

Preliminary Report on the Serious Incident involving an Air Tractor AT-502B aircraft with nationality and registration marks 5N-BPV operated by Agro Spray Limited, which occurred on Runway 05, Rukubi airstrip, Doma, Nasarawa State, Nigeria on 29 July 2026

Operator:	Agro Spray Limited
Aircraft type and model:	Air Tractor AT-502B
Manufacturer:	Air Tractor INC. USA
Year of manufacture:	2012
Nationality and registration marks:	5N-BPV
Serial number:	502B-2802
Location:	Runway 05, Rukubi Airstrip, Doma Nasarawa State, Nigeria (Coordinate: 7° 54' 1.86" N, 8° 21' 32.05" E)
Date and Time:	29 July 2026 at about 10:45 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 operator on 29 July, 2026. Investigators were dispatched to the site the following day and commenced post occurrence assessments under the provisions of Civil Aviation (Investigation of Air Accidents and Incidents) Regulations 2026 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, 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

1.1 History of the flight

On 29 July 2026, at about 07:00 h, an Air Tractor AT-502B aircraft with nationality and registration marks 5N-BPV, operated by Agro Spray Limited departed Rukubi Airstrip on an aerial work operation (fertilizer application) over Olam Rice Farm Rukubi, Doma Local Government Area, Nasarawa State, under Visual Flight Rules (VFR). The flight was a single-pilot operation. The aircraft had a fuel endurance of 03 hours 45 minutes and was scheduled for 24 sorties.

According to the pilot, the operation commenced over the southern sector of the farm at an average application height of 50–60 ft above ground level (AGL). Each sortie included fertilizer loading (1600 kg), take-off, aerial application, and landing, usually lasting about 12–14 minutes. The aircraft was loaded with 1,600 kg of fertilizer for each sortie.

The pilot completed 15 sorties, the aircraft was refueled and operations resumed at 10:19 h. The pilot conducted an additional sortie.

At 10:31 h, the aircraft departed Runway 23 for the seventeenth sortie. The pilot reported weather conditions as; calm wind and visibility of 10 km. The aircraft returned to the airstrip on completion of the fertilizer application.

At about 10:45 h, the aircraft touched down on Runway 05. During the landing roll, the pilot applied rudder pedal inputs to maintain directional control and to keep the aircraft aligned with the runway centerline.

The pilot reported that, after the aircraft had decelerated, the right wheel brake appeared not to respond. The aircraft veered off and came to a stop to the left of the runway, against the wire-mesh perimeter fence.

The airstrip firefighting team who were on standby responded to the occurrence and arrived at the scene within one minute after it came to stop.

The pilot shut down the aircraft and disembarked without injury.

The incident occurred in daylight and Visual Meteorological Conditions (VMC) prevailed.

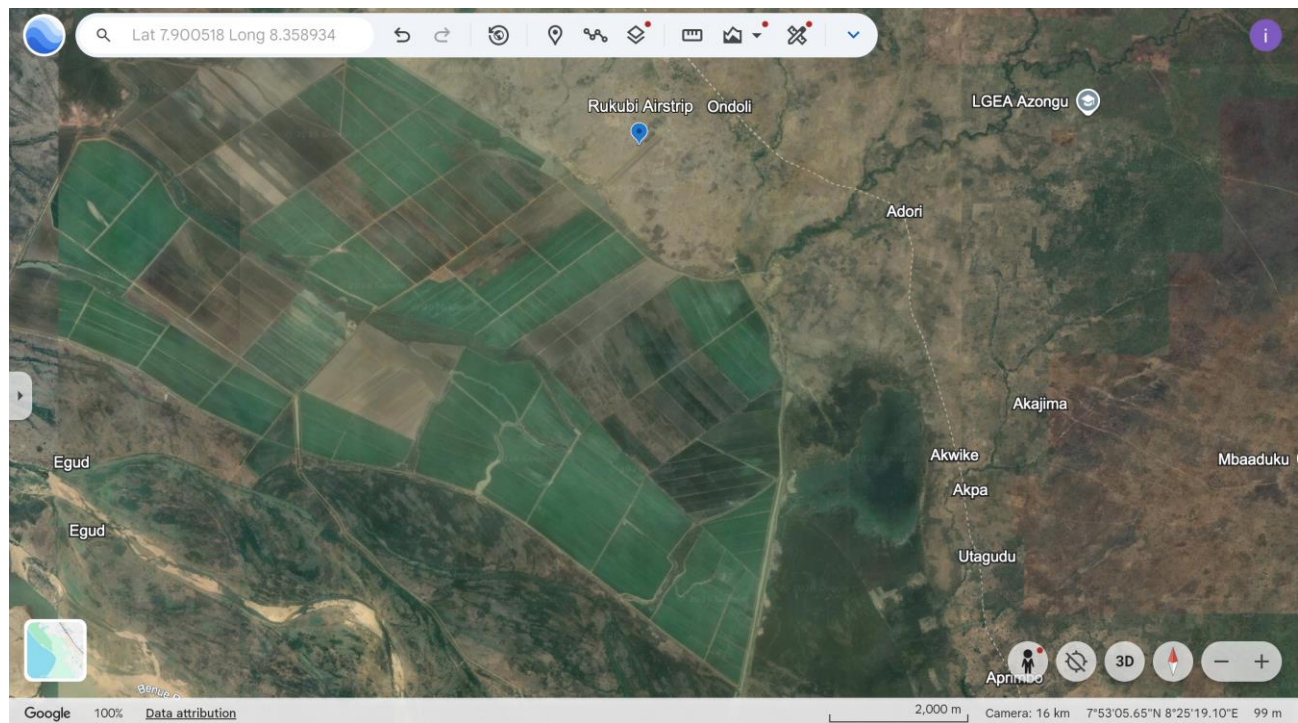


Figure 1: Google earth imagery of the Olam rice farm and Rukubi Airstrip



1.2 Injuries to person

Injuries	Crew	Passengers	Total in the aircraft	Others
Fatal	Nil	Nil	Nil	Nil
Serious	Nil	Nil	Nil	Nil
Minor	Nil	Nil	Nil	Nil
None	01	Nil	01	Nil
TOTAL	01	Nil	01	Nil

1.3 Damage to aircraft

The aircraft was slightly damaged.

1.4 Other damage

The wire mesh perimeter fence was damaged.

1.5 Personnel information

1.5.1 Captain

Nationality:	Indian
Age:	55
Licence type:	Commercial Pilot Licence (A)
Licence:	Valid till 05 October 2028
Aircraft ratings:	AT-502B



Medical certificate:	21 October 2026
Instrument rating:	27 May 2026
Total flying time:	3,849:12 h
Total on type:	3,629:06 h
Total on type (PIC):	1,962:54 h
Last 90 days:	84:36 h
Last 28 days:	41:24 h
Last 7 days:	16:12 h
Last 24 hours:	02:24 h

1.5.2 Engineer

Nationality:	Nigerian
Age:	52
Licence type:	Aircraft Maintenance Engineer's Licence
Licence:	Valid till 12 May 2027
Aircraft rating:	Embraer 110/P2, Cessna 172 Series, Air Tractor 401-400, 500, 600, 800 Series

The engineer was the certifying engineer for the aircraft.

1.6 Aircraft information

1.6.1 General information

Type:	Air Tractor AT-502B
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5N-BPV

Manufacturer: AIR TRACTOR INC. USA
 Year of manufacture: 2012
 Serial number: 502B-2802
 Registered operator: Agro Spray limited
 Registration marks: 5N-BPV
 Certificate of Airworthiness: Valid till 14 September 2026
 Certificate of insurance: Valid till 24 May 2027
 Certificate of registration: Issued on 18 February 2022
 Airframe time: 6,438:12

1.6.2 Engine

Manufacturer	Pratt and Whitney, USA
Type/Model	PT6A-34AG
Serial number	PCE-PHO189
Time Since New	11858:24 h
Cycles Since New	11447

Fuel Used: Jet A1

1.6.3 Propeller

Manufacturer	HARTZELL Propeller INC. USA
Type/Model	HC-B3TN-3D/T10282NS+4
Serial number	BUA 34671
Number of Blades	Three
Time Since Overhaul	270:36 h



1.7 Meteorological information

The meteorological conditions for Rukubi airstrip as provided by the pilot were as follows:

Rukubi	10:00 h	11:00 h
Wind:	Calm	Calm
Visibility:	+10 km	+10 km
Weather:	CLEAR	CLEAR
Cloud:	SCT	SCT
Temperature:	28°C	28°C
QNH:	1013 hpa	1013 hpa

1.8 Aids to navigation

Not applicable

1.9 Communication

There was effective communication between the pilot and the ground station. The serviceability of the communication aids at Rukubi airstrip on the day of the occurrence were as follows:

VHF 131.425 MHz	PRI FREQ	-Serviceable-
VHF 131.475 MHz	SEC FREQ	-Serviceable-

1.10 Aerodrome information

The Rukubi airstrip is located within Olam rice farm at coordinates 07°53'41" N, 008°21'10" E with elevation of 77 m.

The airstrip has a single runway with orientation 05/23. The runway has Asphalt surface length of 1200 m and a width of 20 m. It operates CAT 2 Aerodrome Rescue and Fire Fighting category with one fire tender truck. The airstrip is a non-instrument airstrip, operating Visual Flight Rules use only for agricultural purposes. Operational hours from sunrise to sunset.

A wind sock is located at one end of the Runway. It also has a hangar where the aircraft are normally maintained. The airstrip has a wire mesh perimeter fence.



Figure 2: The firetruck side view



Figure 3: The firetruck front view

1.11 Flight recorders

The aircraft was not equipped with a Flight Data Recorder (FDR) or Cockpit Voice Recorder (CVR) neither was required by the regulations.

1.12 Wreckage and impact information

The aircraft touched down about 200 m from the threshold of Runway 05. It then travelled for 550 m before veering off the left side of the runway. The aircraft impacted the wire mesh perimeter fence and stopped at about 50 m from runway center line at a magnetic heading of 015°. The left main wheel tyre got stuck in the mud.

1. The propeller blades were found bent.
2. The right rudder pedal linkage was found work loosen at the attachment.



Figure 4: Final position of 5N-BPV at the wire mesh perimeter fence



Figure 5: The bent propeller blades and the stuck left main landing gear



Figure 6: Right rudder-pedal linkage found work loosen at the attachment.



Figure 7: Path showing how aircraft exited the runway

1.13 Medical and pathological information

A breathalyser test conducted on the pilot by the operator immediately after the occurrence yielded a negative result for alcohol.

1.14 Fire

There was no fire.



1.15 Survival aspect

The aircraft restraint system was effective, the airframe was intact, and there was livable volume of space, which aided the overall survivability of the pilot. The pilot disembarked unhurt.

1.16 Test and research

Nil.

1.17 Organizational and management information

1.17.1 Agro Spray Limited

Agro Spray Limited has an approved Permit for Aerial Aviation Services (PAAS) in accordance with Nigeria Civil Aviation Regulations 2023 Section 18.3.6.1 with valid permit number as NCAA/ATR313/PAAS12. The Aerial Operations Department supports approximately 70% of farming activities and plays a critical role in maintaining operational efficiency. The department operates two Air Tractor AT-502B agricultural aircraft designed for large-scale aerial application with nationality and registration marks 5N-BPV and 5N-BZO. Aircraft maintenance and airworthiness management are provided by Skypower Express Airways, an approved Aircraft Maintenance Organization (AMO). The Agro Spray Limited conducts crop dusting operation for Olam Rice Farm.

1.17.2 Olam Rice Farm

Olam Rice Farm is one of Nigeria's largest integrated rice farming operations. Located in Rukubi, Doma Local Government Area of Nasarawa State, the farm is a fully mechanized and irrigated agricultural enterprise established in 2012.



The farm covers approximately 10,000 hectares, of which about 4,500 hectares are currently under cultivation. Operations are conducted across two production cycles annually: the wet season (April to September) and the dry season (November to March).

Before any aerial activity, field suitability, target application requirements, crop conditions, and prevailing weather conditions are assessed. Weather monitoring is conducted using a Kestrel 5200 Professional Environmental Meter. Operations are suspended in the event of strong winds and approaching thunderstorms.



2.0 INITIAL FINDINGS

1. The Pilot was licensed and qualified to conduct the flight
2. The aircraft had a valid Certificate of Airworthiness.
3. The pilot was conducting fertilizer application for Olam Rice Farm
4. The aircraft was scheduled for twenty-four sorties.
5. The flight was a single-pilot operation.
6. The fertilizer application commenced at about 07:00 h over the southern sector of the farm at an average height of 50–60 ft above ground level (AGL).
7. Each sortie, includes fertilizer loading, take-off, aerial application, and landing, usually lasts approximately 12–14 minutes.
8. The pilot completed 15 sorties, the aircraft was refueled and operations resumed at 10:19 h.
9. At 10:31 h, the aircraft departed Runway 23 for the seventeenth sortie.
10. At about 10:45 h, the aircraft touched down on Runway 05.
11. During the landing roll, the aircraft veered off and came to a stop to the left of the runway, impeded by the wire mesh perimeter fence.
12. Rukubi airstrip has a standby fire tender truck.
13. The airstrip firefighting team responded to the occurrence and arrived at the scene within one minute after it came to stop.
14. The propeller blades were found bent.
15. The right rudder pedal linkage was found work loosen at the attachment.



FURTHER INVESTIGATIVE ACTIONS

1. Detailed examination of the right main wheel brake system.
2. Examination of the right rudder pedal linkage.
3. The maintenance records of the aircraft.