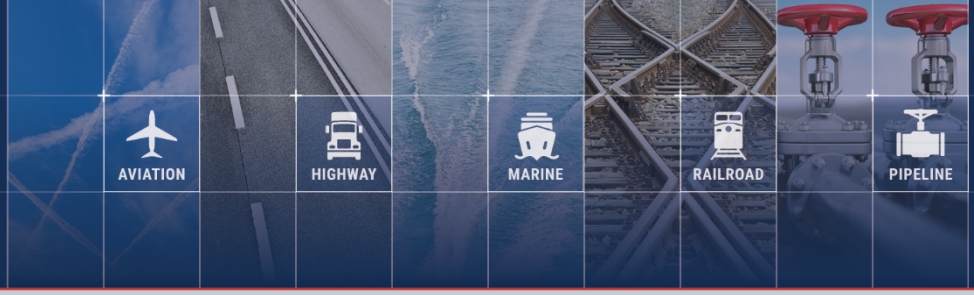


# Aviation Investigation Factual Report

| | | | |
|---|---|---|---|
| **Location:** | Los Angeles, California | **Accident Number:** | LAX03FA182 |
| **Date & Time:** | June 6, 2003, 15:55 Local | **Registration:** | N1856P |
| **Aircraft:** | Beech A36TC | **Aircraft Damage:** | Destroyed |
| **Defining Event:** | | **Injuries:** | 5 Fatal, 7 Serious |
| **Flight Conducted Under:** | Part 91: General aviation - Personal | | |

## Factual Information

HISTORY OF FLIGHT

On June 6, 2003, at 1555 Pacific daylight time, a Beech A36TC, N1856P, descended into a three-story apartment building in the Fairfax District of Los Angeles, California. The private pilot/owner operated the airplane under the provisions of 14 CFR Part 91. A post-impact fire destroyed the airplane. The pilot and three passengers sustained fatal injuries. One person in the apartment building sustained fatal injuries, and there were seven serious ground injuries. Day visual meteorological conditions prevailed, and no flight plan had been filed. The personal cross-country flight departed the Santa Monica Municipal Airport (SMO), Santa Monica, California, at 1545, for an intermediate stopover in Las Vegas, Nevada. The final destination of the flight was Sun Valley, Idaho. The wreckage was at 34 degrees 04.908 minutes north latitude and 118 degrees 21.453 minutes west longitude.

According to friends of the pilot, the purpose of the flight was to drop off his niece in Las Vegas and continue on to Sun Valley, where he was going to show his property to the other two passengers. When the airplane finally departed the pilot and passengers had been at the airport for at least 8 hours waiting for weather conditions to clear.

The National Transportation Safety Board investigator-in-charge (IIC) reviewed official transcripts from the Hawthorne Automated Flight Service Station (HHR AFSS). At 0803, the pilot telephoned HHR AFSS and requested weather information for a VFR flight from SMO to Sun Valley. He also made a special request for weather information for a departure out of the LA area towards the direction of Ontario. The HHR AFSS briefer provided the pilot weather information along the specified route as well as applicable AIRMETS. In pertinent part, the forcast given the pilot were calling for overcast cloud conditions in the Los Angeles basin with bases from 2,000 to 3,000 feet and tops of 4,000 feet. AIRMET SIERRA update 6, was in effect for IFR conditions and mountain obscuration, and predicted widespread ceilings and visibilities below 1,000 feet, with 3 miles visibilities in mist.

The pilot called HHR AFSS at 1125. The pilot again requested weather information for a VFR departure to the east. The FSS briefer provided weather along the route, as well as applicable AIRMETS. The pilot asked if the weather conditions would improve. The FSS briefer answered the question by stating that the weather would not get better, and VFR flight was not recommended.

At 1301, the pilot called for HHR AFSS a final time. He again asked for specific weather information for a route of flight from LA towards Ontario. He also asked if he could fly VFR under the layer of clouds towards Ontario, and "get up through it somewhere." The FSS briefer provided weather information for the route of flight and applicable AIRMETS. The pilot

inquired if he could legally fly, to which the briefer replied that yes, he was legal to fly, but that the weather conditions were marginal.

The IIC reviewed the recorded radio communications and official transcripts from SMO tower.

At 2240:08, N1856P contacted the SMO tower controller and requested taxi instructions. The pilot advised he had information "Romeo." The SMO controller instructed the pilot to taxi to runway 21.

Between the times of 2245:38 and 2245:44, the pilot advised SMO tower that he was ready for departure, and requested a right downwind departure. He then asked if the controller heard if the weather was clearing up to the east. The controller responded "no," and mentioned that Disneyland was cloudy. The pilot replied that he was going to try and get out of the basin via Ontario, and he would try and pop up through the "broken layers/broken stuff" in the area.

From 2245:53 to 2249:13, the SMO controller cleared N1856P for takeoff and approved the right downwind departure. The pilot advised that he would stay under 3,000 feet. The pilot requested a frequency change, and requested that the tower advise him when he could switch to Southern California Terminal Radar Control (SOCAL TRACON).

At 2249:54, the SMO controller advised N1856P of traffic on final, and the pilot reported, "I'm staying low till east of you."

At 2250:48, N1856P requested a frequency change, and SMO approved the change. The SMO controller issued traffic at the pilot's 12-o'clock position, 2 miles at 2,000 feet. N1856P advised that he did not have the traffic in sight, and would remain on the SMO frequency for a bit longer.

At 2251:31, the SMO controller issued the traffic again to N1856P, now at his 11-o'clock position, 1 mile at 2,000 feet, which the pilot reported in sight. The pilot advised that he was leaving the frequency, and the SMO controller acknowledged. Controllers received no further transmissions from the pilot.

SOCAL had no record of the pilot contacting them.

The IIC reviewed recorded radar data from SOCAL. The radar data indicated a mode C secondary 1200 (VFR) beacon code return in a location and time frame consistent with the accident airplane's departure from Santa Monica.

The recorded radar data indicated that the beacon return target headed in an easterly direction. The target maintained a mode C reported altitude of 2,200 feet mean sea level (msl) from 22:50:51.2 to 22:51:55.9. It then showed a climb to an altitude of 2,600 feet msl.

At 22:52:00.5, the mode C return indicated another climb to 3,100 feet msl. At 22:52:05.5, the

mode C return indicated the airplane was at 3,300 feet msl.

The last radar return at 22:52:19.4 indicated a mode C altitude of 2,400 feet msl.

## WITNESS INFORMATION

One witness stated that he observed the airplane flying straight and level. The nose of the airplane pitched up, and the airplane began to climb. The witness lost sight of the airplane as it entered the clouds. When he saw the airplane again, it was in a nose-down attitude spinning towards the ground. He lost sight of the airplane behind some trees and buildings.

A compilation of statements from witnesses indicated that they saw the airplane in a nose-down attitude spinning towards the ground. They also recalled hearing a high-pitch noise coming from the engine, and it was not sputtering. Other witnesses in the area stated that they heard the engine "cutting in and out."

The local high school football team was practicing at a field adjacent to the accident site. The coach heard a helicopter in the area and looked up. He then heard an airplane engine "start and stop." When he looked over he saw a small airplane "moving very fast vertically towards the ground… like an arrow," with the propeller pointed towards the ground. He then saw the airplane collide with an apartment building.

Another witness stated that he was in a nearby parking lot. He saw the accident airplane flying in an east-northeast direction about 2,000 to 3,000 feet, in a level direction. He heard the "engine pitch go up" as if the engine was "being powered up." He then saw the airplane do an inverted roll and continue "straight down." The witness indicated that he did not see any smoke, vapor, or debris emanating from the airplane.

A witness standing outside of his home, near the accident site, observed the airplane "inverted, rolling into a nose [dive]." He thought that the airplane was doing aerobatics. He stated that the airplane was in a vertical dive, and estimated that it completed at least three 360-degree turns.

## PERSONNEL INFORMATION

A review of Federal Aviation Administration (FAA) airman records revealed that the pilot held a private pilot certificate with a rating for airplane single engine land. The pilot did not hold an instrument rating.

A review of the FAA medical records revealed that the pilot held a third-class medical certificate that was issued on August 2, 2001. It had no limitations or waivers.

The FAA medical records indicated that at the time of his most recent medical examination, the pilot had a total time of 1,250 hours, with 150 hours logged in the last 6 months.

The pilot's personal logbook was at the accident site. The IIC reviewed the logbook. The pilot's logbook reflected that on March 25, 2002, total flight time was 1,089 hours. The IIC estimated that from March 29, 2002, to June 13, 2002, the pilot accrued 22 flight hours. The logbook contained entries for the period from June 15, 2002, until August 5, 2002, with corresponding flight times entered sporadically.

## AIRCRAFT INFORMATION

The airplane was a Beech A36TC, serial number EA-271. Airplane logbooks were not made available for review. The IIC reviewed work orders and logbook entries made by SkyBlueAir, an FAA certified repair station. An entry at the last annual inspection indicated a total airframe time of 2,888 hours. The last annual inspection was on November 26, 2002. The tachometer read 2,888 at the last inspection. The tachometer and the Hobbs hour meter were destroyed in the accident.

The engine was a Teledyne Continental Motors (TCM) TSIO-520-UB engine; serial number 809336-R. At the last annual inspection the recorded engine time was 486 hours.

The propeller was a three-bladed Hartzell Propeller model PHC-C3YR-1RF, serial number EE1303. At the last annual inspection the recorded propeller time was 486.0 hours.

Fueling records from American Flyers established that the airplane was last fueled on June 6, the day of the accident, with the addition of 69.1 gallons of 100-LL-octane aviation fuel.

## METEOROLOGICAL INFORMATION

A staff meteorologist for the Safety Board prepared a factual report, which included the following weather for the departure area, route of flight, and destination.

## LOS ANGELES, CALIFORNIA

The closest official weather observation station was the Los Angeles, USC Campus (KCQT), Automated Surface Observing System (ASOS), which was 5.4 nautical miles (nm) southeast of the accident site. The elevation of the weather observation station was 184 msl. A special aviation routine weather report (METAR) for KCQT was issued at 1518 PDT. It stated: overcast ceiling at 3,000 feet; visibility 10 miles; winds variable at 6 knots; temperature 70 degrees Fahrenheit; dew point 57 degrees Fahrenheit; altimeter 29.92 inHg.

At 1447, the METAR issued for KCQT indicated an overcast ceiling at 2,800 feet; visibility 10 miles; winds were variable at 6 knots; temperature 70 degrees Fahrenheit; dew point 57 degrees Fahrenheit; altimeter 29.92 inHg.

From 0647 to 1518, visibility ranged from 7 to 10 miles with overcast ceilings that ranged from

2,200 feet to 3,000 feet.

SANTA MONICA, CALIFORNIA

Santa Monica, California, elevation 189 feet msl, was 10 nm southwest from the accident site. METAR information issued for the Santa Monica Municipal Airport (KSMO) at 1551, indicated an overcast ceiling at 3,100 feet; visibility 10 miles; winds from 240-degrees at 10 knots; temperature 64 degrees Fahrenheit; dew point 57 degrees Fahrenheit; and altimeter 29.93 inHg.

At 1451, the METAR issued for KSMO indicated an overcast ceiling at 3,100 feet; visibility 10 miles; winds from 260 degrees at 9 knots; temperature 64 degrees Fahrenheit; dew point 57 degrees Fahrenheit; altimeter 29.93 inHg.

From 0651 to 1551, visibility was 10 miles with overcast ceilings that ranged from 2,200 feet to 3,100 feet.

BURBANK, CALIFORNIA

Burbank, California, elevation 778 feet msl, was 9 nm northwest from the accident site. METAR information issued for the Burbank-Glendale-Pasadena Airport (KBUR) at 1553, indicated scattered skies at 2,700 feet; visibility 10 miles; winds from 220 degrees at 6 knots; temperature 70 degrees Fahrenheit; dew point 59 degrees Fahrenheit; and altimeter 29.90 inHg.

At 1403, a special METAR for KBUR indicated a broken ceiling at 2,700 feet; visibility 7 miles; winds variable at 3 knots; temperature 64 degrees Fahrenheit; dew point 57 degrees Fahrenheit; altimeter 29.91 inHg.

EL MONTE, CALIFORNIA

El Monte, California, elevation 296 feet msl, was 15 nm east from the accident site. METAR information for the El Monte Airport (KEMT) at 1549, indicated broken skies at 2,000 feet, overcast ceiling at 3,000 feet; visibility 5 miles with haze; winds from 190 degrees at 5 knots; altimeter 29.92 inHg.

At 1447, the METAR issued for KEMT indicated broken skies at 1,900 feet, an overcast ceiling at 3,000 feet; visibility 5 miles with haze; winds from 220-degrees at 7 knots; altimeter 29.94 inHg.

An Area Forecast (FA) issued by the Aviation Weather Center in Kansas City, Missouri, on June 6 at 1145, and valid until June 7 at 0000, stated that: north of Los Angeles clouds at 2,000 to 2,500 feet, overcast tops at 4,000 feet. From Van Nuys to BUR clouds 2,500 feet to 3,000 feet, broken tops at 4,000 feet. The FA was amended at 1305 with no changes.

AIRMET SIERRA update 6, issued on June 6, at 1145, called for IFR conditions and mountain obscuration, and was valid until June 7 at 1800. The IFR section indicated: widespread ceilings and visibilities below 1,000 feet, with 3 miles visibilities in mist. The accident site was east of the IFR area. The mountain obscuration indicated: mountains obscured in clouds and mist. The accident site was in the area outlined by the mountain obscuration portion of the AIRMET.

## WRECKAGE AND IMPACT INFORMATION

The accident site was at 601 N. Spaulding in the Fairfax District of Los Angeles. The airplane collided with the roof of an apartment, and came to rest in a subterranean parking lot on the first floor. Approximately 25 percent of the airplane was recovered during a 2-day period.

## MEDICAL AND PATHOLOGICAL INFORMATION

The Los Angeles County Coroner completed an autopsy. The FAA Toxicology and Accident Research Laboratory performed toxicological testing of specimens of the pilot. The results of analysis of the specimens were negative for carbon monoxide and cyanide.

The report contained the following positive results for VOLATILES:

106 (mg/dL, mg/hg) ethanol detected in muscle
25 (mg/dL, mg/hg) ethanol detected in brain
1 (mg/dL, mg/hg) N-Butanol detected in muscle
5 (mg/dL, mg/hg) N-Propanol detected in muscle
2 (mg/dL, mg/hg) N-Propanol detected in brain

A note attached to the VOLATILES section indicated that the ethanol found might potentially be from postmortem formation and not from ingestion of ethanol.

The report contained the following positive results for DRUGS:

0.071(ug/ml, ug/g) cocaine detected in kidney
0.097 (ug/ml, ug/g) cocaine detected in liver
0.82 (ug/ml, ug/g) Benzoylecgonine detected in kidney
1.028 (ug/ml, ug/g) Benzoylecgonine detected in liver

## TESTS AND RESEARCH

The FAA, Beech, and Teledyne Continental Motors (TCM) were parties to the investigation. Investigators from the Safety Board and the parties examined the airframe and engine at Aircraft Recovery Services, Littlerock, California, on June 9, 2003.

External examination of the engine revealed that the engine had separated from the airframe and sustained thermal damage. The rocker box covers on the left side were broken. The ignition leads were broken and sustained thermal damage. Both magnetos remained in their respective locations; however, their retaining mounts were broken. The oil pickup screen was crushed, but clean of debris. The exhaust and induction systems, injector lines, oil cooler, and oil sump were broken and crushed. The turbocharger separated from the engine. The wastegate was in the open position. The compressor housing was crushed with the compressor blades jammed into the housing. No damage was noted to the turbine side of the turbocharger. The fuel pump separated from its mount, but remained attached to the firewall via hoses. The vacuum pump separated from its base. The pump chamber showed no mechanical anomalies.

Investigators manually rotated the crankshaft about 1 inch. They obtained continuity to the vacuum pump drive. The camshaft turned and the pistons moved. They noted no mechanical discrepancies with the fuel pump and drive gear. They manually rotated the fuel pump with no discrepancies.

Manual rotation of both magnetos produced spark at the ignition leads.

Investigators inspected the airframe with flight control continuity established by measuring flight control cables, and identifying the associated hardware. They noted no anomalies with the airframe inspection.

All three-propeller blades remained attached at the hub, but were not secured. The propeller assembly was thermally damaged. One propeller blade bowed about 25-degrees aft, with the tip bent forward. Leading edge damage and S-bending were present. Fire consumed the other two blades to midspan.

TCM conducted a teardown inspection at their facility in Mobile, Alabama, on October 30, 2003, under the supervision of the Safety Board. They bench tested both magnetos up to and including 2,500 rpm with no mechanical discrepancies encountered. They observed no discrepancies with the cylinders. According to the Champion Aviation-check-a-plug chart AV-27 the spark plugs appeared worn. The engine driven alternator exhibited impact damage and could not be rotated.

The fuel flow divider was clear and unrestricted. The fuel nozzles were bent. The throttle metering unit and control assembly were thermally damaged and unable to be tested.

External examination of the fuel pump revealed thermal damage. The mixture levers were bent and broken. The fuel pump manually rotated. A bench test of the fuel pump revealed a leak by the mixture shaft at the O-ring due to thermal damage. The fuel screen was clear of debris.

TCM noted no mechanical anomalies with the engine.

ADDITIONAL INFORMATION

Repeated attempts to obtain the airplane's logbooks unsuccessful.

The IIC released the wreckage to the owner's representative on January 29, 2004.

## Pilot Information

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|---|---|---|---|
| **Certificate:** | Private | **Age:** | 50,Male |
| **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:** | Yes |
| **Medical Certification:** | Class 3 Valid Medical--no waivers/lim. | **Last FAA Medical Exam:** | August 2, 2001 |
| **Occupational Pilot:** | UNK | **Last Flight Review or Equivalent:** | |
| **Flight Time:** | 1111 hours (Total, all aircraft) | | |

## Aircraft and Owner/Operator Information

| | | | |
|---|---|---|---|
| **Aircraft Make:** | Beech | **Registration:** | N1856P |
| **Model/Series:** | A36TC | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | | **Amateur Built:** | |
| **Airworthiness Certificate:** | Normal | **Serial Number:** | EA-271 |
| **Landing Gear Type:** | Retractable - Tricycle | **Seats:** | 4 |
| **Date/Type of Last Inspection:** | November 26, 2002 Annual | **Certified Max Gross Wt.:** | 3600 lbs |
| **Time Since Last Inspection:** | | **Engines:** | 1 Reciprocating |
| **Airframe Total Time:** | 2888 Hrs as of last inspection | **Engine Manufacturer:** | Teledyne Continental |
| **ELT:** | Installed, not activated | **Engine Model/Series:** | TSIO-520-UB |
| **Registered Owner:** | JEFFREY SIEGEL | **Rated Power:** | 300 Horsepower |
| **Operator:** | | **Operating Certificate(s) Held:** | None |

## Meteorological Information and Flight Plan

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|---|---|---|---|
| **Conditions at Accident Site:** | Visual (VMC) | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | SMO,189 ft msl | **Distance from Accident Site:** | 10 Nautical Miles |
| **Observation Time:** | 15:51 Local | **Direction from Accident Site:** | 210° |
| **Lowest Cloud Condition:** | Clear | **Visibility** | 10 miles |
| **Lowest Ceiling:** | Overcast / 3100 ft AGL | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 10 knots / 0 knots | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | 240° | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 29.93 inches Hg | **Temperature/Dew Point:** | 18°C / 14°C |
| **Precipitation and Obscuration:** | N/A - None - Haze | | |
| **Departure Point:** | SANTA MONICA, CA (SMO ) | **Type of Flight Plan Filed:** | None |
| **Destination:** | LAS VEGAS, NV (LAS ) | **Type of Clearance:** | VFR |
| **Departure Time:** | 15:45 Local | **Type of Airspace:** | Class C |

## Wreckage and Impact Information

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|---|---|---|---|
| **Crew Injuries:** | 1 Fatal | **Aircraft Damage:** | Destroyed |
| **Passenger Injuries:** | 3 Fatal | **Aircraft Fire:** | On-ground |
| **Ground Injuries:** | 1 Fatal, 7 Serious | **Aircraft Explosion:** | None |
| **Total Injuries:** | 5 Fatal, 7 Serious | **Latitude, Longitude:** | 34.069168,-118.351112 |

## Administrative Information

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|---|---|
| **Investigator In Charge (IIC):** | Cornejo, Tealeye |
| **Additional Participating Persons:** | Art Muzzicato; Federal Aviation Administration; El Segundo, CA<br>Scott Boyle; Teledyne Continental Motors; Arvada, CO<br>Paul Yoos; Raytheon - Beech; Wichita, KS |
| **Report Date:** | April 8, 2004 |
| **Last Revision Date:** | |
| **Investigation Class:** | Class |
| **Note:** | The NTSB traveled to the scene of this accident. |
| **Investigation Docket:** | https://data.ntsb.gov/Docket?ProjectID=57167 |