



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	KERNVILLE, CA	<b>Accident Number:</b>	LAX96FA200
<b>Date &amp; Time:</b>	05/19/1996, 1018 PDT	<b>Registration:</b>	N111AH
<b>Aircraft:</b>	Cessna 414	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

Recorded radar data showed the aircraft was flying in an area of mountainous terrain. Mountain tops in the area were reported to be obscured. Radar data showed that the aircraft first descended to a low altitude as it flew up a valley, then it climbed until impacting rising terrain about 7,200 feet msl. Wreckage was scattered over 300 feet up the mountain slope. About 32 miles southwest at Bakersfield (elevation 507 feet), the 1000 pdt weather was in part: 4500 feet scattered, 6000 feet overcast, visibility 20 miles, wind from 260 degrees at 10 knots. Nearby residents reported that the mountain was obscured in clouds at the time of the accident. During postmortem toxicology tests, a low level of ethanol (23 mg/dl) was detected in muscle fluid specimen, probably from post-mortem production. No ethanol was detected in brain fluid.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: VFR flight by the pilot into instrument meteorological conditions (IMC), and his failure to maintain sufficient altitude/clearance from rising/mountainous terrain. Factors relating to the accident were: the terrain and weather conditions.

## Findings

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Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: CRUISE

### Findings

1. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY
2. (F) WEATHER CONDITION - LOW CEILING
3. (F) WEATHER CONDITION - OBSCURATION
4. (C) VFR FLIGHT INTO IMC - CONTINUED - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: CRUISE

### Findings

5. (F) TERRAIN CONDITION - RISING
6. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

## Factual Information

### HISTORY OF FLIGHT

On May 19, 1996, at 1018 hours Pacific daylight time, a Cessna 414, N111AH, impacted mountainous terrain at the 7,000-foot elevation, 6 miles west of Kernville, California. The aircraft was destroyed and the commercial pilot was fatally injured. The flight had departed Meadows Field at Bakersfield, California, at 1000 and was destined for Kernville. No flight plan was filed for the personal flight, and the mountains near the accident site were reported obscured in clouds.

An acquaintance of the pilot and her husband, who are private pilots, have flown extensively with the pilot and were passengers on two prior segments of the trip. She reported that on Friday afternoon, May 17, they departed Apple Valley about 1600 and went to Fox Field at Lancaster to attend a Shrine event that evening. They left Lancaster about 2200 Friday night and flew to Bakersfield for another Shrine event on Saturday. On Sunday morning they were supposed to fly to the next Shrine event at Wofford Heights near Kernville, California; however, the pilot had checked the weather and, because of high winds and turbulence, he arranged to have his passengers driven to Wofford Heights. He told them that he would fly over and meet them there if the weather permitted him to land, otherwise would fly directly home to Apple Valley. When he did not show up at Wofford Heights they were not concerned thinking that he had over flown it. This acquaintance reported that the pilot was "quiet all weekend", and that Saturday night he reported not feeling well.

Another person, who was in contact with the pilot Friday evening, Saturday, and Sunday morning at the series of Shrine activities, reported that the pilot was not feeling well. On Saturday "he was not himself" and again expressed that he was not feeling well and, although conditions were cold, she reported that he was hot and perspiring, his complexion was "real white", and during the evening activities he was leaning back in his chair. She was sufficiently concerned to ask him if he was all right. When the others went out later in the evening, the pilot returned to his hotel room.

Three other people who had contact with the pilot over the weekend told the Safety Board that they did not observe any indications that the pilot was experiencing ill health. One of these people reported that the pilot acted as master of ceremonies for a social event Saturday for about 1.5 hours and appeared normal. This same person, who is a private pilot, accompanied the pilot to the airport Sunday morning and observed him depart on the accident flight. He reported that the pilot appeared fit for flight. Another person, who was working with the pilot on Saturday, said that he did not observe anything to indicate that the pilot was ill, and a third person, who had breakfast with the pilot Sunday morning before the accident flight, reported that he seemed fine.

The pilot's wife reported that she spoke with him by telephone Saturday evening and he told her he was tired, but made no other reference to any illness. His wife said he frequently worked until tired and that she was not alarmed.

The Federal Aviation Administration reported that there was no record of the pilot receiving a weather briefing before the flight.

One of the passengers, who was supposed to fly with the pilot to Kernville, reported that Sunday morning the pilot called the airport manager at Kernville and discussed the weather

with him. The pilot was told of a 35-knot direct crosswind to the sole runway, and that no aircraft had landed or departed the previous day due to the high winds. The pilot then made the arrangements for his passengers to be driven to the next stop.

A plot of recorded radar data, attached, shows the aircraft flying northeast bound after departure from Bakersfield. At 1007, the aircraft was about 8 miles northeast of Meadows Field climbing from 4,200 feet. At 1010, the aircraft is briefly level at 6,500 feet and then starts a descent. At 1013, the flight track makes a switchback turn while descending from 5,300 feet to 4,300 feet, after which the aircraft proceeds northeast bound into a mountain valley at 4,300 feet. At 1015, the aircraft started a climb from 4,400 feet and climbed to 7,200 feet. The last radar return was at 1018, at 7,200 feet, in the area of the accident site.

#### PERSONNEL INFORMATION

The pilot held a commercial pilot certificate with airplane ratings for single and multiengine land, single engine sea and instruments. The last entry in the pilot's logbook was dated May 17, 1996, for the flight from Lancaster to Bakersfield, and indicated total flying time of 1,629.6 hours. In the 90-day period before the accident, the pilot had flown the accident aircraft 20.0 hours, of which 3.8 were at night and 3.8 were instrument. In the 6-month period before the accident, the pilot had logged 5.1 hours of instrument time and three instrument approaches. A biennial flight review was conducted February 22, 1995, in the accident aircraft. His second-class airman's medical certificate was issued March 5, 1996.

#### AIRCRAFT INFORMATION

The aircraft maintenance logbooks were not located following the accident; however, records of an annual inspection performed on the aircraft on December 20, 1996, were located at an area repair station. The annual was performed at an hour meter reading of 2,844 hours. The flight hour meter in the aircraft wreckage indicated 2,876.5 hours.

Another private pilot, who owns and flies a Beech Baron aircraft, reported that he occupied the right front seat of the accident aircraft on the two previous flight legs from Apple Valley to Lancaster, and then to Bakersfield. He said that he observed no mechanical discrepancies with the aircraft.

#### METEOROLOGICAL CONDITIONS

At 1000, the weather at Bakersfield, California, 32 miles southwest of the accident site, was: 4,500 foot scattered clouds; 6,000 foot overcast ceiling; visibility 20 miles; temperature 67, dew point 47; wind from 290 degrees at 10 knots; and altimeter 30.08 inHg. At the same time, at Lancaster, California, a desert location 63 miles south southeast of the accident site, the weather was: 20,000 foot, thin scattered clouds; visibility 30 miles; temperature 62, dew point 38; wind from 260 degrees at 18 knots with gusts to 26 knots; and altimeter 30.02 inHg. A remark attached to the Lancaster report stated that clouds were topping the mountains west through north of the station.

The manager of the Kern Valley Airport reported that the mountains west of the airport near the accident site, were capped with clouds all day, but that blue sky was visible over Lake Isabella to the south. He also said that people who lived in Alta Sierra, near the accident site at 5,500 feet msl, told him that the clouds were "in the treetops" all day. At the airport there were strong westerly winds all day with gusts to 35 knots.

#### WRECKAGE AND IMPACT INFORMATION

The aircraft impacted the west slope of Black Mountain at approximately the 7,000-foot elevation in a rugged area of trees and large boulders. The latitude at the site is 35 degrees, 44.57 minutes north and longitude was 118 degrees, 31.62 minutes west (GPS). Radar data indicated that the aircraft's track prior to impact was approximately 090 degrees. The wreckage was scattered over 300 feet up the mountain slope. The slope in the wreckage field varies from 0 to 40 degree's upslope, with the average upslope approximately 30 degrees. The entire aircraft was identified at the accident site, except for two propeller blades from the right-hand engine which were not recovered. Because of precarious terrain, the ELT location was not accessible on the airplane at the scene, and was not present with the wreckage at the recovery yard. There was no pre or postcrash fire. A control continuity check was precluded due to the extent of impact damage.

The aircraft impacted and broke off two 12-inch diameter trees about 50 feet above the surface, and then continued ahead about 30 feet to where it impacted a 30-inch diameter tree. A large scar in this tree contained pieces of window Plexiglas. The aircraft's horizontal stabilizers were located near the base of this tree. Beyond this tree was a field of widely scattered wreckage debris over approximately 250 feet up the mountain slope and 100 feet left and right of the wreckage field centerline.

The left wing and engine nacelle were located 120 feet from first broken tree and 15 feet right of centerline. Ten feet further upslope, in a group of boulders, was the left propeller hub with one blade attached. Thirty feet left of centerline at the same distance was the left wing tip tank which exhibited hydraulic distortion. This location was horizontally level with the initial tree disturbances.

The complete fuselage, less wings and horizontal stabilizer, were found further upslope, 180 feet from the first broken tree. The left engine was also found at this location. The fuselage impacted the base of an 10-foot diameter rock and was destroyed back to the rear cockpit bulkhead.

The right wing and engine nacelle, less the tip tank, was found 15 feet right of centerline, 240 feet along the wreckage path. The right engine and two loose propeller blades were found on centerline, 290 feet along the path.

#### MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed by the Kern County Sheriff-Coroner and a toxicology analysis was performed by the FAA Civil Aeromedical Institute. The toxicology analysis was positive for ethanol (alcohol) in muscle fluid at a level of 23 mg/dl.

#### ADDITIONAL INFORMATION

The aircraft wreckage was released to Inflight Aviation Adjustment Group, Inc., on June 4, 1996.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	50, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land; Single-engine Sea	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	03/05/1996
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	1629 hours (Total, all aircraft), 213 hours (Total, this make and model), 1472 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N111AH
<b>Model/Series:</b>	414 414	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	414-0089
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	7
<b>Date/Type of Last Inspection:</b>	12/20/1996, Annual	<b>Certified Max Gross Wt.:</b>	6350 lbs
<b>Time Since Last Inspection:</b>	33 Hours	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	TSIO-520-J
<b>Registered Owner:</b>	DANIEL E. SMITH	<b>Rated Power:</b>	310 hp
<b>Operator:</b>	DANIEL E. SMITH	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	BFL, 507 ft msl	Distance from Accident Site:	32 Nautical Miles
Observation Time:	1000 PST	Direction from Accident Site:	220°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	0 Miles
Lowest Ceiling:	Obscured / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	290°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	19° C / 8° C
Precipitation and Obscuration:			
Departure Point:	BAKERSFIELD, CA (BFL)	Type of Flight Plan Filed:	None
Destination:	, CA (L05)	Type of Clearance:	None
Departure Time:	1000 PST	Type of Airspace:	Class G

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	RICHARD B PARKER	Report Date:	02/28/1997
Additional Participating Persons:	EUGENE SWEET; FRESNO, CA GORDON CAMPBELL; VAN NUYS, CA WILLIAM B WELCH; WICHITA, KS MICHAEL J GRIMES; MOBILE, AL		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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