



PRELIMINARY REPORT ON SERIOUS INCIDENT INVOLVING CESSNA CITATION 560 XLS+ OPERATED BY NIGERIA POLICE FORCE (NPF) WITH NATIONALITY AND REGISTRATION MARKS 5N-HAR WHICH OCCURRED AT SIR ABUBAKAR TAFAWA BALEWA INTERNATIONAL AIRPORT BAUCHI, BAUCHI STATE ON 3RD OCTOBER, 2018

Registered Owner and Operator: Nigeria Police Force

Aircraft Type and Model: Citation 560 XLS+

Manufacturer: Cessna Aircraft Company
(Textron Aviation); USA

Date of Manufacture: March 2011

Nationality and Registration Marks: 5N-HAR

Serial Number: 560-6067

Location: 10⁰28'58"N 9⁰44'38"E

Date and Time: 3rd October, 2018 at about 08:30 h

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



INTRODUCTION

Accident Investigation Bureau (AIB) was notified of the incident by the Nigeria Police Force on the 22nd October, 2018. Investigators were dispatched to Bauchi on 6th November, 2018 and commenced post occurrence assessments, under the provisions of Civil Aviation (Investigation of Air Accidents and Incidents) Regulations 2016 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 witness statements, preliminary inspection of the crash site and the wreckage.

The investigation is ongoing.



1.0 FACTUAL INFORMATION

1.1 History of the flight

On 3rd October, 2018 at about 0726 UTC, a Cessna Citation 560 (XLS+) aircraft with nationality and registration marks 5N-HAR operated by Nigeria Police Force embarked on an intended flight routing Abuja (DNAA)-Bauchi (DNBC)-Akure (DNAK)-Abuja (DNAA) with six persons on board, three crew (Captain Co-pilot and a Cabin Crew) and three passengers on an Instrument Flight Rules (IFR) flight plan. The aircraft was scheduled to drop-off all the passengers at DNBC. The incident flight was a ferry flight to DNAK for another pick up. The Captain was the Pilot Flying (PF) and the Co-pilot was the Pilot Monitoring (PM).

During the post incident interview, the crew stated that the aircraft took off from Abuja airport enroute Bauchi airport at about 0600 UTC and landed Bauchi airport at 0711 UTC. The aircraft was taxied and parked normally. The PF set the parking brake and shut down the left engine for the passengers to disembark. The PF also instructed the cabin crew to chock the aircraft. The crew also reported that they requested for Radio flight plan while the flight plan was filed in order to achieve a quick turnaround. The request was granted.

At 0749 UTC, the crew requested for taxi clearance and was granted by the ATC. At 0753 UTC, the crew reported ready for departure and approval was granted.



The crew further reported that during the takeoff roll on Runway 17, on attaining the rotation speed (V_r), the PM called for rotation while PF tried to rotate the aircraft but it could not get airborne. The take-off was discontinued and the aircraft came to a stop about 603 m (1,977 ft) before the end of the runway.

Meanwhile, ATC reported that spark of fire was noticed on the Main Landing Gear (MLG) during the take off roll.

The PF commanded for evacuation and the evacuation procedure was accomplished in accordance with the aircraft's Quick Reference Handbook (QRH). All persons on board disembarked without any injury. Aircraft Rescue and Fire Fighting (ARFF) personnel put out the main wheel fire that erupted during the takeoff roll.

The incident occurred in day time in a Visual Meteorological Condition (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	Nil	3	Nil
TOTAL	3	Nil	3	Nil

1.3 Damage to Aircraft

The aircraft was slightly damaged.

1.4 Other damage

Not applicable.

1.5 Personnel information

1.5.1 Captain (Pilot Flying)

Nationality:	Nigerian
Gender:	Male
Age:	47 years
Licence Type:	ATPL (A)
Licence Validity:	11 th June, 2019
Aircraft Ratings:	C-560XL, F-28, B737-300/500, EMB-170/190
Medical Validity:	9 th October, 2019
Simulator Validity:	11 th May, 2019
Total Flying Time:	2,803.7 h
Total on Type:	565.5 h
Total on Type (PIC):	329.7 h
Last 90 Days:	9 h
Last 28 Days:	5.8 h
Last 7 days:	3.1 h
Last 24 Hours:	45 minutes

1.5.2 Co-pilot (Pilot Monitoring)

Nationality:	Nigerian
Gender:	Male
Age:	63 years
Licence Type:	ATPL (A)
Licence Validity:	25 th November, 2019
Aircraft Ratings:	PA-23, C—150, C-402, C-500, BE-200, C-172, C-404, DASH-6 (TWIN OTTER) CE-560XL, CESSNA-425, CITATION SOVEREGN-680, HS-800 XP, EMB-135/145, GULFSTREAM III
Medical Validity:	14 th July, 2019
Simulator validity:	4 th May, 2019
Total Flying Time:	12,108.5 h
Total on Type:	1,034.6 h
Total on Type (PIC):	864.3 h
Last 90 Days:	34.1 h
Last 28 Days:	16.0 h
Last 7 days:	8.6 h
Last 24 Hours:	1.8 h

1.5.3 Cabin Crew

Nationality:	Nigerian
Gender:	Female
Age	32 years
Licence Type:	Cabin crew



Licence Validity: 15th July, 2019
Aircraft Ratings: B737-300; CE-560 XLS+

1.6 Aircraft Information

Type:	Citation 560 XLS+
Manufacturer:	Cessna Aircraft Company (Textron Aviation); USA
Date of Manufacture:	March 2011
Serial No.:	560-6067
Registered Owner/Operator:	Nigeria Police Force
Nationality and Registration Marks:	5N-HAR
Certificate of Airworthiness:	17 th July, 2019
Certificate of Insurance:	Valid till 14 th September, 2019
Certificate of Registration:	Issued 3 rd May, 2011
Noise Certificate:	Issued 28 th July, 2015
Total Airframe Time:	638.31 h

1.6.2 Power Plant

Engine Model:	PW545C	
	No. 1	No. 2:
Serial No.:	PCE-DFO 141	PCE-DFO 142



Time since New:	638.31 h	638.31 h
Cycles since New:	714	714
Type of Fuel Used:	Jet A1	

1.6.3 APU

Engine Model:	RE100 (XL)
Serial No.:	P-838
Time since New:	594.20
Cycles since New:	1,008
Type of Fuel Used:	Jet A1

1.7 Meteorological Information

0600Z

Wind:	330°/05 kt
Visibility:	10 km
Weather:	Nil
Cloud:	BKN 210 m
Temp/Dew:	22°C/21°C
QNH:	1019 hPa

0700Z

Wind:	Calm
Visibility:	8 km
Weather:	Nil
Cloud:	BKN 210 m
Temp./Dew:	22°C/21°C
QNH:	1019 hPa



0800Z

Wind: 270°/05 kt
Visibility: 10 km
Weather: Nil
Cloud: SCT 240 m
Temp./Dew: 24°C/21°C
QNH: 1019 hPa

1.8 Aids to Navigation

The conditions of the navigational aids at Bauchi airport on the day of the occurrence were as follows:

1. `BCH' VOR /DME B CEP 115.6 MHZ -US-
2. `BU' NDB B CEP 323KHZ -S-
3. `IBT' ILS B CEP 111.3MHZ -S-
4. VHF FREQUENCY 124.5 MHZ (MAIN) -S-
5. VHF FREQUENCY 11 9.6MHZ (SECONDARY) -S-
6. VHF FREQUENCY 121.7 MHZ (DOMESTIC) -S-
7. HF FREQUENCY 9495/8903 KHZ (VARIABLE) -S-
8. ICOM MOBILE RADIO -S-
9. ATC Digital CLOCK AND INTERCOM -S-
10. CRASH ALARM BELL AND SIGNAL LAMP -S-
11. WIND DIRECTION AND SPEED INDICATOR -US-
12. DESKTOP PHONE AND HANDSET -S-



1.9 Communications

There was effective communication between the ATC and the crew. ATC informed the crew about the trail of smoke and fire from the wheel but could not be heard because they were not maintaining a radio listening frequency.

1.10 Aerodrome Information

Sir Abubakar Tafawa Balewa International Airport Bauchi (DNBC) has Aerodrome Reference Point 102858.2502N 0094438.0481E and an elevation of 599.067 m. The aerodrome has a runway with orientation of 17/35. The length and width of the runway are 3,400 m and 45 m respectively, with an asphalt/concrete surface.

1.11 Flight Recorders

The aircraft was equipped with a Flight Data Recorder (FDR) and a Cockpit Voice Recorder (CVR).

The Flight Recorders have the following particulars:

Flight Data Recorder

Part Number:	2100-2043-00
Serial Number:	000637034
Manufacturer:	L3 COM AR

Cockpit Voice Recorder

Part Number:	2100-1020-03
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Serial Number: 000649380
Manufacturer: NA

1.12 Wreckage and Impact Information

The aircraft came to a stop at about 603 m (1,977 ft) before the end of Runway 17. The main landing gear wheel assembly were completely burnt, the brake assembly of the two main landing gears were damaged, the hub cap, nut and screw from the main landing gear wheel were damaged, the main landing gear tyres were burnt, and left main landing gear up-lock bolt was broken.

1.13 Medical and Pathological Information

No medical or pathological tests were conducted.

1.14 Fire

There were traces of smoke and fire on both main wheels.

1.15 Survival Aspect

The accident was survivable as there was liveable volume of space and timely response in rescue and evacuation.



1.16 Test and Research

Not applicable

1.17 Organisational and Management Information

The Nigeria Police Air Wing (NPAW) is a unit under the Nigeria Police Force, which provides flight services on both Fixed and Rotary wing aircraft including Search and Rescue operations, Police Ambulance, Aerial patrol operations, VIP transport operations, lifting of electoral personnel/material and other Police equipment.

Nigeria Police Air Wing is an NCAA Approved Maintenance Organisation.

2.0 Initial Findings

1. The first flight for the day was to Akure before it was later rescheduled to Akure via Bauchi.
2. The Captain was the Pilot Flying (PF) and the co-pilot was Pilot Monitoring (PM).
3. The PF was pilot in command under supervision (US).
4. The PM was neither a designated TRI (Type Rated Instructor) nor TRE (Type Rated Examiner) on the aircraft.
5. The flight from Abuja to Bauchi was normal.
6. Neither of the pilots conducted a walk around after landing.
7. Flight plan was filed via radio for the onward flight to Akure.
8. The aircraft did not lift-off after reaching V_r .



9. The Captain commanded an evacuation; Cabin crew opened the door and all the crew evacuated.
10. Aerodrome rescue and fire fighting personnel put out the fire.
11. Nigeria Police Force notified AIB 19 days after the occurrence.
12. The NPAW had already changed both main wheel assemblies before the arrival of the Bureau's Investigators.