



AIRCRAFT SERIOUS INCIDENT REPORT AND EXECUTIVE SUMMARY

			Reference:		CA18/3/2/1505	
Aircraft Registration	ZS-SJU	Date of Incident	22 September 2025		Time of Incident	1027Z
Type of Aircraft	Boeing 737-800		Type of Operation		Commercial (Part 121)	
Pilot-in-command Licence Type	Airline Transport Pilot Licence		Age	41	Licence Valid	Yes
Pilot-in-command Flying Experience	Total Flying Hours		10 469.5	Hours on Type	3 487.8	
Last Point of Departure	Chief Dawid Stuurman International Airport (FAPE), Eastern Cape Province					
Next Point of Intended Landing	Cape Town International Airport (FACT), Western Cape Province					
Damage to Aircraft	None					
Location of the incident site with reference to easily defined geographical points (GPS readings if possible)						
Abeam George en route to FACT at flight level (FL) 360 and at GPS co-ordinates determined as 34° 00' 29.21"S 022° 28' 24.73"E						
Meteorological Information	Surface wind: 240°/31kt; temperature: 20°C; dew point: 9°C; Visibility: CAVOK					
Number of People On-board	2 + 4 + 185	Number of People Injured	0	Number of People Killed	0	Other (On Ground) 0
Synopsis						
<p>On Monday, 22 September 2025, two pilots, four cabin crew members and 185 passengers on-board a Boeing 737-800 aircraft registered ZS-SJU took off on a scheduled commercial flight from Chief Dawid Stuurman International Airport (FAPE) in Eastern Cape province to Cape Town International Airport (FACT) in Western Cape province. The captain was the pilot monitoring (PM) seated on the left seat, and the first officer (FO) was the pilot flying seated on the right seat.</p> <p>Take-off from FAPE was uneventful; the aircraft climbed to flight level (FL) 360. Whilst cruising abeam George, the cabin altitude annunciator/decompression (AUTO FAIL / ALTN) and associated aural warning activated. The captain took over control of the aircraft, and the flight crew donned their oxygen masks. In the main cabin, passengers' oxygen masks deployed automatically. The FO called FACT approach controller and requested an emergency descent to FL100. During descent, the FO tested the manual mode cabin pressure control, and it operated normally; the cabin pressure was also controllable. The aircraft descended safely and levelled off at FL100. Thereafter, the captain and the FO removed their oxygen masks. The captain handed back control to the FO and the aircraft proceeded to FACT. The captain called the senior cabin crew member (SCCM) to the cockpit to enquire about the wellbeing of the passengers and other cabin crew members. The SCCM reported that none was injured. Upon reaching FACT, the speed on final approach for Runway 19 was too high and a missed approach was executed, followed by air traffic control (ATC) vectors for another approach. Later, the aircraft landed safely.</p> <p>The investigation revealed that the decompression was caused by a latent internal failure of cabin pressure controller 1 which prevented automatic pressurisation control, inhibiting a successful transfer to the alternate controller; this resulted in loss of automatic cabin pressure regulation during cruise.</p>						
Probable Cause/s and/or Contributory Factors						
Cabin decompression en route to FACT at FL360 caused by a latent internal failure of cabin pressure controller 1 prevented automatic pressurisation control and inhibited a successful transfer to the alternate controller, thus, resulting in the aircraft's loss of automatic cabin pressure regulation during cruise.						
SRP Date	10 March 2026		Publication Date	11 March 2026		

Occurrence Details

Reference Number : CA18/3/2/1055
Occurrence Category : Serious Incident (Category 2)
Type of Operation : Air Transport Operations (Part 121)
Name of Operator : FlySafair
Aircraft Registrations : ZS-SJU
Aircraft Make and Model : Boeing 737-800
Nationality : South African
Place : En route to FACT during cruise at FL360
Date and Time : 22 September 2025 at 1027Z
Injuries : None
Damage : None

Purpose of the Investigation

In terms of Regulation 12.03.1 of the Civil Aviation Regulations (CAR) 2011, this report was compiled in the interest of the promotion of aviation safety and the reduction of the risk of aviation accidents or incidents and not to apportion blame or liability.

All times given in this report are Co-ordinated Universal Time (UTC) and will be denoted by (Z). South African Standard Time is UTC plus 2 hours.

Investigation Process

The Accident and Incident Investigations Division (AIID) was notified of the occurrence on 22 September 2025 which was categorised as a serious incident according to the CAR 2011 Part 12 and the International Civil Aviation Organisation (ICAO) STD Annex 13 definitions. Investigators were not dispatched to the serious incident site.

Notes:

- Whenever the following words are mentioned in this report, they shall mean the following:
Serious Incident — this investigated serious incident
Aircraft — the Boeing 737-800 involved in this serious incident
Investigation — the investigation into the circumstances of this serious incident
Pilot — the pilot involved in this serious incident
Report — this serious incident report*
- Photos and figures used in this report were taken from different sources and may have been adjusted from the original for the sole purpose of improving clarity of the report. Modifications to images used in this report were limited to cropping, magnification, file compression; or enhancement of colour, brightness, contrast; or addition of text boxes, arrows, or lines.*

Disclaimer

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Table of Contents

Purpose of the Investigation	2
Investigation Process.....	2
Disclaimer	2
Contents Page	3
Abbreviations	4
1. FACTUAL INFORMATION	6
1.1 History of Flight	6
1.2 Injuries to Persons	7
1.3 Damage to Aircraft	7
1.4 Other Damage	7
1.5 Personnel Information.....	7
1.6 Aircraft Information.....	8
1.7 Meteorological Information	12
1.8 Aids to Navigation	12
1.9 Communication	13
1.10 Aerodrome Information	13
1.11 Flight Recorders.....	13
1.12 Wreckage and Impact Information.....	13
1.13 Medical and Pathological Information.....	13
1.14 Fire.....	13
1.15 Survival Aspects	13
1.16 Tests and Research.....	13
1.17 Organisational and Management Information	16
1.18 Additional Information	17
1.19 Useful or Effective Investigation Techniques.....	18
2. ANALYSIS	18
2.1 General	18
2.2 Analysis.....	18
3. CONCLUSION	19
3.1 General	19
3.2 Findings	20
3.3 Probable Cause/s	21
3.4 Contributory Factor/s	21
4. SAFETY RECOMMENDATIONS	21
4.1 General	21
4.2 Safety Recommendation/s.....	21
5. APPENDICES.....	21

Abbreviation	Description
°	Degrees
°C	Degrees Celsius
ACAU	Air Conditioning Accessory Unit
AIID	Accident and Incident Investigations Division
ADIRU	Air Data Inertia Reference Unit
AMM	Aircraft Maintenance Manual
AMO	Aircraft Maintenance Organisation
ANC	Abnormal Non-normal Checklist
ACM	Air Cycling Machine
ALTN	Alternate
ATC	Air Traffic Control
ATPL	Airline Transport Pilot Licence
BITE	Built-in Test Equipment
BAR	Bleed Air Regulator
CAA	Civil Aviation Authority
CPC	Cabin Pressure Controllers
C of A	Certificate of Airworthiness
C of R	Certificate of Registration
CRS	Certificate of Release to Service
CVR	Cockpit Voice Recorder
CMM	Component Maintenance Manual
DADC	Digital Air Data Computer
DCPC	Digital Cabin Pressure Controller
ETC	Electronic Temperature Control
FACT	Cape Town International Airport
FAOR	O.R. Tambo International Airport
FAPE	Chief Dawid Stuurman International Airport
FCOM	Flight Crew Operations Manual
FIM	Fault Identification Manual
FDR	Flight Data Recorder
FL	Flight Level
FH	Flight Hours
FO	First Officer
Ft	Feet
GVR	Golf Victor Romeo (George VOR beacon)
hPa	Hectopascal
IFR	Instrument Flight Rules
Kt	Knots
M	Metres
MAN	Manually
MEL	Minimum Equipment List
METAR	Meteorological Aerodrome Report
MTOW	Maximum Take-off Weight
NNC	Non-Normal Checklist
OFV	Out Flow Valve
PA	Public Address
PF	Pilot Flying
PIC	Pilot-in-Command
PM	Pilot Monitoring
PRSOV	Pressure Regulating and Shut Off Valve

psi	Pounds per square inch
QNH	Barometric Pressure adjusted to Sea Level
QRH	Quick Reference Handbook
SACAA	South African Civil Aviation Authority
SAWS	South African Weather Service
SB	Service Bulletin
UTC	Universal Co-ordinated Time
USA	United States of America
Z	Zulu (Term for Universal Co-ordinated Time - Zero Hours Greenwich)

1. FACTUAL INFORMATION

1.1 History of Flight

- 1.1.1 On Monday morning, 22 September 2025, a flight crew comprising two pilots and four cabin crew members, as well as 185 passengers on-board a Boeing 737-800 aircraft registered ZS-SJU and operating as FA301 took off on a scheduled passenger flight from Chief Dawid Stuurman International Airport (FAPE) in Eastern Cape province with the intention to land at Cape Town International Airport (FACT) in Western Cape province. The flight was conducted under instrument flight rules (IFR) and under the provisions of Part 121 of the Civil Aviation Regulations (CAR) 2011, as amended.
- 1.1.2 The captain stated that he conducted the walk-around checks of the aircraft and no anomalies were noted. Thereafter, he began with the pre-flight duties and did not note any open defects in the aircraft technical log. At take-off, the captain was seated on the left seat and was the pilot monitoring (PM), and the first officer (FO) was seated on the right seat and was the pilot flying (PF). Take-off from FAPE was uneventful; the aircraft climbed to flight level (FL) 360 (36 000 feet [ft]). During cruise abeam George en route to FACT, the cabin altitude annunciator/decompression (AUTO FAIL / ALTN) and associated aural warning activated. The captain took control of the aircraft, and both pilots donned their oxygen masks. In the main cabin, passengers' oxygen masks deployed automatically. Thereafter, the captain referenced the Non-normal Cabin Altitude Warning/Rapid Depressurisation Checklist outlined in the aircraft's Quick Reference Handbook (QRH) for a resolve but the cabin altitude continued to rise. The pilots did not declare an emergency; however, the captain called FACT approach controller and requested an emergency descent to FL100, which was granted.
- 1.1.3 During descent, the captain made an announcement to the passengers and the cabin crew members using the public address (PA) system, notifying them of the emergency descent and requested all aboard to remain harnessed to their seats. As the aircraft was in descent, the FO reviewed the cabin altitude warning and emergency descent procedures and checked the pressurisation panel to determine if he could manually control pressurisation, the cabin pressure normalised and was controllable. The aircraft levelled off at FL100 and the captain and the FO removed their oxygen masks. Thereafter, the captain handed over the controls to the FO. The aircraft continued to FACT as scheduled. Later, the captain called the senior cabin crew member (SCCM) to the cockpit to enquire about the wellbeing of the passengers and other cabin crew members; none was injured. After reaching FACT for landing on Runway 19, the speed on final approach was too high to configure correctly for landing, as a result, a missed approach was executed. The air traffic control (ATC) personnel vectored the aircraft for another approach during which the aircraft safely landed. The aircraft vacated the runway at Bravo 3 taxiway. After shutting down the engines, the passengers disembarked from the aircraft. The captain visually assessed the condition of the passengers as he stood next to the boarding door. None of the passenger reported injuries or the need for medical assistance.

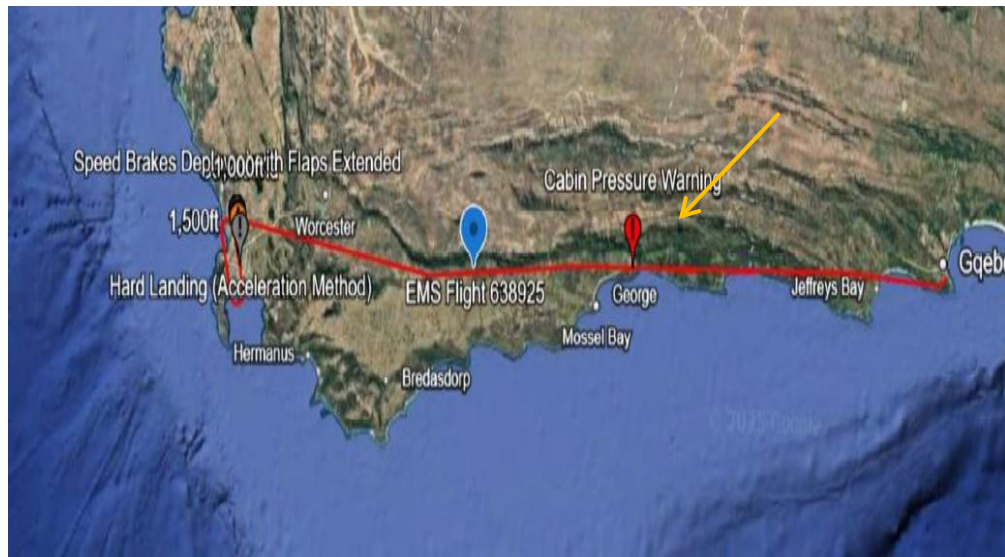


Figure 1: The approximate area where the cabin decompression occurred, the yellow arrow indicates the point of cabin pressure warning activation.

1.2 Injuries to Persons

Injuries	Pilot	Crew	Pass.	Total On-board	Other
Fatal	-	-	-	-	-
Serious	-	-	-	-	-
Minor	-	-	-	-	-
None	2	4	185	191	-
Total	2	4	185	191	-

Note: Other means people on the ground.

1.3 Damage to Aircraft

1.3.1 None.

1.4 Other Damage

1.4.1 None.

1.5 Personnel Information

1.5.1 Captain

Nationality	South African	Gender	Male	Age	41
Licence Type	Airline Transport Pilot Licence (ATPL)				
Licence Valid	Yes	Type Endorsed	Yes		
Ratings	Instruments				
Medical Expiry Date	28 February 2026				
Restrictions	None				
Previous Incidents	None				

Note: Previous incidents refer to past serious incidents the pilot was involved in, when relevant to this serious incident.

Captain: Flying Experience

Total Hours	10 469.5
Total Past 24 Hours	1.0
Total Past 7 Days	17.0
Total Past 90 Days	147.8
Total on Type Past 90 Days	146.3
Total on Type	3 487.8

1.5.2 First Officer (FO)

Nationality	South African	Gender	Male	Age	52
Licence Type	Airline Transport Pilot Licence (ATPL)				
Licence Valid	Yes	Type Endorsed	Yes		
Ratings	Instruments and Grade 2 Instructor				
Medical Expiry Date	30 October 2025				
Restrictions	None				
Previous Incidents	None				

Note: Previous incidents refer to past serious incidents the pilot was involved in, when relevant to this serious incident.

FO: Flying Experience

Total Hours	5 498.0
Total Past 24 Hours	1.0
Total Past 7 Days	20.3
Total Past 90 Days	182.5
Total on Type Past 90 Days	182.5
Total on Type	865.8

1.6 Aircraft Information

1.6.1 Boeing 737-800 Description (Source: Boeing)

The Boeing 737-800 is a low-wing, narrow body, single-aisle jet transport aircraft manufactured by Boeing Commercial Aircraft Company situated in Seattle, United States of America (USA). The aircraft is designed to operate short and medium range flights and has a seating capacity of 189 passengers in the cabin for all economy configurations. The ZS-SJU aircraft is powered by two high bypass ratio, dual rotor turbo fan CFM56-7B27 engines, each developing 26 400 pounds of thrust at sea level. According to the aircraft flight manual (AFM), the minimum flight crew necessary to operate the aircraft are two pilots and four cabin crew members.



Figure 2: The file picture of the ZS-SJU aircraft. (Source: Planespotters.com)

Airframe:

Manufacturer/Model	Boeing Company/737-800	
Serial Number	32634	
Year of Manufacture	2003	
Total Airframe Hours (At Time of Serious Incident)	53 079.60	
Last Phase Inspection (Date & Hours)	52 879.65	15 September 2025
Airframe Hours Since Last Inspection	199.95	
C of A (Issue Date & Expiry Date)	03 October 2003	31 October 2025
C of R (Issue Date) (Present Owner)	8 August 2025	
Operating Category	Part 121	
MTOW	71 894kg	
Type of Fuel Used	Jet A1	
Previous Incidents	None.	

Note: Previous incidents refer to past serious incidents the aircraft was involved in, when relevant to this serious incident.

Engine 1:

Manufacturer/Model	CFM International / CFM56-7B27
Serial Number	891140
Part Number	7719
Hours Since New	47 747.0
Hours Since Overhaul	Time between overhaul (TBO) is 10 000 hour / TBO not reached

Engine 2:

Manufacturer/Model	CFM International / CFM56-7B27
Serial Number	890578
Part Number	7718
Hours Since New	30 829.0
Hours Since Overhaul	TBO not reached

1.6.2 Cabin Pressurisation System Description (Aircraft Maintenance Manual, Chapter 21-30-00)

The pressurisation system in a Boeing 737-800 aircraft is designed so that the cabin altitude does not exceed 8 000 ft at any time during flight. The system includes a (visual and aural) warning system that alerts the flight crew when the cabin altitude exceeds 10 000 ft (requiring the flight crew to use oxygen masks). Cabin oxygen masks automatically deploy as and when the cabin altitude exceeds 14 000 ft. Bleed air from stages 5 and 9 on each engine compressor is sent through two air-conditioning packs and then distributed throughout the cabin.

Figure 3 shows the bleed air control and indicator panel with the pack control switches outlined in orange.

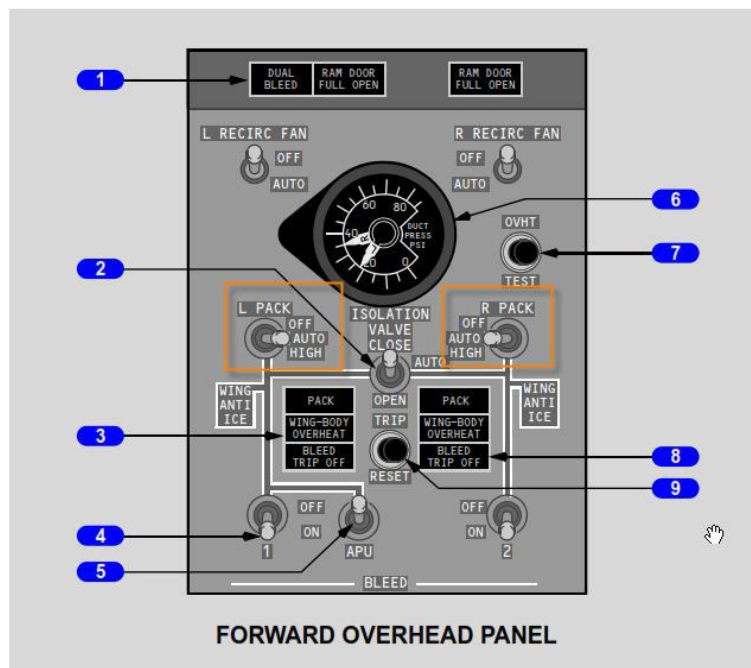


Figure 3: Bleed air control and indicators. (Source: Boeing)

Cabin pressure is controlled by a system that includes two digital cabin pressure controllers (DCPCs). Each DCPC alternates as the main controller on successive flights, with the other DCPC remaining in stand-by in case it is needed. System faults are enunciated by means of a light on the pressurisation panel (Figure 4, item 1).

Ventilation and pressurisation are normally controlled by adjusting the opening of the outflow valve (OFV) either automatically by the active controller when the system is in automatic (AUTO) mode, by the alternate controller if set by the flight crew (ALTN) or manually (MAN) if the flight crew selects manual operation (Figure 4, item 11).

In AUTO, with the aircraft on the ground and the engines below take-off thrust, the OFV opens and the aircraft is depressurised (ground mode). As the engine fan rotor speed increases to take-off thrust levels, the OFV begins to close, and the cabin begins pressurising (take-off mode). In flight, the automatic controller adjusts the differential pressure depending on the applicable law for the phase of flight (climb, cruise or descent mode). The pressurisation system uses the planned flight level and the elevation of the destination airport (as selected by the flight crew using the pressurisation panel FLT ALT and LAND ALT controls, Figure 4 items 3, 4, 5 and 6).

Manual operation activates the associated green indicating light (Figure 4, item 7). During manual operation, the flight crew directly controls the movement of the OFV (item 10) and monitors its position (item 9).

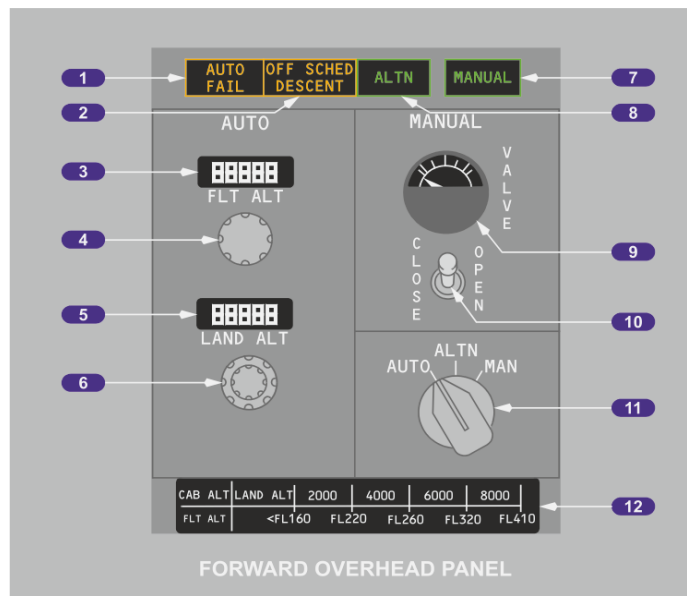


Figure 4: Pressurisation system control panel. (Source: Boeing)

The flight crew can monitor the cabin altitude in feet, its climb/descent rate (in ft/min) and the differential pressure in pounds per square inch (psi), all of which are shown on the cabin altitude instrument panel (Figure 5). This panel also has a button to silence the cabin altitude alarm (Figure 5, item 3).

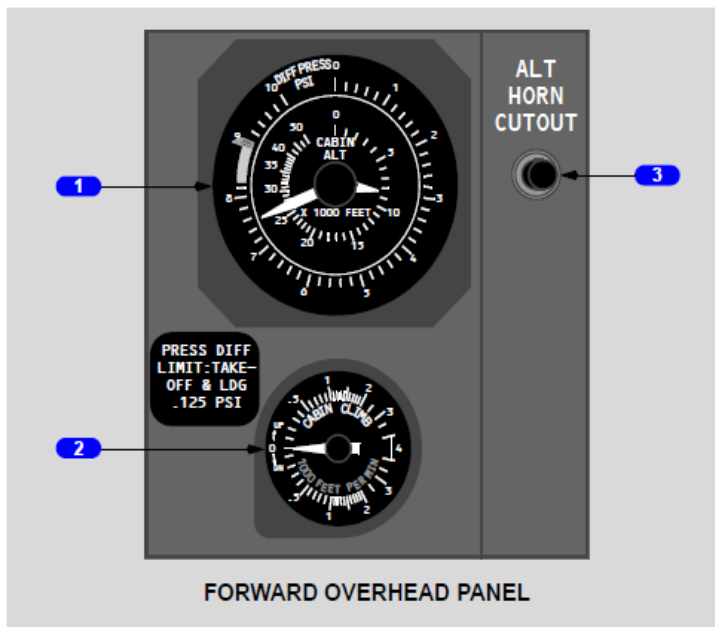


Figure 5: Cabin altitude panel. (Source: Boeing)

1.6.3 Cabin Pressurisation Controller (CPC) Alternation Logic

The Boeing 737 pressurisation system uses two independent cabin pressure controllers (CPC 1 and CPC 2). Only one controller is active per flight. In AUTO mode, the system alternates the active CPC on each new flight cycle to balance usage and maintain redundancy. If the active CPC fails during flight, the system automatically switches to the standby CPC. This is a fault-driven transfer, not alternation. Normal alternation resumes on the following flight cycle.

1.7 Meteorological Information

1.7.1 The weather information below was obtained from the Meteorological Aerodrome Report (METAR) that was issued by the South African Weather Service (SAWS) recorded at FAPE on 22 September 2025 at 1100Z.

Wind Direction	240°	Wind Speed	31 kt	Visibility	9999
Temperature	20°C	Cloud Cover	Few	Cloud Base	3500ft
Dew Point	9°C	QNH	1017hPa		

1.8 Aids to Navigation

1.8.1 The aircraft was equipped with standard navigational equipment as approved by the Regulator (SACAA). There were no records indicating that the navigational equipment was unserviceable prior to the flight.

1.9 Communication

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

1.10 Aerodrome Information

1.10.1 The cabin decompression occurred during cruise en route to FACT abeam George at FL360.

1.11 Flight Recorders

1.11.1 The aircraft was equipped with a flight data recorder (FDR) and a cockpit voice recorder (CVR).

1.12 Wreckage and Impact Information

1.12.1 Not applicable.

1.13 Medical and Pathological Information

1.13.1 Not applicable

1.14 Fire

1.14.1 There was no pre- or post-impact fire.

1.15 Survival Aspects

1.15.1 The serious incident was considered survivable. The aircraft proceeded to FACT, and it landed normally. There was no damage to the cockpit or cabin area, and all occupants were wearing their safety harnesses as per the safety briefing. No person was injured because of the decompression event. All oxygen masks deployed as per the Boeing design.

1.16 Tests and Research

1.16.1 A team of engineers assigned to receive the aircraft at FACT inspected it and reported that the oxygen masks chemical generators in the main cabin operated as designed and produced oxygen for all passengers and cabin crew members. The chief engineer later consulted with the captain to obtain further details regarding the reported fault; the engineer specifically enquired if additional indications were observed beyond the cabin pressure warning light and associated aural warning. The captain advised that no other abnormalities

were noted, as well as confirmed that the engine bleed air and air conditioning systems were operating normally with no bleed or pack trip indications present.

1.16.2 A team of engineers later towed the aircraft to the designated engine ground-run area for engineering investigation. The engines were started and the pressurisation system was interrogated. Both cabin pressure controllers indicated a fault code 090. The fault code identified as referenced in the fault identification manual (FIM) suggested a possible defect of the electrical actuator on the outflow valve.



Figure 6: The outflow valve.

1.16.3 Further testing was performed on the outflow valve in manual mode, and it operated normally, the valve opened and closed correctly. The chief engineer later tested both air conditioning system pack zone temperature controllers to determine if there were faults. The tests on both temperature controllers showed no negative results, meaning that no faults were detected. As part of the investigation, the engineers verified bleed air pressure on both engines and confirmed that both engines were able to deliver bleed air pressure. This confirmed that the bleed air system was operating correctly. In addition, a cabin leak-down check was performed to exclude the possibility of air leaks contributing to the event. The aircraft was pressurised, and the leak-down test results were found to be within the prescribed limits, indicating no evidence of leakage at the time of testing.

1.16.4 After completion of the above checks, a repeat diagnostic test of the CPCs was conducted to determine whether any fault codes would latch. No fault codes were recorded on CPCs, and no hard defects were identified at that stage.

1.16.5 Based on the available findings, a joint decision was taken by the Operations, Technical, Airworthiness and Safety departments to ferry the aircraft (empty) to the maintenance base at O.R. Tambo International Airport (FAOR) in Gauteng province for further investigation. On Monday afternoon, 22 September 2025, the aircraft was ferried to FAOR. The ferry flight

started unpressurised and gradually climbed into a pressurised environment after the crew was comfortable that pressurisation was fully controllable in manual mode. The flight took place in compliance with the applicable Minimum Equipment List (MEL) requirements. The Safety department further requested the preservation of recorded flight data for investigation purposes. Accordingly, the flight data recorder (FDR) was removed, and the cockpit voice recorder (CVR) circuit breaker was retrieved to retain the recorded data for subsequent analysis.

1.16.6 Post-arrival Inspections and Repairs at FAOR

- Upon arrival at FAOR, the aircraft was towed to short visit maintenance (Hangar 3) for a detailed troubleshoot. System inspections were conducted in accordance with the Fault Identification Manual (FIM) procedures applicable to CPC fault codes. During Built-in Test Equipment (BITE) testing, it was observed that a changeover to CPC 2 could not be achieved, indicating an abnormal condition.
- As a result, CPC 1 was replaced, and a subsequent BITE test was completed successfully. Comprehensive ground testing of the pressurisation, air conditioning and bleed air systems was then performed with no faults detected.

1.16.7 Component Replacements and Final Verification

- As the fault could not be conclusively isolated during operational testing, a precautionary decision was taken to replace CPC 2, the P5 pressurisation control panel, and the outflow valve. These components were removed and submitted for detailed shop analysis to identify any latent or intermittent defects.
- Following completion of maintenance actions, a confidence flight was conducted to verify correct pressurisation system operation. The flight was completed successfully; after management approval, the aircraft was released back into service.

1.16.8 The CPC 1 with serial number 9912007 was sent to the United States of America (USA) for investigation. Upon its arrival, normal wear and tear of the unit was noted. On 27 October 2025, the CPC with part number 7121-19971-01AC, serial number 9912007 was bench-tested and the non-volatile memory (NVM) readout indicated multiple faults with the following codes: 17,18,24,25,30,90 and 254.

a) Fault codes on the NVM readout:

- i. **17** - Unused
- ii. **18** - Unused
- iii. **24** – Digital air data computer (DADC) #1 invalid. Fault identification manual (FIM) 21-31 tasks 806 > Possible Causes: Air data inertial reference unit (ADIRU) 1, M1749 or wiring check between connectors D10738B and D10740B of cabin pressure controllers 1 and 2 and connector D3687A of ADIRU 1.

- iv. **25** - (DADC#2 invalid) > FIM 21-31 tasks 807 > Possible Causes: ADIRU unit 2, M1752 or wiring check between connectors D10738B and D10740B of cabin pressure controllers 1 and 2 and connector D3693A of ADIRU 2.
- v. **30** - (Loss of cabin pressure in-flight / high leakage) > FIM 21-31 tasks 823 > Possible Causes:
 - 1) Low pneumatic pressure
 - 2) L (R) Pack Flow Control and Shutoff Valve, V18 (V19)
 - 3) Low Limit Temperature (35°F) Sensor
 - 4) Air Cycle Machine (ACM)
 - 5) Airplane cabin leak - Cargo door seal failure at high differential pressure. (NOTE: This may not be detected during a leak test procedure as the differential pressure is not high enough)
- vi. **90** - (Cabin pressure switch activated). No FIM task indicated
- vii. **254** - Not listed in FIM

1.16.9 Functional test failed due to the electronic temperature control (ETC) values being too high. Explanation: Elapsed time counter validation. If the initial incoming ETC value is already at values around 45010 flight hours (FH) (e.g. ≥ 45005 FH), it is advisable to perform an initialisation to avoid an unintended failure during test operation as per step G, page 1019 of Component Maintenance Manual (CMM) 21-33-20. The Service Bulletin (SB) 737-SL-21-094 was incorporated at the request of the operator. The SB required that an additional layer of tape for copper tape protection. The repair included setting the ETC to 45.000 hours. Time counter was initialised and the CPC was returned to the operator serviceable.



Figure 7: The CPCs as installed in the aircraft electrical and electronics bay.

1.17 Organisational and Management Information

1.17.1 The flight was conducted under the provisions of Part 121 of the CAR 2011.

1.17.2 The operator had an approved Class 1 Air Service Licence for domestic and international schedule flights which was issued on 24 April 2025 by the Department of Transport. The

licence authorised the carrier to operate under the following categories: Type S1 – transport of passengers between two or more specified points, and Type S2 – transport of cargo or mail between two or more specified points.

1.17.3 The operator had a valid Air Operating Certificate (SACAA.AOC.0113-PART 121) that was issued by the Regulator on 24 April 2025 with an expiry date of 30 April 2026.

1.17.4 The last phase inspection of the aircraft was certified on 15 September 2025 at 52 879.65 total airframe hours.

1.17.5 The aircraft maintenance organisation (AMO) which performed the last maintenance inspection of the aircraft had a valid AMO Certificate that was issued by the Regulator on 9 October 2024 with an expiry date of 31 October 2025.

1.18 Additional Information

1.18.1 Cabin Altitude Warning / Repaid Depressurisation Checklist (Source: Quick Reference Handbook (QRH))

737 Flight Crew Operations Manual

**CABIN ALTITUDE WARNING
or
Rapid Depressurization**

CABIN ALTITUDE (If installed and operative)

Condition: One or more of these occur:

- A cabin altitude exceedance
- In flight, the intermittent cabin altitude/configuration warning horn sounds and the CABIN ALTITUDE lights (if installed and operative) illuminate.

- 1 Don oxygen masks and set regulators to 100%.
- 2 Establish crew communications.
- 3 Pressurization mode selector MAN
- 4 Outflow VALVE switch Hold in CLOSE until outflow VALVE indicates fully closed
- 5 **If cabin altitude is not controllable:**
Passenger signs ON
If the cabin altitude exceeds or is expected to exceed 14,000 feet:
PASS OXYGEN switch ON

▶▶ Go to the Emergency Descent <> checklist on page 0.1
■ ■ ■ ■

- 6 **If cabin altitude is controllable:**
Continue manual operation to maintain correct cabin altitude.
When the cabin altitude is at or below 10,000 feet:
Oxygen masks may be removed.
■ ■ ■ ■

1.18.2 The Emergency Checklist Descent Instructions (Source: Boeing)

1. *Announce the emergency descent. The pilot flying will advise the cabin crew on the Public Address (PA) system of impending rapid descent. The pilot monitoring will advise ATC and obtain the area altimeter setting.*
2. *Passenger signs ON*
3. *Without delay, descend to the lowest safe altitude or 10 000 feet, whichever is higher.*
4. *ENGINE START switches (both) CONTINUE*
5. *Thrust levers (both) Reduce thrust to minimum or as needed for anti-ice*
6. *Speed brake FLIGHT DETENT*
7. *7 Set target speed to Maximum Operating Mach (Mmo) / Maximum Operating Speed (Vmo).*
8. *When approaching the level-off altitude: Smoothly lower the SPEED BRAKE lever to the DOWN detent and level off. Add thrust and stabilise altitude and air speed.*

1.19 Useful or Effective Investigation Techniques

1.19.1 None.

2. ANALYSIS

2.1 General

From the available evidence, the following analysis was made with respect to this incident. This shall not be read as apportioning blame or liability to any organisation or individual.

2.2 Analysis

2.2.1 Man (crew)

Examination of the pilot's files held at the SACAA facility indicated that the crew was appropriately licensed/certificated to conduct the flight on the day of the serious incident. The pilots were fit and well rested.

The captain was initially issued an Airline Transport Pilot Licence (ATPL) on 28 July 2009. The ATPL was reissued on 19 August 2025 with an expiry date of 31 October 2026. The captain was issued a Class 1 aviation medical certificate on 28 February 2025 with an expiry date of 28 February 2026. The captain had no restrictions on his medical certificate.

The FO was initially issued an ATPL on 25 January 2016. The FO's ATPL was reissued on 23 June 2025 with an expiry date of 30 June 2026. The FO was issued a Class 1 aviation medical certificate on 30 October 2024 with an expiry date of 30 October 2025. The FO had no restrictions on his medical certificate.

2.2.2 Aircraft

Examination of the aircraft's technical documentation indicated that it was properly maintained in accordance with the existing the regulations. The last phase inspection of the aircraft was certified on 15 September 2025 at 52 879.65 total airframe hours. The aircraft was issued a Certificate of Release to Service (CRS) on 30 August 2025 with an expiry date of 28 December 2025 or at 54019.39 airframe hours, whichever occurs first. The aircraft maintenance organisation (AMO) which performed the last maintenance of the aircraft had a valid AMO Certificate that was issued by the Regulator on 9 October 2024 with an expiry date of 31 October 2025.

2.2.3 According to available information, the aircraft took off from FAPE and climbed to flight level (FL) 360. Whilst on cruise and abeam George en route to FACT, the cabin altitude annunciator and associated aural warnings activated. The flight crew donned their oxygen masks, and the captain took control of the aircraft. The passengers' oxygen masks were also deployed automatically. Thereafter, the captain referenced the Non-normal Cabin Altitude Warning/Rapid Depressurisation Checklist. The cabin altitude continued to rise, and the captain contacted FACT approach controller and requested an emergency descent to FL100.

2.2.4 During descent, the captain made an announcement to the cabin crew members and passengers using the public address (PA) system, notifying them of the emergency descent and requested all aboard to remain harnessed to their seats. As the aircraft was in descent, the FO reviewed the cabin altitude warning and emergency descent procedures and checked the pressurisation panel to determine if he could manually control pressurisation; the cabin pressure was normalised and was also controllable. The aircraft levelled off at 10 000 ft, and the captain and the FO removed their oxygen masks. The captain handed over the controls to the FO, and the flight continued to FACT whereafter a safe landing was executed on Runway 19. The investigation revealed that the decompression was caused by a latent internal failure of cabin pressure controller 1 which prevented automatic pressurisation control and inhibited a successful transfer to the alternate controller; this resulted in loss of automatic cabin pressure regulation during cruise.

3 CONCLUSION

3.1 General

From the available evidence, the following findings, causes and contributing factors were made with respect to this incident. These shall not be read as apportioning blame or liability to any organisation or individual.

To serve the objective of this investigation, the following sections are included in the conclusion heading:

- **Findings** — are statements of all significant conditions, events, or circumstances in this incident. The findings are significant steps in this incident sequence, but they are not always causal or indicate deficiencies.
- **Causes** — are actions, omissions, events, conditions, or a combination thereof, which led to this incident.
- **Contributing factors** — are actions, omissions, events, conditions, or a combination thereof, which, if eliminated, avoided or absent, would have reduced the probability of the incident occurring, or would have mitigated the severity of the consequences of the incident. The identification of contributing factors does not imply the assignment of fault or the determination of administrative, civil, or criminal liability.

3.2 Findings

Crew

- 3.2.1 The captain was initially issued an Airline Transport Pilot Licence (ATPL) on 28 July 2009. The ATPL was reissued on 19 August 2025 with an expiry date of 31 October 2026.
- 3.2.2 The captain had a Class 1 aviation medical certificate that was issued on 28 February 2025 with an expiry date of 28 February 2026. The captain had no restrictions on his medical certificate.
- 3.2.3 The FO was initially issued an ATPL on 25 January 2016. The ATPL was reissued on 23 June 2025 with an expiry date of 30 June 2026.
- 3.2.4 The FO had a Class 1 aviation medical certificate that was issued on 30 October 2024 with an expiry date of 30 October 2025. The FO had no restrictions on his medical certificate.

Aircraft

- 3.2.5 The aircraft was issued a Certificate of Registration (C of R) on 3 October 2003.
- 3.2.6 The aircraft was initially issued a Certificate of Airworthiness (C of A) on 3 October 2003. The certificate was renewed on 10 October 2025 with an expiry date of 31 October 2026.
- 3.2.7 The last phase inspection of the aircraft was certified on 15 September 2025 at 52 879.65 total airframe hours.
- 3.2.8 The AMO which performed the last maintenance inspection of the aircraft had a valid AMO Certificate that was issued by the Regulator on 9 October 2024 with an expiry date of 31 October 2025.

3.2.9 The aircraft was issued a Certificate of Release to Service (CRS) on 30 August 2025 with an expiry date of 28 December 2025 or at 54019.39 airframe hours, whichever occurs first. The serious incident occurred at 53079.60 total airframe hours.

3.3 Probable Cause/s

3.3.1 Cabin decompression en route to FACT at FL360 caused by a latent internal failure of cabin pressure controller 1 prevented automatic pressurisation control and inhibited a successful transfer to the alternate controller; thus, resulting in the aircraft's loss of automatic cabin pressure regulation during cruise.

3.4 Contributory Factor/s

3.4.1 None.

4 SAFETY RECOMMENDATIONS

4.1 General

The safety recommendations listed in this report are proposed according to paragraph 6.8 of Annex 13 to the Convention on International Civil Aviation and are based on the conclusions listed in heading 3 of this report. The AIID expects that all safety issues identified by the investigation are addressed by the receiving States and organisations.

4.2 Safety Recommendation/s

4.2.1 None.

5 APPENDICES

5.1 None.

This report is issued by:

**Accident and Incident Investigations Division
South African Civil Aviation Authority
Republic of South Africa**