



TRANSPORTATION SAFETY
BUREAU OF HUNGARY

FINAL REPORT

2014-300-4P

INCIDENT

LHBP

22 July 2014

L410 UVP-E20

OK-WDC

The sole objective of the technical investigation is to reveal the causes and circumstances of aviation accidents, incidents or irregularities and to initiate the necessary technical measures and draw up recommendations in order to prevent similar cases in the future. The technical investigation is not intended in any way to determine the liability or fault.

THE STATUS OF THE INVESTIGATION

This investigation was carried out on the basis of

- Regulation (EC) No 996/2010 of the European Parliament and of the Council of 20 October 2010 on the investigation and prevention of accidents and incidents in civil aviation and repealing Directive 94/56/EC,
- Act XCVII of 1995 on aviation,
- Annex 13 identified in the Appendix of Act XLVI. of 2007 on the declaration of the annexes of the Convention on International Civil Aviation signed in Chicago on 7 December 1944,
- Act CLXXXIV of 2005 on the technical investigation of aviation, railway and marine accidents and incidents (hereinafter referred as Kbt.),
- MET Decree 123/2005 (XII. 29.) on the regulations of the safety investigation of aviation accidents, incidents and irregularities,
- Decree No 70/2015 (XII.1.) of the Minister of National Development on safety investigation of aviation accident and incident, as well as on detailed investigation rules for operators,
- Act CXL of 2004 on the general rules of administrative authority procedure and service unless otherwise specified in Kbt.,

by the Transportation Safety Bureau of Hungary, applying the above provisions appropriately.

The competence of Transportation Safety Bureau is based on Government Decree 278/2006 (XII. 23.) and, from 1 September 2016, on Government Decree 230/2016 (VII. 29.) on the assignment of a transport safety body and the termination of Transportation Safety Bureau with legal succession.

Under the aforementioned regulations

- The Transportation Safety Bureau (hereinafter referred to as TSB) shall investigate aviation accidents and serious aviation incidents.
- The Transportation Safety Bureau may investigate aviation incidents and irregularities which - in its judgment - might have resulted in accidents in other circumstances.
- The Transportation Safety Bureau is independent of any person or body whose interest are in conflict with the functions of the investigating body.
- In addition to the aforementioned laws, the Transportation Safety Bureau applies the contents of the ICAO Doc 9760 and Doc 6920 Manual of Aircraft Accident Investigation.
- This Final Report shall not be binding, nor shall an appeal be lodged against it.

No conflict of interest has arisen in connection with the members of the Investigating Committee (IC). Persons participating in the technical investigation shall not act as experts in other procedures concerning the same case.

The IC shall safe keep the data having come to their knowledge in the course of the technical investigation. Furthermore the IC shall not be obliged to make the data – regarding which the owner of the data could have refused the disclosure of the data pursuant to the relevant act – available to other authorities.

This Final Report

was based on the draft final report which prepared by the IC and sent to all affected parties (as stipulated by the relevant regulation) for comments.

This document is the translation of the Hungarian version of the final report. Although efforts have been made to translate it as accurately as possible, discrepancies may occur. In this case, the Hungarian is the authentic, official version.

DESCRIPTION OF THE OCCURENCE

Occurrence class incident
Aircraft registration OK-WDC
Aircraft operator SILVER AIR spol s r.o.
Occurrence location LHBP vicinity
Occurrence date and time 22 July 2014 9:25 LT

Investigation Committee (IC)

The Director General of the TSB assigned the following Investigating Committee (hereinafter referred to as IC) for the investigation of the incident on 17th of July in 2016

Investigator-in-Charge (IIC) Mr. György Háy, investigator
IC member Mr. István Belső, investigator
IC member Mr. László Bogár, field technician

Overview of the investigation process

After the aircraft landed, the IC viewed and photographed the aircraft, interviewed the crew, and photocopied the affected documents of the crew, the aircraft, and the flight.

Data of the Aircraft

Aircraft category	fixed wing
Aircraft sub-category	large aeroplane
Aircraft type	L410 UVP-E20
Aircraft manufacturer	LET a.s. Csehszlovákia
Aircraft year of manufacture	1991
Aircraft identification / S/N	912531
Landing gear type	tricycle, retractable
Propulsion type	turboprop
Engine type	Walter M 601 E
Number of engine(s)	2 pcs
Damage aircraft	no damage

Data of the Flight

Flight Rules	IFR
Purpose of Flight	commercial air transport
Location and Time of the Take Off	LHBP, 22th of July in 2014 09:20 LT
Location and time of the arrival	LHBP, 22th of July in 2014 09:50 LT

Meteorological Data

Visual conditions	VMC
Light conditions	daylight
Weather Conditions (METAR / TAF)	LHBP 201230Z 30008KT 260V330 CAVOK 26/11 Q1017 NOSIG

Crew Data

	Position	License category	Medical cert.
1.	Pilot-In-Command pilot flying (PF)	ATPL	Class 1
2.	Co-pilot (F/O) pilot monitoring (PM)	CPL	Class 1

Personal Injuries

No personal injuries during the occurrence.

History of the flight

Loaded with cargo, the aircraft left Budapest (LHBP) for Kolozsvár (LRCL). About 5 minutes after takeoff, at an altitude of 4200 ft, the primary flight display (PFD) malfunctioned, and both pilots perceived the odour of electrical burn but no visible smoke. The pilot-in-command decided to turn back. Referring to technical reasons, the pilots reported their intent to the Air Traffic Control, but declared no PAN PAN or MAYDAY. The Air Traffic Control authorized them to turn back, and alerted the Fire Service, but no intervention was needed. The inspection after landing found the housing of the left PFD instrument was fairly wet.

ANALISYS

Based on the information available, the IC has concluded that rainwater leaked into the cockpit of the aircraft taking off in light rain through defective seal of the left windscreen. After reaching the top of the instrument panel, the water got into the instruments and their electrical cables. A short circuit was formed due to the water layer connecting cables and other metal parts. The powerful current running through the short circuit may have heated the affected wires and interfered with the operation of the affected equipment.

At the time of the occurrence, the flight crew had the appropriate licences and ratings and adequate experience with the given flight task. They performed the flight in accordance with the effective requirements.

The aircraft was fit for flight. It had valid airworthiness certificate. On the basis of its certificate, the aircraft was equipped and maintained in compliance with the effective requirements and accepted procedures.

FINDINGS**Event causes**

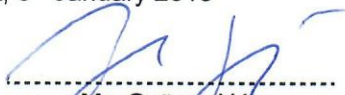
During the technical investigation the IC concluded that the cause of the incident were;

- rainwater got into the space behind the instrument panel due to leakage in the seal of the windscreen, and
- and the PFD instrument of the pilot-in-command malfunctioned due to the water which had leaked in

SAFETY RECOMMENDATION

The TSB IC did not find such circumstances which would justify the issuance of Safety Recommendations.

Budapest, 5th January 2018



Mr. György Háy
Investigator-in-Charge (IIC)



Mr. László Bogár
IC member



Mr. István Belső
IC member