



# Aviation Investigation Final Report

<b>Location:</b>	Fredericksburg, Texas	<b>Accident Number:</b>	CEN14LA200
<b>Date &amp; Time:</b>	April 16, 2014, 10:30 Local	<b>Registration:</b>	N50WP
<b>Aircraft:</b>	Cessna O 1E	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of engine power (total)	<b>Injuries:</b>	2 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

The flight instructor reported that he was providing instruction to a pilot in the tandem-seat airplane. He reported that, immediately after the pilot receiving instruction turned the airplane from the downwind to the base leg of the traffic pattern, the engine lost power. He took control of the airplane and called for the magnetos and boost pump to be turned on as he switched fuel tanks. He was unable to find a suitable landing area, so he attempted a landing to a small field. During the landing and while he was attempting to avoid a tree at the end of the field, the airplane struck a cattle pen. Examination of the engine revealed no preimpact anomalies. The reason for the loss of engine power could not be determined.

## 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 reasons that could not be determined because postaccident examination of the engine revealed no anomalies.

## Findings

<b>Not determined</b>	(general) - Unknown/Not determined
<b>Environmental issues</b>	(general) - Contributed to outcome

# Factual Information

## History of Flight

Approach-VFR pattern base	Loss of engine power (total) (Defining event)
Landing	Collision with terr/obj (non-CFIT)

On April 16, 2014, about 1030 central daylight time, a Cessna O-1E airplane, N50WP, sustained substantial damage when it struck a fence during a forced landing following a loss of engine power near Fredericksburg, Texas. The pilot and instructor pilot received serious injuries. The airplane was registered to an individual and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as an instructional flight. Visual meteorological conditions prevailed for the flight, which was not on a flight plan. The local flight originated from the Silver Wings Airport (TS36), Fredericksburg, Texas, at an unconfirmed time.

The flight instructor reported that he was providing instruction to an 82 year old pilot in the airplane when the accident occurred. The instructor was seated in the rear seat and the instructed pilot was in the front. The instructor noted that from the rear seat, there is no view of the gauges except for the flap indicator that was located at the top right edge of the instrument panel. He stated the instructed pilot entered a right downwind for runway 17 at TS36, and the flaps were extended to about 20 degrees. Just prior to turning onto a base leg, the engine abruptly "failed". The instructor called for the magnetos and boost pumps "on" and took control of the airplane. He switched fuel tanks although both were full, and looked for a suitable area to make an off-airport landing to no avail. He executed a landing to a small field that had a large oak tree at the end. During the landing the instructor attempted to avoid the tree and the airplane struck a cattle pen. He noted that after the accident he could see that the magneto switch was in the "off" position.

The instructed pilot reported that he was receiving a checkout in the accident airplane. He stated that stop and go landings were being performed at the Gillespie County Airport (T82), Fredericksburg, Texas. After several landings were performed at T82, a decision was made to fly to TS36 for further practice due to more favorable wind conditions. He reported that they entered a right downwind for runway 17. Immediately after turning on a right base leg, the engine stopped producing power and the instructor assumed control of the airplane. He stated that during the forced landing, the airplane struck the corner post of a cattle pen.

An examination of the engine was conducted by a representative of the engine manufacturer with oversight provided by a Federal Aviation Administration Inspector. The examination did not reveal any preimpact anomalies.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	83
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	October 1, 2013
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Flight instructor Information

<b>Certificate:</b>	Airline transport; Commercial; Flight engineer; Flight instructor	<b>Age:</b>	62
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	January 30, 2014
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N50WP
<b>Model/Series:</b>	O 1 E E	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	61-2970
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	2101 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	
<b>ELT:</b>		<b>Engine Model/Series:</b>	
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KT82,1695 ft msl	<b>Distance from Accident Site:</b>	12 Nautical Miles
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	90°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	14 knots / 22 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	160°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.06 inches Hg	<b>Temperature/Dew Point:</b>	14°C / 2°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Fredericksburg, TX (TS36)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Fredericksburg, TX (TS36)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	SILVER WINGS TS36	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	2110 ft msl	<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 Serious	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Serious	<b>Latitude, Longitude:</b>	30.219444,-99.14083

## Administrative Information

**Investigator In Charge (IIC):** Brannen, John

**Additional Participating Persons:**

**Original Publish Date:** March 14, 2016

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=89071>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).