



State Commission on Aircraft Accident Investigation
INCIDENT 2021-3594
RESOLUTION
of 24th of January 2023

Type of the aircraft:	Boeing 737-400-42C
Registration of the aircraft:	EI-STL
Date and time of the occurrence:	13.09.2021
State/area of occurrence:	FIR EPWW, in the vicinity of EPWR airport

After considering the collected documentation from the investigation of the event presented by the operator, acting on the basis of article 135 of the Act of 3 July 2002 Aviation Law (as amended) and §18 of the Regulation of the Minister of Transport of 18 January 2007 on air accidents and incidents (as amended), the State Commission on Aircraft Accident Investigation found that:

1. The event took a following course:

The 13th of September 2021 crew of B737-400-42C ASL Airlines Ireland plane (reg. EI-STL) was operating flight from EDDT to EPKT. Six minutes after reaching cruising level (FL370), after passing Polish border, noted increased “cabin altitude” above 10 000ft. Pilots recognized symptom of decompression. Both pilots done oxygen masks. While FO was completing related memory items from QRH: Cabin Altitude Warning, commander initiated emergency descend based on QRH. During the descend crew increased speed up to 330kts. Increasing indicated airspeed, plane increased pitch down reaching vertical speed up to 7000ft/min. During the descent, both Captain and First Officer suffered from a change in ear pressure, and FO stated an issue with his stomach. During the descend FO stated that he is able manually control pressurization of the cabin. Subsequently, the crew declared a MAY DAY. As the decent became stable and flight eventually levelled at FL100, the cabin altitude was under control pilots decided to analyse the situation and used model TDODAR¹. Considering remaining fuel on board, status of the aircraft and meteorological conditions pilots decided to cancel emergency situation and continued their flight to

¹ **TDODAR** means: T (time), D (diagnosis), O (options), D (decision), AR (assign and review). This model is often used in commercial aviation during emergency situations to support pilots in decision making process. TDODAR model is very popular in British pilots` society and let them step by step to analyse the situation and creates mechanism to make important decisions. This model can be used by other professions as well and can be treated as a method of decision making process under the time pressure.

destination airport (EPKT). The aircraft landed in EPKT without further issues in CAT II conditions.

2. Causes of the incident:

The loss of cabin pressure was caused by a failed cabin pressure control panel.

3. Circumstances conducive to the occurrence:

Before the incident, there were several pressurization system malfunctions which was confirmed by related tech log entries.

4. The Commission accepts the following preventive measures carried out by the :

- 1) Director of Engineering completed base maintenance check with a reminder of the importance of completing the work to an acceptable standard, based according to implemented procedure and reporting and/or rectifying any findings.
- 2) Director of Engineering reminded those involved in carrying out Weekly or Daily Inspections of the importance of completing each step of the daily inspection correctly, reporting any issues and/or findings, and correctly identifying rectification required.
- 3) Director of Engineering implemented program of inspection all door edges for:
 - Nicks or deformations which may impede or prohibit pressurization,
 - Carry out an inspection of the cargo door seal for abrasions or cuts.
 - Perform a pressurization leak check in accordance with AMM (05-51-91) and record the associated leakage rate/figures.

5. In addition, the Commission advise the following safety recommendations:

None.

Investigator-in-Charge

SCAAI Chairman

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(signature on original)

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