

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



AVIATION AND MARITIME INVESTIGATION AUTHORITY
Námestie slobody 6, P.O.BOX 100
810 05 Bratislava

FINAL REPORT

of the safety investigation of the aviation accident

HALLEY / APOLLO CXMD flying sport vehicle

registration number **OM – H153**

Ref. No.: **SKA2016008**

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:	private individual
Type of operation:	general aviation / sport and recreational flying
Type:	HALLEY / APOLLO CXMD flying sport vehicle (hereinafter referred to as the "FSV")
Registration number:	OM – H153
Take-off:	Sládkovičovo / LZSLAD airport
Flight phase:	manoeuvring
Incident location:	LZSLAD
Incident date and time:	24 September 2016, 6:55

Note: All times in this report are UTC.

B. INFORMATIVE SUMMARY

On 24 September 2016 at 6:46:45 the pilot – student in training carried out take-off with the intention of flying in the area above the airport LZSLAD.

During the flight, at 6:55:26, his FSV fell in a left-hand-rotating turn at ground-level height, with the subsequent collision of the FSV with the ground.

The pilot of the FSV suffered a fatal injury during the occurrence.

The following person has been appointed to investigate the causes of the occurrence:

Ing. Igor BENEK

The report was issued by:

Aviation and Maritime Investigation Authority
Ministry of Transport and Construction of the Slovak Republic.

C. MAIN PART OF THE REPORT

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

1. FACTUAL INFORMATION

1.1 History of the flight

On 24 September 2016, the pilot – student in training (hereinafter referred to as the "pilot") prepared his FSV and decided to arbitrarily carry out an independent flight, despite the prohibition / recommendation not to carry out flights independently.

At 6:39:47 the pilot started rolling on an asphalt road towards the grassy runway (hereinafter referred to as "RWY") 14. During rolling, he was not wearing a safety helmet.

At 6:40:57, he rolled to the threshold of RWY14, where he got off the FSV, carried out his last preparation for the flight and switched on the camera (situated on the right side of the wing).

At 6:46:45, he took off from RWY14. After take-off, he continued to fly following the right circuit RWY14 with the intention of carrying out a low-level flyover above the person watching the whole flight. He carried out the flyover at 6:49:11, at ground-level height, with a heading of ca 110° in the right-hand-rotating inclination.



Subsequently, the pilot again carried out a right-hand-rotating turn with the intention of carrying out another low-level flyover above the person. He carried out the flyover at 6:49:52 along the electric line with a heading of 110° at ground-level height.

After the second flyover, he decided to carry out a low-level flyover in the direction of RWYT32. After the flyover at 6:55:11 above the person watching him constantly, he decided suddenly to carry out a tightened left-hand-rotating turn at ground-level height, probably by 360° above the threshold of RWY14. After this manoeuvring, the FSV fell with its wing down and subsequently collided with the ground at 6:55:26.

The aviation accident was reported to the Aviation and Maritime Investigation Authority of the Ministry of Transport, Construction and Regional Development of the Slovak Republic by an authorised representative of the Light Aircraft Association of the Slovak Republic.

Daytime: day

Flight rules: VFR

1.2 Injuries to persons

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

1.3 Damage to the FSV

The FSV was destroyed in the occurrence.



1.4 Other Damage

The Aviation and Maritime Investigation Authority has not been notified of any circumstances with potential claims for other compensation to third parties.

1.5 Personnel information

Pilot:

A citizen of the Hungarian Republic, living in Slovakia on a long-term basis, aged 63 years, holder of the student - licence pilot card for piloting powered hang gliders, issued by the inspector of the Light Aircraft Association of the Slovak Republic on 12 June 2014 with specified validity until **12 June 2016**.

1.6 Information about the FSV

Type: APOLLO CXMD
Registration number: OM – H153
Manufacture No.: 110504/VL04-2012
Manufacturer: HALLEY

Airworthiness certificate No. 16709 with a specified validity period until 13 April 2017.

1.7 Meteorological information

On 24 September 2016 at 7:00, in the cadastre of the town of Sládkovičovo (the airport), there were nearly clear skies or only small clouds.

The air temperature was approximately 12 °C and the relative humidity was around 80%. The sky was covered with clouds from 1/8 to 2/8. At a height of 10 m above the flat terrain without obstacles, there was a northerly to north-easterly wind blowing with a speed up to 2 m/s.

Horizontal visibility reached 15 km. At a height of 500 m above ground level, a north-westerly wind was blowing with a speed of around 6 m/s; the wind speed decreased at lower levels and its direction gradually changed to northerly and north-easterly.

At a height of 300 m, the speed was 4 m/s; at the level from 200 m to 100 m there was a weak wind blowing up to 2 m/s; at a height of 80 m up to 20 m the speed increased to 3 m/s; and at a height of 10 m the wind speed was again maximally 2 m/s.

1.8 Aids to navigation

Not applicable.

1.9 Communications

Not applicable.

1.10 Airport information

The airport LZSLAD – the area for ultra-light aircraft, non-public. The RWY 14/32. Dimensions 800 x 80 m, grass.

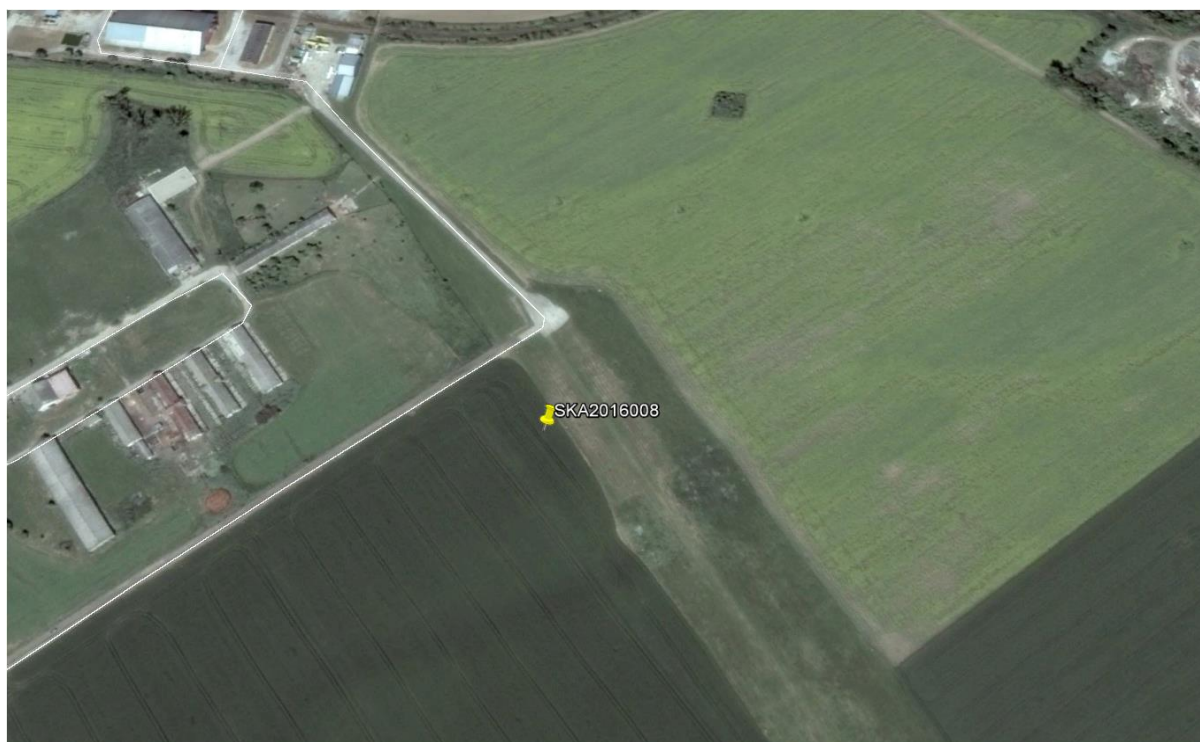
1.11 Flight recorders

GoPro outdoor camera.

1.12 Wreckage and impact information

The pilot fell in a field near the airport LZSLAD.

The place of his fall is determined as being at the geographical coordinates of 48°11'28'' N 17°37'52'' E.



1.13 Medical and pathological information

From the perspective of forensic medicine, it was a violent death, traumatic–bleeding shock with polytrauma that is in direct connection with all injuries.

At the time of the occurrence, the pilot was not under the influence of alcohol, conventional medicines, narcotics or drugs that could have reduced his attention during the flight.

Even after the external and internal inspection as well as supplementary laboratory professional examinations of biological materials taken during the autopsy, no acute or chronic pathological changes were found that could have negatively influenced the attention and behaviour of the aforementioned person during the aviation incident or that could have been direct connected with his death.

1.14 Fire

None.

1.15 Survival aspects

No investigation or rescue by SAR (Search and Rescue) means had to be carried out.

1.16 Tests and research

No tests or expert examination of the FSV were necessary.

1.17 Organizational and management information

The flight was carried out in accordance with aviation and hiking regulations applicable in the Slovak Republic.

1.18 Additional information

Not applicable.

1.19 Useful or effective investigation techniques

Conventional methods of investigation were used.

2. ANALYSIS

The pilot, with the minimal experience in flying a FSV, carried out low-level flyovers above the person watching him during his flight at the airport.

After his last flyover at ground-level height, he decided to carry out a sharp left-hand-rotating turn, while he made the FSV fall during this manoeuvring with the wing down and with a subsequent collision with the ground.

3. CONCLUSIONS / Cause of the Aviation Accident

3.1 Findings

Pilot

- Was not qualified to fly in the given FSV category according to the documentation submitted;
- At the time of the accident he was not under the influence of alcohol, drugs or conventional medicines that could have reduced attention during the flight.

FSV

Had valid documentation and showed no defects before the accident.

3.2 Cause of the aviation accident

Insufficient flying experience and not having mastered the piloting technique for carrying out the given manoeuvre.

4. SAFETY RECOMMENDATIONS

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

Bratislava, 7 June 2017