

PRELIMINARY REPORT ON ACCIDENT INVOLVING HAWKER 800XP AIRCRAFT OPERATED BY FLINTS AERO SERVICES LTD. WITH NATIONALITY AND REGISTRATION MARKS 5N-AMM WHICH OCCURRED AT IBADAN AIRPORT, OYO STATE ON 3RD NOVEMBER, 2023

| Registered owner and operator: | Flints Aero Services Ltd |
|-------------------------------------|--|
| Aircraft type and model: | Hawker 800XP |
| Manufacturer: | Raytheon Aircraft Company, USA |
| Date of manufacture: | 1999 |
| Nationality and registration marks: | 5N-AMM |
| Serial number: | 258286 |
| Location: | 220 m short of the threshold, Runway 22, Ibadan Airport, Oyo state |
| Date and time: | 3rd November 2023 at about 20:18 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 3rd 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 3rd November 2023 at 19:41 h, a Hawker 800XP with nationality and registration marks 5N-AMM, owned and operated by Flints Aero Services Limited departed Nnamdi Azikiwe International Airport (DNAA), Abuja for Ibadan Airport (DNIB), Oyo state, as a charter flight on an Instrument Flight Rules flight plan. The crew had operated two sectors (a cumulative flight time of 70 minutes) earlier in the day; the incident flight was the third sector of the day. On board were 10 persons inclusive of 2 cockpit crew and 1 cabin crew, with fuel endurance 3 hours¹. The First Officer was the Pilot Flying (PF) while the Captain was Pilot Monitoring (PM).

Operational hours at Ibadan Airport are from 0600 UTC – 1800 UTC. Evidence available to the investigation showed that the operator filed a flight plan requesting an extension of 2 hours to accommodate the Estimated Time of Arrival (ETA) of the aircraft.

At 19:49 h, after release from Lagos, the aircraft contacted Ibadan ATC and passed estimates; climbing to FL300, persons on board (POB) and time of arrival, Ibadan Airport, 1920 UTC (20:20 h). The Duty Air Traffic Controller (DATCO) cleared the aircraft for RNAV² approach, no delay expected runway 22. On request, DATCO provided weather report as follows: "Wind 180/05 kt, Visibility 10 km, Weather nil, Cloud Few at 330 m, QNH 1011 hPa".

At 20:05 h, 5N-AMM reported, "Ibadan-5N-AMM we crossing 160 descending 60 distance 47 miles."

DATCO responded, "Continue descent 3500 ft on QNH 1011 reaching clear for R/NAV Approach runway 22 you will call again establish India bravo 500." 5N-AMM read back.

¹ As reported by pilot during communication with DNIB ATC

² Radio Navigation



At 20:13 h, 5N-AMM reported, "Ibadan 5N-AMM India Bravo 500 ³runway in sight." DATCO replied, "With the runway in sight check gears down and lock[ed], wind is 180 at 10KT clear to land runway 22", which 5N-AMM acknowledged.

At 20:18 h, DATCO called the aircraft on the radio without a response. The Tower called eight more times till the end of the transcript at 20:23 h without response from 5N-AMM.

The DATCO notified the Airport Fire Service, who proceeded to runway 22 to ascertain the position of the aircraft. Shortly afterwards, he received a report that the aircraft was found stopped in the overgrown grass off the right side of the runway.

Witness marks during post-occurrence inspection revealed that the aircraft during approach to the runway impacted the first row of approach lights on the approach path, then touched down first with the right main landing gear, about 220 m short of the threshold of the runway, and in the grass verge, followed shortly by the left main and nose landing gears respectively. The aircraft continued towards the paved area of the runway, impacting several other rows of approach lights along its path. A total of six impact points were observed.

Subsequently, the aircraft entered the paved area and veered right of the centerline, runway 22. At about 156 m from the threshold, the aircraft crossed the right runway shoulder and continued into the grass verge for a distance of about 184 m before coming to a stop, partially impeded by vegetation. Number 1 tyre was found deflated and the nose landing gear collapsed.

All passengers and crew disembarked safely.

The accident occurred at night.

³ India Bravo 500 or IB500 is a Waypoint, 7NM from the threshold, runway 22



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 | 7 | 10 | Nil |
| Total | 3 | 7 | 10 | Nil |

1.3 Damage to aircraft

The aircraft was substantially damaged.

1.4 Other damage

Several runway approach light fittings were destroyed on impact with the aircraft along its trajectory through the grass verge short of the runway 22 threshold.

1.5 Personnel information

1.5.1 Captain

| Nationality: | Nigerian | |
|----------------------|--|--|
| Age: | 37 years | |
| Licence type: | Airline Transport Pilot Licence | |
| | (Aeroplane) | |
| Licence: | Valid till 3rd November 2026 | |
| Aircraft ratings: | Aeroplane - Single engine/Multi engine | |
| | Part 1: B737-300/500, HS-125/800XP | |
| Medical certificate: | Valid till 7th December 2023 | |



| Simulator: | Valid till 31st August 2024 |
|--------------------|-----------------------------|
| Instrument rating: | Valid till 31st August 2024 |
| Proficiency check: | 1st September 2023 |
| Total flying time: | 3,864 h |
| Total on type: | 335 h |
| Last 90 days: | 37 h |
| Last 28 days: | 19 h |
| Last 24 hours: | 3 h |

1.5.2 First Officer

| Nationality: | Nigerian |
|----------------------|--|
| Age: | 41 years |
| Licence type: | Commercial Pilot Licence (Aeroplane) |
| Licence validity: | 27th August 2025 |
| Aircraft ratings: | Aeroplane - Single-engine, Multi engine, |
| | Part 2: HS-125/800XP |
| Medical certificate: | Valid till 21st December 2023 |
| Simulator: | Valid till 20th October 2024 |
| Instrument rating: | Valid till 20th October 2024 |
| Proficiency check: | 17th October 2023 |
| Total flying time: | 2,030 h |
| Total on type: | 1,730 h |
| Last 90 days: | 110 h |
| Last 28 days: | 10 h |
| Last 24 hours: | Nil |
| | |

1.5.3 Purser

| Nationality: | Nigerian |
|---------------|------------|
| Age: | 25 years |
| Licence type: | Cabin crew |



Licence validity: Aircraft ratings:

11th March 2025 B737-300/500, DASH-8

1.6 General Information

1.6.1 Aircraft Information

| Туре: | Hawker 800XP |
|-------------------------------|--------------------------------|
| Manufacturer: | Raytheon Aircraft Company, USA |
| Date of manufacture: | 1999 |
| Serial no: | 258286 |
| Registered operator: | Flints Aero Services Limited |
| Registration number: | 5N-AMM |
| Certificate of airworthiness: | Valid till 19th September 2024 |
| Certificate of insurance: | Valid till 4th January 2024 |
| Certificate of registration: | Issued 2nd May 2023 |
| Noise certificate: | Issued 10th February 2022 |
| Airframe time: | 10,492:24 h |
| Cycles since new (CSN): | 7,195 |

1.6.2 Engines

| | No. 1 | No. 2 |
|---------------------|--------------------------|--------------------------|
| Engine model | TFE 731-5BR-1H | TFE 731-5BR-1H |
| Manufacturer | Honeywell Aerospace, USA | Honeywell Aerospace, USA |
| Year of manufacture | Not available | Not available |
| Serial number | P-107124 | P-107125 |
| Time Since New | 10,154:22 h | 10,411:30 h |
| Cycles Since New | 7,000 | 7,140 |

Fuel type used:



1.7 Meteorological Information

| Time: | 1900Z |
|--------------|-------------|
| Wind: | 180º/05 kts |
| Visibility: | 10 km |
| Weather: | Nil |
| Cloud: | 330 m |
| Temperature: | xx/xxºC |
| QNH: | 1011 hPa |

1.8 Aids to Navigation

| VHF 122.6 MHz MAINS | _ | "Serviceable" |
|-----------------------------|---|-----------------|
| VHF 121.7 MHz (PAE) | _ | "Serviceable" |
| VHF 121.5 MHz (ICOM) | _ | "Unserviceable" |
| VHF 112.1 MHz "IBA" VOR/DME | _ | "Unserviceable" |
| Runway 22 edge lights | _ | "Serviceable" |
| Runway 22 approach lights | - | "Serviceable" |

1.9 Communications

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

1.10 Aerodrome Information

Ibadan Airport with ICAO designator code DNIB, is located 5 km, South-east from the city with an Aerodrome Reference Point 072144.6701N, 0035841.9893E and elevation



of 221.810 m (727.714 ft). It has a bi-directional runway designated 04/22 with length 2,400 x 45 m. According to the Aeronautical Information Publication (AIP), only VFR traffic is permitted.

Runway 22 has a Precision Approach Lighting System (PALS), LIL⁴, CAT I, Distancecoded centre line approach light system.

The conventional runway edge lighting system is supplemented with solar-powered lights. A VOR/DME is located at DNIB with frequency 112.1 MHz. DNIB locator beacon is aligned with the extended centreline of runway 22.

1.11 Flight Recorders

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

| | Cockpit Voice Recorder | Flight Data Recorder |
|---------------|------------------------|----------------------|
| Model | SSCVR | SSFDR |
| Part Number | 1602-01-03 | 980-4700-042 |
| Serial Number | 669 | SSFDR-08762 |
| Manufacturer | Universal | Honeywell, USA |

The FDR and CVR were successfully downloaded; analysed and transcribed at the Nigerian Safety Investigation Bureau's Flight Safety Laboratory in Abuja.

1.12 Wreckage and Impact Information

The aircraft touched down in the grass verge on the extended centreline of runway 22, about 220 m from the threshold. It travelled in a relatively straight direction through the grass verge impacting several rows of approach lights until it emerged unto the

⁴ omni-directional simple approach lighting system



paved area. Six points of impact were identified. Various fragments of approach light fittings were located along the trajectory of the aircraft as well as various components from the aircraft.

The aircraft veered right of centreline, travelling about 156 m before exiting the runway via the right runway shoulder into the grass verge. Tyre tracks indicate that number 1 tyre was deflated at some point along the aircraft's path on the runway. There was no evidence of braking action. The aircraft came to a stop a distance of about 184 m from the threshold, runway 22.

1.13 Medical and Pathological Information

Toxicological test was 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



Flints Aero Services Limited is an air operator based in Federal Capital Territory, Abuja.

It was issued with a Permit for Non-Commercial Flight (PNCF) with permit number NCAA/ATR66/NCF129, valid till 13th February 2026, and authorization to operate the following aircraft; two Hawker 800XP and one Hawker 125-800XP.

1.17.1 Excerpt of PNCF issued to Flints Aero Services Limited

It shall be a condition of this varied Permit (25th May, 2023) that:

(c) The aircraft shall not be used for carriage of passenger(s), cargo or mail for hire or reward;

(f) The aircraft shall be operated in accordance with all laws, regulations and rules for the time being in force in Nigeria as well as the Standards and Recommended Practices (SARPs) of ICAO.

Initial Findings

- 1. The flight crew were licensed and qualified to conduct the flight.
- 2. The Captain had 49 night flying hours only.
- 3. The aircraft had a valid Certificate of Airworthiness.
- 4. The First Officer was the Pilot Flying while the Captain was the Pilot Monitoring until 800 ft to touchdown runway 22, after which the Captain took control.
- 5. The operational hours at Ibadan Airport is 0600UTC 1800UTC.
- 6. A two-hour extension of operational hours was approved for the accident flight.
- 7. The aircraft was programmed for an RNAV approach using the autopilot.
- 8. The aircraft was cleared by ATC for RNAV approach, runway 22.
- 9. Ibadan VOR/DME was unserviceable on the day of the occurrence.
- 10. The CVR captured non-flight related conversations between the cockpit crew after Approach checklist was called, and up till aircraft impact with terrain.



- 11. The aural warning indicating auto-pilot disengagement was heard on the CVR simultaneous with the aircraft altitude annunciation "one-hundred".
- 12. The aircraft touched down in the grass verge on the extended centerline of the runway, about 220 m from the threshold.
- 13. The aircraft veered progressively right of centerline runway 22 on entering the paved area until a point 156 m from the runway threshold, crossed the right runway shoulder and entered the grass verge.
- 14. There was no evidence of braking action from the tyre tracks on the runway.
- 15. The aircraft traveled into the grass verge a distance of about 220 m and was stopped by vegetation about 184 m from runway 22 threshold, and about 28 m beyond the right runway shoulder.
- 16.Post-incident inspection of the aircraft confirmed substantial damage to the fuselage, the landing gear and flaps.
- 17. The CVR and FDR were recovered in good condition and recordings were intact after the occurrence.
- 18.ATC notified Airport Fire service who mobilized to search for the aircraft along runway 22.
- 19. Passengers disembarked without any injury.
- 20. The grass verge on either side of runway 04/22 are overgrown.
- 21. The view of the threshold runway 22 and the aircraft position from the Control Tower are obstructed by overgrown vegetation. Therefore, the DATCO did not see the aircraft on landing.
- 22. Flints Aero Services Limited was issued with a Permit for Non-Commercial Flight (PNCF).
- 23. The PNCF issued to Flint Aero Services Limited stipulates that the aircraft shall not be used for carriage of passenger(s), cargo or mail for hire or reward.



Immediate Safety Recommendation

- The Nigerian Airspace Management Agency (NAMA) should ensure that it strictly observes the airport operational hours as published in the relevant Aeronautical Information Publication (AIP) and not permit extensions beyond the airport limitations.
- 2. The Nigerian Civil Aviation Authority (NCAA) should ensure that Flints Aero Services Limited operates within the limits of the approval given to it, in accordance with Section 18.2.4.3 of the Nigerian Civil Aviation Regulations 2015.
- 3. Flints Aero Services Limited should ensure that its flight crew have sufficient experience in night-time flight operations.
- 4. Federal Airports Authority of Nigeria (FAAN) should ensure that the overgrown grass verge on either side of runway 04/22 is immediately cleared.



Figure 1: A view of the aircraft tracks from the paved area





Figure 2: A view of the aircraft tracks from the grass verge. Runway 22 is just beyond the horizon



Figure 3: Some of the decapitated runway approach light fittings





Figure 4: The aircraft where it stopped



Figure 5: Damage to the right wing flaps





Figure 6: Damage to the left wing leading edge and a fragment of the approach lighting fixture



Figure 7: Close-up of damage to the left wing leading edge