Aviation Investigation Final Report

Location:	Kilgore, Texas	**Accident Number:**	CEN19FA235
Date & Time:	July 20, 2019, 18:20 Local	**Registration:**	N7013M
Aircraft:	Cessna 175	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control in flight	**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The noncertificated pilot was performing a high-speed taxi on a grass runway when the airplane became airborne, then impacted terrain in a nose-down attitude. The airplane's left wing and forward fuselage sustained substantial damage.

Examination of the airplane revealed no preaccident malfunctions or failures that would have precluded normal operation. The accident was consistent with the pilot's exceedance of the airplane's critical angle of attack when the airplane became airborne during a high-speed taxi test, which resulted in an aerodynamic stall and impact with terrain. Whether a medical factor contributed to the accident could not be determined from available evidence.

Probable Cause and Findings

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

The noncertificated pilot's exceedance of the airplane's critical angle of attack when the airplane became airborne during a high-speed taxi test, resulting in an aerodynamic stall and impact with terrain.

Findings

Personnel issues	Aircraft control - Other
Aircraft	Pitch control - Not attained/maintained
Aircraft	Angle of attack - Not attained/maintained

Factual Information

History of Flight

Takeoff	Loss of control in flight (Defining event)
Takeoff	Aerodynamic stall/spin

On July 20, 2019, about 1820 central daylight time, a Cessna 175 airplane, N7013M, was substantially damaged when it was involved in an accident near Kilgore, Texas. The pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The owner of the airport reported that he watched the accident airplane taxi to the south end of the grass runway and perform a normal run-up. The airplane then began a fast taxi down the runway, during which he lost sight of the airplane behind trees located along the northern third of the runway. He heard the airplane's engine accelerate, slow, and increase again, followed by the sound of an impact. He got into his vehicle and drove to the accident site about halfway down the runway and 100 ft east of the centerline. The airplane came to rest nose-down in the grass. The pilot was seriously injured during the accident and airlifted to a local hospital; he succumbed to his injuries 27 days after the accident.

Pilot Information

Certificate:	None	**Age:**	66
Airplane Rating(s):	None	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Unknown
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	None	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated) 0 hours (Total, all aircraft), 0 hours (Total, this make and model)		

The accident pilot was denied a Federal Aviation Administration airman medical certificate in 2009. He did not hold a pilot certificate.

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N7013M
Model/Series:	175 Undesignat	**Aircraft Category:**	Airplane
Year of Manufacture:	1958	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	55313
Landing Gear Type:	Tricycle	**Seats:**	
Date/Type of Last Inspection:	July 25, 2018 Annual	**Certified Max Gross Wt.:**	
Time Since Last Inspection:	1.1 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2836.1 Hrs at time of accident	**Engine Manufacturer:**	Continental
ELT:		**Engine Model/Series:**	O-300
Registered Owner:	On file	**Rated Power:**	
Operator:	On file	**Operating Certificate(s) Held:**	None

The airport owner reported that he rented hangar space to the accident pilot since the pilot purchased the airplane on October 22, 2008. The initial application for airplane's registration was made on February 8, 2012. The registration expired on March 3, 2018. A new application for FAA registration was submitted on March 3, 2018.

A FAA Airworthiness Safety Inspector inspected the aircraft at the airport every year during the last weeks of July from 2013, to 2019. The recording tachometer in the aircraft in 2013 was 2834.2 hours and remained the same for the next two years. On July 21, 2016, the recording tachometer read 2834.6 hours and was the same reading on July 29, 2017. On July 25, 2018, the recording tachometer read 2835.0 hours. At the accident, the recording tachometer read 2836.1 hours.

The recording tachometer readings were consistent with what the airport owner reported; that the aircraft owner would come out to run the engine and taxi the aircraft from time to time.

No maintenance records were located.

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:		**Visibility**	
Lowest Ceiling:		**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:			
Departure Point:	Kilgore, TX	**Type of Flight Plan Filed:**	None
Destination:	Kilgore, TX	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	Unknown

Airport Information

Airport:	Kilgore Airport 4TX6	**Runway Surface Type:**	Grass/turf
Airport Elevation:	365 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	36	**IFR Approach:**	None
Runway Length/Width:	2780 ft / 100 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	32.379428,-94.860847(est)

The airplane came to rest on its nose and main landing gear at a 35° nose-down angle. The engine, cowling, and forward fuselage were crushed aft and bent upward. The left wing was bent and crushed upward at midspan. The position of the wing flaps at the time of the accident could not be determined. The propeller, spinner, and reduction gearbox were separated and located about 25 ft left of the airplane. The propeller blades showed S-bending, chordwise

scratches, and leading edge gouging. Rotational continuity of the engine was established and there was fuel present in the gascolator. Examination of the airplane revealed no evidence of malfunctions or failures that would have precluded normal operation.

Medical and Pathological Information

An autopsy of the pilot was performed by the Dallas County Southwestern Institute of Forensic Sciences (SWIFS) Office of the Medical Examiner. According to the autopsy report, the cause of death was complications of blunt force injuries. SWIFS toxicological testing of antemortem blood from the pilot detected rocuronium, a medication that was administered during post-crash medical care.

The FAA Forensic Sciences Laboratory tested blood from the pilot for volatiles, including ethanol, with negative results. Too little antemortem specimen was available for further analysis.

Administrative Information

Investigator In Charge (IIC):	Liedler, Courtney
Additional Participating Persons:	Gary Watson; FAA; Irving, TX
Original Publish Date:	April 1, 2022
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=99919