MINISTRY OF CONSTRUCTION AND TRANSPORT

TRANSPORTATION SAFETY BUREAU

FINAL REPORT

(English Language Summary)

Zenit-290 parachute (Z06290028)

Nyíregyháza Airport (LHNY), 08 July, 2023

Accident

2023-0888-4

This is an English language abstract of the official safety report written in Hungarian. Final Reports are published at www.kbsz.hu.

Introduction

Synopsis

Occurrence class		Accident
Aircraft	Manufacturer	ZTH
	Model	Zenit-290
	Serial number	Z06290028
	Operator	Borsod County Flying and Parachuting Club
Occurrence	Date and Time	08 July, 2023, 16:30 LT
	Location	Nyíregyháza Airport (LHNY)
Fatalities / Severe Injuries		1 / 0
Damage to Aircraft		No Damage

On July 8, 2023, at 16:25 local time, the aircraft registered HA-ANT, an Antonov AN-2, took off from Nyíregyháza Airport (LHNY) for the purpose of conducting parachute jumps. In addition to the pilot, 12 parachutists were on board. Five of them carried out jumps from an altitude of 1,500 meters, while seven jumped from 3,000 meters.

The parachutist involved in the accident was a student making his second jump of the day from 1,500 meters. He exited the aircraft second, immediately followed by his instructor who jumped third. During the deployment sequence after exiting the aircraft, the student's right hand became entangled and trapped in the harness, which led to a severe deformation of the otherwise inflated main parachute. As a result, the canopy entered a rapid left-hand spin (*Figure 1*).

Despite his instructor's commands, the student did not cut away the main canopy nor did he deploy the reserve parachute. He impacted the grassy area of the airfield at high speed while still under the spinning main canopy. The student sustained life-threatening injuries and was transported to hospital, where he succumbed to her injuries 11 days later, on July 19, 2023.

The Investigation Committee (hereinafter "IC") concluded that the direct cause of the accident was the student's inability to manage the critical situation for unknown reasons. The IC identified the student's improper body position during exit as a contributing and triggering factor to the accident. The IC found no grounds to issue a safety recommendation.

Figure 1. (Source of the image: eyewitness video recording)

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 by WGS-84 standard.

Capitalised references used throughout this document (e.g. Captain, Pilot, etc.) denote 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 16:48 on 08 July, 2023, by the on-call officer of Hungarian Air Ambulance Nonprofit Ltd.

Investigation Committee

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

Investigator-in-Charge	dr. Nacsa Zsuzsanna	investigator
Member	Gula Eszter	investigator

Overview of the Investigation Process

Receiving event notification, the on-duty TSB supervisor mandated 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 other than specified in Annex II to Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency shall be the subject of a safety investigation in the Member State in the territory of which the accident or serious incident occurred.*
2. *When an aircraft, other than specified in Annex II to Regulation (EC) No 216/2008, registered in a Member State is involved in an accident or 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 lessons it expects to draw from such investigations for the improvement of aviation safety, including for those aircraft with a maximum take-off mass less than or equal to 2 250 kg.*
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.*

Based on the findings of the site inspection and with regard to Article 5 (4) 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:

- Collected data and examined the main and reserve parachutes as well as the parachuting equipment;
- Interviewed witnesses…;
- Obtained and analysed the documents prepared by the police;
- Obtained and analysed the autopsy report;
- Obtained and analysed video recordings related to the event;
- Obtained and analysed documentation related to the parachutist's training;
- Obtained and analysed weather data for the day of the event;
- Obtained and analysed the data recorded by the automatic activation device (AAD);
- Had the recorded data evaluated by the manufacturer of the AAD;
- Consulted with parachuting experts.

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 prevails.

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. Investigators assigned to a safety investigation shall not be involved as experts in any other procedure pertaining to the same case and shall refrain from doing 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, if their original owner could have legally refused disclosure.

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. The parties involved did not submit any differing comments within the legally prescribed time frame. One party commented on the draft final report, supporting the conclusions it contained.

Copyright

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

In the spring of 2023, the Student participated in a static-line ram-air parachute training course organized by the Miskolc Parachuting Sports Association and conducted by the Instructor. Following theoretical instruction, the training progressed to the practical phase, which included the Student's first static-line parachute jumps.

On the day of the accident (July 8, 2023), at 16:25 local time, the aircraft registered HA-ANT, an Antonov AN-2, took off from Nyíregyháza Airport (LHNY) for the purpose of parachute jumping. In addition to the pilot, 12 parachutists were on board, including the Student and his Instructor. Five of the parachutists performed their jumps from 1,500 meters, and seven from 3,000 meters. The Student carried out his second jump of the day from 1,500 meters, exiting the aircraft second, directly followed by his Instructor, who jumped third.

Video footage recorded by the Instructor shows that he removed the pilot parachute from its pocket and released it after the Student exited the aircraft. After exiting, the Student failed to assume a symmetrical, arched, stable body position and rotated to the right into the deploying parachute. His right hand became trapped between the two deploying risers and was wrapped by the harness during deployment. As a result, the left-side lines were significantly shortened, causing the otherwise inflated main canopy to become severely deformed and enter a rapid, left-hand spin (*Figure 1*).

Seeing the emergency, the Instructor approached the Student and tried to assist him in resolving the situation. He shouted instructions for him to cut away the main canopy. The Student attempted to free his trapped right hand from the lines and then used his left hand, which was held across his chest, to try to solve the emergency. However, his efforts were unsuccessful.

During the descent, they reached the critical decision altitude, below which the reserve parachute should be deployed without attempting to cut away the main canopy. The Instructor again shouted instructions for the Student to deploy the reserve. According to several eyewitnesses, the Student responded once (from approximately 50–70 meters) with "I can't."

Despite instructions shouted by the Instructor and ground personnel over the radio, and despite the Student's visible efforts, the main canopy was not released, and the reserve parachute was not deployed. The Student impacted the grassy area of the airfield at high speed while still under the spinning canopy. He sustained life-threatening injuries and was transported to the hospital.

Conclusions

The Investigation Committee (hereinafter "IC") concluded that the direct cause of the accident was the student's inability to manage the critical situation for unknown reasons. The IC identified the student's improper body position during exit as a contributing and triggering factor to the accident.

Safety Recommendations

The IC issued no safety recommendation.

Dated in Budapest, on 22 July, 2025