



TRANSPORTATION SAFETY
BUREAU OF HUNGARY

FINAL REPORT

2014-402-4P

INCIDENT

LHBP

27 September 2014

Airbus A320-232

SU-NMA

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 Kbvt.),
- 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 Kbvt.,

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

The competence of the Transportation Safety Bureau of Hungary is based on Government Decree 278/2006 (XII. 23.).

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.

Simultaneously with the sending of the draft final report, the Director General of TSB Hungary informed the people and organizations involved on the date of the closing meeting, and also invited them to such meeting.

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 SU-NMA
Aircraft operator Nesma Airlines
Occurrence location LHBP
Occurrence date and time 27 September 2014 17:05 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 17 July 2016

Investigator-in-Charge (IIC) György Háý, investigator
IC member Ferenc Kamasz, investigator
IC member András Kovács, field technician

Overview of the investigation process

During the investigation of the scene, the IC took photos, photocopied the necessary and available documents, retrieved data stored in the QAR recorder, and printed out information stored in the FMC onboard computer. Later on, the IC interviewed the eyewitnesses, obtained records from the surveillance camera, the audio records of the communication related to the occurrence, and the documents related to the repair of the aircraft. On the basis of the information obtained, the IC changed the occurrence category to "Incident".

Data of the Aircraft

Aircraft category fixed wing
Aircraft sub-category large aeroplane
Aircraft type A320-232
Aircraft manufacturer Airbus SAS
Aircraft year of manufacture 2002
Aircraft identification / S/N 1697
Landing gear type tricycle, retractable
Propulsion type turbofan
Engine type IAE V2527-A5
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 HEGN/HGN Hurghada (Egypt) 12:55 UTC
Location and time of the arrival LHBP/BUD Budapest (Hungary) 16:55 UTC

Meteorological Data

Visual conditions VMC
Light conditions dusk/twilight
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 plying (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

During the Hurghada to Budapest flight No. NE6380, after landing, the aircraft taxied to Stand 34, where the pilot-in-command tried to shut down the engines using the Engine Master Switches. But the right engine (Engine 2) failed to stop. The pilot-in-command made repeated attempts to shut down the engine by turning the switch on and off again, but he failed. Simultaneously, a tailpipe fire started, it reached beyond the outlet of the jetpipe, and lasted ca. 12 seconds. Finally, the pilot-in-command shut down Engine 2 by using the emergency fuel cutoff valve integrated in the fuel system. As the fire went out fully, the arriving units of the Airport Fire Service did not have to intervene.

Following the ground handling of the aircraft, the crew made an attempt to start the engines but Engine 2 proved unserviceable, so the flight was cancelled. The technical team of the airline arriving at the scene found that the FMU (Fuel Metering Unit) of Engine 2 had malfunctioned. The fault was eliminated by component replacement. After an engine test, the aircraft was released to service, and it flew home.

ANALISYS

After the aircraft was parked, the difficulty to stop Engine 2 was caused by an unexpected, single malfunction of the FMU unit of the engine. The valve controlled by Engine 2 Master Switch did not stop the fuel flow. The repeated attempts of the pilot-in-command to shut down Engine 2 by turning the Master Switch on and off again caused accumulation of unburned fuel which then caught fire, and caused tailpipe fire. The airport services reacted to the fire but they did not need to intervene because the fire went out spontaneously. As the burning of the fuel took place in the jetpipe which is designed to bear the load caused by hot exhaust gases, no actual danger emerged.

FINDINGS**Event causes**


During the technical investigation the IC concluded that the causes of the incident were as follows:

- the fuel metering unit of Engine 2 malfunctioned,
- the repeated turning off and on of Engine 2 Master Switch caused a jetpipe fire which then went out spontaneously.


SAFETY RECOMMENDATION

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


Budapest, 22 August 2016



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



Mr. Ferenc KAMASZ
IC member



Mr. András KOVÁCS
IC member