Preliminary Report on the accident involving a Diamond DA 42 aircraft with nationality and registration marks 5N-BNI operated by International Aviation College Ilorin, which occurred at General Tunde Idiagbon International Airport (DNIL) Ilorin, Nigeria on 23 May 2025.

Operator:	International Aviation College (IAC), Ilorin
Aircraft type and model:	Diamond DA 42
Manufacturer:	Diamond Aircraft Industries GmbH, Austria
Year of manufacture:	2005
Nationality and registration marks:	5N-BNI
Serial number:	42.145
Location:	Runway 05, General Tunde Idiagbon International Airport (DNIL), Ilorin
Date and Time:	23 May 2025 at about 18:27 h (All times in this Report are local time, equivalent to (UTC+1) unless otherwise stated)

INTRODUCTION

The Nigerian Safety Investigation Bureau (NSIB) was notified of the occurrence by the Nigeria Airspace Management Agency (NAMA) on 23 May 2025. Investigators were dispatched to the accident site the following day and commenced post-occurrence assessments under the provisions of the Civil Aviation (Investigation of Air Accidents and Incidents) Regulations 2023 and Annex 13 to the Convention on International Civil Aviation.

This Preliminary Report details the 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.

This Report presents the current status of the notification's processing. Its content may still change and does not necessarily bind the conclusions published in the investigation's final Report.

The investigation is ongoing.

1.0 FACTUAL INFORMATION

1. History of the flight

On 23 May 2025, a Diamond DA 42 aircraft, with nationality and registration marks 5N-BNI, operated by International Aviation College (IAC) Ilorin, was scheduled to conduct three training flights with three student pilots as mock check flights to prepare them for the Commercial Pilot License (CPL) check ride. The first two training flights were uneventful.

At 16:44:06, on the third and final training flight of the day, 5N-BNI requested start-up with a fuel endurance of 5 hours. Onboard were a Flight Instructor (FI) and a Student Pilot (SP).

At 16:55:19, 5N-BNI reported being ready for taxi and was approved to hold short of Runway 23.

At 16:59:20, 5N-BNI requested intersection takeoff and was cleared.

At about 17:01 h, 5N-BNI was airborne for training area 2C[1].

At 17:14:42 hours, 5N-BNI was asked for its position, and 5N-BNI reported being in established training area 2C.

Air Traffic Control (ATC) then asked 5N-BNI to report operations normal at 17:40 h.

At 17:34:50, 5N-BNI requested rejoining for the RNAV approach to runway 23, and it was approved.

[1] The training sector to the north of the field, as designated in General Tunde Idiagbon International Airport LATCI

At 17:47:16, 5N-BNI reported IL500 and requested a missed approach as part of the training.

At approximately 17:52 h, the missed approach time was passed to 5N-BNI, and the aircraft was requested to position for an RNAV approach to Runway 05.

At 18:07:59, 5N-BNI reported IL400 for another missed approach procedure.

At approximately 18:12 h, the missed approach time was passed on to 5N-BNI.

At approximately 18:20 h, 5N-BNI requested the sunset time in Ilorin and was advised that it was 18:55 hours.

At approximately 18:24 h, 5N-BNI reported IL400 and was cleared to land on Runway 05.

During the post-occurrence interview, the FI stated that the training exercise was a simulated single-engine out approach procedure and that they had simulated the right engine out during the two previous approaches.

On the third and final approach, which was a left engine out at about 300 ft AGL, they had a field in sight and lowered the flaps to the Takeoff position.

The FI further stated that, at about 40 feet to touchdown, the SP was informed that the left engine was still operational (which meant the student could bring the dead left engine back for landing).

The SP made adjustments to the right rudder, and on touchdown, the aircraft lost control and started veering to the right of Runway 05.

The FI immediately attempted to take control of the aircraft but to no avail.

According to the SP, after touching down, while trying to correct the yawing moment with the right rudder, the aircraft veered off the runway.

According to the Duty Air Traffic Controller (DATCO), at about 18:26 h, 5N-BNI was observed on a short final.

While scanning the Runway towards Runway 23, on return scan to Runway 05, a flashing light was observed on the grass verge, and 5N-BNI was raised, but there was no response.

Personnel from the Nigerian Air Force hangar who witnessed the crash rushed to the scene to rescue the aircraft's occupants.

According to DATCO, at approximately 18:28 h, the crash alarm was sounded, and the watch room was notified for a rescue mission. NAMA operations staff were also informed to proceed to the site.

The occupants were rescued by personnel of the Nigerian Air Force.

The Aerodrome Rescue and Fire Fighting Services (ARFFS) arrived at the scene 15 minutes after the occurrence.

The occupants were taken to the hospital by NAMA operations staff.

The accident occurred at 18:27 h 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	2	Nil	2	Nil
None	Nil	Nil	Nil	Nil
TOTAL	2	Nil	2	Nil

1.3 Damage to aircraft

The aircraft was substantially damaged.

1.4 Other damage

The runway lighting cable was ripped apart.

Figure 1: Ripped runway lighting cable

1.5 Personnel information

1.5.1 Instructor

Nationality:	Nigerian
Age:	38 years
License type:	Commercial Pilot (Aeroplane)
License validity:	Valid till 17 December 2025
Aircraft ratings:	Diamond DA 40, Diamond DA 42
Medical certificate:	Valid till 7 November 2025
Instrument rating:	Valid till 19 August 2025
Instructor rating:	Valid till 19 August 2026
Proficiency check:	Valid till 3 September 2026
Total flying time:	1700 h
Total on type:	500 h
Total on type (PIC):	474 h
Last 90 days:	283 h
Last 28 days:	96 h
Last 7 days:	23:30 h
Last 24 hours:	4:30 h

1.5.2 Student pilot

Nationality:	Nigerian
Age:	22 Years
License type:	Private Pilot (Aeroplane)
License validity:	Valid till 1 August 2028

Aircraft authorisation:	Diamond DA 40, Diamond DA 42
Medical certificate:	Valid till 4 July 2027
Instrument rating:	N/A
Proficiency check:	N/A
Total flying time:	179:18 h
Total on type:	31 h
Last 90 days:	40:54 h
Last 28 days:	23:54 h
Last 7 days:	3:30 h
Last 24 hours:	Nil

1.6 Aircraft information

1.6.1 General information

Type:	Diamond DA 42
Manufacturer:	Diamond Aircraft Industries GmbH, Austria
Year of manufacture:	2005
Serial number:	42.145
Registered operator:	International Aviation College, Ilorin
Registration marks:	5N-BNI
Certificate of Airworthiness:	Valid till 5 June 2025
Certificate of insurance:	Valid till 12 June 2025
Certificate of registration:	Issued 10 May 2011

Noise certificate: Issued 2 January 2018

Airframe time: 4459:57 h

1.6.2 Engines

Engine	**Number 1**	**Number 2**
Manufacturer	Continental Aerospace Technologies GmbH, Germany	Technify Motors GmbH, Germany
Type/Model	TAE 125-02-99	TAE 125-02
Serial number	02-02-06053	02-02-04152
Time Since New	1,183:06h	1,991:49h

Fuel Used: Jet A1

1.6.3 Propeller

Propeller	**Number 1**	**Number 2**
Manufacturer	MT- Propeller Entwicklung GmbH, Germany	Brinkley Propeller Services Ltd. United Kingdom
Type/Model	MTV - Propeller	MTV - Propeller
Serial number	240687	04175
Hours	573:01 h	1465:36 h

1.7 Meteorological information

DNIL	17:00 Z	17:30 Z
Wind	150/05	150/05
Visibility	10 Km	10 Km
Weather	Nil	Nil
Cloud	FEW 360	FEW 330
Temp/Dew	30°C/24°C	28°C/24°C
QNH	1010 hPa	1010 hPa

The meteorological conditions for DNIL were as follows:

1.8 Aids to navigation

The status of the navigational aids at DNIL on the day of the occurrence was as follows:

"ILR" VOR/DME	112.3 MHz	- 'On test'
"IIL" ILS/DME	109.9 MHz	- 'Serviceable'
Aerodrome Beacon		- 'Serviceable'
ALDIS Lamp		- 'Serviceable'
Binoculars		- 'Serviceable'
Crash Alarm Bell		- 'Serviceable'
Desktop Computer		- 'Serviceable'
NiMET Weather Computer		- 'Serviceable'

1.9 Communication

The status of the communication equipment at DNIL on the day of the occurrence was as follows:

VHF 119.6 MHz	- 'Serviceable'
VHF 118.6 MHz & VHF 121.7 MHz	- 'Serviceable'
Mobile Phone	- 'Serviceable'
Intercom	- 'Unserviceable'
Panasonic Automation Phone	- 'Serviceable'

There was effective communication between 5N-BNI and Air Traffic Control before the accident.

1.10 Aerodrome information

The General Tunde Idiagbon International Airport (DNIL), Ilorin, with aerodrome reference point 08°26'24" N, 004°29'38" E and elevation 1126 ft, is located 9 km south-west of Ilorin city. The length and width of the runway are 3,100 meters and 60 meters, respectively, with an asphalt/concrete surface and blast pads of 120 meters at both ends.

1.11 Flight recorders

The aircraft was not equipped with a Flight Data Recorder (FDR) or Cockpit Voice Recorder (CVR), nor was it required to do so by regulations.

1.12 Wreckage and impact information

The aircraft touched down 375 m from the threshold of runway 05. Visible tyre marks were observed from the touchdown point for a distance of about 165 m, veering to the right till it exited the runway onto the grass verge. The aircraft hit an undulating surface, broke the nose landing gear and nose cone and then flipped upside down. The aircraft came to a rest about 596 m from the threshold of runway 05. There was significant damage to Left-hand (LH) propellers. Damage to the Right-hand (RH) engine and RH propellers was noticeably more severe. The tip of the left winglet was damaged. The canopy was damaged. The nose wheel was found 24 m north of the wreckage.

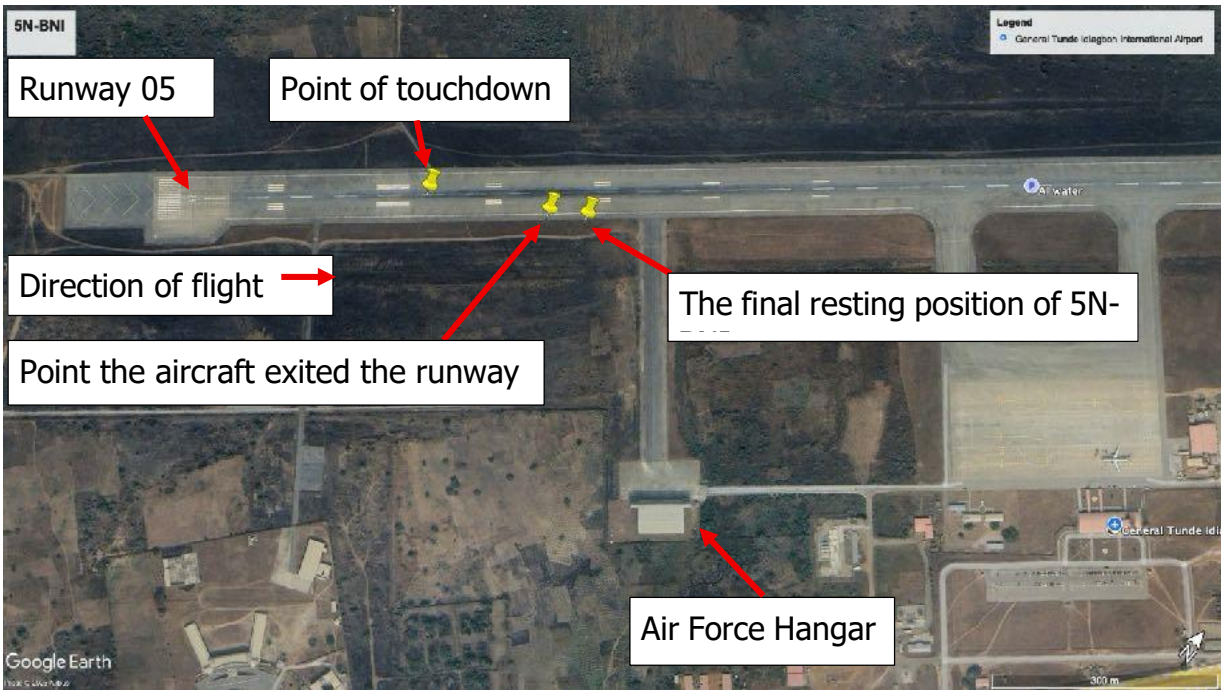

Figure 2: Google Earth view with annotations

The aircraft recovery was conducted successfully the following day by IAC, and it was moved to their facility pending further investigation.

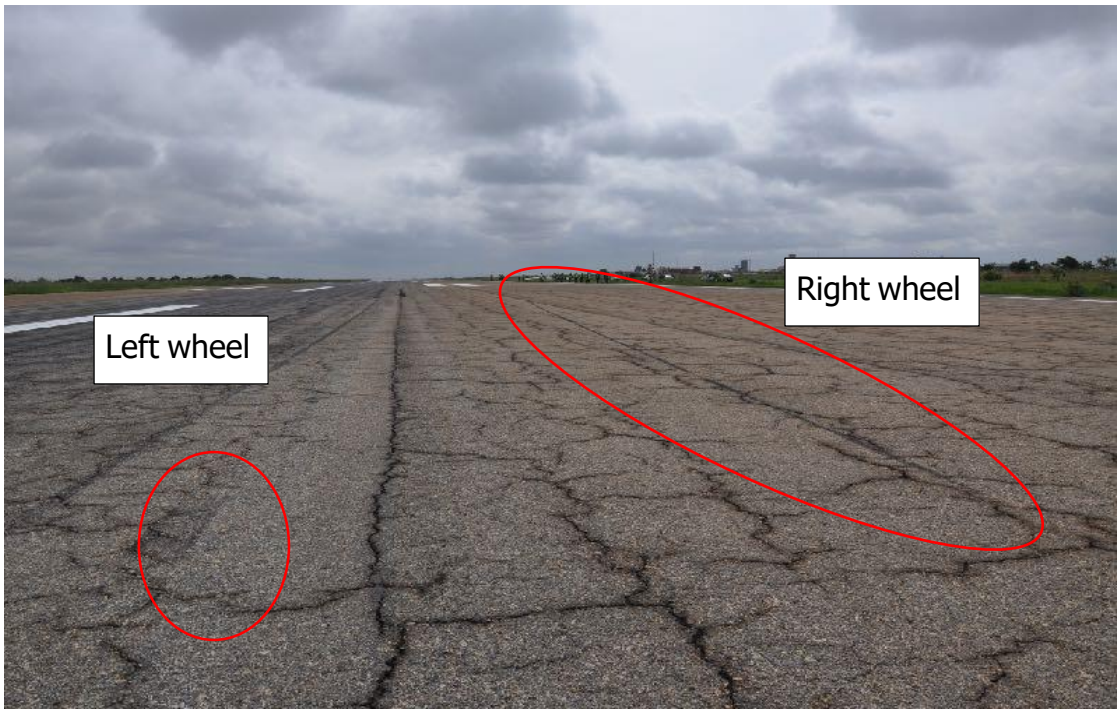

Figure 3: Tyre marks of touchdown point

Figure 4: First point of impact

Figure 5: Second point of impact

Figure 6: Sheared nose wheel

Figure 7: Broken propeller blades on LH engine

Figure 8: Damaged right engine cowling, propeller hub and spinner

Figure 9: The aircraft after recovery by IAC

1.12.1 Aircraft damage report by IAC

Fuselage section: Significant cracks and delamination around the fuselage structure. Damage to the canopy, its frame and acrylic. Damage to the rear passenger door and window. Broken pilot and copilot control sticks.

Landing gears: The nose cone was crushed and torn from impact. Broken Nose Gear frame and nose gear compartment. Bent nose gear fork attachment plate bolt. Damage to the nose baggage compartment. Damage to avionics relay tray.

Wings: Damage to the centre wing and around the right engine nacelle. Dent on the right-wing leading edge. Damage to the left wing.

Floor panel: Abrasion and cracks on the floor of the aircraft

Rollover moulding: Disbond in the inner and outer face of the fuselage shell around the canopy and passenger door cut out.

Tail section: Crack on the vertical and horizontal stabiliser fairing.

LH Engine & Propeller: Damage to propeller blades and gearbox.

RH Engine & Propeller: Damage to the upper and lower cowlings of the engine. The propeller blades, hub and spinner are broken. Damage to coolant radiator and cooling system components. Damage to the gearbox and exhaust pipe.

1.13 Medical and pathological information

A toxicology test was conducted on the FI and the SP at Maxihealth Multispecialist Hospital and Laboratory, and the results were negative.

1.14 Fire

There was no fire.

1.15 Survival aspect

The accident was survivable. There was livable volume within the cockpit, the seatbelts and harnesses were in place, and the prompt response by personnel of the Nigerian Air Force contributed to the survivability of the occupants.

1.16 Test and research

Not Applicable.

1.17 Organisational and management information

1.17.1 International Aviation College Ilorin (IAC)

The International Aviation College, Ilorin (IAC) is an Approved Training Organisation (ATO) with certificate number ATO/AA/004, valid until 18 February 2026. It was established to train different professionals for the rapidly expanding Nigerian aviation industry. The International Aviation College (IAC) is located in Ilorin, a city that is geographically well-suited for aviation due to its year-round favourable flying conditions. The college offers a Standard pilot course and dispatcher training. The college has a total of 5 flight instructors, of which 2 hold a multi-engine endorsement on the DA 42. One of these instructors has standardisation on the aircraft who also happened to be the lead instructor involved in this accident. The other 3 had single-engine endorsements.

1.17.2 Federal Airports Authority of Nigeria (FAAN)

FAAN is a service organisation established by the CAP F5 FAAN Establishment Act, Laws of the Federation of Nigeria, 2004. It is statutorily charged with the responsibility of managing all Commercial Airports in Nigeria and providing services to both passenger and cargo airlines. Generally, to create conditions for the development most economically and efficiently of air transport and the services connected with it. Also, to develop and provide facilities such as terminal building(s), taxiway(s), runway(s), etc for airports within Nigeria.

1.17.2.1 Excerpts from ICAO Annex 14 - Aerodromes Chapter 3

Width of runway strips

3.4.4 Recommendation. — A strip including a non-precision approach runway should extend laterally to a distance of at least:

— 140 m where the code number is 3 or 4; and

— 70 m where the code number is 1 or 2;

on each side of the centre line of the runway and its extended centre line throughout the length of the strip.

3.4.6 Recommendation. — An object situated on a runway strip which may endanger aeroplanes should be regarded as an obstacle and should, as far as practicable, be removed.

3.4.10 The surface of that portion of a strip that abuts a runway, shoulder or stopway shall be flush with the surface of the runway, shoulder or stopway.

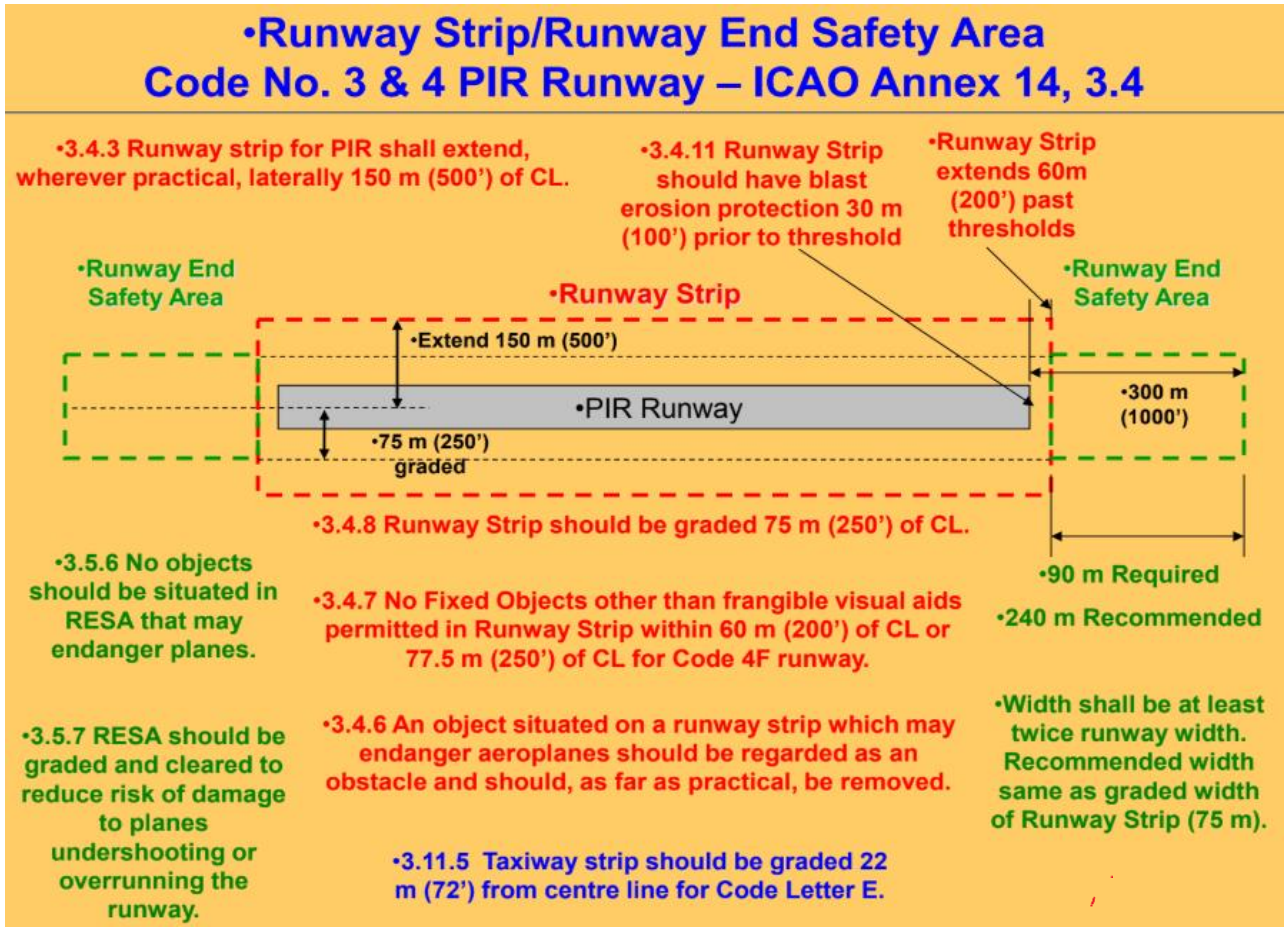

Figure 10: Runway Strip/Runway End Safety Area

2.0 FINDINGS

1. The flight crew were certified to conduct the flight.
2. The aircraft had a valid Certificate of Airworthiness.
3. The student Pilot was the Pilot flying.
4. The flight was a mock check flight in preparation for the student pilot for a Commercial Pilot License check ride.
5. ATC cleared the aircraft for RNAV approach runway 05.
6. The student was flying a simulated single engine-out approach procedure.
7. Visible tyre marks were observed from the touchdown point at a distance of about 165 m, veering to the right till it exited the runway onto the grass verge.
8. The instructor and student were rescued by Air Force personnel.
9. The instructor and student sustained minor injuries.
10. ARFFS arrived 15 minutes after the occurrence.
11. The runway lighting cable was exposed.
12. The runway strip was not flush.