Aviation Investigation Final Report

Location:	Lexington, Texas	**Accident Number:**	CEN14LA133
Date & Time:	February 9, 2014, 17:00 Local	**Registration:**	N6061B
Aircraft:	Cessna 182A	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (total)	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Skydiving		

Analysis

The pilot reported that, during the descent, he applied carburetor heat but that he then removed carburetor heat when leveling off. The pilot reduced the throttle to slow the airplane while on final approach. When he advanced the throttle to maintain airspeed, the engine power did not increase; the pilot was unable to restore full engine power. The engine subsequently lost all power when the pilot applied carburetor heat. During the forced landing to a field, the nose landing gear and propeller contacted a barbed wire fence, and the airplane then nosed down, impacted the ground, and nosed over. A postaccident examination revealed no mechanical failures that would have resulted in the loss of engine power. The atmospheric conditions at the time of the accident were conducive to the formation of serious carburetor icing at glide power. It is likely that carburetor ice developed after the pilot reduced the engine power/closed the throttle while in the traffic pattern without applying carburetor heat, which resulted in a loss of engine power. The manufacturer's before landing checklist states to apply carburetor heat before closing the throttle.

Probable Cause and Findings

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

The pilot's improper use of the carburetor heat, which resulted in a total loss of engine power due to carburetor icing.

Findings

Personnel issues	Use of equip/system - Pilot
Environmental issues	Conducive to carburetor icing - Effect on equipment

Factual Information

History of Flight

Approach-VFR pattern final	Loss of engine power (total) (Defining event)
Approach-VFR pattern final	Collision with terr/obj (non-CFIT)
Other	Nose over/nose down

On February 9, 2014, about 1700 central standard time, a Cessna 182A airplane nosed over during a forced landing while on final approach to land at the Lexington Airfield (TE75), Lexington, Texas. The pilot was not injured. The airplane received substantial damage to the firewall and rudder. The airplane was registered to and operated by Austin Skydiving Center as a 14 Code of Federal Regulations Part 91 skydiving flight. Visual meteorological conditions prevailed for the flight, which was not operated on a flight plan. The local flight originated from TE75 about 1645.

The pilot reported he climbed to an altitude of about 10,000 feet where the skydivers exited the airplane. He then began a 500 foot per minute descending spiral staying above the skydivers. He stated he had the power reduced and the carburetor heat on during the descent and that he removed the carburetor heat when he leveled off.

The pilot reported he was at an altitude of about 1,000 feet when he turned onto final approach and slowed the airplane so he could lower the flaps. He stated the airplane had slowed and he pushed the throttle in to maintain airspeed at which time he noticed the engine power did not increase. The pilot adjusted the throttle and was able to regain a slight amount of power. He switched the fuel tanks and the power output remained the same. The pilot applied carburetor heat and within seconds all engine power was lost.

The pilot reported there was a road and a house in his flight path so he turned the airplane to the left toward a field. During the approach to the field, the nose gear and propeller contacted a barbed wire fence. The airplane then nosed down, impacting the ground, and the airplane nosed over.

Weather conditions recorded at the Giddings-Lee County Airport (GYB), located about 16 miles south of the accident site, at 1655, were: wind 200 degrees at 6 knots; clear sky; visibility 10 miles; temperature 19 degrees Celsius (66 degrees Fahrenheit); dew point 13 degrees Celsius (55 degrees Fahrenheit), and altimeter 29.99 inches of mercury. Federal Aviation Administration guidance indicates a possibility of serious carburetor icing at glide power under those conditions.

A postaccident examination of the airplane and engine did not reveal any mechanical failure that would have resulted in the loss of engine power.

The Cessna 182 Owner's Manual "Let-Down" checklist states "Apply sufficient carburetor heat to prevent icing, if icing conditions exist." The "Before Landing" checklist states "Apply carburetion heat before closing throttle."

Pilot Information

Certificate:	Commercial	**Age:**	43
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Lap only
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 1 Without waivers/limitations	**Last FAA Medical Exam:**	August 13, 2013
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	November 13, 2010
Flight Time:	2573 hours (Total, all aircraft), 572 hours (Total, this make and model), 1382 hours (Pilot In Command, all aircraft), 290 hours (Last 90 days, all aircraft), 92 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N6061B
Model/Series:	182A A	**Aircraft Category:**	Airplane
Year of Manufacture:	1957	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	34061
Landing Gear Type:	Tricycle	**Seats:**	1
Date/Type of Last Inspection:	November 13, 2013 100 hour	**Certified Max Gross Wt.:**	2348 lbs
Time Since Last Inspection:	50 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	8636 Hrs as of last inspection	**Engine Manufacturer:**	CONT MOTOR
ELT:	Installed, not activated	**Engine Model/Series:**	O-470L
Registered Owner:	AUSTIN SKYDIVING CENTER INC	**Rated Power:**	230 Horsepower
Operator:	AUSTIN SKYDIVING CENTER INC	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	GYB,484 ft msl	**Distance from Accident Site:**	16 Nautical Miles
Observation Time:	16:55 Local	**Direction from Accident Site:**	182°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	6 knots / None	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:	200°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.98 inches Hg	**Temperature/Dew Point:**	19°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lexington, TX (TE75)	**Type of Flight Plan Filed:**	None
Destination:	Lexington, TX (TE75)	**Type of Clearance:**	None
Departure Time:	16:45 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Lexington Airfield TE75	**Runway Surface Type:**	
Airport Elevation:	470 ft msl	**Runway Surface Condition:**	Unknown
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	Unknown
Ground Injuries:	N/A	**Aircraft Explosion:**	Unknown
Total Injuries:	1 None	**Latitude, Longitude:**	30.414167,-96.965553

Administrative Information

Investigator In Charge (IIC):	Sullivan, Pamela
Additional Participating Persons:	Dan Ferris; FAA; Houston, TX
Original Publish Date:	November 3, 2014
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=88791