



PRELIMINARY REPORT

Accident Investigation Bureau

Preliminary Report on the Serious Incident involving BAe125-800B aircraft with nationality and registration marks 5N-B00 operated by Gyro Air Limited which occurred at Osubi Airport Warri; Nigeria on 10th September, 2020.



5N-BOO

| | |
|--|--|
| Registered owner/operator: | Gyro Air Limited |
| Aircraft type and model: | British Aerospace BAe 125-800B |
| Manufacturer: | British Aerospace Public Limited Company |
| Year of manufacture: | 1990 |
| Serial number: | 258143 |
| Nationality and registration marks: | 5N-BOO |
| Location: | Osubi Airport |
| Date and time: | 10th September, 2020 at 15:25:27 h |

(All times in this report are local equivalent to (UTC+1) unless otherwise stated)



INTRODUCTION

Accident Investigation Bureau (AIB) was notified of the occurrence by the operator on 10th September, 2020. Investigators were subsequently deployed to the incident site and commenced post incident assessments on 11th September, 2020 under the provisions of Civil Aviation Investigation of Air Accidents and Incidents Regulations 2019 and ICAO Annex 13.

The purpose of this preliminary report is to provide details of the initial facts, discussions and findings surrounding the occurrence; it includes information gathered from Cockpit Voice Recorder (CVR), witness statements and a post occurrence inspection of the incident site.

The investigation is ongoing.

1.0 FACTUAL INFORMATION

1.1 History of the flight

On 10th September 2020 at 15:02 h, a BAe 125-800B aircraft with nationality and registration marks 5N-BOO, operated by Gyro Air Limited, arrived Osubi from Abuja for a drop-off and return to Abuja.

The flight was scheduled to depart Osubi Airport Warri, (DNSU) to Nnamdi Azikiwe International Airport, Abuja (DNAA) at 15:13 h on an Instrument Flight Rules (IFR) flight plan. There were 3 crew members on board and fuel endurance of 3 h, 30 minutes. The Pilot was the Pilot Flying (PF) while the Co-pilot was the Pilot Monitoring (PM).

At 15:18:24 h, 5N-BOO requested for engine start up and cruising altitude of 22,000 ft above mean sea level (FL220) from Osubi Tower (TWR). TWR granted the start-up and instructed 5N-BOO to report when ready for taxi.

At 15:19:13 h, the flight crew completed the before start up checks, started the engine and reported to the TWR, *5N-BOO ready for taxi*. TWR granted 5N-BOO taxi clearance. 5N-BOO was further cleared to enter and back track for takeoff on Runway (RWY) 24.

At 15:22:15 h, during taxi TWR issued departure clearance to 5N-BOO for initial climb to FL50 and to request level change en-route. TWR subsequently cleared 5N-BOO for takeoff RWY 24 with an instruction to turn right after take-off. 5N-BOO read back the clearance and TWR confirmed it is correct.

At 15:25:13 h, the flight crew completed the line-up and before takeoff checks. While advancing thrust for short field takeoff roll, an Augusta Westland (AW) 139 helicopter with registration 5N-CHO operated by Caverton Helicopter called TWR. TWR asked 5N-CHO to go ahead.



AT 15:25:15 h, 5N-CHO reported to TWR that they were airborne Whiskey Alpha (WA) climbing out of 1700ft for 2500ft. TWR cut into the transmission and called out three times *Bravo Oscar Oscar hold position*, after which 5N-CHO completed passing its traffic information.

At 15:25:25 h, TWR continued *Bravo Oscar Oscar hold position*.

According to the flight crew of 5N-BOO, during the take-off roll at a speed of 86 knots the abort was initiated and maximum braking was applied.

At 15:25:40 h, the flight crew of 5N-BOO asked: *Osubi why did you ask us to abort*, the TWR responded: *sorry about that there is err guy crossing on your right path ahead of you*.

After the rejected takeoff, 5N-BOO came to a stop at a distance of about 1164.45m from the threshold of RWY 24 and taxied back to the apron. The crew disembarked unhurt and discovered that the left main wheel tires (No.1 and No.2) had deflated due to high temperature which led to the melting of the fusible plugs.

The incident occurred at 15:25:27 h, in daylight Visual Meteorological Conditions (VMC) prevailed at the time of occurrence.

1.2 Injuries to persons

| Injuries | Crew | Passengers | Total in the aircraft | Others |
|----------|------|------------|-----------------------|--------|
|----------|------|------------|-----------------------|--------|

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| | | | | |
|----------------|-----|-----|-----|-----|
| Fatal | Nil | Nil | Nil | Nil |
| Serious | Nil | Nil | Nil | Nil |
| Minor | Nil | Nil | Nil | Nil |
| None | 3 | Nil | 3 | Nil |
| TOTAL | 3 | Nil | 3 | Nil |

1.3 Damage to aircraft

The aircraft was slightly damaged.

1.4 Other damages

Nil.

1.5 Personnel information

1.5.1 Pilot

Nationality: Ghanaian

Age: 60 years

License type: Airline Transport Pilot License (Aeroplane)

License validity: Valid till 2nd December, 2020

Aircraft ratings: Piper Aztec-23, Boeing 737-200, DASH-6 (TWIN OTTER), Hawker Siddeley-125/800XP, BAC 1-11, Cessna-172, Piper Aztec-28, Fokker-28-400, McDonnell

Douglas-9

| | |
|-------------------------------|---|
| Medical certificate validity: | valid till 2nd December, 2020 |
| Proficiency validity: | Valid till 31st December, 2020 (HS-I25/800XP) |
| Total flying time: | 14,800 h |
| Total on type: | 3,000 h |
| Total on type(PIC): | 3,000 h |
| Last 90 days: | 20 h |
| Last 28 days: | 10 h |
| Last 7 days: | 06 h |
| Last 24 hours: | 03 h |

1.5.2 Co-Pilot

| | |
|----------------------|--|
| Nationality: | Nigerian |
| Age: | 35years |
| License type: | Commercial Pilot License (Aeroplane) |
| License validity: | Valid till 12th November, 2020 |
| Aircraft ratings: | Single Engine, Multi Engine, Hawker Siddeley-125/800XP |
| Medical Certificate: | Valid till 12th November, 2020 |
| Simulator validity: | Valid till 18th September, 2020 (HS-I25/800XP) |
| Total flying time: | 748 h |
| Total on type: | 457 h |
| Last 90 days: | 153 h |

Last 28 days: 32 h
Last 7 days: 16:15 h
Last 24 hours: 03 h

1.5.3 Duty Air Traffic Controller (DATCO)

Nationality: Nigerian
Age: 51 years
License type: Air Traffic Controller License
License validity: Valid till 18th April, 2022
Ratings: Aerodrome Control, Approach Control Procedural
Medical Certificate Validity: Valid till 8th February, 2021

1.6 Aircraft information

1.6.1 General information

Type: BAe 125-800B
Manufacturer: British Aerospace PLC
Year of manufacture: 1990
Serial number: 258143
Certificate of Airworthiness: 29 November 2020
Certificate of Insurance: Valid till 27 June 2021
Certificate of Registration: Issued 21 January 2014
Total airframe time: 10160:43h

5N-B00

Total landing cycles: 9010



Figure 1: 5N-B00 parked at the apron after the incident

1.6.2 Engines

| Engine | Number 1 | Number2 |
|------------------|-------------------------|-------------------------|
| Manufacturer | Garrett AiResearch, USA | Garrett AiResearch, USA |
| Type/Model | TFE731-5R-1H | TFE731-5R-1H |
| Serial number | P91464 | P91465 |
| Time Since New | 10181:09h | 10051:40h |
| Cycles Since New | 8647 | 8204 |

Fuel Used: Jet A1



1.7 Meteorological information

| | |
|-------------|--------------|
| DNPO | 1400Z |
| Wind: | Calm |
| Visibility: | CAVOK |
| Weather: | nil |
| Cloud: | 2500ft |
| Temp/Dew: | 28°C |
| QNH: | 1010 hpa |

Nigerian Meteorological Agency (NIMET) was not present at Osubi Airport at the time of this occurrence.

1.8 Aids to navigation

The conditions of the navigation aids at Osubi Airport on the day of the occurrence are;

| | |
|------------------|---------------|
| DAVIS WX MONITOR | Serviceable |
| NDB, VOR | Unserviceable |

1.9 Communication

There was two-way communication between the aircraft and air traffic control. Efforts by the investigators to retrieve the tower audio recordings was unsuccessful as this particular

incident was not recorded due to power failure at the time of the occurrence.

The aerodrome operator (Shoreline Oil Services Limited) is in-charge and keeps custody of the tower recordings.

The Shoreline Oil Services Limited (SOS) fire station were not aware of the occurrence because the radio communication between the TWR and other stations was not monitored due to unserviceability of the SOS fire station radio sets. The condition has been like that for almost two years and this is corroborated by SOS fire station log book.

The conditions of the communication aids at Osubi Airport on the day of the occurrence are;

| | |
|------------------------|---------------|
| VHF 129.100 MHZ (MAIN) | Serviceable |
| VHF 119.2MHZ (STBY) | Serviceable |
| ATC WATCH CLOCK | Serviceable |
| CRASH ALARM BELL | Serviceable |
| A/C BELL ALERTER | Serviceable |
| NAMA GSM LINE | Serviceable |
| INTERCOM (SHORELINE) | Serviceable |
| INTERCOM (CHEVRON) | Unserviceable |
| 2 WALKIE TALKIE | Unserviceable |

1.10 Aerodrome information

Osubi airport (DNSU) is located 8km North-East of Warri. The aerodrome reference point



is 05°35'53.4637"N 005°49'07.6967"E and the elevation is 27ft (8.23m). The aerodrome has an asphalt surface with runway orientation 06/24 (2° W magnetic). The length and width of the runway are 1800m and 30m respectively. The airport caters mostly for charter flights and helicopter operations. The hours of operations are from sunrise to sunset (0600-1800 hours).

The Osubi Control Zone encompasses five other landing strips as follows;

- (a) IA/ WA Landing strip
- (b) WT (Topcon) landing strip
- (c) Army barrack helipad
- (d) Naval Base Airstrip
- (e) The Old Warri Airstrip (CW) is 4.8 NM South West.

1.11 Flight recorders

The aircraft is fitted with a Solid-State Flight Data Recorder (FDR) and a Cockpit Voice Recorder (CVR).

| Recorders | Flight Data Recorder | Cockpit Voice Recorder |
|----------------------|-----------------------------------|---|
| Manufacturer | Fairchild Aviation Recorders, USA | Honeywell International Inc., USA |
| Model | F1000 | Solid State Memory Cockpit Voice Recorder |
| Part Number | S603-1000-00 | 980-6022-011 |
| Serial Number | 00370 | CVR120-08785 |

The FDR and CVR were retrieved and downloaded. The CVR was downloaded at the Flight Safety Laboratory of Accident Investigation Bureau (AIB), Abuja; Nigeria.

1.12 Wreckage and impact information

The aircraft came to a stop at a distance 1164.45 m from the threshold of RWY 24 leaving 635.55 m remaining RWY length. The left main landing gear tires, No.1 and No.2 were deflated. There was no impact.



Figure 2: The left main wheel tires (No.1 and No.2) deflated

1.13 Medical and pathological information

No medical test was conducted.



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1.14 Fire

There was no fire.

Initial Findings

1. The TWR cleared 5N-BOO to DNAA for climb to FL50 initially and to request level change en-route.
2. Osubi TWR subsequently cleared 5N-BOO for takeoff RWY 24 with an instruction to turn right after take-off.
3. After the flight crew completed the line-up and before take-off checks, while advancing thrust for take-off, an Augusta Westland (AW) 139 helicopter with registration 5N-CHO belonging to Caverton Helicopter called Osubi TWR.
4. 5N-CHO reported airborne Whiskey Alpha (WA) climbing out of 1700ft for 2500ft.
5. 5N-CHO did not make any contact with Osubi TWR before lift-off.
6. TWR called three times *Bravo Oscar Oscar hold position* after which 5N-CHO completed passing its traffic information. The "hold position" instruction was given to 5N-BOO while 5N-CHO was still making its radio telephony transmission.
7. The "hold position" instruction was given when 5N-BOO had already commenced the take-off.
8. 5N-BOO came to a stop at a distance of about 1164.45 m from the threshold of RWY 24 and taxied back to the apron.
9. The crew discovered that the left main wheel tires (No.1 and No.2) deflated.
10. Nigerian Meteorological Agency (NIMET) was not present at Osubi Airport at the time of the occurrence.
11. The Aerodrome Rescue and Fire Fighting Services (ARFFS) of Shoreline Oil Services



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Limited (SOS) were not aware of the occurrence.

12. SOS does not have the required man power and equipment necessary to support operations and management of Osubi Airstrip.
13. Radio communication between the TWR and other stations was not monitored by the SOS ARFFS.
14. The radio sets at SOS ARFFS have been unserviceable for almost two years.
15. The aerodrome Operator SOS was in-charge and kept custody of the tower recordings
16. The safety investigators did not retrieve tower recordings because the incident was not recorded due to power failure.

Immediate Safety Recommendations

Nigerian Civil Aviation Authority (NCAA) should ensure that:

1. All Operators within Osubi control zone must file a flight plan before lift-off/departure.
2. A standard procedure that will mandate all traffic originating from the surrounding airstrips and helipads stay clear of active runway until permitted by Tower.

Nigerian Airspace Management Authority (NAMA) should ensure that:

3. The Local Air Traffic Control Instruction (LATCI) for Osubi Airstrip is reviewed to incorporate items (1) and (2) above.