



Preliminary Report on ground collision between a lavatory service truck with fleet number 9/5 operated by Skyway Aviation Handling Co. Plc (SAHCO) and a parked Boeing 737-300 aircraft with nationality and registration marks 5N-DAB owned and operated by Max Air Limited which occurred at Nnamdi Azikiwe International Airport Abuja on 21st November 2021.

Registered owner and operator:	SAHCO PLC
Vehicle type and model:	Mallaghan Atego
Manufacturer:	Mercedes Benz
Year of manufacture:	2013
Registration marks:	9/5
Chassis number:	WDB970012L777472
Location:	Stand D8 Nnamdi Azikiwe International Airport Abuja (DNAA)
Date and time:	12:30 h local time

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



INTRODUCTION

Accident Investigation Bureau, Nigeria (AIB) was notified of the incident by an eyewitness on 21st November 2021 at about 15:35 h. Investigators were dispatched and arrived at the scene. Post incident assessment commenced immediately 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 initial facts, discussions and findings surrounding the occurrence; it includes information gathered from witness statements, site of occurrence and preliminary inspection of the aircraft.

The investigation is ongoing.

1.0 FACTUAL INFORMATION

1.1 History of the Event

On 21st November, 2021 at about 15:35 h, a lavatory service truck with fleet number 9/5 operated by Skyway Aviation Handling Co. PLC (SAHCO), had a ground collision with a parked Boeing 737-300 aircraft with nationality and registration marks 5N-DAB, operated by Max Air Limited; at Nnamdi Azikiwe International Airport, Abuja (DNAA).

5N-DAB was scheduled to operate eight sectors for the day. After the third sector, 5N-DAB was parked at stand D8. While Boarding for the fourth sector (Abuja to Maiduguri), the Pilot requested ground service (lavatory service) for the aircraft.

According to the Ground Support Equipment (GSE) driver, he was providing conveyor belt service to another aircraft when he was called upon to service the Max Air aircraft. After positioning the truck with the aid of another SAHCO GSE marshaller, it was put on chocks. Afterwards, the driver realized that his hands could not reach the aircraft lavatory drain valve. The GSE driver requested the GSE marshaller to guide him to reposition the truck closer to the aircraft. The GSE driver further stated that in an attempt to reposition the truck, by reversing he pressed the throttle pedal instead of the brake pedal, and the truck impacted the tail section of the aircraft.

According to the GSE marshaller after removing the chocks placed behind the tyre of the bowser, the lavatory bowser abruptly moved, impacted the aircraft, passed underneath the aircraft and continued moving until it finally stopped by the Skycare Catering Service truck which was servicing the same aircraft.

The GSE marshaller stated that after the lavatory bowser impacted the Skycare Catering Service truck, he rushed and opened the driver side door to find out what went wrong. On opening the door, the driver fell out of the lavatory service truck.

According to the Pilot, while preparing for the next sector (Abuja to Maiduguri), he heard a loud bang accompanied with shaking of the aircraft. Boarding was stopped and passengers who were already onboard were disembarked to await further instructions.

The incident occurred at about 12:30 h during daytime.

1.2 Injuries to persons

Not applicable

1.3 Damage to aircraft

The aircraft was substantially damaged

1.4 Other damage

The lavatory service truck was substantially damaged

1.5 Personnel information

1.5.1 Ground Support Equipment (GSE) Driver

Nationality:	Nigerian
Age:	28 years
License type:	National Driver's License (Class B), Airside Drivers Permit
National driver's license:	Valid till 25th February 2022
Airside driver's permit:	Valid till July 31st 2022

Information obtained from the SAHCO duty roster showed that the GSE Drivers operated a 4-shift roster with 2 days off duty period. On the day of occurrence, he was on morning shift (07:00 h -14:00 h). The driver reported on duty on the day of the occurrence at 07:00 h and the incident occurred at 12:30 h.

1.6 Aircraft information

1.6.1 General information

Aircraft type:	B737-300
Manufacturer:	Boeing Aircraft Company, USA
Date of manufacture:	1999
Serial number:	30335
Registered owner/operator:	Max Air Limited
Nationality and registration marks:	5N-DAB
Certificate of airworthiness:	Valid till 3rd March 2022
Certificate of insurance:	Valid till 20th December 2021
Certificate of registration:	Issued 19th November 2020
Airframe time:	52,892:26 h
Cycles Since New (CSN):	39,095

1.6.2 Lavatory service truck information

Vehicle type:	Mallaghan Atego Truck
Manufacturer:	Mercedes Benz
Date of manufacture:	2013
Chassis number:	WDB970012L777472
Registered owner/operator:	SAHCO PLC

Registration number: 9/5

Before the arrival of AIB investigators, the truck was moved from the scene of the occurrence.

1.7 Meteorological information

Not applicable

1.8 Aids to navigation

Not applicable

1.9 Communications

Not applicable

1.10 Aerodrome information

Not applicable

1.11 Flight recorders

Not applicable

1.12 Wreckage and impact information

The Aircraft was parked at stand D8 boarding passenger for its 4th sector of the day (Lagos to Maiduguri). The lavatory service truck was positioned facing away close to the tail section of the aircraft to provide service for the parked Aircraft.

As the GSE driver attempted to reposition the truck, the lavatory truck speedily moved (in reverse), passed underneath the rear bulkhead section of the parked aircraft continued moving until it eventually hit and was stopped by Skycare catering Services truck on the left side of the Aircraft. According to the driver he attempted to apply brake pedal but instead applied the throttle pedal thereby speedily impacting the aircraft. The aircraft, lavatory service truck and the Skycare Service truck sustained various degrees of damages.

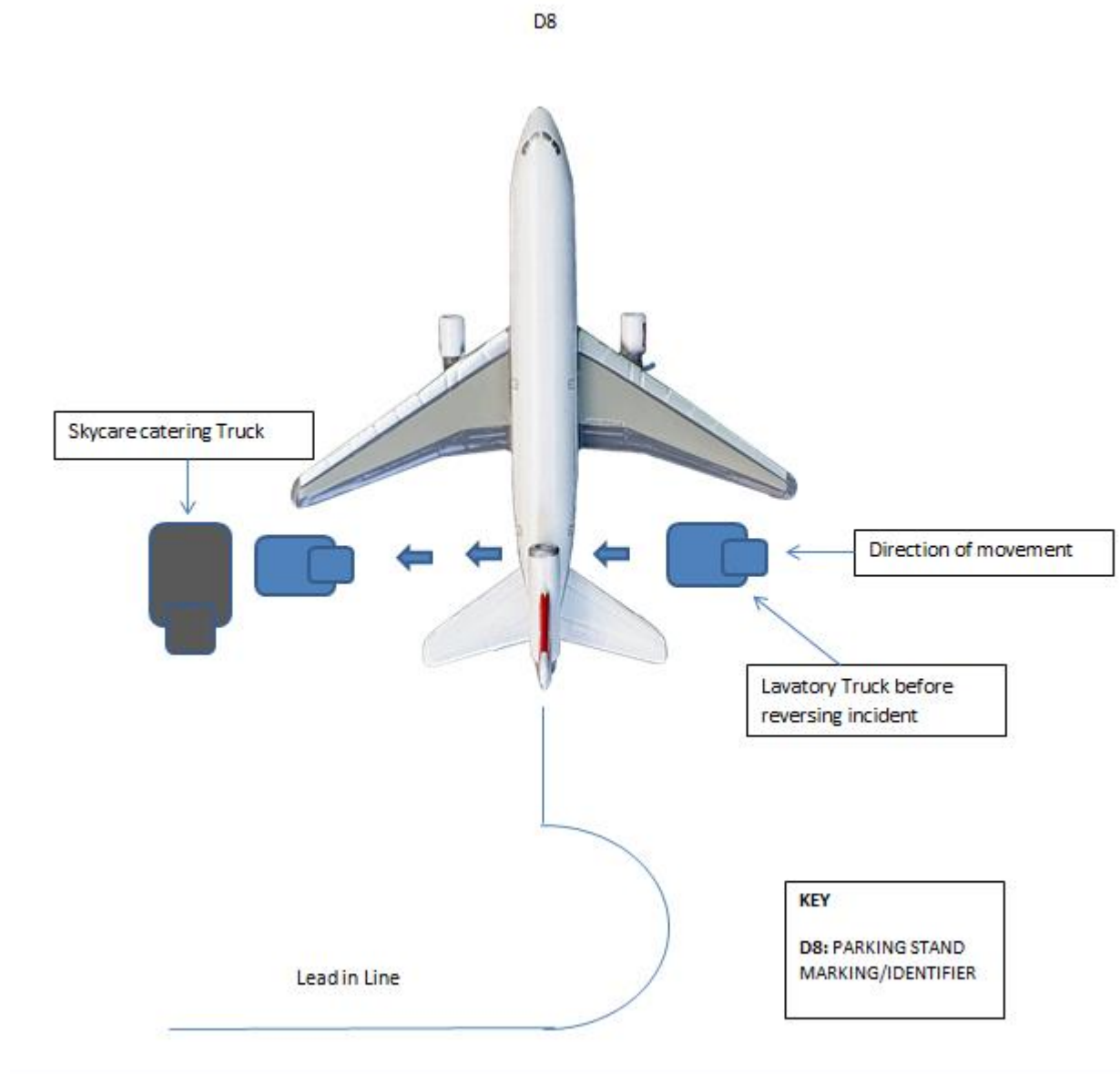


Figure 1: Sketch of the impact sequence

The following damage were observed on the aircraft;

1. Three holes on the Aft section of the fuselage unpressurized area
2. Dents on the pressure bulkhead area

3. Broken rear outflow valve
4. Broken lavatory service door
5. Broken drain valve handle and a damaged rear galley drain mast



Figure 2: The aircraft and lavatory service truck after the occurrence



Figure 3: Dent around the rear pressure bulkhead area



Figure 4: damaged rear galley drain mast



Figure 5: Three holes on the aft of the fuselage unpressurized area



Figure 6: Broken outflow valve



Figure 7: Damaged lavatory service truck after the incident



Figure 8: Dent on the Skycare catering vehicle

1.13 Medical and pathological information

After the incident, the GSE driver was taken to Gwagwalada General hospital for check-up and multi drug screening.

The result of the multi-drug screening test carried out was found negative.

1.14 Fire

There was no fire

1.15 Survival aspect

The incident was survivable as the speed on impact was minimal and the contact between the toilet bowser and the aircraft was also minimal.

INITIAL FINDINGS

Findings

1. Max Air 5N-DAB was parked at stand D8 boarding passengers.
2. While boarding, the Pilot requested ground service (lavatory service) for the aircraft.
3. The truck is maintained in accordance with manufacturer's recommendations.
4. The GSE driver was operating a conveyor belt on another aircraft when he was called to operate lavatory service truck on 5N-DAB.
5. On positioning, the lavatory service truck was chocked with the aid of SAHCO GSE marshaller.
6. The GSE driver realized that his hands could not reach the lavatory drain valve of the aircraft and requested the GSE marshaller to guide him so as to reposition the truck closer to the aircraft.
7. While repositioning, the lavatory GSE driver pressed the throttle pedal instead of brake pedal thereby impacting the aircraft.
8. The lavatory bowser passed underneath the aircraft and continued moving until it finally stopped by the Skycare Catering Service truck which was servicing the same aircraft.
9. The GSE driver fell out of the lavatory bowser after impacting the Skycare Catering Service truck.
10. The Skycare Catering Service truck sustained minor damage.
11. Boarding on 5N-DAB was stopped and the passengers who were onboard were disembarked to await further instructions.
12. After the incident, the GSE driver was taken to the hospital for check-up and multi drug screening.

IMMEDIATE SAFETY RECOMMENDATION

1. SAHCO PLC should ensure adherence to the provisions section 19(1) of Civil Aviation (Investigation of Air Accidents and Incidents) Regulations 2019 regarding tampering with evidence.