Aviation Investigation Preliminary Report

Location:	Caddo Mills, TX	**Accident Number:**	CEN23FA352
Date & Time:	August 7, 2023, 15:35 Local	**Registration:**	N5610E
Aircraft:	Cessna 150	**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On August 7, 2023, about 1535 central daylight time, a Cessna 150, N5610E, was destroyed when it was involved in an accident near the Caddo Mills Municipal Airport (7F3), Caddo Mills, Texas. The pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The operator of the airplane reported that the pilot had recently conducted two flights in the accident airplane with a flight instructor. The first flight was to perform a check flight for insurance purposes. The operator reported that the first flight was satisfactory, but the pilot could not fly the airplane alone until he received a Federal Aviation Administration (FAA) medical certificate, so the second flight was also flown with the instructor.

The pilot received a first-class medical certificate on the day of the accident and reportedly came to the airport to fly the accident airplane. The operator reported that he was at the airport and knew the pilot was flying but his attention was on other tasks. He said that he did notice at least once that the airplane was in the traffic pattern for runway 18 at 7F3. He estimated that the airplane was airborne for about 30 minutes, and he then noticed smoke coming from the opposite end of the airport. He also noticed fire trucks on the airport property. The airplane was discovered near the south end of runway 18.

There were no reported witnesses to the accident.

The airplane was equipped with an Automatic Dependent Surveillance-Broadcast (ADS-B) system that was mounted on the tail of the airplane, replacing the rear navigation light. No flight data related to the accident airplane on the accident date was found.

The airplane came to rest on airport property. The airplane was resting upright, about 200 ft north and 330 ft east of the departure end of runway 18. The airplane was about 40 ft north of the edge of the taxiway connecting the departure ends of runways 18 and 13. An impact mark

was found in the turf at the south edge of the taxiway that was consistent with nose wheel impact, and the nose wheel and fractured nose wheel fork were found near this impact mark. There was another impact mark on the pavement adjacent to the nose wheel impact that was consistent with the impact from the airplane's fuselage. The relative position of these marks was consistent with a nose low impact. A third impact mark on the pavement west of the other two marks was consistent with an impact of the left wingtip. The left wingtip was bent upward at the leading edge. This was consistent with a left-wing low impact. There were linear abrasion marks in the pavement leading from the three impact locations across the pavement and to the wreckage. There was burned vegetation around the wreckage and along the edge of the taxiway.

The airplane was examined at the accident site and the control cables for the flight controls were continuous from the respective cockpit controls to the control surfaces except for the aileron balance cable which contained one break consistent with overload failure. The manual flap handle was in the flaps-up position. Both wings were predominately intact with ailerons and flaps still attached. There was burning and melting of the root ends of both wings due to the postimpact fire. The aft fuselage and empennage were intact with the rudder and elevator still attached. The postimpact fire consumed the cabin section of the fuselage above the floor.

The engine accessory case had almost completely melted due to the post-impact fire. The magnetos were partially melted precluding functional testing. The upper spark plugs were removed with no discrepancies noted. The propeller could only be partially rotated by hand due to the position of the airplane at the accident scene. The rotation was enough to determine movement of all the pistons within their cylinders confirming continuity of the crankshaft. During the partial rotation, it was noted that the rear crankshaft gear was not rotating. The 4 attaching bolts and the dowel pin that interfaces the gear to the crankshaft were broken. The gear, with one half of the dowl in it, and the four bolts were retained for metallurgical evaluation.

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N5610E
Model/Series:	150	**Aircraft Category:**	Airplane
Amateur Built:			
Operator:	Dallas Flight Center	**Operating Certificate(s) Held:**	None
Operator Designator Code:			

Meteorological Information and Flight Plan

Conditions at Accident Site:	VMC	**Condition of Light:**	Day
Observation Facility, Elevation:	KGVT,535 ft msl	**Observation Time:**	15:35 Local
Distance from Accident Site:	9 Nautical Miles	**Temperature/Dew Point:**	36°C /23°C
Lowest Cloud Condition:	Clear	**Wind Speed/Gusts, Direction:**	10 knots / None, 120°
Lowest Ceiling:	None	**Visibility:**	10 miles
Altimeter Setting:	29.95 inches Hg	**Type of Flight Plan Filed:**	NONE
Departure Point:	Caddo Mills, TX	**Destination:**	Caddo Mills, TX

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	On-ground
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	33.030603,-96.2443

Administrative Information

Investigator In Charge (IIC):	Brannen, John
Additional Participating Persons:	Jonathan Dekhtyar; FAA NTX FSDO; Irving, TX Kurt Gibson; Textron Aviation; Wichita, KS
Investigation Class:	Class 3
Note:	