



**REPUBLIC OF NAMIBIA
MINISTRY OF WORKS AND TRANSPORT**

**Directorate of Aircraft Accident and Incident
Investigations**

Serious Incident Preliminary Report



SERIOUS INCIDENT NUMBER: 12022024/12-01

Preliminary Report

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DESCRIPTION OF OCCURRENCE: Rapid Depressurization.

TYPE OF OPERATION: International Passenger Transport.

AIRCRAFT TYPE: B737-700

LOCATION: enroute –Luanda to Capetown (Abeam Odangwa)

DATE AND TIME: 2024/Dec/02

Introduction

The purpose of the Directorate of Aircraft Accident and Incident Investigations (DAAII) is to promote aviation safety through the conduct of independent investigations without prejudice to any judicial or administrative authority consistent with provisions of the Namibian Civil Aviation Act, Act 6, of 2016. This is in line with provisions of ICAO's Annex 13 paragraphs 7.1 and 7.2.

Note: The information provided herein is of a preliminary nature. Readers are cautioned that there is the possibility that new information may become available that alters this Preliminary Report prior to the availability of the Final Report.

Aircraft Details:

- **Type:** B737-700 NG
- **Registration:** D2-TBG

Pilot in Command (PIC):

- **License:** 320/PLAA/001 (Expiry: 31 O7 2028)
- **Flying Hours “ON TYPE” last 90 days:** 290 hrs
- **Total Hours on Type:** 7,100 hrs

Incident Details:

- **Location:** Enroute Luanda-Capetown (Abeam Ondangwa)
- **Type of Operation:** International Passenger Transport

Purpose of the Investigations:

In terms of the Namibian Civil Aviation Act (Act No. 6 of 2016) and ICAO Annex 13, this report was compiled in the interest of the promotion of aviation safety and the reduction of risk of aviation accidents or incidents and **not to establish blame or legal liability.**

1.Factual Information

1.1. History of Flight

On 02nd December 2024, a Boeing 737-700 NG registered as D2-TBG was conducting a scheduled passenger flight from Luanda to Capetown (FNLU-FACT) The flight departed at 08:52 UTC with a total of 93 passengers and 6 crew members on board.

The flight progressed normally until cruising at Flight Level 370 (FL370), when the cabin altitude warning alert illuminated, and the warning horns activated, indicating that the cabin altitude had exceeded 10,000 feet. The flight crew immediately followed the Standard Operating Procedures (SOPs) to attempt to control the cabin altitude. Despite their efforts, the cabin altitude continued to rise uncontrollably, eventually reaching 15,000 feet.

Recognizing the situation as a pressurization failure, the flight crew declared an emergency and initiated an emergency descent to FL100 after receiving clearance from Windhoek Control. During the descent, oxygen masks were deployed, and passengers and crew donned oxygen masks as per emergency procedures, however, only 46% of the masks deployed.

Given the cabin pressurization issue, the flight crew elected to divert to the alternate airport, Windhoek Hosea Kutako International Airport (FYWH). The aircraft landed safely at FYWH at 11:15 UTC, (Local time 13:15) where emergency services were on standby.

Post-flight inspections revealed that the Right Environmental Control System (ECS) Pack had been inoperative for the entire flight, leaving the Left ECS Pack as the sole source of cabin pressurization. Further preliminary investigations indicated that the Left ECS Pack experienced a failure during cruise, resulting in the cabin pressurization loss.

1.2 Injuries to Persons

Injuries	Pilot	Crew	Pass.	Other
Fatal	-	-	-	-
Serious	-	-	-	-
Minor	1	1	5	-
Total	1	1	5	-

Upon landing, it was assessed that five passengers, one pilot, and one cabin crew member had sustained minor injuries, prompting immediate attention. All passengers and crew members were able to disembark safely and without any additional complications. One passenger, who exhibited signs of distress, was attended to by emergency services at the scene and was released approximately two hours later after receiving the necessary medical evaluation and care.

1.3 Damage to Aircraft

No visible damage was observed. The portable oxygen bottles were examined and had tags indicating their serviceability, however, only 46% of masks were deployed.

1.4 Other damage

None

1.5 Personnel Information

1.5.1 Pilot-in-command./

Nationality		Angolan			
Licence No	320 PLAA 001	Gender	Male	Age	59
Licence valid		Valid	Type Endorsed	Yes	
Type Ratings		ATPL (A)			
Medical		valid			
Restrictions		Valid only with correction lenses.			

Flying Experience

Total Hours on type	7 100
Total hours Past 90 Days	290
Total on Type Past 90 Days	290

1.6 Aircraft Information

1.6.1 General:

Type	B737-700NG
Certificate of Airworthiness No	033/06/17 valid till 11.09.2025
Certificate of Registration No	Valid till 24 Nov 20245
Manufacturer	Boeing
Aircraft Serial Number	34560
Owner/Operator	TAAG

Total Airframe Hours (At time of incident)	34301.10 HRS	
Last MPI (Date & Hours)	33792.58	at 04-09-2024
Hours since Last MPI	508.5 hrs.	
Operating Categories	Standard	

Engines:

Type	CFM56-7B
Hours since New	No.1: 12424 No.2 30112

1.6.3 Systems

- **Environmental Control System (ECS):**
 - Right ECS Pack: OFF for the entire flight
 - Left ECS Pack: Operational, providing pressurization and air conditioning for the flight.
- **Pressurization System:**
 - Cabin pressurization was maintained using a single ECS pack (left).
 - Pressurization trends recorded in DFDR to be analyzed.
- **Avionics:** Functional at the time of the occurrence.

1.6.4 Additional Relevant Information

- **Occurrence Summary:** The aircraft was operated with the right ECS pack OFF for the entire flight.
- **Flight Data:** DFDR and QAR data has been extracted for analysis to assess pressurization system performance and contributing factors.

1.7 Meteorological Information

Wind direction	360°	Wind speed	08kts	Visibility	>10 k
Temperature	31°	Cloud cover	F2300	Cloud base	-
Dew point	-				

1.8 Aids to Navigation

- 1.8.1 There was no difficulties with Ground-based navigation aids, and aerodrome visual ground aids or their serviceability. There were no reported difficulties with the on-board navigation aids.

1.9 Communications.

- 1.9.1 The aircraft was equipped with standard communication equipment as approved by the Regulator for the type. There were no recorded defects with the communication system prior to the flight.

1.10 Aerodrome Information

The occurrence did not happen at an aerodrome.

1.11 Flight Data Recorder Readouts (FDRR)

The retrieval of recorded flight data from the aircraft's Flight Data Recorder (FDR) and Quick Access Recorder (QAR) was carried out. A bite system checks and Central Maintenance Computer (CMC) data retrieval was also performed. The Data is still at analysis stage.

1.12. Wreckage and Impact Information

The aircraft was structurally intact and landed safely. More information will be discussed in the final report.

1.13 Medical and Pathological Information

None.

1.14 Fire

There was no evidence of a pre- or post-impact fire.

1.15 Survival Aspects

The accident was considered survivable

1.16 Tests and Research

To be discussed in the final report.

1.17 Organisational and Management Information

To be discussed in the final report.

2. Findings

2.1 General

The findings are based on the analysis of factual information obtained from initial flight data recorder (FDR) readouts, maintenance records, crew interviews, and other relevant data sources, these findings are factual in nature and aim to establish the circumstances and conditions leading to the occurrence.

2.2 Findings Related to the Flight

1. Aircraft Operation:

The aircraft, a Boeing 737-700, The right ECS pack was non-operational for reasons still under investigation.

2. Cabin Pressurization:

Cabin pressurization was maintained by the left ECS pack.

3. Conclusion

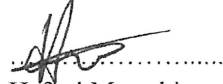
A Full investigation is still underway and a thorough analysis and conclusion will be in the final report.

4.0. Safety Recommendations

DAAII recommended a fleet-wide mask integrity and deployment maintenance assessment and review of applicable practices. The investigation was still awaiting the report from the operator.

Compiled by

Date: 24 DEC 2024



Hafeni Mweshixwa

Investigator-in-Charge

Released by:



Philippine Lundama

Acting Director: DAAII

Date: 24 DEC 2024