



# 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. : SKA2013002

## FINAL REPORT

on investigation of accident  
of glider type **Standard Libelle 201B**  
registration No. **G-DCMV**

Date: 16.04.2013

Place: Liptovská Lužná – recreational centre Železnô

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:	Standard Libelle 201B
Registration No:	G-DCMV
Operator / Owner:	Miroslav Izydorczak, 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:	Liptovská Lužná – recreational centre Železnô
Geographic coordinates of the place of accident:	N 48°57' 15'' E 19°23' 37''
Date and time of accident:	16.04.2013, 13:10

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

## B. INFORMATIVE OVERVIEW

On 16 April 2013 at 13:10, during the second flight day of the 6th international gliding competition in Prievidza (hereinafter “FCC Gliding 2013”), the pilot of glider type Standard Libelle 201B, registration No. G - DCMV (competition sign “**184**”), made a forced landing approach to a surface with snow-covered permanent grassland near the residential buildings of the recreational centre Liptovská Lužná – Železnô.

When approaching the selected surface the glider came into contact with a coniferous tree between the buildings of the recreational centre and fell to the ground. After the impact the pilot left the destroyed glider and the personnel of the recreational centre called an ambulance, which transported him to the Central Military Hospital (ÚVN) in Ružomberok.

After the impact on the ground the glider was destroyed and the pilot suffered serious injuries.

The air accident was reported through the Rescue Coordination Centre (RCC) Bratislava to the district police directorate of Liptovský Mikuláš and by the competition organizer to the Aviation and Maritime Investigation Authority of the Ministry of Transport, Construction and Regional Development of SR.

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

Ing. Zdeno BIELIK

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**

The pilot executing the competitive task overflew the Veľká Fatra mountains and then continued the flight along the northern (downwind) side of the Nízke Tatry mountains. When he reached the sector from the first turning point, which was the airport Jasná/LZJS, due to the insufficient height and faster descent of the glider the pilot decided to continue the flight to the south – southern side of the Nízke Tatry mountains – in the effort to find an updraft. He reached an area situated north-east from the recreational centre Železnô, but was unable to achieve the required height to continue the flight, so he decided to make a forced ground landing on selected surface, south-east of the recreational centre.

The pilot made the landing manoeuvre by direct approach to the selected area from altitude of 1092 m (77 m AGL), with course 205°, wind 208% kt, and was approaching it at speed  $V_{APP}=71$  km/h (IAS) and vertical rate of descent  $V_V=-2.4$  ms<sup>-1</sup>. In the effort to decrease the vertical rate of descent, the pilot lowered the flight speed to  $V_{APP}=49$  km/h (IAS), when he found himself in an altitude of 1034 m (30 m AGL).

At that moment he saw the roof of residential building “Vila Holubica“ on his left side and a coniferous tree on this right side. In the effort to avoid the building he turned the glider to the right, i.e. to the coniferous tree. The left wing of the glider hit the building roof and the left wingtip arc split off. The glider then touched thick branches of the coniferous tree and fell to the ground. Upon the impact on the ground the cockpit canopy shattered, the fuselage behind the wings got broken and the right wing near the right aileron cracked.

Daytime: Day  
Flight rules: VFR

## 1.2 Injuries to persons

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

## 1.3 Damage to glider

The glider was destroyed in the accident.



#### 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:**

a national of Poland, aged of 55 years,

holder of aviation personnel licence GPL No. PL-19638-PL(G)-08, issued by the Civil Aviation Authority of Poland, with marked validity until 22.07.2013.

Medical certificate of second class 2 with issuance date of 15.02.2013 and marked validity until 13.03.2014 and limitation of VNL.

Qualifications: Gliders (GLD) with marked validity until 22.07.2013.

##### Flying experience:

Total flight hours : 322 h 13 min and 358 flights

In it on the day of accident: 2 h 47 min and 1 flight

#### 1.6 Aircraft information

**Airframe:** Type: Standard Libelle 201B  
Serial No: 235  
Year of manufacture: 1971  
Manufacturer: Glasflügel

Total operating hours since manufacture: 2 129 h 11 min until 16.04.2013.

The glider by issue of the certificate of airworthiness No. 059969/002 of 15.01.2009 and the certificate of registration in the United Kingdom of Great Britain and Northern Ireland No. G-DCMV/R3 dated 04.07.2012, issued by the Civil Aviation Authority of the United Kingdom of Great Britain and Northern Ireland.

The certificate of verification of airworthiness No. G-DCMV/UK.MG0279/06/02/2013/BCA1660 with marked validity until 20.03.2014.

Aircraft radiostation licence No. 24472.

Third-party insurance: insurance company TUIR "WARTA" S.A.Gdynia, No.LTN/908200006243/GDY/2012.

##### **Calculation of weight of glider at the time of accident**

Empty weight of glider 201.3 kg

Weight of crew + equipment 86.5 kg

Weight of water ballast: approx. 0 l x 0.999 kg/l 0.0 kg

Total weight of glider at the time of AA **287.8 kg**

The maximum permitted take-off weight of the glider of 290 kg was not exceeded during the flight.

#### 1.7 Meteorological information

On the critical day the territory of the Slovak Republic 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 radiostation allowing two-way radio communication with all air stations at any moment of flight.

### 1.10 Aerodrome information

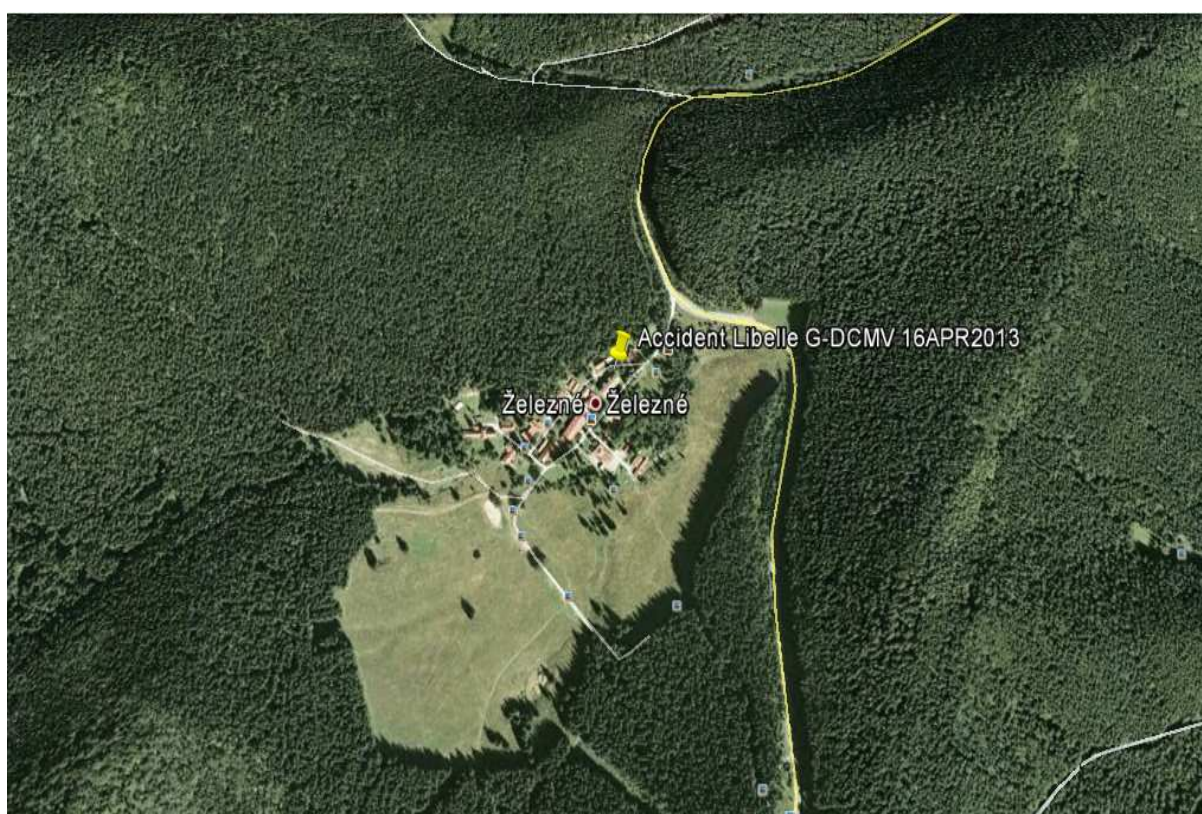
Not applicable.

### 1.11 Flight recorders

The glider was equipped by device LX Navigation COLIBRI (IGC-approved GNSS flight recorder). 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°57'15"; E 019°23'37".



### **1.13 Medical and pathological information**

The pilot complained of right shoulder pain, so he was transported to the hospital in Ružomberok where the examination confirmed the fractures of ribs and right shoulder-blade.

The laboratory report No. 27163404 issued at 16:36 stated the presence of residual alcohol of 0.05 ‰ in the pilot.

### **1.14 Fire**

No fire broke out.

### **1.15 Survival aspects**

The search operation on the place of accident was activated by the organizer of FCC Gliding 2013 through RCC Bratislava, which reported the accident to the police department in Dolný Kubín.

The pilot left the glider without help and the personnel of the recreational centre called an ambulance for him.

### **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**

The glider did not carry documents and other documentations as required by §14 of the Act No. 143/1998 Coll. on civil aviation. The documentation was submitted to the commission later.

### **1.19 Useful or effective investigation techniques**

Standard investigation methods were used.

## **2. ANALYSIS**

### **2.1. Flight history**

After reaching the sector from the first turning point, the pilot of the glider, due to the insufficient height and faster descent, decided to continue the flight in the effort to find an updraft. He reached an area where he expected to find some updrafts. The pilot was unable to achieve the required height to continue the flight, so he decided to make a forced ground landing on selected surface. The glider was losing height during the whole flight.

Ground landing of gliders requires a thorough inspection of the selected landing area by the pilots and correct estimate of landing profile on selected surface.

In the landing approach phase the pilot did not keep a safe distance from obstacles.

### **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,
- presence of residual alcohol (0.05 ‰) was detected in the pilot, which might have decreased his attention during the flight and in the landing approach phase.

##### **The glider**

- had valid documentation and did not show any faults before the air accident,
- fulfilled the conditions of airworthiness before the critical flight,
- did not carry documents and other documentation required by §14 of the Act no. 143/1998 Coll. on civil aviation.

#### **3.2 Causes of air accident:**

- entry into an area with limited conditions for selection of landing area for glider landing outside an airport,
- failure to keep a safe distance from obstacles in the phase of final approach for forced landing of glider outside an airport.

### **4. SAFETY RECOMMENDATIONS**

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

Bratislava, 20.05.2013