



**PRELIMINARY REPORT ON THE SERIOUS INCIDENT INVOLVING BOEING 737-500 AIRCRAFT OWNED AND OPERATED BY MED-VIEW AIRLINE WITH NATIONALITY AND REGISTRATION MARKS 5N-BQM WHICH OCCURRED AT THIRTY-TWO THOUSAND FEET ABOVE MEAN SEA LEVEL (FL320) EN-ROUTE MURTALA MUHAMMED INTERNATIONAL AIRPORT, LAGOS ON 23RD JULY, 2019**

**Aircraft Accident Report No.:** MED-VIEW/2019/07/23/D

**Registered Owner and Operator:** Med-View Airline

**Aircraft Type and Model:** Boeing 737-500

**Manufacturer:** The Boeing Company, United States of America (USA)

**Date of Manufacture:** 1998

**Nationality and Registration Marks:** 5N-BQM

**Serial Number:** 28055

**Location:** FL320 en-route Runway 18L, Murtala Muhammed International Airport, Lagos

**Date and Time:** 23rd July, 2019 at about 14:53 h

*All times in this report are local time (UTC +1) unless otherwise stated*

## **INTRODUCTION**

Accident Investigation Bureau (AIB) became aware of this occurrence from the news media on the 23rd of July 2019. Investigators were dispatched to the apron where the aircraft was parked.



The Accident Investigation Bureau commenced post incident assessment under the provisions of Civil Aviation (Investigation of Air Accidents and Incidents) Regulations 2019 and Annex 13 of International Civil Aviation Organization (ICAO).

The purpose of this preliminary report is to provide details of initial facts, discussions and findings surrounding the occurrence; it includes information gathered from witness statements and a preliminary inspection of the aircraft.

**The investigation is ongoing.**

## **1.0 FACTUAL INFORMATION**

### **1.1 History of the flight**

On 23<sup>rd</sup> July, 2019 at about 13:57 h, a Boeing 737-500 aircraft with nationality and registration marks 5N-BQM, owned and operated by Med-View Airline departed Nnamdi Azikiwe International Airport, Abuja (NAIA) for Murtala Mohammed International Airport (MMIA) Lagos, as a scheduled commercial flight (MEV2105). The flight was operating on an Instrument Flight Rules (IFR) flight plan. MEV2105 was the return leg of the two sectors scheduled for the day. There were 34 persons on board inclusive of two pilots and four cabin crew. The Captain was Pilot Flying (PF) while the First Officer was Pilot Monitoring (PM).

At 14:16 h, the aircraft was airborne and climbed to established cruise at FL320. According to the PM, at the top of descent "We got cleared to FL160 into Lagos and to hold over LAG due to closure of Runway 18 Right (RWY18R) and we are number 7 for the approach". During the descent to FL160, the PF said he handed over control to the PM so he could brief the passengers on the arrival time, Lagos weather information and the delay for landing. From the post occurrence interview records available to the Bureau, the Captain stated as follows: That while briefing the passengers through the Public Address (PA) System, "I heard the cabin altitude warning horn, I immediately stopped the briefing, donned my oxygen mask and asked the Co-pilot to set pressurization mode selector to 'MAN' and close the valve; I immediately initiated an emergency descent. As I checked the cabin altitude indicator, I noticed that the cabin altitude was still climbing and then called for Emergency Descent Checklist. While in the descent (the checklist items were being executed), the Passenger Oxygen masks deployed automatically before the switch was activated by the F/O as instructed in the Emergency Descent checklist".

At 14:45:27 h, the aircraft had contact with the Lagos Approach Radar (APP). On contact, the aircraft was instructed to turn right on a radar heading (HDG) for delay sequencing with descent to FL080 initially. The crew acknowledged that instruction, but reported that they were not able to comply due weather.

As the cabin altitude was controlled to 8000 ft, the captain confirmed the situation of the cabin from the flight purser who affirmed the situation of the cabin became normal.

At 14:53:31 h, the crew requested for priority landing from Air Traffic Control (ATC). Approval was granted and the aircraft was again vectored to a HDG of 240<sup>0</sup> and re-cleared to 3500 ft on QNH 1013. ATC then requested for the nature of the emergency which the crew relayed as EMERGENCY DESCENT.

Thereafter, the aircraft was further cleared to 2200 ft on QNH 1013 for ILS approach runway 18L. At 14:55:12 h, the aircraft received radar heading 220<sup>0</sup> to intercept Localizer (LOC) 18L. At 14:55:22 h, the aircraft was further cleared to 2200 ft and cleared for ILS Approach 18L. At 15:00:43 h, the aircraft was transferred to Control Tower (CT) for landing clearance. At 15:02:52 h, the aircraft contacted the CT and CT acknowledged.

At 15:05:50 h, the aircraft was cleared to land Runway 18L. At about 15:07 h, the aircraft landed. After parking, all passengers and crew disembarked from the aircraft without injury.

The incident occurred in daylight.

## 1.2 Injuries to persons

<b>Injuries</b>	<b>Crew</b>	<b>Passengers</b>	<b>Total in the aircraft</b>
<b>Fatal</b>	Nil	Nil	Nil
<b>Serious</b>	Nil	Nil	Nil
<b>Minor</b>	Nil	Nil	Nil
<b>None</b>	6	28	34
<b>Total</b>	6	28	34

### 1.3 Damage to aircraft

The aircraft was not damaged.

### 1.4 Other damage

Nil.

### 1.5 Personnel information

#### 1.5.1 Captain (Pilot Flying)

Nationality:	Nigerian
Age:	34 years
Licence Type:	Airline transport pilot licence (ATPL)
Licence Validity:	22 January, 2020
Aircraft Ratings:	Aeroplane Single engine/Multi engine Boeing 737-300/500, B737-Next Generation, Hawker Sydney-125/800XP, HAWKER 4000, Diamond DA-50, SOCATA TB-20, Baron-58
Medical Certificate Validity:	22 January, 2020
Simulator Validity:	30 September, 2019
Instrument Rating validity:	31 March, 2020
Total Flying Time:	8,200 h
Total On Type:	7,500 h
Last 90 Days:	77:45 h
Last 28 Days:	38:25 h
Last 7 Days:	20:15 h



Last 24 Hours: 02:20 h

### **1.5.2 First Officer (Pilot Monitoring)**

Nationality: Nigerian  
Age: 31 years  
Licence type: Airline transport pilot licence (ATPL)  
Licence validity: 27 October, 2020  
Aircraft ratings: Aeroplane  
Single-engine, Multi engine  
Boeing 737-300/500,  
Boeing 737-Next Generation,  
Baron-58, SOCATA TB-20  
Medical certificate validity: 19 August, 2019  
Simulator validity: 27 September, 2019  
Instrument rating validity: 27 March, 2020  
Total flying time: 875 h  
Total on type: 264:55 h  
Last 90 days: 97 h  
Last 28 days: 40:39 h  
Last 7 days: 06:05 h  
Last 24 hours: 02:35 h

### **1.5.3 Engineer**

Nationality: Nigerian  
Age: 62 years  
Licence type: Airframe & Power plant (A & C)  
Licence validity: 29 March, 2022  
Aircraft ratings: Boeing 737-200/300/400/500,  
Boeing 767-200



#### **1.5.4 Purser**

Nationality:	Nigerian
Age:	38 years
Licence Type:	Cabin Crew Licence
Licence Validity:	23 July, 2023
Aircraft Ratings:	Boeing 737-200/300/500, Boeing 767-300
Medical Validity:	4 March, 2021

#### **1.6 Aircraft Information**

Manufacturer:	The Boeing Company, USA
Type:	Boeing 737-500
Date of manufacture:	April 1998
Serial number:	28055
Registered Owner/operator:	Med-View Airline
Nationality and registration mark:	5N-BQM
Certificate of airworthiness validity:	9 March, 2020
Certificate of insurance:	7 December, 2019
Certificate of registration:	14 August, 2013
Noise certificate:	15 August, 2013
Airframe time:	40,415:57 h
Cycles since new (CSN):	36232

#### **1.6.2 Engines**

##### **No. 1:**

Manufacturer:	CFM International, (USA)
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Engine model: CFM56-3C1  
Year of manufacture: 5 December, 1996  
Serial number: 856226  
Time since new (TSN): 26878:24 h  
Cycles since new (CSN): 32832

**No. 2:**

Manufacturer: CFM International, USA  
Engine model: CFM56-3CI  
Year of manufacture: 5 December, 1996  
Serial number: 858921  
Time since new (TSN): 38,096.10 h  
Cycles since new (CSN): 29,518

Fuel type used: Jet A-1

**1.7 Meteorological Information**

**Time: 1400 h**  
Wind: 260°/08 kt  
Visibility: 8 km  
Weather: Light drizzle  
Cloud: Few 600 m Cumulonimbus (CB) Broken (BKN) 300 m  
Temperature: 26/24°C  
QNH: 1015 hPa

**Time: 1430 h**  
Wind: 240°/03 kt  
Visibility: 5 km





Weather: Light rain  
Cloud: Few 600 m Cumulonimbus (CB) Broken (BKN) 300 m  
Temperature: 25/24°C  
QNH: 1015 hPa

**Time: 1500 UTC**

Wind: 250/04 kt  
Visibility: 5 km  
Weather: Light rain  
Cloud: Few 540 m Cumulonimbus (CB) Broken (BKN) 240 m  
Temperature: 24/24°C  
QNH: 1015 hPa

**Time: 1430 UTC**

Wind: 250/04 kt  
Visibility: 1.5 km  
Weather: Moderate Rain  
Cloud: Few 540 m Cumulonimbus (CB) Broken (BKN) 240 m  
Temperature: 24/23°C  
QNH: 1014 hPa

## **1.8 Aids to Navigation**

The instrument landing system (ILS) was available and serviceable at the time of the incident. The aircraft is equipped with a weather radar system which was serviceable at the time of the occurrence.

## 1.9 Communications

There was effective communication between the crew and Air Traffic Control.

## 1.10 Aerodrome information

Murtala Muhammed Airport with location indicator DNMM has two parallel runways with designations 18R/36L and 18L/36R.

Runway 18R/36L has a dimension of 3900m by 60m. Aerodrome reference point is 06°33'09" N 003°18'48" E while the elevation is 65 ft.

## 1.11 Flight recorders

The aircraft is fitted with flight data recorder (FDR) and cockpit voice recorder (CVR). The details of the recorders are given below.

	<b>Flight data recorder</b>	<b>Cockpit voice recorder</b>
Manufacturer	Allied Signal	Fairchild
Part Number	980-4700-001	9100-0080-00
Serial Number	0879	01455

The flight data recorder was successfully downloaded at the Accident Investigation Bureau's Flight/safety laboratory in Abuja.

The cockpit voice recorder (CVR) was also successfully downloaded at the Accident Investigation Bureau's Flight/safety laboratory in Abuja and the relevant recordings of the occurrence were found to have been overwritten.

### **1.12 Wreckage and impact information**

Not applicable

### **1.13 Medical and pathological information**

Nil.

### **1.14 Fire**

There was no fire.

### **Initial findings**

1. The flight crew were certified and qualified to conduct the flight in accordance with applicable regulations.
2. The Captain was the Pilot Flying while the First Officer was the Pilot Monitoring.
3. The aircraft had a valid certificate of airworthiness.
4. The flight was the second sector for the day.
5. MEV2105 was number 7 in sequence for the approach to Runway 18L due to closure of Runway 18R.
6. The crew experienced loss of pressurization on descent and requested for priority landing without initially disclosing the nature of the emergency.
7. The passenger oxygen mask automatically deployed.
8. According to the flight crew, the cabin altitude warning horn sounded on descent.
9. At about 15:07 h, the aircraft landed safely on runway 18L.
10. The aircraft taxied to the apron and the passengers disembarked.
11. At the time investigators arrived, the aircraft had been parked at the MM2 apron and maintenance evaluation had been completed.



12. The CVR recordings of the occurrence were overwritten.
13. During the post incident inspection by the Bureau's safety investigators, the passenger oxygen switch was found in the 'NORMAL' position with its wire lock broken.
14. The Bureau became aware of the occurrence from news media and the incident was not reported to the Bureau as required by regulation 13(1) of the Civil Aviation (Investigation of Accidents and Incidents) Regulations 2019.



Figure 1: Photo of the aircraft parked on the apron after the incident



Figure 2: Photo of passenger oxygen switch in the NORMAL position, with broken wirelock



Figure 3: Photo of the passenger service units (PSUs) in open position when investigators arrived

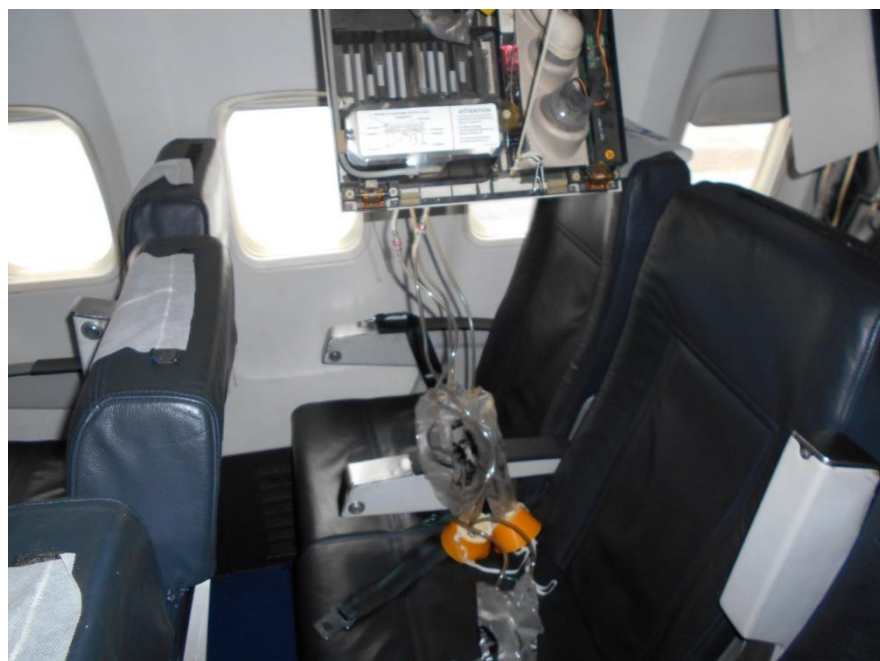


Figure 4: Photo of a deployed cabin oxygen mask