

MINISTRY OF CONSTRUCTION AND TRANSPORT

TRANSPORTATION SAFETY BUREAU

# FINAL REPORT

(English Language Summary)

Zlin Z-326 Tréner, HA-TRT  
Szeged Airport (LHUD), 13 June, 2022

Serious Incident  
2022-0719-4

**This is an English language abstract of the official safety report written in Hungarian.  
Final Reports are published at [www.kbsz.hu](http://www.kbsz.hu).**

The sole objective of a safety investigation is to find the causes and circumstances of aviation accidents or incidents and to initiate the necessary safety measures; furthermore, to make recommendations in order to prevent similar cases in the future. It is not the objective of an investigation to apportion blame or liability.

## Introduction

### Synopsis

|                              |               |                         |
|------------------------------|---------------|-------------------------|
| Occurrence class             |               | Serious Incident        |
| Aircraft                     | Type          | Zlin Z 326              |
|                              | Registration  | HA-TRT                  |
| Occurrence                   | Date and Time | 13 June, 2022, 14:08 LT |
|                              | Location      | Szeged Airport (LHUD)   |
| Fatalities / Severe Injuries |               | no one got injured      |
| Damage to Aircraft           |               | Substantial             |

The pilot of the mishap aircraft planned his take off from the grass strip Runway 34. In the initial phase of the take off – at about 4-6 meters – the aircraft started to descend and impacted terrain. It came to rest after a 60 m skid on the ground.

The Investigation Committee (hereinafter: IC) attributed the direct cause of the serious incident to the pilot's loss of situational awareness at a critically low altitude during take-off.

During the investigation the IC concluded, that based on its documents the aircraft was not serviceable at the time of the serious incident.

The IC of the Transportation Safety Bureau found no grounds to issue a safety recommendation.



Figure 1: The mishap aircraft after the incident

## General information

All times indicated in this report are in local time (LT). LT at the time of the occurrence: UTC+2 hours.

Geographic locations throughout this document are provided in WGS-84 standard.

The capitalised positions used throughout this document (e.g. Captain, Pilot, etc.) refer to the particular persons concerned in the event investigated.

The format and content of this report is in harmony with Chapter 6 of Annex 13 of Act XLVI of 2007 promulgating the Appendices to the Convention on International Civil Aviation, signed in Chicago on 7 December 1944. Appendix, as well as with the requirements set out in ICAO Doc 9756 Part IV.

## Reports and Notifications

The occurrence was reported to TSB's call center at 14:24 on 13 June, 2022, by the AFIS of Szeged Airport.

In line with Article 9, Section (2) of Regulation (EU) No 996/2010 of the European Parliament and of the Council, TSB of Hungary notified the following organisations.

- Accident Investigation Authority of the State of Design and Manufacture on 14/06/2022 at 16:14.
- EASA on 14/06/2022 at 16:16.

## Investigation Committee

The Head of TSB appointed the following persons in the investigating committee (hereinafter: IC).

|                        |                 |              |
|------------------------|-----------------|--------------|
| Investigator-in-Charge | Klementtina Joó | investigator |
| Member                 | Gábor Erdősi    | investigator |

## Overview of the Investigation Process

Receiving event notification, the on-duty manager of the TSB ordered an immediate dispatch to the site.

Pursuant to Article 5 of REGULATION (EU) No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/ECA the TSB is required to initiate an investigation in the following circumstances.

1. *Every accident or serious incident involving aircraft to which Regulation (EU) 2018/1139 of the European Parliament and of the Council applies shall be the subject of a safety investigation in the Member State in which the accident or serious incident occurred.*
2. *Where an aircraft to which Regulation (EU) 2018/1139 applies and which is registered in a Member State is involved in an accident or a serious incident the location of which cannot be definitely established as being in the territory of any State, a safety investigation shall be conducted by the safety investigation authority of the Member State of registration.*
3. *The extent of safety investigations referred to in paragraphs 1, 2 and 4 and the procedure to be followed in conducting such safety investigations shall be determined by the safety investigation authority, taking into account the consequences of the accident or serious incident and the lessons it expects to draw from such investigations for the improvement of aviation safety.*

4. *Safety investigation authorities may decide to investigate incidents other than those referred to in paragraphs 1 and 2, as well as accidents or serious incidents to other types of aircraft, in accordance with the national legislation of the Member States, when they expect to draw safety lessons from them.*
5. *By way of derogation from paragraphs 1 and 2 of this Article, the responsible safety investigation authority may decide, taking into account the expected lessons to be drawn for the improvement of aviation safety, not to initiate a safety investigation when an accident or serious incident concerns an unmanned aircraft for which a certificate or declaration is not required pursuant to Article 56(1) and (5) of Regulation (EU) 2018/1139, or concerns a manned aircraft with a maximum take-off mass less than or equal to 2 250 kg, and where no person has been fatally or seriously injured.*

Based on the findings of the site inspection and with regard to Article 5 (1) of Regulation (EU) No 996/2010 of the European Parliament and of the Council, the head of the TSB decided that an investigation is required and will be launched.

In the course of the investigation the IC has taken the following steps:

- carried out a site inspection;
- interviewed witnesses;
- carried out the inspection of the injured aircraft at the scene;
- examined and analysed data from the surveillance cameras;
- obtained pilot documentation;
- obtained aircraft and aircraft maintenance documentation;
- consulted with EASA.

## **Investigation Principles**

**This investigation is being carried out by Transportation Safety Bureau on the basis of the following disciplines.**

- Regulation (EU) No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC,
- Act XCVII of 1995 on aviation,
- Annex 13 identified in the Appendix of Act XLVI. of 2007 on the declaration of the annexes to the Convention on International Civil Aviation signed in Chicago on 7th December 1944,
- Act CLXXXIV of 2005 on the safety investigation of aviation, railway and marine accidents and incidents (referred to as Kbvt. throughout the document),
- NFM (Ministry for National Development) Regulation 70/2015 (XII.1) on safety investigation of aviation accidents and incidents, as well as on detailed investigation for operators,
- In matters not covered by Kbvt., Act CL of 2016 on General Public Administration Procedures

The competence of the Transportation Safety Bureau of Hungary is based on Government Regulation № 230/2016. (VII.29.) on the assignment of a transportation safety body and on the dissolution of Transportation Safety Bureau with legal succession.

**Pursuant to the aforesaid legislation,**

- Transportation Safety Bureau of Hungary shall investigate aviation accidents and serious incidents.
- Transportation Safety Bureau of Hungary may investigate aviation and incidents which – in its judgement – could have led to accidents of more severe consequences in different circumstances.

- Transportation Safety Bureau of Hungary is independent of any person or entity that may have interests in conflict with the objectives of the investigating body.
- In addition to the aforementioned legislation, TSB of Hungary shall conduct safety investigations in line with ICAO Docs 9756 and 6920 Manual of Aircraft Accident Investigation.
- This Report shall not be binding, nor shall an appeal be lodged against it.
- The original of this report was written in Hungarian.

No conflict of interest has been identified between safety investigators appointed to the IC. No investigator assigned with a safety investigation has been involved as an expert in any other procedure pertaining to the same case and shall not do so in the future.

The IC shall retain all data and information having come to their knowledge in the course of the safety investigation. Furthermore, the IC shall not be obliged to make such data and information available to other authorities, whose disclosure could have been legally refused by their original owner.

This Final Report is based on the Draft Report prepared by the IC that was sent to all involved parties for comments, as set forth by the relevant regulations.

Within legal deadline in response to the Draft Report, comments have been received articulating alternative opinions or interpretations. The IC has made several modifications in the wording of the Final Report to reflect these views.

## Copyright

This report has been issued by

Transportation Safety Bureau

2/A. Kőér St. Budapest H-1103, Hungary

[www.kbsz.hu](http://www.kbsz.hu)

[kbszrepules@ekm.gov.hu](mailto:kbszrepules@ekm.gov.hu)

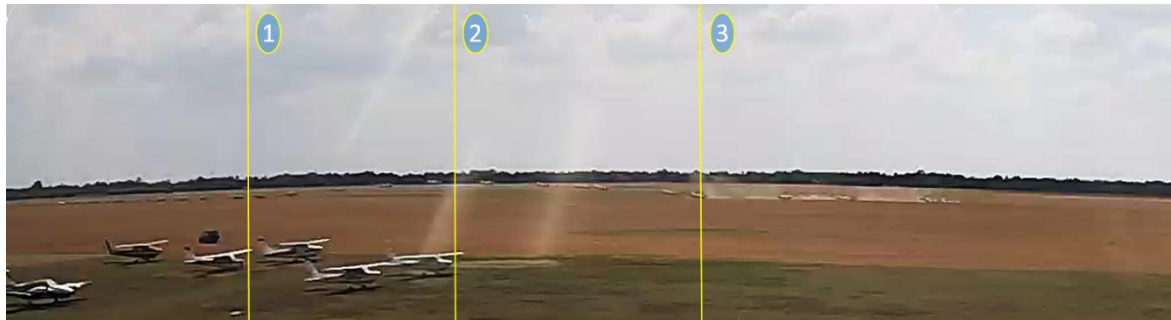
With the exceptions stipulated by law, this report or any part thereof may be used in any form, provided that context is maintained and clear references are made to the cited source.

## Translation

This document has been translated from Hungarian. Although efforts have been made to provide a translation as accurate as possible, discrepancies between the versions might occur. In such eventuality, the Hungarian version shall prevail.

## Factual information

### Flight History



2. Figure: The flight path of the mishap aircraft based on the surveillance camera  
1: Take-off, 2: Highest point of the flight, 3: Impact with terrain

The highly experienced pilot arrived at Szeged airport that day to complete the last flight of his flying career. After performing the pre-flight check, the pilot and his passenger boarded the aircraft and taxied onto the grass runway 34. The pilot recalled starting the takeoff roll 300-350 meters from the threshold of the runway in moderately strong, gusty north-westerly wind after carrying out the pre-takeoff checklist. Based on the evidence by the surveillance camera, the plane accelerated for 15 seconds before takeoff, and after climbing for 3-4 seconds reached the peak of its flight path (height of 4-6 meters above ground level). The aircraft began to descend from this position, and after 5 seconds it collided with the ground at a flat angle with its propeller, belly and gears not fully retracted. After a skid of about 60 meters the aircraft turned approximately 90 degrees to the left with respect to the axis of runway 34 and came to rest at the coordinates N46°14'58" E020°05'34".

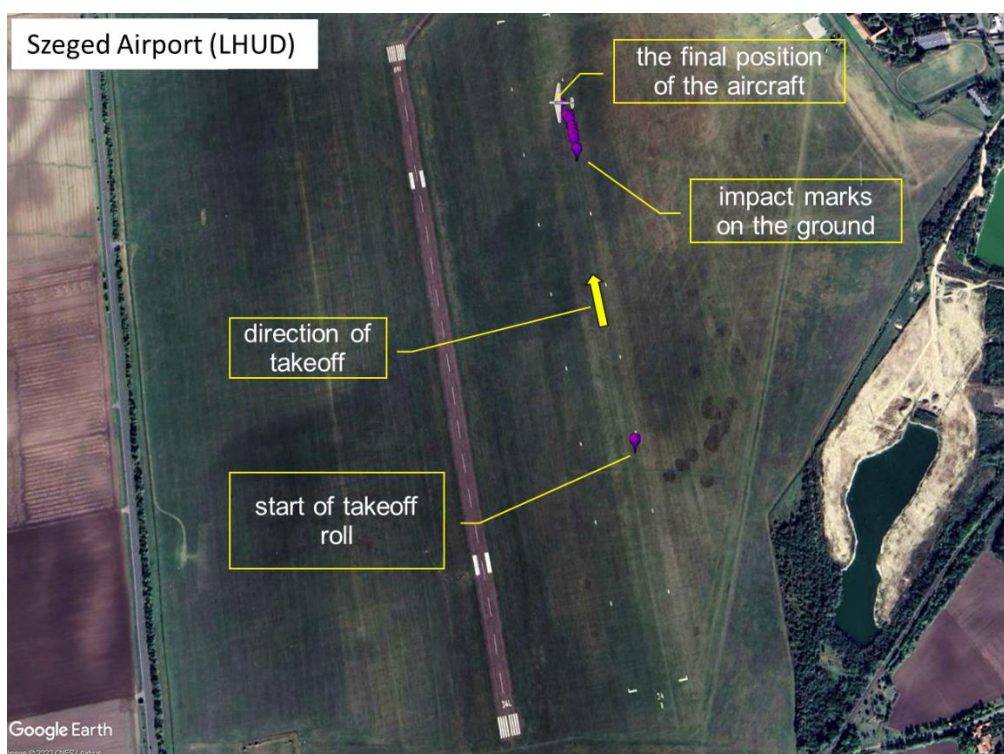


Figure 3: Traces observed at the scene

## Conclusions

### Findings

As a result of the investigation the IC concluded that the root cause of the accident was the pilot's loss of situational awareness during the critically low (4-6 meters) phase of the takeoff.

During the investigation, the IC established that based on its documents the aircraft was unserviceable at the time of the incident.

The IC found no grounds to issue a safety recommendation.

Dated in Budapest, on 05 April, 2023