



Aviation Investigation Final Report

Location:	Los Angeles, California	Accident Number:	WPR21FA048
Date & Time:	November 12, 2020, 11:43 Local	Registration:	N939CP
Aircraft:	Cessna 182	Aircraft Damage:	Destroyed
Defining Event:	Powerplant sys/comp malf/fail	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

While on final approach to the runway, the pilot reported to the tower controller a loss of engine power, and that he was attempting to make the runway. Shortly thereafter, the airplane collided with power lines in a residential area about 175 ft short of the runway threshold. A postaccident fire consumed the wreckage.

Postaccident examination of the wreckage revealed that the engine's throttle control rod was separated from the throttle body control arm. None of the attachment hardware, which comprised of a bolt, washer, castellated nut, and cotter pin, was found. Additionally, no evidence of impact damage was noted in the throttle lever linkage control rod end or the control arm where it attached. The airplane's most recent annual inspection was 78 flight hours and about 2 months before the accident. During the inspection, a new engine was installed. Based on the available information, it is likely that the throttle control connecting hardware was improperly installed or secured during the most recent maintenance, which resulted in its disconnection and a loss of engine power and throttle control while on final approach.

Probable Cause and Findings

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

Maintenance personnel's failure to properly secure the throttle control hardware during recent maintenance, which resulted in its disconnection and a subsequent loss of engine power on approach for landing.

Findings

Aircraft	Power lever - Failure
Personnel issues	Scheduled/routine inspection - Maintenance personnel
Environmental issues	Wire - Effect on equipment

Factual Information

History of Flight

Approach	Powerplant sys/comp malf/fail (Defining event)
Approach	Loss of engine power (total)
Approach	Collision with terr/obj (non-CFIT)

On November 12, 2020, about 1143 Pacific standard time, a Cessna 182T airplane, N939CP, was destroyed when it was involved in an accident near Los Angeles, California. The pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 positioning flight.

A review of Automatic Dependent Surveillance – Broadcast (ADS-B) data revealed that the airplane departed Meadows Field Airport, (BFL), Bakersfield, California, about 1102 with a destination of Whiteman Airport (WHP), Los Angeles, California. The pilot contacted the WHP tower controller about six miles from the runway and was subsequently cleared to land. About three minutes later, the pilot reported engine trouble. The pilot was again cleared to land and further reported that he lost the engine and would try to stretch it to the runway. About 20 seconds later, the pilot reported that he was not going to make the runway. Shortly thereafter, the airplane impacted power lines and several vehicles before it impacted the ground. The last two data points indicated a descent rate of about 500 ft per minute, and the last data point indicated a speed of 51 knots.

Pilot Information

Certificate:	Private	Age:	59, Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	October 23, 2020
Occupational Pilot:	No	Last Flight Review or Equivalent:	November 15, 2019
Flight Time:	(Estimated) 460 hours (Pilot In Command, all aircraft), 7 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

The pilot held a private pilot certificate with ratings for airplane single-engine land and sea. The pilot was issued a Federal Aviation Administration (FAA) third-class airman medical certificate on October 23, 2020, without limitations. At the time of the medical examination, the pilot reported about 460 total hours of flight experience.

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N939CP
Model/Series:	182 T	Aircraft Category:	Airplane
Year of Manufacture:	2015	Amateur Built:	
Airworthiness Certificate:	Other	Serial Number:	18282404
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	September 14, 2020 100 hour	Certified Max Gross Wt.:	3100 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1262.2 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C126 installed, not activated	Engine Model/Series:	IO-540-AB1A5
Registered Owner:		Rated Power:	230 Horsepower
Operator:		Operating Certificate(s) Held:	None

The airplane's most recent annual inspection was completed on September 14, 2020, at which time a Lycoming IO-540-AB1A5 engine was installed. The airplane total time was 1,262.2 hours, and the engine total time was 2046.1 hours. The engine had accrued about 78 hours of flight time since installation.

The airplane's forced landing checklist for emergency landing without engine power called for an airspeed of 75 knots indicated airspeed (KIAS) with flaps retracted and 70 KIAS with flaps 10° to full. Further it called for the Mixture control to IDLE CUTOFF, and the fuel selector and magneto switches OFF. Wing flaps were AS REQUIRED (full recommended).

The airplane's power-off stall speed with flaps retracted was 54 knots calibrated airspeed (KCAS) and 49 KCAS with flaps fully extended.

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KWHP	Distance from Accident Site:	0.5 Nautical Miles
Observation Time:	10:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Scattered	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.08 inches Hg	Temperature/Dew Point:	17°C / 0°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bakersfield, CA (BFL)	Type of Flight Plan Filed:	
Destination:	Los Angeles, CA	Type of Clearance:	VFR flight following
Departure Time:	11:03 Local	Type of Airspace:	Class D

Airport Information

Airport:	Whiteman WHP	Runway Surface Type:	Asphalt
Airport Elevation:	1003 ft msl	Runway Surface Condition:	Dry
Runway Used:	12	IFR Approach:	None
Runway Length/Width:	4120 ft / 75 ft	VFR Approach/Landing:	Forced landing

The airport was located in a densely populated area. There were several obstructions noted at the end of runway 12, including a 6-ft fence 60 ft from the end of the runway, a road 70 ft from the end of the runway, and a 12-ft-tall building 135-200 ft from the end of the runway.

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:	34.259325,-118.41343(est)

The accident site was located on a road in a residential area about 175 ft from the runway 12 threshold. The west side of the street was lined with a series of 40 ft-tall-power transmission poles, spaced about 150 ft apart. The first identified point of impact was to a top power line bridging these poles, which had been severed midspan about 250 ft northwest of the main wreckage. All major components of the airplane were located at the site and there was evidence of a postimpact fire.

Examination of the airplane's engine revealed that it sustained impact and thermal damage but there was no evidence of internal catastrophic engine damage. Rotational continuity was established through hand rotation of the propeller, and appropriate valve train and compression were noted. The throttle lever linkage control rod end was found separated from the fuel metering section, which was contained within the throttle body assembly, where it attached to the throttle control arm. None of the attachment hardware, which comprised a bolt, washer, castellated nut, and cotter pin, was found. Additionally, no evidence of impact damage was noted in the throttle lever linkage control rod end or the control arm where it attached. Soot was present on the entire assembly (including the opening where the bolt would attach), consistent with the connecting hardware not being present at the time of impact and the ensuing fire.

Examination of the flap actuator revealed that the airplane's wing flaps were extended to 30°.

Additional Information

FAA Advisory Circular No. 20-143, Installation, Inspection, and Maintenance of Controls, for General Aviation Reciprocating Aircraft Engines, states that, "In the absence of specific inspection intervals, repetitive inspection of the engine controls in the nacelle and cockpit should be conducted as part of the annual and 100-hour inspection described in Part 43, Appendix D. It further states, "inspect all engine control cables for proper tension, routing, security, and signs of damage caused by chafing and heat distress."

Title 14 *CFR* Part 43 Appendix D, states that the following should be included in annual and 100-hour inspections: "Flight and engine controls – for improper installation and improper operation." Additionally, "each person performing an annual or 100- inspection shall inspect ... as follows: engine controls – for defects, improper travel, and improper safetying."

Medical and Pathological Information

The County of Los Angeles, Department of Medical Examiner-Coroner, Los Angeles, California, conducted an autopsy on the pilot. The medical examiner determined that the cause of death was “smoke inhalation and thermal injuries.”

The FAA's Forensic Sciences Research Laboratory performed toxicological testing on the pilot. The pilot's results for the testing were negative except for positive results for glucose, carboxyhemoglobin, chlorpheniramine, and oxymetazoline.

The pilot had glucose in the vitreous and urine, but the amounts detected were not significant. Carboxyhemoglobin was within the range seen in a smoker as well as in smoke inhalation. The autopsy revealed soot in the airways, which was consistent with smoke inhalation at the time of the accident. Chlorpheniramine is an antihistamine used to treat allergies and can cause drowsiness. Chlorpheniramine is acceptable for flying if it is used no more than 1-2 times per week and 5 days have elapsed before flying. Oxymetazoline is a topical nasal decongestant that is acceptable for pilots.

Organizational and Management Information

The airplane was part of the Civil Air Patrol (CAP), Los Angeles Group 1. The pilot had completed CAP flight training and was checked out as an Orientation Pilot. CAP flight training evaluations showed excellent comments about the pilot's flying ability.

CAP contracts with aircraft repair facilities for maintenance of its aircraft. Additionally, the wing's aircraft maintenance officer coordinates aircraft maintenance, inspections, and repairs.

Administrative Information

Investigator In Charge (IIC): Nixon, Albert

Additional Participating Persons: Cotry Sherill; FAA; Van Nuys, CA
Mark Platt; Lycoming Engines; Williamsport, PA
Peter Basile; Textron Aviation; Wichita, KS
Michael Nunemaker; Civil Air Patrol; Maxwell AFB, AL

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Investigation Class: 3

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=102277>

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).