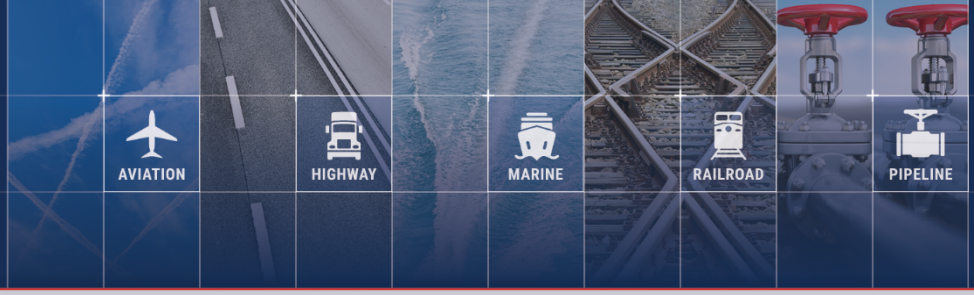

Aviation Investigation Final Report

Location:	Venus, Texas	**Accident Number:**	CEN23LA114
Date & Time:	February 18, 2023, 11:00 Local	**Registration:**	N6536G
Aircraft:	Cessna 150	**Aircraft Damage:**	Substantial
Defining Event:	Unknown or undetermined	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight instructor stated that while practicing power off stalls the student pilot added engine power and was retracting the wing flaps when the engine began to lose power. The instructor took control of the airplane and scanned the engine instruments. He noted that oil temperature was in the green range and the oil pressure was 0 psi and blinking in the red. The engine lost total power and the flight instructor performed a forced landing to a field. During the landing roll out, the airplane nosed over and came to rest inverted. Substantial damage was sustained to the empennage and vertical stabilizer.

An examination of the airframe and an engine run did not detect any preimpact anomalies that would have contributed to a loss of engine power. The airplane was operating in conditions conducive to the formation of carburetor icing at glide and cruise power and serious icing at glide power. The instructor reported the use of carburetor heat during the flight training.

The reason for the loss of engine power could not be determined with the available information.

Probable Cause and Findings

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

The loss of engine power for undetermined reasons.

Findings

Aircraft	(general) - Unknown/Not determined

Factual Information

History of Flight

Maneuvering	Unknown or undetermined (Defining event)
Landing	Nose over/nose down

On February 18, 2023, about 1100 central standard time, a Cessna 150L airplane, N6536G, was substantially damaged when it was involved in an accident near Venus, Texas. The flight instructor and student pilot were not injured. The airplane was operated under the provisions of Title 14 *Code of Federal Regulations* Part 91 as an instructional flight.

The flight instructor stated that while practicing power off stall recoveries, the student pilot had added engine power and was retracting the wing flaps when the engine began to lose power. The instructor took control of the airplane and scanned the engine instruments. He noted that oil temperature was in the green range and the oil pressure was 0 psi and blinking in the red. The engine lost total power and the flight instructor performed a forced landing to a field. During the landing roll out, the airplane nosed over and came to rest inverted. Substantial damage was sustained to the empennage and vertical stabilizer.

The airplane was recovered back to the flight school. An investigator from the National Transportation Safety Board traveled to the flight school and examined the airframe and engine. No preimpact anomalies were noted. The engine remained attached to the airframe and the investigator started the engine normally and idled the engine at 900 rpm for several minutes. Oil pressure was indicating in the normal operating range. The power was then advanced to 1,300 rpm with no discrepancies observed. Due to safety concerns, the engine power was not advanced further. When the investigator actuated the carburetor heat control, there was a drop in engine speed as expected. A magneto check was performed without any deficiencies noted.

A review of the Carburetor Icing Probability Chart located in the Federal Aviation Administration's Special Airworthiness Information Bulletin CE-09-35, Carburetor Icing Prevention, dated June 30, 2009, found that the airplane was operating in conditions conducive to the formation of carburetor icing at glide and cruise power and serious icing at glider power. The instructor reported the use of carburetor heat during the stall training.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	27,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Airplane single-engine	**Toxicology Performed:**	
Medical Certification:	Class 1 With waivers/limitations	**Last FAA Medical Exam:**	November 29, 2021
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	December 15, 2022
Flight Time:	314 hours (Total, all aircraft), 7 hours (Total, this make and model), 248 hours (Pilot In Command, all aircraft), 39 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft)		

Student pilot Information

Certificate:	Student	**Age:**	27,Male
Airplane Rating(s):	None	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	None	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Unknown	**Last FAA Medical Exam:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N6536G
Model/Series:	150 L	**Aircraft Category:**	Airplane
Year of Manufacture:	1970	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	15072036
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	November 29, 2022 100 hour	**Certified Max Gross Wt.:**	1600 lbs
Time Since Last Inspection:	36.9 Hrs	**Engines:**	1
Airframe Total Time:	6060.8 Hrs at time of accident	**Engine Manufacturer:**	
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	
Registered Owner:	MESSERSMITH BRIAN W	**Rated Power:**	
Operator:	Aviator Air LLC	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KJWY,749 ft msl	**Distance from Accident Site:**	8 Nautical Miles
Observation Time:	10:55 Local	**Direction from Accident Site:**	46°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	9 knots / 14 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	180°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.47 inches Hg	**Temperature/Dew Point:**	8°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Grand Prairie, TX (KGPM)	**Type of Flight Plan Filed:**	None
Destination:	Grand Prairie, TX (KGPM)	**Type of Clearance:**	None
Departure Time:	10:10 Local	**Type of Airspace:**	Class E

Wreckage and Impact Information

Crew Injuries:	2 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	32.36,-97.03

Administrative Information

Investigator In Charge (IIC):	Aguilera, Jason
Additional Participating Persons:	Stephen Simpson; FAA ; Irving, TX
Original Publish Date:	April 18, 2024
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=106757