



Aviation Investigation Final Report

Location:	Quanah, Texas	Accident Number:	CEN19TA131
Date & Time:	April 28, 2019, 12:58 Local	Registration:	N602AM
Aircraft:	Air Tractor AT 602	Aircraft Damage:	Substantial
Defining Event:	Low altitude operation/event	Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The pilot was conducting aerial application passes parallel to a transmission power line. During the final trim pass, the pilot flew out of the field and over the power line. As he was passing over the power line, the propeller blades struck a wire that he did not see, and the engine lost power. The pilot indicated that he conducted a controlled "crash landing" about 1.5 miles away from the power line strike during which the airplane sustained substantial damage to the fuselage. The pilot further reported that "there was no malfunction prior to hitting the powerline."

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to maintain clearance from the power line during a low altitude aerial application maneuver.

Findings

Personnel issues	Monitoring environment - Pilot
Environmental issues	Wire - Contributed to outcome

Factual Information

History of Flight

Maneuvering-low-alt flying	Low altitude operation/event (Defining event)
Emergency descent	Off-field or emergency landing
Landing	Hard landing

On April 28, 2019, about 1258 central daylight time, an Air Tractor Inc. AT-602 airplane, N602AM, impacted a powerline and subsequently impacted terrain near Quanah, Texas. The commercial pilot reported no injuries. The airplane sustained substantial fuselage damage during the impact with terrain. The airplane was registered to and operated by Buffalo Ridge Airspray LLC as a Title 14 *Code of Federal Regulations* Part 137 aerial application flight. Day visual meteorological conditions prevailed in the area about the time of the accident, and the flight was not operated on a flight plan. The local flight originated from the Quanah Municipal Airport, near Quanah, Texas, about 1200.

The pilot reported that the airplane was loaded up to spray 200 acres north west of Quanah, Texas, where the wind was from the east northeast about 7 to 9 mph. However, local wind at a nearby airport was 130° at 5 kts. The aerial application passes were conducted east to west, paralleling a transmission powerline. The flight was uneventful for the entire load. Before departing the field location, the pilot performed two "clean up" passes along the west boundary of the field flying from the south to the north. The first north bound heading trim pass was successful. The pilot flew the airplane to the south end of the field to initiate the second and final trim pass. As the pilot flew out of the field over the powerline, he thought the airplane had cleared the powerline. He subsequently thought the propeller blades struck the wire that he did not see and the engine lost power. The pilot conducted the "proper emergency steps such as fuel, feather the prop, and trim the aircraft." He then performed a controlled "crash landing," next to the wheat field he was trying to land in, about 1.5 miles away from the powerline strike. The pilot further reported that "there was no malfunction prior to hitting the powerline."

The pilot's safety recommendation stated, "Avoid the powerline entirely by leaving off the "clean up" passes along the west boundary of my field. I could have waited for a south wind to help get my spray under the wire and around the northwest corner of the application area, instead of making the extra "clean up" passes towards the wire."

Pilot Information

Certificate:	Commercial	Age:	25,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	April 10, 2019
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	August 28, 2018
Flight Time:	1306 hours (Total, all aircraft), 23 hours (Total, this make and model), 1262 hours (Pilot In Command, all aircraft), 50 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Air Tractor	Registration:	N602AM
Model/Series:	AT 602 No Series	Aircraft Category:	Airplane
Year of Manufacture:	1997	Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	602-0408
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	December 15, 2018	Certified Max Gross Wt.:	12500 lbs
Time Since Last Inspection:		Engines:	1 Turbo prop
Airframe Total Time:	9582 Hrs as of last inspection	Engine Manufacturer:	Pratt & Whitney
ELT:	Installed, not activated	Engine Model/Series:	PT6A-60AG
Registered Owner:		Rated Power:	1050 Horsepower
Operator:		Operating Certificate(s) Held:	Agricultural aircraft (137)
Operator Does Business As:		Operator Designator Code:	46JG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KCDS, 1951 ft msl	Distance from Accident Site:	27 Nautical Miles
Observation Time:	12:01 Local	Direction from Accident Site:	289°
Lowest Cloud Condition:	Scattered / 2300 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	130°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.88 inches Hg	Temperature/Dew Point:	19°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Quanah, TX (F01)	Type of Flight Plan Filed:	None
Destination:	Quanah, TX (F01)	Type of Clearance:	None
Departure Time:	12:00 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	34.363334, -99.900833(est)

Administrative Information

Investigator In Charge (IIC):	Malinowski, Edward		
Additional Participating Persons:	Anthony Leinewebber; Federal Aviation Administration; Lubbock, TX		
Original Publish Date:	January 28, 2021	Investigation Class:	3
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=99338		

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