



AIB BULLETIN

NAF-CBN/2020/06/15-003

Accident Investigation Bureau

Bulletin on the ground collision incident involving a Central Bank of Nigeria (CBN) truck with registration number AKD 765 FK and Nigeria Air Force (NAF) Bell 412 helicopter with nationality and registration marks NAF 600 which occurred at the General Aviation Terminal (GAT) apron of Nnamdi Azikiwe International Airport, Abuja on 15th June, 2020.



This report was produced by the Accident Investigation Bureau (AIB), Murtala Muhammed Airport Ikeja, Lagos. The report was based upon the investigation carried out by AIB, in accordance with Annex 13 to the Convention on International Civil Aviation, Nigerian Civil Aviation Act 2006 and Civil Aviation (Investigation of Air Accidents and Incidents) Regulations 2019.



INCIDENT

Aircraft and vehicle types:

- i) Bell 412 Helicopter, NAF 600
- ii) Mercedes ATEGO Truck, AKD 765 FK

Registered operators:

- ii) Central Bank of Nigeria

Place of incident:

General Aviation Terminal (GAT) Apron, Abuja

Date and time:

15th June, 2020 at about 15:30 h Local Time

Persons on board:

- i) Co-pilot (Helicopter)
- ii) Driver (Truck)

Injuries:

None

Nature of damage:

- i) Two nicks on the leading edge of one of the main rotor blades
- ii) Dent and cut on the truck trail container



SYNOPSIS

The collision occurred between a moving Central Bank of Nigeria truck with registration AKD 765 FK and a parked Nigeria Air Force Bell 412 helicopter with registration NAF 600. The CBN truck was conveying cargo to a CBN chartered Boeing 737-400 with nationality and registration marks 5N-RKT.

The truck driver did not see the rotor blade of the helicopter and thought he was far enough to pass through without touching the helicopter itself. Misjudgment of the distance between the trailed compartment of the truck and the helicopter main rotors, coupled with the driver's inability to see the tips of the main rotor blades of the Helicopter was the major cause of the incident.

The incident occurred 15:30 h in daylight.

Five safety recommendations were made.



HISTORY OF THE EVENT

On 15th June 2020 at about 15:50 h, the Nigeria Air Force (NAF) notified the Accident Investigation Bureau (AIB-N) of a ground collision between a parked Bell 412 helicopter with nationality and registration mark NAF 600 operated by NAF and a Mercedes truck with registration AKD 765 FK operated by the Central Bank of Nigeria (CBN), which occurred at the General Aviation ramp of Nnamdi Azikiwe International Airport, Abuja (DNAA). The AIB investigators were immediately mobilized to the ramp and commenced post occurrence assessment and gathering of preliminary information.

According to the NAF 600 Co-pilot, he was on board the helicopter preparing the flight plan for the next mission, when he heard a bang; he looked up and saw the main rotor blades of NAF 600 helicopter rotating and the CBN truck moving away. Upon inspection, he noticed that the main rotor blades rotated to approximately 120° sweep angle in a clockwise direction (viewed from the cockpit). He further stated that he noticed two marks (dent and cut) on the leading edge of one of the main rotor blades.

According to the truck driver, the truck was conveying cargo to a CBN chartered aircraft when the NAF men waved at him to stop the truck. At that time, he did not know that his truck had struck a main rotor blade of the parked helicopter. He also stated that he did not understand the markings on the ramp.

Information gathered by AIB-N Investigation team indicated that, upon arrival of the chartered aircraft at the ramp, the assigned driver of the truck was absent. The incident driver was then instructed by the CBN team leader to drive the truck towards the aircraft to offload the cargo. The helicopter was properly parked on the ramp. The incident occurred at about 15:30 h.



Figure 1: The relative positions of the NAF 600 and 5N-RKT



Figure 2: Strike marks on the Helicopter Main rotor blade



Figure 3: NAF600 on the ramp



Figure 4: Side view of the CBN truck indicating the strike mark



Figure 5: The point impact on the CBN truck



Figure 6: The front view of the CBN truck showing no apron access



ANALYSIS

General

The Incident

The CBN trucks usually arrive the airport before the arrival of their chartered cargo aircraft. On the incident day, the trucks had arrived the airport as usual. However, at the time of the arrival of the chartered cargo aircraft the driver of the incident truck was not in his truck. The CBN team leader therefore, instructed the incident driver to drive the truck to the foot of the aircraft. The investigation revealed that, the incident driver had never driven on the airside and had never been trained to do so. The incident driver therefore drove the truck without understanding the airside (apron) markings where the helicopter was properly parked and was not an obstruction to the truck. Due to inexperience and lack of training on safe driving at the apron, the driver did not notice how close his truck was to the helicopter main rotor blades.

Airside Driving

Federal Airports Authority of Nigeria (FAAN) is responsible for training and approving any person driving on the airside. Such persons are trained to recognize surface markings and how to drive on the airside for safe operations. After successful completion of the drivers training course, the drivers are issued Airside Drivers' Permit and Apron Access Card. However, the CBN drivers had not undergone training on the driving techniques and rules of the airside. Also, neither the drivers nor the vehicles have the airside drivers and vehicles permit and apron access cards respectively.



FINDINGS

- 1) The assigned driver was not present as at the time of the arrival of the aircraft.
- 2) The incident driver was not the assigned truck driver.
- 3) The incident driver was instructed by the CBN Team leader to drive the truck.
- 4) It was the incident driver's first-time of driving on the ramp without requisite training, qualifications and approval.
- 5) The truck driver did not see the rotor blade of the helicopter and thought he was far enough to pass through without touching the helicopter itself.
- 6) The CBN truck drivers had not attended Airside Drivers and compliance training hence the incident driver did not understand the markings on the ramp.
- 7) The CBN truck drivers had no Airside Drivers permit and Apron access cards.
- 8) The CBN trucks had no permit and Apron access cards.

Causal factor

The driver's misjudgment of the clearance between the truck and the helicopter main rotor blades.

Contributory factor

1. The truck driver is not professionally, technically qualified to operate the truck at the airside.
2. Lack of training and proper sensitization of CBN personnel (drivers, security, operations) accessing the airside.
3. Inadequate oversight on CBN personnel (drivers, security, operations) accessing the airside by FAAN and NCAA.



IMMEDIATE SAFETY RECOMMENDATIONS

Safety Recommendation 2021-029

Central Bank of Nigeria (CBN) should ensure that all CBN personnel assigned to drive vehicles or access all Nigerian Airports are adequately and properly profiled and provided with Airside driving and compliance training.

Safety Recommendation 2021-030

Central Bank of Nigeria (CBN) should ensure that all CBN operated vehicles, equipment and personnel assigned to operate within or drive vehicles or access all Nigerian Airports are provided with appropriate Apron permit and access cards for identification and proper operational control at the airside of all Nigerian airports.

Safety Recommendation 2021-031

Federal Airports Authority of Nigeria (FAAN) should ensure that all CBN personnel assigned to drive vehicles at all Nigerian Airports are provided with Airside driving and compliance training.

Safety Recommendation 2021-032

Federal Airports Authority of Nigeria (FAAN) should ensure that agencies and organizations operating at the airside adhere strictly to all provisions of the Airside Vehicle Control Manual (AVCM).

Safety Recommendation 2021-033

Nigerian Civil Aviation Authority (NCAA) should intensify its oversight on FAAN as regards the operation of vehicles on the Airside.



Action taken by Nigerian Civil Aviation Authority (NCAA)

1. *The Authority agrees with all the immediate Safety Recommendations made by the Bureau and as the sole regulatory agency will through its safety oversight responsibilities enforce the continued compliance of the provisions of the Nigeria Civil Aviation Regulations (Nig. CARS), Part 17 and the implementation of the requirements of the National Civil Aviation Security Program (NCASP) of Nigeria by the Federal Airports Authority of Nigeria (FAAN) and any stakeholder that may want to access any Nigerian airport for operational purposes;*
2. *The provisions of Chapter 6.3 of the above mentioned NCASP on Control of Access (General requirement) requires that:*
 - *No person, to whom the legislation applies, **shall enter or remain in a Restricted Area; Security Restricted Areas or Tenant Restricted Area unless that person has in his / her possession a Restricted Area or Tenant Restricted Area Permit in respect of that Restricted Area or Tenant Restricted Area and complies with all conditions of issuance of the permit**;*
 - *"Nigeria shall ensure that identification systems are established and implemented in respect of persons and vehicles in order to prevent unauthorized access to airside areas and security restricted areas in accordance with the Nigeria Civil Aviation Regulations, Part 17 (2015). Assess shall be granted only to those with an operational need or other legitimate reason to be there. **Identity and authorization shall be verified at designated checkpoints before assess is allowed to airside areas and security restricted areas**;*
 - *"A system consisting of cards or other documentation issued to individual persons employed at airports, or those who otherwise have a need for authorized access to an airport, airside or security restricted areas shall be in use at all airports in Nigeria. Its purpose shall be to identify the individuals and facilitate access. **Vehicle permits shall also be issued and used for similar purposes to allow vehicular access**"; and*
 - *"These permits shall also be referred to as Airport Identification Cards or Passes".*

The Authority is currently reviewing this act of probable unauthorized access to the Nnamdi Azikiwe international Airport (NAIA) aerodrome area by the staff and vehicles of the Central Bank of Nigeria (CBN), operating vehicles in the aerodrome areas that did not meet the provisions of the Airside Vehicle Control



Manual (AVCM) by unauthorized personnel with the intention to making a determination of possible non-compliances and violations to the provisions of the Nig. CARS and NCASP.

The Director General wishes to sincerely thank you for your continuous cooperation and to please accept the assurances of his highest regards.