



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

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



Reg. No. : SKA2013003

FINAL REPORT

on investigation of accident
of glider type **SZD-41A Jantar STD**
registration No. **SP-3071**

Date: 16.04.2013

Place: Úľanka – football ground

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

Type of glider:	SZD-41A Jantar STD
Registration No:	SP-3071
Operator:	Aero Club Łódzki, Poland
Take-off site:	Airport Prievidza / LZPE
Planned landing site:	LZPE
Flight phase:	competitive flight – forced ground landing
Type of operation:	general aviation / sports and pleasure flying
Place of air accident:	Úľanka – football ground
Geographic coordinates of the place of accident:	N 48°47' 07'' E 19°06' 53''
Date and time of accident:	16.04.2013, 12:32

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

B. INFORMATIVE OVERVIEW

On 16 April 2013 at 12:32, during the second flight day of the 6th international gliding competition in Prievidza (hereinafter “FCC Gliding 2013”) the pilot of glider type SZD-41A Jantar STD, registration No. SP-3071 (competition sign “**AP**”) made a forced ground landing on the football ground in the community of Úľanka.

During the landing manoeuvre the glider suffered an extensive damage, but the pilot was not injured.

The air accident was reported by the competition organizer to the Aviation and Maritime Investigation Authority of the Ministry of Transport, Construction and Regional Development of the Slovak Republic.

The commission composed of the following members was appointed for investigation of the air accident:

Lic. Jaroslava MIČEKOVÁ
Ing. Ján CHUDÝ

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

Due to insufficient flight height, the pilot of the glider executing the competitive task was unable to reach the sector from the first turning point, which was the airport Jasná/LZJS and so she decided to turn earlier and to continue the flight in the west direction along the southern side of the Nízke Tatry mountains in the effort to find an updraft. She came to a narrow and deep valley, but was unable to achieve the required height to continue the flight, so she decided to make a forced ground landing on selected surface of the football ground in the community of Úľanka.

She made the landing manoeuvre on the selected surface by right-handed circle and terminated the 3rd turn in the altitude of 506 m (103 m AGL). Then she extended the landing gear, terminated the 5th turn in the altitude of 490 m (80 m AGL), started the final approach with course of 026° (wind 208% kt) and was approaching the landing surface at a speed $V_{APP} = 87$ km/h.

In the final landing phase the pilot made a landing with tail wind and extended landing gear on the football ground along the diagonal. After a short landing run the glider turned on the ground to the course of 207°.

The pilot informed about landing of the glider the organizer of FCC Gliding 2013.

On 16 April 2013 the Rescue Coordination Centre (RCC) Bratislava reported by phone the air accident to the Aviation and Maritime Investigation Authority of the Ministry of Transport, Construction and Regional Development of SR.

Daytime: Day
Flight rules: VFR

1.2 Injuries to persons

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

1.3 Damage to glider

After landing the front part of the fuselage (fig.1), left windtip arc (fig. 2), left aileron (fig. 3) and tail control surfaces (fig. 4) of the glider were damaged, the rudder wheel (fig. 5) was bursted in and the right side of the fuselage under the right wing (fig. 6) was cracked.



Obr. 1



Obr.2



Obr. 3



Obr. 4



Obr. 5



Obr. 6

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 Board.

1.5 Personnel information

A national of Poland, aged of 40 years,

holder of aviation personnel licence GPL No. PL-10074-PL(G)-10, issued by the Civil Aviation Authority of Poland, with marked validity until 26.02.2015.

Medical certificate of second class with issuance date of 21.02.2013 and marked validity until 06.03.2015.

Qualifications:

Gliders (GLD) with marked validity until 26.02.2015,
Flight instructor of 1st class (FI 1) with marked validity until 11.03.2014.

Flying experience:

Total flight hours : 704 h 34 min and 3005 flights
In it on the day of accident: 2 h 12 min and 1 flight

1.6 Aircraft information

Airframe: type: SZD-41A Jantar STD
serial No: B-733
year of Manufacture: 1976
manufacturer: PDPS PZL Bielsko

Total operating hours since manufacture: 1 925 h 38 min by 16 April 2013.

The glider was put into operation on 17 January 1977 by issue of the certificate of airworthiness No. 3071 of 08.07.2008 and the certificate of registration in Poland dated 29.01.2004, issued by the Civil Aviation Authority of Poland. The certificate of verification of airworthiness No. DLC/12/166 with marked validity until 12.07.2013.

Aircraft radio station licence No. PA/0368/11 valid until 23.03.2021.

Third-party insurance: insurance company TUIR "WARTA" S.A. Katowice, No. LOT/90820/0197021/KAT/13.

Calculation of weight of glider at the time of accident

Empty weight of glider	258.1 kg
Weight of crew + equipment	84.5 kg
<u>Weight of water ballast: approx. 0 l x 0.999 kg/l</u>	<u>0.0 kg</u>
Total weight of glider at the time of AA	342.6 kg

The maximum permitted take-off weight of the glider of 360 kg was not exceeded during the flight.

1.7 Meteorological information

On the critical day our territory was influenced by high pressure of 1034 hPa with the centre over West Russian and by low pressure of 982 hPa with the centre over the British islands.

The area of the air accident at the critical time had weather without precipitation, 1/8 Cu, visibility over 10 km. The ground wind was blowing from the direction of 208° and the wind speed did not exceed 5 kt.

Weather at LZSL:

METAR LZSL 161230Z 24006KT 160V290 CAVOK 19/M00 Q1025=

METAR LZSL 161300Z 20006KT CAVOK 20/M01 Q1024=

Weather at Chopok:

12:00-13:00

SYNOP 11916 12389 11808 10006 21042 38044 48540 53004 60001 81102 333 81806 93598=

13:00-14:00

SYNOP 11916 42689 11708 10011 21041 38044 48539 81102 333 81840 93598=

The critical flight of glider was made in an environment which can be described from the meteorological view as stable weather without precipitation, with excellent visibility conditions and without meteorological events which could negatively influence the flight of the glider.

Meteorological conditions had no influence on the occurrence of the air accident.

1.8 Aids to navigation

The glider was equipped for VFR flights.

1.9 Communications

The glider was equipped by a radiostation allowing two-way radio communication with all air stations at any moment of flight.

1.10 Aerodrome information

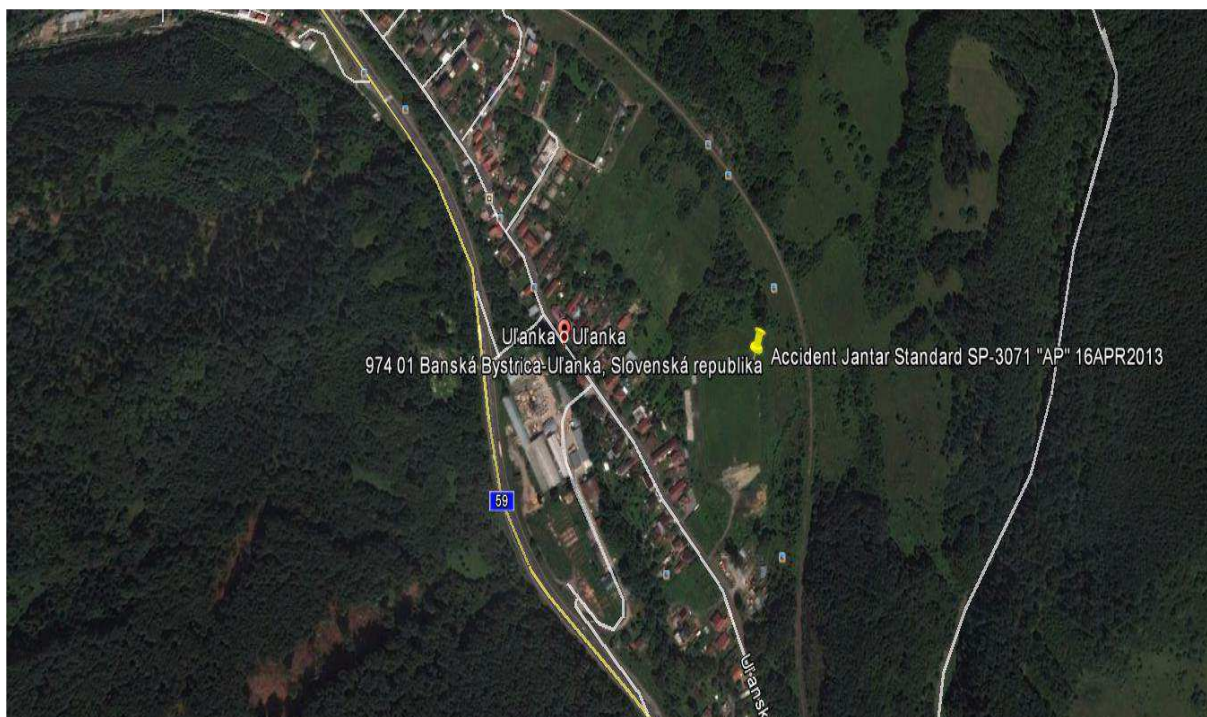
Not applicable.

1.11 Flight recorders

The glider was equipped by device VOLKS LOGGER, approved GNSS flight recorded. Data in the flight recorder, where records from flights made on the competition day were stored, were evaluated by the organiser of FCC Gliding 2013.

1.12 Wreckage and impact information

The place of accident is described by geographic coordinates: N 48°47'07''; E 019°06'53''. The glider remained in one piece and damage after the accident.



1.13 Medical and pathological information

Not applicable.

1.14 Fire

No fire broke out.

1.15 Survival aspects

The search and rescue operations were not required.

After landing the pilot informed by phone the organizer of FCC Gliding 2013 about landing of the glider.

1.16 Tests and research

Tests and research were not necessary.

1.17 Organizational and management information

The flight operation was implemented in accordance with flight regulations valid in the territory of the Slovak Republic. The competition FCC Gliding 2013 was organized in accordance with the FAI Sporting Code – General Part and Part 3, Supplement “A” to the Sporting Code Part 3 and Local rules of FCC Gliding 2013.

1.18 Additional information

Not applicable.

1.19 Useful or effective investigation techniques

Standard investigation methods were used.

2. ANALYSIS

2.1. Flight history

The pilot headed to an area where she expected to find updrafts. She came to a narrow and deep valley, but only found downdrafts and limited conditions for the selection of landing area.

In the search she could not find any updraft and the glider was losing the flight height.

In the final phase of forced landing the pilot landed with tail wind and extended landing gear on selected surface along the diagonal.

3. CONCLUSIONS / CAUSE OF ACCIDENT

3.1 Findings

The pilot

- had valid qualifications for flights in the respective aircraft category according to submitted documentation;
- had sufficient flight experiences to make competitive flights;
- was not under the influence of alcohol, drugs or common medicines, which could have decrease her attention during the flight, at the time of air accident;
- did not master the flying technique used for landing on a surface with limited size.

The glider

- had valid documentation and did not show any faults before the air accident;
- fulfilled the conditions of airworthiness before the critical flight.

3.2 Causes of air accident:

- entry into an area with limited conditions for selection of landing area for glider landing outside an airport;
- non-mastering of the flying technique used for landing on a surface with limited size.

4. SAFETY RECOMMENDATIONS

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

Bratislava, 23.05.2013