an event organised by the flight field administrator. Some of the guests came to this event with their own personal planes. Thus, the Zephyr 2000 aircraft, registered YR-5083, along with another ultra-light aircraft, took off before sunset from the Clinceni aerodrome, in formation, and after an approx. 8-minute flight they landed on the flight field where the event was organised. After landing, the flight activity on this flight field was declared closed by the telephone call to the Air Operations Center.

At around 22:30 LT, the YR-5083 pilot left the building where the event took place, went to the aircraft to perform a flight by which, perhaps, he wished to pay a tribute to the venue of the event. He started the plane and took off heading the 60° direction, the runway being oriented 24/06, while the flight field does not have an illuminated runway and the aircraft was not properly equipped to perform the night flight. The Commission was not been able to determine whether the pilot succeeded to perform several tracks of circuit or accident occurred during the first track. During the flight on the runway’s left side, when the aircraft was heading approximately 240°, while attempting to perform a possible left turn, the left wing of the aircraft impacted a group of bushes with a height of about 1.5 m, which subsequently led to the aircraft crash and destruction.
Fig. 1 Accident site

Fig. 2 Overview of the accident site
2. ADDITIONAL INFORMATION

2.1. Aircraft information

Zephyr 2000 aircraft is a two-seat, low-wing ultralight aircraft. The landing gear is a fixed tricycle with a steerable nose wheel. The aircraft is equipped with dual control.

The engine is Rotax 912 UL. The propeller is of FITI type, with three blades with variable pitch.

The aircraft is authorized to operate VFR flights during the day, the flight for this aircraft category being FORBIDDEN after dark.

As a result of the accident, the aircraft was completely destroyed.

![Fig.3 Image of the wreckage](image-url)

2.2. Aerodrome information

The flight from 20.10.2012 was performed on a flight field near Comana locality, which, according to the provisions of the Romanian Government Decision No. 912 of 25.08.2010, is included in the category of other lands than the certified aerodromes on which take-offs and landings of civil aircraft can be performed.

The GPS coordinated of the flight field are:

- Latitude: 44°12′1.56″N
- Longitude: 26°08′23.63″E

The flight field is classified in the middle category, hard plasticity, being covered with grass. The runway is oriented 24/06, inclined 17 degrees NW-SE, has a length (distance between the thresholds) of 517 m, a useful width of 40 m and the runway centerline elevation is of 49 m.
3. CONCLUSIONS

The pilot died at the hospital. The forensic report revealed a blood alcohol level of 1.60 g‰ alcohol. This result leads to the conclusion that the pilot performed this flight intoxicated. Taking into account that the flight was performed at night with an aircraft not properly equipped for night flights, the chances for this flight not to end with an accident were very low.

In the area where the aircraft collided with the bushes the terrain looks like a plateau higher than the runway with about 3 meters, and by adding to this the height of the bushes, it results that at the time when the left wing hit with the bushes, the aircraft was flying at a height of about 5-6 m from the runway level, but the height above the ground was of about 2 m. At night, without proper equipment onboard, relying solely on visual flight elements, the flight cannot be safely performed at such a height. It can be assumed that the pilot attempted to appreciate the flight height in relation to the lights in the runway area and it is obvious that this attempt failed, ending with an accident.

Many ULM pilots attended the event organised at the Comana aerodrome, but unfortunately, no person intervened to prevent the execution of such a flight, the consequences of which were foreseeable. Most accidents involving such aircraft are based on the human error generated by the attempt to overcome the technical capabilities of the aircraft.

The accident was caused due to a collision with an obstacle during a night flight performed at a very low height, the pilot being under the influence of alcoholic beverages.

For this accident, the investigation commission issued no safety recommendation.

Observation: The documents and analysis objects used for the issuance of the flight safety investigation Report are confidential and are archived at the Civil Aviation Safety Investigation and Analysis Authority, according to legal provisions.