

*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 the safety investigation of an air accident  
of aircraft type **Pilatus PC-6/B2-H4**  
registration mark **OM-FAA**

Reg. No: **SKA2019004**

*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.

## A. INTRODUCTION

Aircraft type: Pilatus PC-6/B2-H4  
Registration mark: OM-FAA



Operator/owner: Fenix Air s.r.o.  
Operation type: general aviation/sports and recreational flying  
Occurrence site: Dubnica airport / LZDB  
Phase of flight: taxiing  
Occurrence location: N 48°59'47.87", E 18°11'19.36"  
Occurrence date and time: 14 July 2019 07:09

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**

After the aircraft type Pilatus PC-6/B2-H4, registration mark OM-FAA (hereinafter referred to as "OM-FAA"), was refuelled by an employee of Fenix Air s.r.o., a pre-flight check was performed and parachutists boarded OM-FAA, the pilot started up the engine, performed a propeller test and started taxiing to the runway 05/23 at 07:09.

36 metres from the aviation fuel tank, OM-FAA collided with a parking aircraft type DA-40, registration mark OM-KLV (hereinafter referred to as "OM-KLV"), while taxiing.

Neither the pilot nor the parachutists were injured during the accident.

The following person was appointed to investigate the causes of the occurrence:

Ing. Juraj Gyenes

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 14 July 2019 the OM-FAA operator intended to perform parachuting activities above LZDB. With regard to the planned activities, the pilot asked trained staff of Fenix Air s.r.o. which rents the aviation fuel tank from LZDB operator for its own needs to refuel OM-FAA with 360 litres of fuel.

The flight in question was scheduled as the first one on that day. The pilot performed pre-flight preparation which included mainly inspecting the aircraft condition, becoming familiar with the weather forecast and notifying a start of parachuting activities to all parties involved. Then the pilot instructed parachutists to board the aircraft near the aviation fuel tank which was outside the zone designated for parachuting staff activities. All movements of the parachuting staff at the aerodrome are controlled by the Parachute Jump Controller (a zone specified in the Dubnica Airport Operations Manual is determined for boarding of parachutists).

The pilot started up the engine in the aviation fuel tank area. After starting up the engine the pilot performed a propeller test, then he performed pre-taxiing actions and started taxiing towards the runway 05/23. He was taxiing at a low speed, directly and without any deviation. 36 metres from the aviation fuel tank, OM-FAA collided with OM-KLV while taxiing. The pilot taxied the distance of 36 metres in 20 seconds. 29 seconds after the impact the pilot and then the parachutists started disembarking from OM-FAA which took them 33 seconds.

Neither the pilot nor the parachutists were injured during the occurrence.

The occurrence was reported by the OM-FAA operator to the Aviation and Maritime Investigation Authority of the Ministry of Transport and Construction of the Slovak Republic.

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	-	-	-
None	1	-	9

## 1.3 Damage to OM-FAA

During the occurrence the aircraft sustained major damage (the engine was stopped forcefully and the propeller was destroyed).

## 1.4 Other damage

OM-KLV was destroyed during the occurrence (the left half of the wing was damaged, the left part of the fuselage was destroyed at the firewall place and the aircraft cabin was destroyed).

## 1.5 Personnel information

### Pilot:

citizen of the Italian Republic, aged 55;

holder of a valid commercial pilot licence for aeroplanes (CPL(A)) issued by the Italian Civil Aviation Authority (Ente Nazionale per l'Aviazione Civile / ENAC) on 12 June 2013.

### Ratings

SEP(L)	with marked validity until 30 June 2020
Pilatus PC6 SET	with marked validity until 31 May 2020
FI	with marked validity until 28 October 2019
Paradropping	no limitation
Sailplane towing	no limitation

### Medical certificate

Class 1	with marked validity until 8 December 2019
Class 1/single-pilot operation with passengers	with marked validity until 8 June 2019
Class 2	with marked validity until 8 December 2019
LAPL	with marked validity until 8 December 2020

### Flight experience

Total flight hours:	4,693 hours as of 7 July 2019
Total flight hours with this type of aircraft:	2,297 hours 50 minutes as of 7 July 2019
Number of flight hours clocked in the last 90 days:	82 hours
Number of flight hours with this type of aircraft clocked for the last 30 days:	21 hours

## 1.6 Aircraft information

Type:	Pilatus PC-6/B2-H4
Registration mark:	OM-FAA
Serial number:	0848
Year of manufacture:	1986
Manufacturer:	Pilatus Aircraft, Ltd. Stans, Switzerland
Engine:	Pratt&Whitney Canada PT6A-27/ PCE-42366
Total flight hours flown:	9,535 hours 39 minutes

Airworthiness Certificate No. 1290/01 issued by the Transport Authority on 31 March 2017.

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

Airworthiness verification was performed by Aero 4M d.o.o., a continuing airworthiness management organization residing at Poslovna cona A12, 4208 Šenčur, Slovenia, on 10 July 2019; the airworthiness verification certificate is marked valid until the next annual check, i.e. until 10 July 2020, or after 100 flight hours, i.e. with 9,633 hours.

As of the airworthiness verification day, i.e. as of 10 July 2019, the aircraft had flown 9,533 hours 14 minutes; 24,038 cycles.

#### Calculation of the centre of gravity and take-off mass

Empty aircraft	1,452 kg
Pilot	86 kg
9 parachutists	810 kg
Fuel for 4 flights + reserve	
360 litres of Jet A1 0.8kg/l	288 kg
<b>Take-off mass</b>	<b>2,636 kg</b>

The maximum take-off mass of 2,800 kg was not exceeded during the occurrence.

#### 1.7 Meteorological information

N/A

#### 1.8 Aids to navigation

N/A

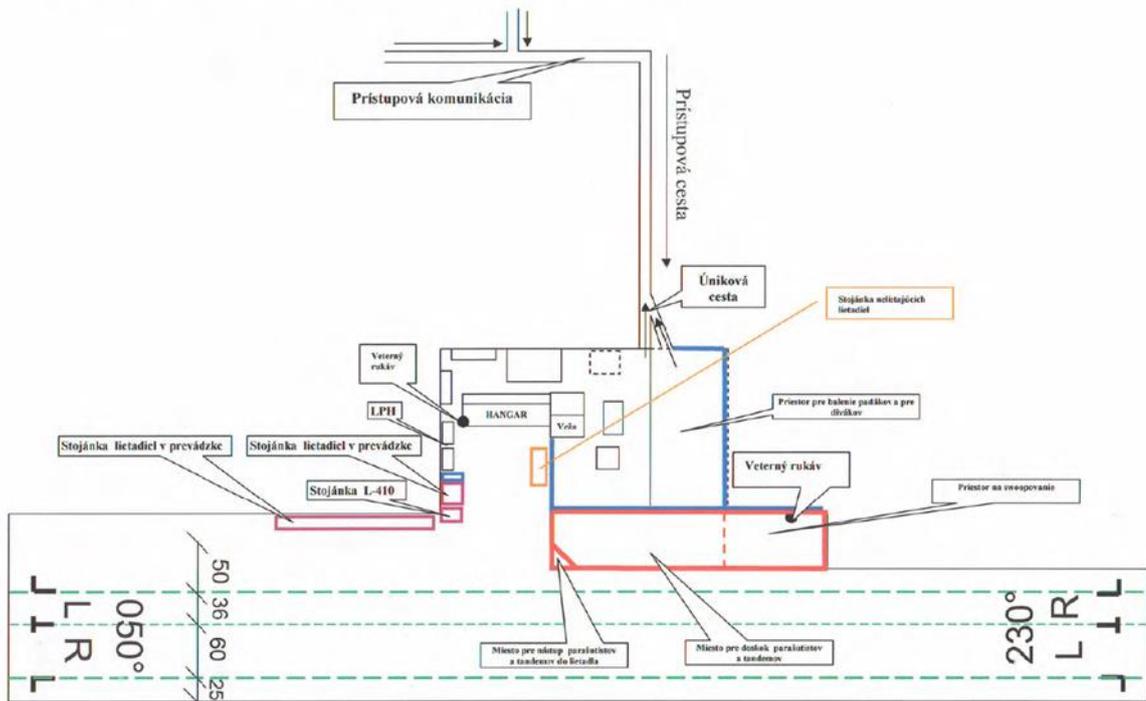
#### 1.9 Communications

OM-FAA was equipped with an on-board radio station enabling two-way radio contact of the flight with all aeronautical stations at all times.

#### 1.10 Aerodrome information

LZDB was the scheduled take-off and landing site.

Príloha č.7: Bezpečnostné zóny priestorov letiska Slávnica, platné od 01.06.2010



Annex 7 Safety Zones of the Slávnica airport valid from 1 June 2010.

#### 1.11 Flight recorders

N/A

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

### 1.12 Wreckage and impact information

Coordinates of the accident site:  
N 48°59'47.87", E 18°11'19.36"

After the impact OM-FAA remained standing in front of the hangar, stuck in the wreckage of OM-KLV.



*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**

N/A

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

#### 1.16 Tests and research

N/A

#### 1.17 Organizational and management information

Parachuting activities at LZDB were performed based on the Dubnica Airport Operations Manual valid from 1 March 2008. Amendment 6 was made on 10 July 2018, regulating the procedures of performing parachuting activities where zones designated for parachuting staff were specified (parachute service area, boarding area, parachutist jumping area).

Airport chart published in the VFR Manual from 28 March 2019.



#### 1.18 Additional information

In the Dubnica Airport Operations Manual the airport operator states provision of AVGASS 100LL, BA 95 Natural, JET A-1; in the VFR Manual it states provision of JET A1, BA 95 Natural, AVGASS 100LL. However, the submitted Dubnica Airport Operations Manual does not contain operational procedures and aircraft refuelling services provided at the airport for assessment of any potential situations and conditions which would minimize the risk of unusual occurrences.

#### 1.19 Useful or effective investigation techniques

Common investigation methods were applied.

## 2. ANALYSIS

### Pilot activity

When preparing for the parachuting activities, the pilot wrongly determined the place for parachutists to board the aircraft (in contradiction to the Dubnica Airport Operations Manual) and after starting up the engine the pilot also performed wrong taxiing (taxiing needs to be performed in accordance with the Annex 3: Building layout, areas in front of the hangar and airport areas, and the Annex 4: Organization of movement of persons and vehicles

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

at the airport (of the Dubnica Airport Operations Manual) from the parachutist boarding place towards the runway.

When taxiing to the runway, the pilot of OM-FAA was taxiing in an area designated for parking in the Dubnica Airport Operations Manual.

When taxiing, the pilot did not pay sufficient attention to obstacles in the taxiing direction and OM-FAA collided with OM-KLV which was parking there.

After the impact the pilot did not order immediate evacuation of persons from the aircraft in order to prevent injuries in the case of potential fire.

### **3 CONCLUSIONS / Cause of the aviation accident**

#### **3.1 Findings**

- the pilot had valid qualifications to perform flights in the particular category;
- at the time of the occurrence the pilot was not under the influence of alcohol, common medicaments or narcotic substances which could have decreased the pilot's attention during the flight;
- the pilot instructed parachutists to board the aircraft near the aviation fuel tank which was outside the area designated for parachuting staff activities;
- the pilot started up the engine near the aviation fuel tank;
- the pilot of OM-FAA taxied across a designated aircraft parking area;
- OM-FAA had valid documentation and did not demonstrate any malfunction before the accident;
- OM-FAA complied with the airworthiness conditions;
- the technical condition of OM-FAA had no impact on the occurrence of the accident;
- OM-KLV was parking at LZDB in accordance with provisions of the Dubnica Airport Operations Manual;
- the Dubnica Airport Operations Manual does not contain any aircraft refuelling procedures.

#### **3.2 Causes of the aviation accident**

The main cause of the aviation accident was a failure of the pilot to look out for obstacles when taxiing across an aircraft parking area - outside the manoeuvring areas specified in the Dubnica Airport Operations Manual, what led to a collision with OM-KLV which was parking there.

### **4 SAFETY RECOMMENDATIONS**

Based on safety investigation of the accident  
of the aircraft type Pilatus PC-6/B2-H4  
registration mark **OM-FAA**  
which occurred on **14 July 2019**

**it is our recommendation for the LZDB operator, Aeroklub Dubnica nad Váhom, o.z.,**

to add aircraft refuelling procedures and services provided at the airport to the Dubnica Airport Operations Manual.

In Bratislava, on 02/12/2019