



**PRELIMINARY REPORT ON SERIOUS INCIDENT INVOLVING A BOMBARDIER CRJ900 AIRCRAFT WITH NATIONALITY AND REGISTRATION MARKS 5N-BXR OWNED AND OPERATED BY FLYFORVALUE AVIATION LIMITED AT PORT HARCOURT INTL. AIRPORT, RIVERS STATE ON 14TH NOVEMBER 2023**

<b>Registered owner and operator:</b>	Flyforvalue Aviation Limited (Value Jet)
<b>Aircraft type and model:</b>	Bombardier CRJ900
<b>Manufacturer:</b>	Mitsubishi Heavy Industries Ltd.
<b>Date of manufacture:</b>	2006
<b>Nationality and registration marks:</b>	5N-BXR
<b>Serial number:</b>	15065
<b>Location:</b>	Grass verge adjacent Link A5, Runway 21, Port Harcourt Airport, Rivers state
<b>Date and time:</b>	14th November 2023 at about 15:18 h

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

## **INTRODUCTION**

Nigerian Safety Investigation Bureau (NSIB) was notified by the Nigerian Airspace Management Agency (NAMA) of this occurrence via phone call on the 14th of November 2023. Investigators were dispatched, and arrived the scene the following day.

The Nigerian Safety Investigation Bureau commenced investigation into the circumstances of the occurrence under the provisions of Civil Aviation (Investigation of Air Accidents and Incidents) Regulations 2023 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, harvesting of evidence and a preliminary inspection of the aircraft.

**The investigation is ongoing.**



## 1.0 FACTUAL INFORMATION

### 1.1 History of the flight

On 14th November 2023, flight FVJ0226, a Bombardier CRJ900 aircraft with nationality and registration marks 5N-BXR, owned and operated by Flyforvalue Aviation Limited was operating a scheduled flight from Murtala Muhammed Airport, Lagos (DNMM) to Port Harcourt Intl. Airport, Rivers state (DNPO) on an Instrument Flight Rules (IFR) flight plan. On board were 68 persons inclusive of 5 crew; two cockpit, and three cabin crew with fuel endurance of 2 hours and 15 minutes.

While on ground Lagos, the flight crew received weather information for Port Harcourt reporting Visibility 1500 m, reducing to 600 m in thunderstorm and rain. The decision was made to wait on ground Lagos with passengers onboard until conditions became more suitable.

At 14:15 h, FVJ0226 departed Lagos. The Pilot was the Pilot Flying (PF) while the co-pilot was the Pilot Monitoring (PM).

The crew reported that take-off, climb, cruise, descent and approach phases were uneventful. During approach at about 6 NM to the station, the aircraft encountered light rain which dissipated before reaching the final approach fix. Wipers were switched on.<sup>1</sup> The crew discussed the weather and agreed that there was no threat to a safe operation. *Approach* and *Descent* checklists were completed.

At 15:18 h, FVJ0226 reported established on localizer, runway 21. ATC responded with, "Caution RWY surface wet, surface wind 330/06 kt RWY 21 cleared to land," which the crew acknowledged. *Landing Checks* were accomplished and wipers switched off.

Aircraft annunciation announced "minimums". Descending past 200 ft, the CVR captured auto pilot disengagement aural warning.

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<sup>1</sup> As captured on the CVR recording



After touchdown, the PM called out *90 kts*, and the PF called for *After Landing* checks and that the flaps should be retracted.

Shortly afterwards, the PM was heard warning the PF not to turn. The PF responded that he was unable to turn.

ATC called the aircraft on the radio and the PM responded with information that the aircraft had skidded off the runway. At 15:24 h, the Tower called the Watchroom to report the occurrence, which in turn relayed the message to the Fire Service.

Subsequently, the Pilot called Tower to request assistance in disembarking passengers from the disabled aircraft. Tower confirmed that emergency vehicles were en route the scene and that the crash alarm had been activated.

At 15:32 h, the Tower advised all traffic that the airfield had been closed due the occurrence.

At 15:44 h, Tower confirmed that the passengers had been safely evacuated, and afterwards, the decision was made to displace runway 03 threshold by 120 m to allow for take-offs and departures.

During post occurrence inspection, the aircraft was found at the end of runway 21, in the grass verge adjacent to Link A5. During the post occurrence interview, the crew reported that the choice of Link A5 for exiting the runway was due unsuitable runway surface conditions at Link A4 (Rapid Exit).

The serious incident occurred in daylight, and Visual Meteorological Conditions (VMC) prevailed.



## 1.2 Injuries to persons

Injuries	Crew	Passengers	Total in the aircraft	Others
Fatal	Nil	Nil	Nil	Nil
Serious	Nil	Nil	Nil	Nil
Minor	Nil	Nil	Nil	Nil
None	5	63	68	Nil
<b>Total</b>	5	63	68	Nil

## 1.3 Damage to aircraft

The extent of damage is yet to be determined. However, all landing gear particularly the nose wheel were embedded in mud.

## 1.4 Other damage

A drainage channel at the end of runway 21 was damaged where the aircraft crossed it en route the grass verge adjacent Link A5.

## 1.5 Personnel information

### 1.5.1 Pilot

Nationality: Nigerian  
Age: 31 years  
Licence type: Airline Transport Pilot Licence (Aeroplane)  
Licence: Valid till 5th January 2027  
Aircraft ratings: Aeroplane - Single engine/Multi engine  
**Part 1:** CL-65  
**Part 2:** CRJ-100/200, B737-NG  
Medical certificate: Valid till 21st February 2024



Simulator:	Valid till 8th December 2023
Instrument rating:	Valid till 8th June 2024
Proficiency check:	8th June 2023
Total flying time:	4,650 h
Total on type:	4,450 h
Total on type (PIC):	650 h
Last 90 days:	82:10 h
Last 28 days:	38:57 h
Last 24 hours:	1.10 h

### 1.5.2 Co-pilot

Nationality:	Tunisian
Age:	32 years
Licence type:	Commercial Pilot Licence (Aeroplane)
Licence validity:	19th October 2028
Aircraft ratings:	Aeroplane - Single-engine, Multi engine, <b>Part 2:</b> CL-65
Medical certificate:	Valid till 20th February 2024
Simulator:	Valid till 19th January 2024
Instrument rating:	Valid till 19th July 2024
Proficiency check:	19th July 2023
Total flying time:	751 h
Total on type:	578 h
Last 90 days:	158:48 h
Last 28 days:	25.43 h
Last 24 hours:	1:10 h



## 1.6 General Information

### 1.6.1 Aircraft Information

Type:	Bombardier CRJ900 (CL-600-2D24)
Manufacturer:	Mitsubishi Heavy Industries Ltd.
Date of manufacture:	2006
Serial number:	15065
Registered operator:	Flyforvalue Aviation Limited (Value Jet)
Nationality and registration marks:	5N-BXR
Certificate of airworthiness:	Valid till 10th March 2025
Certificate of insurance:	Valid till 8th February 2024
Certificate of registration:	Issued 13th April 2023
Noise certificate:	Issued 11th February 2022
Airframe time:	18,177:50 h

### 1.6.2 Engines

	<b>No. 1</b>	<b>No. 2</b>
<b>Engine model</b>	CF34-8C5	CF34-8C5
<b>Manufacturer</b>	General Electric	General Electric
<b>Year of manufacture</b>	2006	2006
<b>Serial number</b>	194421	194420
<b>Time Since New</b>	18,139:41	17,997:27
<b>Cycles Since New</b>	18,807	18,638

**Fuel type used:**

Jet A-1



## 1.7 Meteorological Information

<b>Time</b>	<b>1300Z</b>	<b>1400Z</b>	<b>1416Z (SPECI)</b>	<b>1500Z</b>
<b>Wind</b>	210/04 kt	200/03 kt	280/03 kt	Calm
<b>Visibility</b>	1500 m	1500 m	5000 m	10 km
<b>Weather</b>	TSRA (Moderate rain)	TSRA (Moderate rain)	-TSRA (Light rain)	TS
<b>Cloud</b>	Broken 700 ft, Few 1,900 ft CB	Broken 700 ft, Few 1,800 ft CB	Broken 700 ft, Few 1,800 ft CB	Broken 700 ft, Few 1,800ft CB
<b>Temperature /Dewpoint</b>	26/25°C	24/24°C	24/24°C	26/25°C
<b>QNH</b>	1009 hPa	1008 hPa	1007 hPa	1007 hPa
<b>Trend</b>	Tempo 800 m, +TSRA (Heavy rain)	BCMG 3000	BCMG 7000	No Significant Cloud

## 1.8 Aids to Navigation

Not Available.

## 1.9 Communications

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

## 1.10 Aerodrome Information

Port Harcourt International Airport with location indicator DNPO has a bi-directional runway with designation 03/21. Runway 21 was the runway in use for the approach. The runway has a dimension of 3000 m by 60 m. Aerodrome Reference Point is 05°00'55.6545"N 006°56'38.3168"E while field elevation is 91 ft.





### 1.11 Flight Recorders

The aircraft was fitted with Flight Data Recorder (FDR) and Cockpit Voice Recorder (CVR) with the following particulars:

	<b>Cockpit Voice Recorder</b>	<b>Flight Data Recorder</b>
<b>Model</b>	FA2100	FA2100
<b>Part Number</b>	2100-1025-22	2100-2045-22
<b>Serial Number</b>	000802228	000725676
<b>Manufacturer</b>	L-3 Aviation Recorders, USA	L-3 Aviation Recorders, USA

The recorders (FDR) was successfully downloaded and analysed at the Nigerian Safety Investigation Bureau's Transportation Safety Laboratory in Abuja.

### 1.12 Wreckage and Impact Information

Tyre marks on the runway leading to the final position of the aircraft showed that the aircraft impacted and damaged a drainage duct and uprooted some embedded power cables.

### 1.13 Medical and Pathological Information

Toxicology tests conducted on the crew and the results were negative.

### 1.14 Fire

There was no fire.



### **1.15 Survival Aspect**

The occurrence was survivable in that the passenger restraint system (seat belts and shoulder harnesses) were intact and there was liveable volume for the occupants.

### **1.16 Test and research**

Nil.

### **1.17 Organisational and management information**

Flyforvalue is an air operator based in Lagos, Nigeria issued with an Air Operator Certificate, number FVJ/AOC/09-22/001, valid till 20th September 2024. It operates a fleet of Bombardier CRJ900 aircraft.

The operator is licenced for scheduled and non-scheduled passenger and cargo flights.

### **Initial Findings**

1. The flight crew were licensed and qualified to conduct the flight.
2. The Pilot was the Pilot Flying while the Co-pilot was the Pilot Monitoring.
3. The aircraft had a valid Certificate of Airworthiness.
4. PM called out *90 kt* during landing roll.
5. PF called for *After Landing* checklist and flaps retraction.
6. The aircraft continued its roll till it veered off the runway into the grass verge adjacent Link A5.
7. The CVR and FDR were recovered in good condition and recordings were intact after the occurrence.
8. ATC activated the crash alarm.
9. Passengers disembarked without any injury.



**Figure 1: Some views of the aircraft landing gear where it stopped**





**Figure 2: The damaged drainage duct (In the foreground)**



**Figure 3: Close up view of the nose landing gear**