

*The original of the Final Report was issued in the Slovak language.
In case of inconsistency original version in Slovak language is applicable.*



MINISTRY OF TRANSPORT, CONSTRUCTION
AND REGIONAL DEVELOPMENT
OF THE SLOVAK REPUBLIC



Aviation and Maritime Investigation Authority
Námestie slobody 6, P.O.BOX 100
810 05 Bratislava 15

FINAL REPORT

on investigation of accident
of glider type **Astir CS 77**
Registration No. **D-4802**

Reg. No.: **SKA2014003**

The investigation of occurrence has been conducted pursuant to Art. 18 of the Act No. 143/1998 on Civil Aviation (Civil Aviation Act) and on Amendment of Certain Acts and in accordance with the Regulation (EU) No. 996/2010 of the European Parliament and of the Council on investigation and prevention of civil aviation accidents and incidents, governing the investigation of civil aviation accidents and incidents.

The final report is issued in accordance with the Regulation L 13 that is the application of the provisions of ANNEX 13 Aircraft Accident and Incident Investigation to the Convention on International Civil Aviation.

The exclusive aim of investigation is to establish causes of accident, incident and to prevent their occurrence, but not to refer to any fault or liability of persons.

This final report, its individual parts or other documents related to the investigation of occurrence in question have an informative character and can only be used as recommendation for the implementation of measures to prevent occurrence of other accidents and incidents with similar causes.

A. INTRODUCTION

Owner:	Aeroklub Holíč
Type of operation:	general aviation / sport and recreational flying
Glider type:	Astir CS 77
Registration No:	D-4802



Take-off site:	Airport Partizánske / LZPT
Flight phase:	forced ground landing
Place of accident:	Slovany N 48° 57' 54'' E 018° 49' 29''
Date and time of accident:	04.07.2014, 12:56

Note: All time data in this report are stated in the UTC time.

B. INFORMATIVE SUMMARY

On 04.07.2014, at 12:56, during a flight day of the 34th inter-club glider race “ALEXANDER MAKARENKO MEMORIAL 2014”, the pilot on a competitive flight did not find suitable termic conditions allowing him to continue the flight. He decided to make a forced ground landing with glider type Astir CS 77, Registration No. D-4802 (hereinafter “glider”) in the proximity of the community Slovany.

The following person was appointed for investigation of the air accident:

Ing. Juraj GYENES

The report is issued by:

Aviation and Maritime Investigation Authority
of the Ministry of Transport, Construction and Regional Development
of the Slovak Republic

C. MAIN PART OF REPORT

1. FACTUAL INFORMATION
2. ANALYSES
3. CONCLUSIONS
4. SAFETY RECOMMENDATIONS

1. FACTUAL INFORMATION

1.1 History of the flight

On 04.07.2014 the pilot received from the race organizer the flight plan of a competitive flight on the route Airport LZPT- Veľká Lúka –Vráble - Zobor – LZPT.

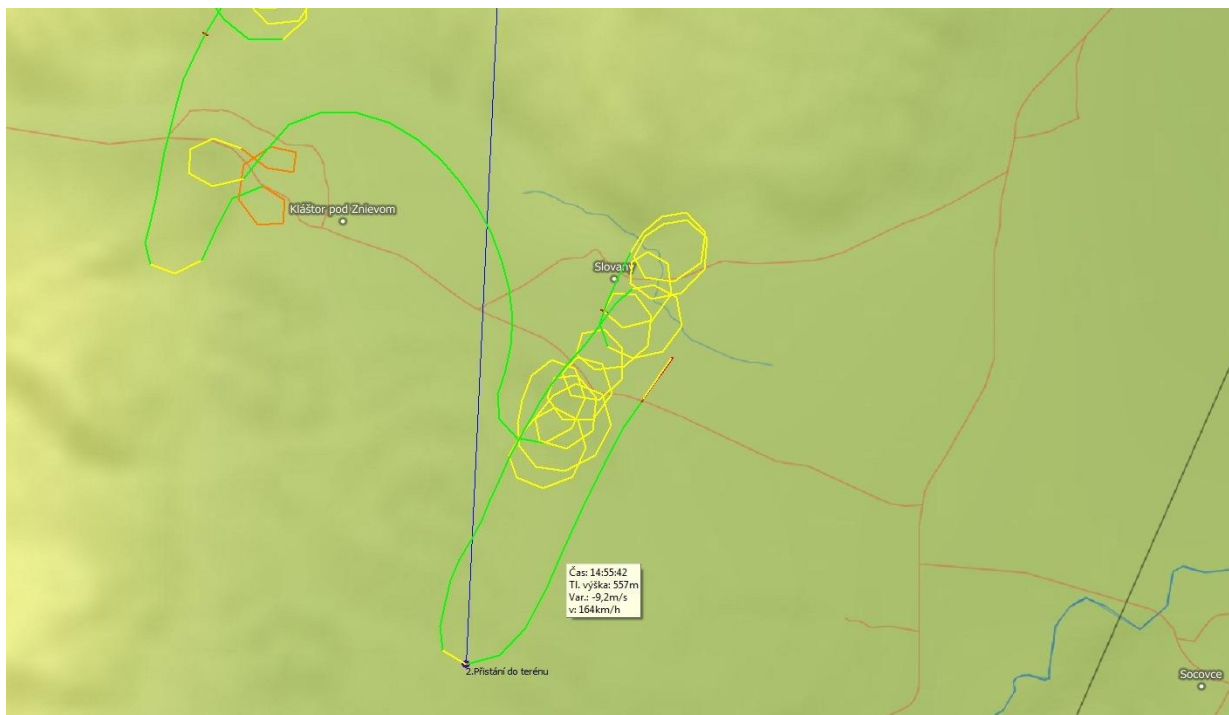
The termic conditions for continuation of the flight in the area of community Slovany deteriorated, so the pilot decided to make a forced ground landing. He chose a suitable surface (field with low growth) and started to circle in an altitude of 310 m above ground level at 12:53:54. At 12:55:12 - 12:55:24 he made the third and fourth circular turns from an altitude of 234 m above ground level at a speed of 87 km/h, which he finished in an altitude of 222 m above ground level at a speed of 122 km/h.

During the subsequent downwind landing approach the pilot increased the vertical descending speed excessively (9.8 m/s) with a gradual increase of speed up to 165 km/h, which caused him to fly over the chosen surface. In the end of the surface there was a road with a one-meter high embankment, oriented vertically to the direction of landing. At the last moment the pilot tried to fly over the embankment, but the tail of the glider came into contact with the ground. Subsequently the glider landing gear touched the embankment, which caused the glider to jump off and lose the speed. Approximately 8 m behind the road the front fuselage hit the ground under a steep angle and turned over to its back. It remained standing in this position.

The race organizer reported the accident to the Aviation and Maritime Investigation Authority of MTCRD SR and to the Police of SR.

Daytime: day

Flight rules: VFR



1.2 Injuries to persons

Injury	Crew	Passengers	Other persons
Fatal	-	-	-
Serious	-	-	-
Minor	1	-	-
None	-	-	-

1.3 Damage to aircraft

The glider was destroyed in the accident:

- Front fuselage fully destroyed
- Fuselage broken
- Stabilizer and elevator broken off
- Air brakes broken out.





1.4 Other damage

No circumstances with potential claims for compensation of other damage toward a third party were notified to the Aviation and Maritime Investigation Authority.

1.5 Personnel information

Pilot in command:

A national of the Slovak Republic, aged of 29 years, holder of glider pilot licence GPL, issued by the Civil Aviation Authority of the Slovak Republic with marked validity until 13.12.2016.

Medical certificate of 2nd class with marked validity until 13.03.2019.

Flying experience:

Total flight hours: 197 h 42 min and 432 flights

1.6 Aircraft information

Type:	Astir CS 77
Registration No:	D-4802
Serial number:	1601
Manufacturer:	GROB-Werke GmbH & Co.KG

The certificate of airworthiness No. 32343, issued by the Civil Aviation Authority of the Federal Republic of Germany, the certificate of verification of airworthiness No. 32343/14 issued by CAMO Medlánky CZ.MG0072/1 (Continuing Airworthiness Management Organisation) with marked validity until 04.05.2015.

Third-party insurance: AXA versicherung AG č.4008004522, valid until 02.03.2015.

1.7 Meteorological situation

Clear sky, 3-4/8 clouds, visibility above 10 km.

1.8 Aids to navigation

N/A.

1.9 Communications

N/A.

1.10 Aerodrome information

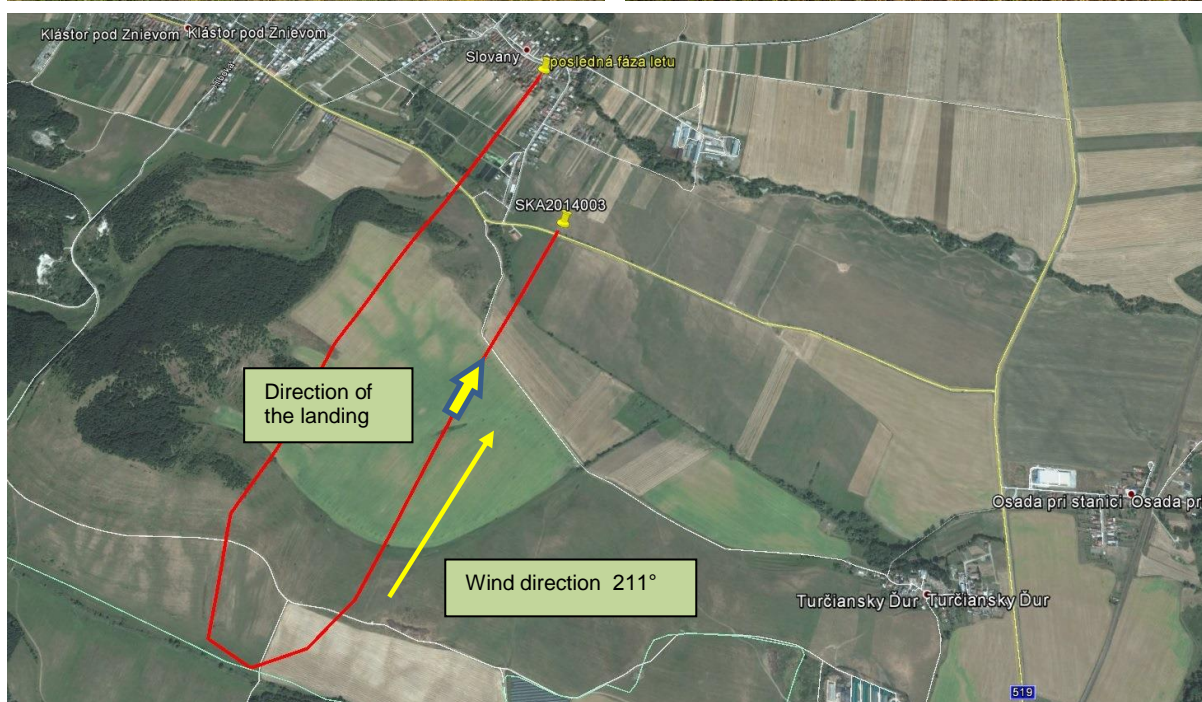
N/A.

1.11 Flight recorders

N/A.

1.12 Wreckage and impact information

The area surface consists of a meadow with grass growth of 20-30 cm.



1.13 Medical and pathological information

The pilot suffered minor injuries and was transported to the hospital.

1.14 Fire

No fire broke out.

1.15 Survival aspects

The search and rescue operations using SAR means were not required.

1.16 Tests and research

No tests or inspections of parts of the glider were required.

1.17 Organizational and management information

The flight operations were implemented in accordance with flight regulations valid in the Slovak Republic and with local rules. The race was organized in accordance with the FAI Sport Regulations, General Part, the FAI Sport Regulations, Section 3, Gliding, issued in October 2005, and its supplements.

1.18 Additional information

N/A.

1.19 Useful or effective investigation techniques

Standard investigation methods were used.

2. ANALYSIS

2.1. Activity of pilot

The selection of a suitable surface for ground landing of a glider and the correct estimate of calculation for final approach and landing on chosen surface requires increased attention from the pilot. A landing on relatively unknown ground, about which the pilot is only informed by a cursory look, imposes increased mental requirements on the pilot.

The pilot chose a surface suitable for landing, but incorrectly chose the direction and budget for landing with regard to the current wind conditions. After the termination of the fourth circular turn he increased the vertical descending speed excessively (9.8 m/s), with gradual increase of speed up to 165 km/h, which caused him to fail the landing on selected surface. He flew over it and in its end the tail of the glider touched the ground. The landing gear hit the embankment of road vertical to the direction of landing, the glider jumped off, lost the speed and turned over to its back.

3. CONCLUSIONS / CAUSE OF ACCIDENT

3.1 Findings

Pilot

- According to submitted documentation the pilot had valid qualifications for flights with aircraft of given category
- He had sufficient flying experience for competitive flights
- At the time of accident he was not under the influence of alcohol, drugs or common medicines that could have decreased his attention during the flight.

Aircraft

The aircraft had valid documentation and did not show any fault before the accident.

3.2 Causes of air accident

Incorrectly performed approach calculation for landing and poor mastering of the flying technique by the pilot during the forced ground landing.

4. SAFETY RECOMMENDATIONS

The final report on investigation of the accident does not contain any recommendations.

Bratislava, 18.08.2014