

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN24LA193

EXAMINATION SUMMARY

07/30/2024

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A. ACCIDENT

Location: Covert, Kansas
Date: May 19, 2024
Time: 2015 CDT
0115 UTC
Airplane: Air Tractor AT-502, N15189, S/N 502-0155

B. EXAMINATION SUMMARY

IIC	Andrew Finne NTSB Aurora, Colorado
Group Chair	Stephen Yee NTSB Washington D.C.
Party Member	Les Doud Hartzell Propeller Piqua, Ohio
Party Member	Mike Hodge Pratt & Whitney Canada Bridgeport, West Virginia
Party Member	Dakota Lowe Air Tractor, Inc Olney, Texas
FAA Member	Ezra Olson FAA Wichita, Kansas

C. SUMMARY

An examination of the airplane was performed at Dodson with an NTSB Powerplant Specialist, Hartzell Propeller, and the FAA. Air Tractor supported the examination remotely and completed a separate follow-up examination on December 10, 2024. No abnormalities were discovered with the engine or airframe. However, the Fuel Control Unit was removed and sent to VSE Aviation for functional testing. The cockpit condition and propeller control flex cables were found to be outside the max force limit.

D. DETAILS OF THE EXAMINATION

1.0 Airframe Examination

1.1 Fuselage

The flap system was inspected with no abnormalities found. The flap jackscrew actuator was measured and the exposed jackscrew found to be 3 & 3/8 inches in length. This corresponds to a full flap DOWN position. The system was function tested by Air Tractor on December 10, 2024, and observed to operate normally.

The cockpit engine control flex cables were examined for the full length with no physical abnormalities found. However, the cockpit engine and propeller controls were actuated by hand and observed to be stiff with the condition control stuck in place. All three cables were tested for slide and breakaway force using a force gauge. The cables were first tested in situ and then uninstalled and straight. When uninstalled and straight the max breakaway force is 7.0lbs and the max slide force is 6.75lbs. The testing revealed that the Condition and Propeller flex cables were found to be over the design max force limit. A label was found on the Propeller control flex cable that showed a manufacture date of 06/29/2017.

Control Cable	In Situ	Uninstalled and Straight
Throttle	6lbs	3 lbs
Condition	13lbs	9.5lbs
Propeller	At Gauge Max Limit	10lbs

1.2 Cockpit

2.0 Engine Examination

The engine displayed contact signatures to its internal components characteristic of the engine developing power at the time of impact. No pre-impact abnormalities were observed with the engine that would support a gas generator runaway. The Fuel Control Unit was removed and shipped to VSE Aviation for additional testing. See Powerplant Factual for additional information.

3.0 Propeller Examination

There were no visible discrepancies noted that would prevent or degrade normal propeller operation prior to impact. All visible damage was consistent with high impact forces while rotating at low power and low blade angle (not feathered).

Submitted by:

Andrew Finne
Air Safety Investigator