

REPUBLIC OF LIBERIA
Aircraft Accident Investigation Bureau



PRELIMINARY REPORT

ON SERIOUS INCIDENT INVOLVING VMO AERO NIGERIA LTD
GULFSTREAM IV AIRCRAFT WITH REGISTRATION N770KS WHICH
OCCURRED AT **ROBERTS INTERNATIONAL AIRPORT (GLRB), LIBERIA,**
ON MAY 29, 2025.



*Aircraft Serious Incident Preliminary Report
Gulfstream IV-N770KS/May/29/2025*





PRELIMINARY REPORT ON THE SERIOUS INCIDENT INVOLVING A GULFSTREAM IV AIRCRAFT OWNED BY BEST AIRCRAFT DEALS, USA, AND OPERATED BY VMO AERO NIGERIA, LTD, WITH NATIONALITY AND REGISTRATION MARKS N770KS, WHICH OCCURRED AT ROBERTS INTERNATIONAL AIRPORT, LIBERIA, ON MAY 29, 2025.

Registered owner: Best Aircraft Deals, LLC., Salt Lake City, USA

Registered operator: VMO Aero, LTD., Ikeja, GRA, Lagos, Nigeria

Aircraft type and model: GULFSTREAM IV

Manufacturer: Gulfstream Aerospace Corporation, USA

Year of manufacture: 1989

Nationality and registration marks: N770KS

Serial number: 1093

Location: Roberts International Airport, (GLRB) Liberia.

Date and time: May 29, 2025, at 15:21 UTC

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

INTRODUCTION

The Liberian Aircraft Accident Investigation Bureau (AAIB) was notified of the occurrence by the Liberia Airport Authority (LAA) personnel at Roberts International Airport via phone call on May 29, 2025. Investigators were immediately dispatched and arrived at the scene on the same day.

The Liberian Aircraft Accident Investigation Bureau commenced post-occurrence assessment under the provisions of Civil Aviation (Investigation of Air Accidents and Incidents) Regulations 2023 and Annex 13 to the convention on 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, evidence and a preliminary inspection of the site and aircraft.

The investigation is ongoing.



1.0 FACTUAL INFORMATION

1.1 History of the flight

On May 29, 2025, at about 12:21 UTC, a Gulfstream IV, with registration mark N770KS and callsign LIB 001, departed Murtala Muhammed International Airport, Lagos, Nigeria (DNMM), following (Air Traffic Services) ATS routes, conveying the President of Liberia back to Liberia and arrived at Roberts International Airport, Monrovia, Liberia (GLRB) at about 15:21 UTC during the day. While en-route the aircraft maintained communication with Robert Flight Information Region (RFIR) and Robert Approach Control. The Captain was the Pilot Flying while the First Officer was the Pilot Monitoring. During the landing rollout phase, the aircraft experienced tyre bursts on two wheels of the left main landing gear. The aircraft came to a stop on the runway centreline 2200 ft before the threshold of runway 22 and was unable to taxi to the terminal. All passengers were disembarked safely using the aircraft's on-board air-stairs with the assistance of the airport's rescue and firefighting service. The aircraft sustained damage to the left main landing gear. There were no reported injuries or fatalities. The incident occurred at 15:21 UTC in daylight under Visual Meteorological Conditions (VMC).

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	3	15	18	Nil
Total	3	15	18	Nil

1.3 Damage to aircraft

Slightly Damaged

1.4 Other damage

There were small craters, as shown in figure 2, caused by the deteriorating wheel assembly during the rollout phase of approximately 1 inch deep by 4 inches wide caused to the runway's surface at the location where the aircraft came to a stop. Additionally, referencing figure 1, there were skid marks on the runway resulting from the left main gear tire for 1322.9feet. The skid marks were created from R38 edge light (W 10° 21'34.4"/ N 6° 14'17.7") to between L46 and L47 (W 10° 21'30.2"/ N 6° 14'24.7") at which point the aircraft came to final rest.



Figure 1: View of the skid mark on the runway created during the rollout phase by the left main gear wheel rims (#1 and #2)



Figure 2: View of the coordinates and distances of skid marks points, final resting position, and repositioned point.



Figure 3: Crater created on the runway where the left main gear came to rest



Figure 4: Damage caused to the right nose wheel by the tow bar

1.5 Personnel information

1.5.1 Captain

Nationality:	Nigerian
Age:	64 years
Licence type:	USA FAA Airline Transport Pilot Licence (ATP)
Medical certificate:	Valid till 31 st August, 2025
Instrument rating:	Valid till 12/11/2024
Aircraft rating:	BBD-700; CL-604; G-IV; HS-125
Total flying time:	14,500 h
Total on type:	800 h
Total on type (PIC):	750 h
Last 90 days:	100 h
Last 28 days:	20 h
Last 24 hours:	Nil



1.5.2 First Officer

Nationality:	Nigerian
Age:	43 years
Licence type:	USA FAA Airline Transport Pilot Licence (ATP)
Medical certificate:	Valid till 30 th September, 2025
Instrument rating:	Valid till 16th February, 2026
Aircraft Rating:	CL-600; CL-604; G-V
Total flying time:	6155.8 h
Total on type:	125.5 h
Last 90 days:	75.5 h
Last 28 days:	20 h
Last 24 hours:	Nil

1.5.3 A&P Mechanic

Nationality:	Nigerian
Age:	63 years
Licence type:	USA, FAA Airframe and PowerPlant Mechanic
Date of Issue:	9 May, 2022

1.6 Aircraft Information

The aircraft was manufactured by Gulfstream Aerospace Corporation USA, in 1989. The CVR and FDR were removed from the aircraft and taken to the NSIB lab in Abuja for downloading and assistance for analysis, however, both recorders were found to be unserviceable during attempts to extract the data.



1.6.1 General Information

Type: Gulfstream IV

Manufacturer: Gulfstream Aerospace Corporation, USA

Year of manufacture: 1989

Serial number: 1093

Registered operator: VMO Aero Nigeria, LTD

Registration marks: N770KS

Certificate of airworthiness: Issued on 16th December 2000

Certificate of insurance: Valid till 24th September 2025

Certificate of registration: Valid till 31st January 2032

Airframe time: 12102.8 h

Airframe cycles: 6242

1.6.2 Engines

	No. 1	No. 2
Engine model	TAY MK 611-8	TAY MK 611-8
Manufacturer	Rolls Royce	Rolls Royce
Year of manufacture	1987	1987
Serial number	16311	16306
Time Since New	11776.34 HRS	11776.34 HRS
Cycles Since New	6041 CYC	6041 CYC

Fuel type used: Jet A-1

1.7 Meteorological Information

The meteorological conditions for (GLRB) were as follows:

Time: 1500Z

Wind: 290° 07kt

Visibility: 10 km

Cloud: Broken



Broken cloud: FEW CB 2,600FT

Temperature: 29°C

Dew Point: 24°C

QNH: 1013.0 hPa

CB Direction: SW

THREND: NOSIG

Relative Humidity: 87%

Time: 1530Z

Wind: 240° 09kt

Visibility: 10 km

Cloud: Broken

Broken cloud: FEW CB 2,600FT

Temperature: 30°C

Dew Point: 26°C

QNH: 1013.0 hPa

CB Direction: SW

THREND: NOSIG

Relative Humidity: 87%

1.8 Aids to Navigation

The status of the navigational aids at (GLRB) on the day of the occurrence was as follows:

VHF 113.8 MHz “ROB” VOR/DME	–	“Unserviceable”
VHF 110.3 MHz (ILS) “ROB SK”	–	“Unserviceable”
RNAV Procedures (ROB)	–	“Published/Current”



1.9 Communications

There were effective communication between the aircraft and the ATC as per interviews and reports submitted by the aircraft's crew and the Duty Air Traffic Controller (DATCO). The ATC towers voice recorder and aircraft cockpit voice recorder were unserviceable as at the time of the occurrence.

The serviceability of the communication aids at Roberts International Airport (GLRB), Liberia on the day of the occurrence were as follows :

VHF 128.1 MHz (ROB ACC)	–	“Serviceable”
VHF 118.3 MHz (ROB Tower)	–	“Serviceable”
VHF 124.5 MHz (ROB Approach CTL)	–	“Serviceable”
VHF 121.9 MHz (ROB Ground)	–	“Serviceable”
VHF 131.4 MHz (ROB OPS)	–	“Published”

1.10 Aerodrome Information

Roberts International Airport is the only international airport in Liberia and is managed by the Liberia Airport Authority (LAA). The Liberia Airport Authority is responsible for providing equipment, infrastructure and maintenance to the Air Traffic services while the Air Traffic Controllers are employees of the Liberia Civil Aviation Authority (LCAA). The Roberts Flight Information Region (RFIR) also has Area controllers that control the upper airspace from 10,000 ft and above. The airport is located in Margibi County and the airport has an Aerodrome Reference Point (ARP) of “N 06°14' 01.64/W 010° 21' 44.18” with an elevation of 31ft/9.45m above sea level. Located near the town of Harbel in Margibi County, the single runway airport is about 35 miles (56km) east of the nation's capital of Monrovia, and as an origin and destination point is referred to as “Monrovia.” The airport has one bi-directional runway: 04/22. The ICAO airport code of this airport is GLRB. The airports IATA code is ROB. It is within the Roberts Flight Information Region (RFIR). Runway 04 which is 11,000 ft X150 ft, has an Instrument Landing System (ILS) with frequency VHF 110.3 MHz with centerline edge threshold high intensity CAT I lighting system. Runway 04/22 is equipped with PAPIs. A VOR/DME is located at GLRB with frequency VHF 113.8 MHz.

The Roberts International Airport has no Aerodrome Certificate issued by the Liberia Civil Aviation Authority (LCAA) per Annex 14 and LCAR Part 14 to ensure compliance with international standards.



1.11 Flight Recorders

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

	Cockpit Voice Recorder (CVR)
Model	A100
Part Number	N/A
Serial Number	6318
Manufacturer	Fairchild
Channels	Four (4)

	Flight Data Recorder (FDR)
Model	F800
Part Number	17M800-261
Serial Number	4639
Manufacturer	Fairchild

The recorders were retrieved by the investigators of the AAIB- Liberia at Roberts International Airport and hand-carried to the Nigeria Safety Investigation Bureau's (NSIB) facilities in Abuja, Nigeria, for downloading and analysis. An attempt to download the data was made on 16 June 2025; however, both recorders were found to be unserviceable and no data could be retrieved.

Upon inspection of the CVR it was observed to have visual signs of wear on the inside with traces of corrosion on the power supply chip.

The tape was extracted from the recorder and an attempt to download the data from the tape using the FDR download deck was unsuccessful.

1.12 Wreckage and Impact Information

On May 29, 2025, at approximately 15:21 UTC, a Gulfstream IV aircraft operating under flight number LIB 001 experienced a dual tyre blowout on the left main landing gear during the landing rollout phase at Roberts International Airport. The aircraft came to a controlled stop on the runway centreline 2200 ft before the threshold at runway 22.

Post-occurrence damage revealed the outer flange of the right nose wheel rim exhibited localized gouging and paint removal caused during attempts to reposition the aircraft from the active runway. See figures below.



Figure 5: Left main landing gear initial damage post-occurrence



Figure 6: Secondary damage sustained as a result of removal of disabled aircraft

1.13 Medical and Pathological Information

Toxicological tests were not conducted on the crew.

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) was intact, and there was liveable volume for the occupants. The crew and passengers disembarked unhurt.



Figure 7: Image of the cabin, post-occurrence

1.16 Test and research

N/A



1.17 Organisational and management information

1.17.1 VMO AERO Nigeria, LTD.

VMO Aero is a Nigerian-registered operator with a permit to operate issued by the Nigeria Civil Aviation Authority (NCAA) in the Permit for Non-Commercial Flight (PNCF) category, specialising in aircraft management and operations solutions. They are the operators of the Gulfstream IV aircraft with registration marks N770KS and their headquarters in Lagos, Nigeria. They have one Gulfstream IV aircraft in their fleet.

1.17.2 BEST AIRCRAFT DEAL LLC

BEST AIRCRAFT DEAL LLC is the United States registered owner of the aircraft with registration mark N770KS and they are based in Salt Lake City, Utah, USA. They manage and operate over 14 aircraft of which 8 of them are Gulfstream IV model aircraft.

1.18 Additional Information

Nil



2.0 Initial Findings

1. The Roberts International Airport has no Aerodrome Certificate issued by the Liberia Civil Aviation Authority (LCAA) per Annex 14 and LCAR Part 14 to ensure compliance with international standards.
2. The flight crew were licensed and qualified to conduct the flight.
3. The Captain was the Pilot Flying while the First Officer was the Pilot Monitoring as indicated by the operator on the accident/incident report form.
4. The aircraft was operating under a Permit for Non-Commercial Flight (PNCF) issued by the Nigeria Civil Aviation Authority (NCAA) valid from 30th October, 2024, to 29th October, 2027.
5. There were major inconsistencies between the two logbooks (BEST AIRCRAFT DEAL LLC's and CLAY LACY) relating to tyre changes. Best Aircraft Deal LLC's aircraft technical log with page serial 000050 and Clay Lacy maintenance log with document number 324234 have inconsistent notes about the number two wheel tyre change.
6. The Roberts Air Traffic Control Tower was not equipped with a serviceable voice recorder at the time of the incident, therefore, there were no recordings made available to investigators for transcription and analysis.
7. Both recorders were retrieved from the aircraft but no data was found in them.
8. Upon inspection of the CVR carried on by the NSIB laboratory, it was observed to have visual signs of wear on the inside with traces of corrosion on the power supply chip.
9. The tape was extracted from the recorder and an attempt to download the data from the tape using the FDR download deck was unsuccessful.

IMMEDIATE SAFETY RECOMMENDATIONS

Immediate Safety Recommendations 2025-001: Oversight of Foreign-Registered Aircraft Used for State Flights

The AAIB recommends that the Ministry of State, in coordination with the Liberia Civil Aviation Authority (LCAA), strengthen the regulatory framework by making it mandatory for all foreign-registered aircraft chartered or used for official or presidential flights to undergo an assessment including inspection by qualified LCAA inspectors before being put into operation.

Immediate Safety Recommendations 2025-002: Establishment of Aviation Unit at the Ministry of State

The AAIB recommends that the Office of the President, in coordination with the Ministry of Transport (MOT), establish an aviation unit within the Ministry of State, staffed with qualified personnel and equipped with adequate resources, to implement a formal mechanism for selecting and monitoring aircraft used for state or presidential transport, ensuring they are properly maintained, and operated in accordance with national and international safety requirements.



Immediate Safety Recommendations 2025-003: Aircraft CVR and FDR Replacement/Repair

The AAIB recommend that the GS-IV CVR and FDR be repaired or/and replaced before return to service for regular operations and reflected in the aircraft technical logbook.

Safety Recommendation 2025-004: Recording Systems and Navigation Aids

The AAIB recommends that the Liberia Airport Authority (LAA) ensure that voice and data recording systems at Roberts International Airport are restored, serviceable, and maintained in continuous working condition. In addition, the LAA should ensure that navigation aids, including ILS and VOR/DME, are periodically calibrated and maintained in accordance with ICAO standards. These actions will enhance the reliability of air traffic services and ensure the availability of essential data for safety oversight and investigations.

Safety Recommendation 2025-005: Enhanced Oversight of LAA Operations

The AAIB recommends that the Liberia Civil Aviation Authority (LCAA) strengthen its oversight of the Liberia Airport Authority (LAA) with respect to air traffic services, including ATC staffing levels and the effectiveness of operational recording systems.

Safety Recommendation 2025-006: Maintenance of Navigation Aids (NAVAIDS)

The AAIB recommends that the Liberia Civil Aviation Authority (LCAA) enforce the Liberia Airport Authority (LAA) performs maintenance and periodic calibration of navigation aids in accordance with national regulations and applicable ICAO Standards and Recommended Practices (SARPs), in order to maintain their accuracy, reliability, and serviceability, and to promptly identify and rectify any safety-related deficiencies.

Photos



Image 1: Full image of Gulfstream IV aircraft, N770KS



Image 2: A view of the deformed wheel



Image 3: A view of the deformed tyre.



Image 4: View of the ant-skid unit prior to replacement



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UNITED STATES OF AMERICA DEPARTMENT OF TRANSPORTATION-FEDERAL AVIATION ADMINISTRATION		
STANDARD AIRWORTHINESS CERTIFICATE		
1 NATIONALITY AND REGISTRATION MARKS N770KS	2 MANUFACTURER AND MODEL Gulfstream Aerospace Corp. Model G-IV	3 AIRCRAFT SERIAL NUMBER 1093
5 AUTHORITY AND BASIS FOR ISSUANCE This airworthiness certificate is issued pursuant to 49 U.S.C. § 44704 and certifies that, as of the date of issuance, the aircraft has been inspected and found to conform to the type certificate therefor, to be in condition for safe operation, and has been shown to meet the requirements of the applicable comprehensive and detailed airworthiness code as provided by Annex 8 to the Convention on International Civil Aviation, except as noted herein. Exceptions: NONE		
6 TERMS AND CONDITIONS Unless sooner surrendered, suspended, revoked, or a termination date is otherwise established by the FAA, this airworthiness certificate is effective as long as the maintenance, preventative maintenance, and alterations are performed in accordance with Parts 21, 43, and 121 of the Federal Aviation Regulations, as appropriate, and the aircraft is registered in the United States.		
DATE OF ISSUANCE R 12/16/2000	FAA REPRESENTATIVE Rex E. Hallesy	

Any alteration, reproduction, or misuse of this certificate may be punishable by a fine not exceeding \$1,000 or imprisonment not exceeding 1 year, or both.
THIS CERTIFICATE MUST BE DISPLAYED IN THE AIRCRAFT IN ACCORDANCE WITH APPLICABLE FEDERAL AVIATION REGULATIONS.
FA Form 8100-2 (04-11) Supersedes Previous Edition

Image 5: Gulfstream IV, N770KS-Airworthiness certificate issued by FAA



Image 6: Annunciator panel highlighting anti-skid fail in amber



Image 7: Corroded Power supply chip of the CVR after retrieval



Image 8: Signs of Corrosion in the chip housing



Image 9: Gulfstream IV N770KS, Cockpit Voice Recorder (CVR)