# Aviation Investigation Final Report

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| **Location:** | Glendale, California | **Accident Number:** | WPR12FA222 |
| **Date & Time:** | May 21, 2012, 21:10 Local | **Registration:** | N732JL |
| **Aircraft:** | Cessna P210N | **Aircraft Damage:** | Substantial |
| **Defining Event:** | Loss of engine power (partial) | **Injuries:** | 1 Minor |
| **Flight Conducted Under:** | Part 91: General aviation - Personal | | |

## Analysis

The pilot reported that during a cross-country flight, as he descended below 9,000 feet mean sea level, he encountered a severe surging of the engine and a reduction in power. The pilot declared an emergency, and he was advised by air traffic control of the two nearest airports. The pilot maneuvered the airplane towards one of the airports. Due to the reduction in power and loss of altitude, the pilot determined that he would be unable to land at the airport, and, therefore, he elected to land on a city street. The airplane impacted trees and a telephone pole before coming to rest inverted in the front yard of a residence.

Postaccident examination of the airframe revealed no pre-impact mechanical malfunctions or failures that would have precluded normal operation. The engine was removed from the airframe and prepared for an engine test run. The engine was started and operated for several minutes at various power settings. Further testing of components from the turbocharger system revealed no anomalies that would have precluded normal operation. The cause of the surging and partial 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 partial loss of engine power during descent for reasons that could not be determined because postaccident examination of the engine did not reveal any anomalies that would have precluded normal operation.

## Findings

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| **Not determined** | (general) - Unknown/Not determined |

# Factual Information

## History of Flight

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| **Enroute-descent** | Loss of engine power (partial) (Defining event) |
| **Emergency descent** | Collision with terr/obj (non-CFIT) |

On May 21, 2012, about 2110 Pacific daylight time (PDT), a Cessna P210N, N732JL, impacted a power pole and tree during a forced landing, and came to rest inverted in the front yard of a residence near Glendale, California. The co-owner/pilot was operating the airplane under the provisions of 14 Code of Federal Regulations (CFR) Part 91. The private pilot sustained minor injuries; the airplane sustained substantial damage. The personal cross-country flight departed Phoenix, Arizona, about 1810 mountain standard time, with a planned destination of Van Nuys, California. Visual meteorological conditions prevailed, and no flight plan had been filed.

The pilot reported that while descending below 9,000 feet mean sea level (msl) he experienced a severe surging of the engine and a partial loss of engine power. The engine surging occurred several times before he advised air traffic controllers that he had an emergency, and needed the closest airport. The controller advised the pilot that the nearest airport was El Monte airport (EMT), El Monte, California, which was located behind him and to the south. He was also told that Bob Hope Airport (BUR), Burbank, California, was in front of him. The pilot was familiar with BUR and felt it was his best choice to attempt to land at BUR.

As the pilot got closer to the airport, he determined he was not going to be able to land at the airport due to the loss in altitude from the power loss. He attempted to land on a quiet street but he did not see the power lines until it was too late.

The airplane impacted trees and a telephone/power pole on the northwest corner of Cleveland Road and Glenwood Road in the city of Glendale. The airplane continued westbound hitting another oak tree and a vehicle. The airplane came to rest inverted in the front yard of a residence on Glenwood Road.

The National Transportation Safety Board investigator-in-charge responded to the scene and documented the accident site prior to the recovery of the airplane.

## Pilot Information

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| **Certificate:** | Private | **Age:** | 55 |
| **Airplane Rating(s):** | Single-engine land | **Seat Occupied:** | Left |
| **Other Aircraft Rating(s):** | None | **Restraint Used:** | |
| **Instrument Rating(s):** | None | **Second Pilot Present:** | No |
| **Instructor Rating(s):** | None | **Toxicology Performed:** | No |
| **Medical Certification:** | Class 3 With waivers/limitations | **Last FAA Medical Exam:** | October 3, 2011 |
| **Occupational Pilot:** | No | **Last Flight Review or Equivalent:** | April 4, 2012 |
| **Flight Time:** | 825 hours (Total, all aircraft), 500 hours (Total, this make and model), 600 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft) | | |

## Aircraft and Owner/Operator Information

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| **Aircraft Make:** | Cessna | **Registration:** | N732JL |
| **Model/Series:** | P210N | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | | **Amateur Built:** | |
| **Airworthiness Certificate:** | Normal | **Serial Number:** | P21000582 |
| **Landing Gear Type:** | Retractable - Tricycle | **Seats:** | 6 |
| **Date/Type of Last Inspection:** | July 6, 2011 Annual | **Certified Max Gross Wt.:** | 4100 lbs |
| **Time Since Last Inspection:** | 39 Hrs | **Engines:** | 1 Reciprocating |
| **Airframe Total Time:** | 4487.9 Hrs at time of accident | **Engine Manufacturer:** | CONT MOTOR |
| **ELT:** | C91A installed, activated, did not aid in locating accident | **Engine Model/Series:** | TSIO-520 SER |
| **Registered Owner:** | HENG ALLEN K | **Rated Power:** | 300 Horsepower |
| **Operator:** | ROTH JAMES E | **Operating Certificate(s) Held:** | None |

The engine was a Continental Motors TSIO-520 P6B, serial number 513947. Total time recorded on the engine at the last annual inspection was 375.6 hours, and time since major overhaul was 375.6 hours.

Fueling records at Phoenix established that the airplane was last fueled on May 21, 2012, with the addition of 40 gallons of 100-octane aviation fuel. Examination of the logbook records for the airplane and engine revealed no recent maintenance issues.

## Meteorological Information and Flight Plan

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| **Conditions at Accident Site:** | Visual (VMC) | **Condition of Light:** | Night |
| **Observation Facility, Elevation:** | KBUR,778 ft msl | **Distance from Accident Site:** | 4 Nautical Miles |
| **Observation Time:** | 20:35 Local | **Direction from Accident Site:** | 280° |
| **Lowest Cloud Condition:** | Clear | **Visibility** | 10 miles |
| **Lowest Ceiling:** | None | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 7 knots / | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | 120° | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 29.89 inches Hg | **Temperature/Dew Point:** | 21°C / 13°C |
| **Precipitation and Obscuration:** | No Obscuration; No Precipitation | | |
| **Departure Point:** | Phoenix, AZ (PHX ) | **Type of Flight Plan Filed:** | None |
| **Destination:** | Van Nuys, CA (VNY ) | **Type of Clearance:** | VFR flight following |
| **Departure Time:** | 18:10 Local | **Type of Airspace:** | |

## Wreckage and Impact Information

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| **Crew Injuries:** | 1 Minor | **Aircraft Damage:** | Substantial |
| **Passenger Injuries:** | | **Aircraft Fire:** | None |
| **Ground Injuries:** | N/A | **Aircraft Explosion:** | None |
| **Total Injuries:** | 1 Minor | **Latitude, Longitude:** | 34.239444,-118.368057(est) |

The debris field was approximately 120 feet in length from the first identified point of impact to the main wreckage.

There was a strong odor of aviation fuel at the accident site. The recovery company also recovered fuel in the right wing tanks. The left wing tanks were breeched during the accident sequence.

## Tests and Research

The pilot reported that he had the airplane refueled to capacity prior to departing Phoenix, Arizona, with the addition of 40 gallons of 100 LL Avgas.

Investigators examined the wreckage at Aircraftsman, Inc., Chino, California, on June 11, 2012. The airframe and engine were examined with no mechanical anomalies identified that would have precluded

normal operation.

The engine and components from the turbocharger system were subsequently removed and shipped to the manufacturers for further examination.

Teledyne Continental Motors (TCM) personnel examined the engine under the supervision of the Safety Board at the factory in Mobile, Alabama, on August 23, 2012. The engine was removed and prepared for an engine test run. The engine was started and ran for several minutes at various power settings with no noted mechanical anomalies. The examination report is attached to the docket. There were no anomalies noted that would have precluded normal operation.

On August 24, 2012, investigators transported components from the turbocharger system (Absolute Pressure Controller, Waste Gate Assembly, and the Pressure Relief Valve) to Hartzell Engine Technologies located in Montgomery, Alabama, for functional testing and examination. Further testing of components from the turbocharger system revealed no anomalies that would have precluded normal operation. The examination report is attached to the docket.

## Administrative Information

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| **Investigator In Charge (IIC):** | Jones, Patrick |
| **Additional Participating Persons:** | Clair Milton; Federal Aviation Administration; Van Nuys, CA<br>Henry Soderlund; Cessna Aircraft Company; Wichita, KS<br>Phillip Grice; Continental Motors, Inc.; Mobile, AL<br>Judson Hough; Hartzell Engine Tech; Montgomery, AL |
| **Original Publish Date:** | January 20, 2015 |
| **Last Revision Date:** | |
| **Investigation Class:** | Class |
| **Note:** | |
| **Investigation Docket:** | https://data.ntsb.gov/Docket?ProjectID=83711 |