



**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



Reg. No.: SKA2013009

FINAL REPORT

on investigation of air accident
of glider type **VSO-10 Gradient**
Registration No. **OM-5611**

Date: 03.07.2013

Place: Ostratice

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

Operator / Owner:	Aeroklub Trenčín
Type of operation:	general aviation
Type of glider:	Orličan, VSO-10 Gradient
Registration No.:	OM-5611
Takeoff site:	Airport Partizánske / LZPT
Flight phase:	forced landing
Place of accident:	Ostratice
Date and time of accident:	03.07.2013, 15:17

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

B. INFORMATIVE SUMMARY

On 3 July 2013 at 15:17, during the flight day of the „Glider Memorial Race of Alexander Makarenko“, the pilot on navigation flight did not find suitable thermal conditions and decided to make a forced ground landing near the community of Ostratice with glider type VSO-10 Gradient, registration No. OM-5611 (hereinafter „VSO“). During the landing manoeuvre in a low altitude VSO flicked into a spin and hit the ground. The pilot was seriously injured in the air accident. VSO was destroyed.

The following persons were appointed for investigation of the air accident:

Ing. Igor BENEK
Ing. Juraj GYENES

The report is issued by:

The 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 3 July 2013 the pilot received from the race organiser the flight plan for competitive flight on the route Airport LZPT- Martin – Čeladice – Motešice – LZPT. When returning from the turning point of Motešice near the community Ostratice the pilot did not find suitable thermal conditions for continuation of the flight and so decided to make a forced ground landing. The pilot chose a suitable surface, a plot between two communities, and started the landing approach. During a right-hand turn in a low altitude (approximately 60 m) VSO flicked into a spin. Due to the low height of flight the pilot did not succeed to recover from the turn and the nose of VSO hit the ground.

Daytime: day
Flight rules: VFR

1.2 Injuries to persons

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

1.3 Damage to aircraft

The glider VSO was destroyed in the air accident – the fuselage front section was fully destroyed, the fuselage got broken and wingtips were damaged.





1.4 Other damages

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:

A national of the Slovak Republic, aged of 49 years,

holder of glider pilot licence GPL No. SK 01020215, issued by the Civil Aviation Authority of the Slovak Republic, with marked validity until 31.12.2022.

Medical certificate of 2nd class with marked validity until 23.01.2014.

Flight experience:

Total flight hours: 422 h 40 min and 857 flights

1.6 Aircraft information

Airframe:

Type:	VSO-10 Gradient
Registration No.:	OM-5611
Serial No.:	150127
Manufacturer:	Orlíčan Choceň, Czech Republic

Certificate of airworthiness No. 0408-S issued by the Civil Aviation Authority of the Slovak Republic, with marked validity until 05.05.2014.

Third party insurance: Allianz Slovenská poisťovňa, No. 491 100 507.

1.7 Meteorological information

Cleary, scattered 3-4/8, visibility above 10 km.

1.8 Aids to navigation

Not applicable.

1.9 Communications

Not applicable.

1.10 Aerodrome information

Not applicable.

1.11 Flight recorders

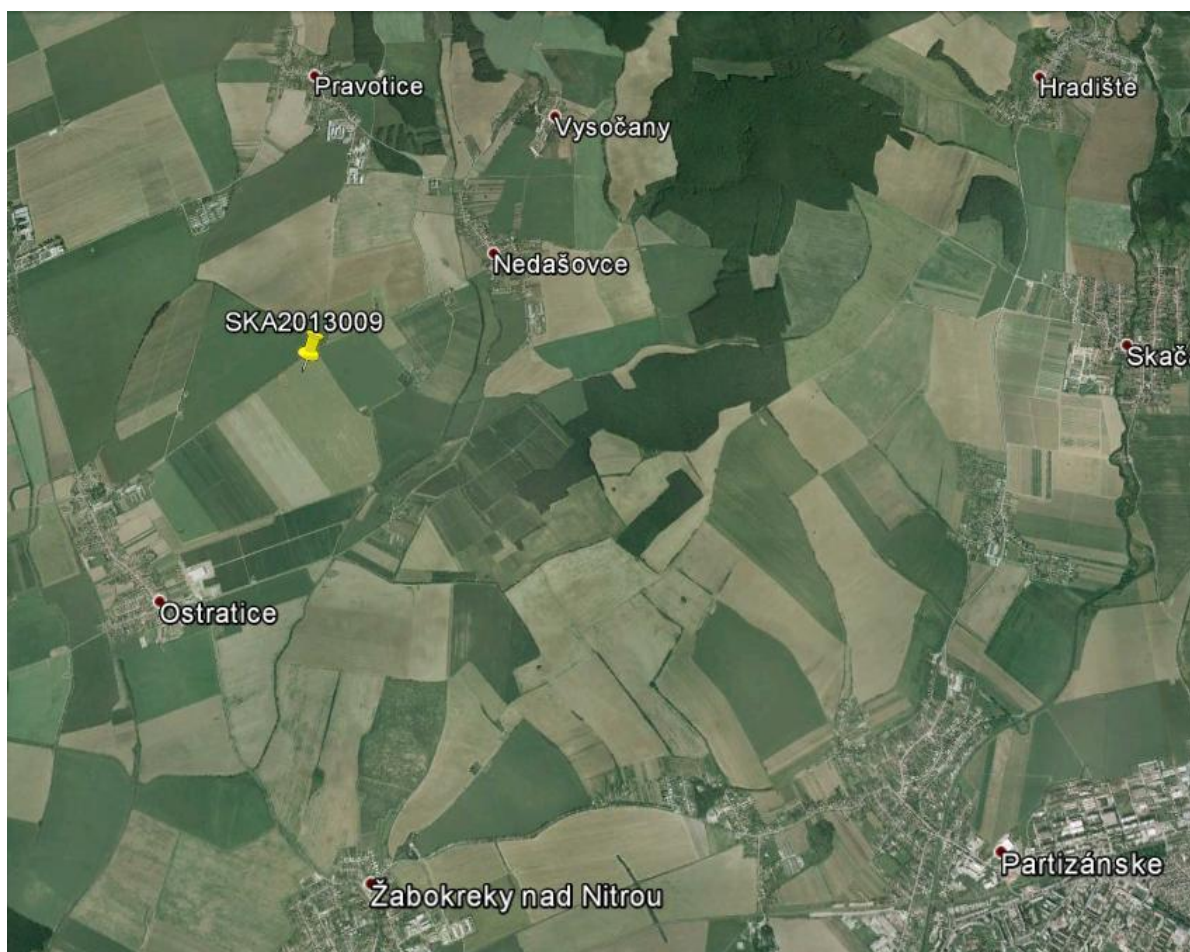
Not applicable.

1.12 Wreckage and impact information

VSO landed on even ground without major obstacles.

The place of air accident is determined by geographic coordinates:

N 48° 39' 36'' E 018° 17' 37''.



1.13 Medical and pathological information

The pilot was seriously injured, transported to the hospital.

1.14 Fire

No fire broke out.

1.15 Survival aspects

The search and rescue by SAR means was not required.

1.16 Tests and research

No tests or inspection of parts of VSO were required. The pilot in his statement indicates that VSO had no technical problems during the flight before the air accident.

1.17 Organizational and management information

Not applicable.

1.18 Additional information

Not applicable.

1.19 Useful or effective investigation techniques

Standard investigation methods were used.

2. ANALYSIS

The ground landing of gliders requires increased attention of pilots in the phases of selection of suitable landing area, final approach and landing. When selecting the landing area, the pilots must take into account, besides the orientation of the area in relation to wind, its surface, gradient, bearing capacity and type of vegetation cover. The landing into a relatively unknown ground, about which the pilot is informed by a cursory look, puts increased psychological requirements on the pilot. All these factors, including the change of ground wind speed and orientation and surface bumps, often cause glider damage in the landing phase.

After selection of a suitable area for forced landing the pilot made a right-hand turn in a low altitude at the last moment during the landing approach. The pilot steered VSO in such manner that VSO stalled with entry into a spin, and finally hit the ground at zero forward speed.

3. CONCLUSIONS / CAUSE OF AIR ACCIDENT

3.1 Findings

Pilot

- according to submitted documentation had valid qualifications for flights with given aircraft type
- had sufficient flight experience for competitive flights
- at the time of air accident the pilot was not under the influence of alcohol, drugs or common medicines which could decrease his attention during the flight.

Aircraft

- had valid documentation and did not show any fault before the air accident.

3.2 Causes of air accident:

- failure to master the flying technique by the pilot of VSO during forced ground landing.

4. SAFETY RECOMMENDATIONS

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

Bratislava, 20.08.2013