

*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

on safety investigation of an aviation accident
of an aircraft type **PIPISTREL VIRUS SW 121**
with registration mark **OM-PFC**

Reg. No: **SKA2019005**

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

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.

Abbreviations and acronyms

CTR	Control zone
LZDV	ICAO code for Dubová aerodrome
LZMLYN	Code for non-public area Mlynica UL
LZTT	ICAO code for Poprad TATRY aerodrome
VPP MC	Take-off and landing area Mlynica
SAR	Search and Rescue
SEP(L)	Single Engine Piston (land)
TWR	Aerodrome control tower
UTC	Co-ordinated Universal Time
VFR	Visual Flight Rules

A. INTRODUCTION

Aircraft type: PIPISTREL VIRUS SW 121
Registration mark: OM-PFC



Owner / operator: STAR in SKY s.r.o., Povraznícka 3048/13, 811 05 Bratislava
Operation type: general aviation/sports and recreational flying
Take-off site: LZDV
Landing site: VPP MC LZMLYN
Flight phase: landing
Incident date and time: 17/08/2019, 13:17

Note: All time data in this Report is reported in UTC time.

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

B. INFORMATION SUMMARY

On 17 August 2019 at 13:17 the pilot was landing on VPP MC with an aircraft type PIPISTREL VIRUS SW 121, registration mark OM-PFC (hereinafter referred to as the "aircraft").

During the landing phase the aircraft bounced, its front undercarriage hit VPP MC and the aircraft turned over.

The aircraft sustained major damage during landing. The pilot did not suffer any injuries.

The occurrence was reported to the Aviation and Maritime Investigation Authority by the aircraft owner by telephone.

A committee was set up to investigate the causes of the accident:

Ing. Igor BENEK	Chairman of the Safety Investigation Committee
Lic. Jaroslava MIČEKOVÁ	member of the Safety Investigation Committee

The Report has been issued by:

Aviation and Maritime Investigation Authority
of the 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 17 August 2019 the pilot took over the aircraft at LZDV with the intention to perform a flight from LZDV to LZMLYN.

The flight was planned as a VFR flight without a flight plan.

Before the flight itself the pilot performed pre-flight preparation: filled in the navigation sheet, marked route points on the map, checked the aircraft, the amount of fuel and documentation.

The pilot took off at 12:00. During the flight contact was established on local frequencies - BA INFO and TWR Tatry. There were no problems during the flight itself.

At 13:00 the pilot contacted TWR LZTT and reported entering CTR LZTT to the west of the Východná point and requested to fly over LZMLYN.

At 13:16 the pilot reported final for VPP MC 29 and the communication ended.

After the aircraft touched VPP MC 29 it bounced. The pilot handled the situation by pushing the control stick intuitively. After the "push" the front landing gear of the aircraft touched/hit VPP MC and the aircraft turned over.

Time of day: Day
Flight rules: VFR

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

1.2 Injuries of persons

Injury	Crew	Passengers	Other persons
Fatal	-	-	-
Serious	-	-	-
Minor	-	-	-
No injuries	1	-	

1.3 Damage to the aircraft

The aircraft sustained major damage during the accident.

1.4 Other damage

No circumstances have been reported to the Aviation and Maritime Investigation Authority which might lead to any other claims for compensation of damage against a third party.

1.5 Personnel information

Pilot:

citizen of the Slovak Republic, aged 31;
holder of a valid Private pilot license issued by the Transport Authority on 4 April 2019;
holder of a valid Radiotelephone operator's general certificate of the Aeronautical service issued by the Regulatory Authority for Electronic Communications and Postal Services of SR on 10 October 2018.

Ratings

SEP(L) with marked validity until 31 March 2021

Medical certificate

class 1 with marked validity until 29 May 2019

class 2 with marked validity until 29 May 2023

LAPL with marked validity until 29 May 2023

Flight experience

Total number of flight hours on all types of aircraft 99 hours 10 minutes

Total number of flight hours on this type of aircraft 73 hours 15 minutes

Total number of flight hours on this type of aircraft clocked in the last 90 days:
45 hours 25 minutes

Total number of flight hours on this type of aircraft clocked in the last 30 days: 16 hours

1.6 Aircraft information

Type: PIPISTREL VIRUS SW 121
Registration mark: OM-PFC
Serial number: VSW1210034
Year of manufacture: 2019
Manufacturer: PIPISTREL d.o.o., Ajdovščina, Slovenia

Total flight hours flown: 90 hours 09 minutes

Airworthiness Certificate No. 1370/01 issued by the Transport Authority on 27 March 2019.

The maximum take-off mass of the aircraft - 600 kg - was not exceeded.

Insurance: Allianz No 411026573

1.7 Meteorological information

Meteorological conditions had no impact on the occurrence of the accident.

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

1.8 Aids to navigation

The aircraft was equipped for VFR flights.

1.9 Communications

The aircraft was equipped with an on-board radio station enabling bidirectional radio connection of the flight with all aeronautical stations at all times.

1.10 Information about VPP MC

LZMLYN is a non-public UL area located near Poprad (5 km to the north of Poprad). Dimensions: VPP MC 11R/29L 440×20 m, 11L/29R 831×20 m, grass surface.

In accordance its Regulation No 6/2000, in its Decision of 23 February 2017 the Slovak Microlight Aviation Federation (SFUL) certified VPP MC for operations of light sport aircraft. Such certificate does not apply to other than light sport aircraft.

VPP MC was certified by SFUL without authorization since SFUL lost its authorization to determine the conditions for selection and approval of take-off and landing areas and their certification for take-offs and landings of selected types of light sport aircraft with the assignment of the Transport Authority of SR No 01699/2013/P/SLP-009-10831 of 19 June 2013, effective from 4 July 2013.

1.11 Flight recorders

N/A

1.12 Wreckage and impact information



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

1.13 Medical and pathological information

N/A

1.14 Fire

None.

1.15 Survival aspects

It was not necessary to perform any investigation or rescue with SAR equipment.

1.16 Tests and research

N/A

1.17 Organizational and management information

N/A

1.18 Additional information

N/A

1.19 Useful or effective investigation techniques

Common investigation methods were applied.

2 ANALYSIS

Pilot activity

During the landing manoeuvre the pilot is supposed to follow the determined training methodology and the flight manual of the particular aircraft type. The training methodology lays down the principles of performing individual elements of the piloting technique. The flight manual contains more detailed information about the aircraft and prescribed procedures during individual flight phases, e.g. speed of the descending flight during a landing manoeuvre, maximum take-off and landing mass of the aircraft, wind speed limits during landing, emergency procedures, etc. Any non-compliance with the specified procedures may lead to mishandled landing.

Aircraft drift and bounce are the most frequent mistakes made by pilots during the landing manoeuvre. Such mistakes are caused by wrong estimation of the altitude above the ground, wrong distribution of pilot's awareness, non-compliance with the prescribed landing speed or mishandled approach.

During the accident the pilot probably did not have the prescribed landing speed (higher speed), while after touching VPP MC the aircraft bounced.

When the aircraft bounced the pilot did not correct the mistake appropriately; as a result, the front landing gear of the aircraft hit VPP MC and broke, and the aircraft turned over.

3 CONCLUSIONS / Causes of the aviation accident

3.1 Findings

Pilot

- According to the submitted documentation, the pilot had valid licenses for performing flights with the particular aircraft category.

Aircraft

- had valid documentation and did not demonstrate any malfunction before the accident;
- complied with the airworthiness conditions;
- landing of the aircraft on VPP MC:
 - according to the manufacturer's flight manual, the size and the surface of VPP MC were suitable for landing of the aircraft;
 - operation on VPP MC has been certified only for light sport aircraft and landing of the aircraft was not in accordance with the issued decision;
 - the decision for take-offs and landings of selected types of light sport aircraft on VPP MC was issued by SFUL without authorization.

3.2 Causes of the aviation accident

The cause of the aviation accident was an inappropriate response of the pilot to the aircraft bounce (wrong correction of the mistake when the aircraft bounced), resulting in a hard hit of the front landing gear with VPP MC.

4 SAFETY RECOMMENDATIONS

The Final Report on safety investigation of the aviation accident does not contain any recommendations.

In Bratislava, on 21 November 2019