



# Aviation Investigation Final Report

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<b>Location:</b>	TRUCKEE, California	<b>Accident Number:</b>	LAX93FA112
<b>Date &amp; Time:</b>	February 10, 1993, 08:15 Local	<b>Registration:</b>	N711LT
<b>Aircraft:</b>	CESSNA 414	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	4 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

A CESSNA 414 COLLIDED WITH A TREE IN A MOUNTAINOUS RESIDENTIAL AREA ABOUT 1 MILE FROM THE AIRPORT. INSTRUMENT METEOROLOGICAL CONDITIONS WITH 1/8 MILE VISIBILITY PREVAILED AND AN INSTRUMENT FLIGHT RULES (IFR) FLIGHT PLAN WAS FILED, BUT WAS NOT OPENED. THE AIRPLANE DEPARTED UNDER VISUAL FLIGHT RULES. THE ELEVATION OF THE COLLISION WAS ABOUT 100 FEET HIGHER THAN THE AIRPORT. THE STANDARD INSTRUMENT DEPARTURE PROCEDURES FOR THE AIRPORT PRESCRIBE TAKEOFF MINIMUMS OF 3,500 FOOT CEILING AND 3 MILES VISIBILITY. THE PROCEDURE REQUIRES A MINIMUM CLIMB RATE OF 425 FEET PER NAUTICAL MILE, A RIGHT TURN AFTER TAKEOFF TO INTERCEPT A 002 DEGREE RADIAL OFF A VOR, AND A CLIMB TO A SPECIFIED ALTITUDE. THE AIRMAN'S INFORMATION MANUAL RECOMMENDS THAT PILOTS CLIMB TO 400 FEET AGL BEFORE TURNING WHEN EXECUTING STANDARD INSTRUMENT DEPARTURE UNDER IFR. THE AIRPLANE WAS ALSO DETERMINED TO BE ABOUT 400 POUNDS OVER MAXIMUM GROSS WEIGHT AT THE TIME OF THE TAKEOFF. THE WRECKAGE EXAMINATION DISCLOSED NO EVIDENCE OF ANY PRE EXISTING AIRCRAFT OR ENGINE MALFUNCTIONS OR FAILURES.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE DECISION OF THE PILOT NOT TO FOLLOW INSTRUMENT FLIGHT RULE PROCEDURES DURING INSTRUMENT METEOROLOGICAL CONDITIONS AND POOR PREFLIGHT PLANNING WHICH RESULTED IN OPERATION OF THE AIRPLANE OVER THE MAXIMUM GROSS WEIGHT AND REDUCED PERFORMANCE. FACTORS IN THE ACCIDENT WERE THE FOGGY WEATHER CONDITIONS, AND HIGH TERRAIN.

## Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: TAKEOFF - INITIAL CLIMB

### Findings

1. OBJECT - TREE(S)
2. (F) WEATHER CONDITION - ICE FOG
3. (C) IFR PROCEDURE - NOT FOLLOWED - PILOT IN COMMAND
4. (C) PREFLIGHT PLANNING/PREPARATION - POOR - PILOT IN COMMAND
5. (F) AIRCRAFT WEIGHT AND BALANCE - EXCEEDED - PILOT IN COMMAND
6. (F) PROPER CLIMB RATE - NOT OBTAINED - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

### Findings

7. (F) TERRAIN CONDITION - HIGH TERRAIN
8. TERRAIN CONDITION - RESIDENTIAL AREA

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	51, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<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>	Yes
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim	<b>Last FAA Medical Exam:</b>	June 26, 1991
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	387 hours (Total, all aircraft), 230 hours (Pilot In Command, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N711LT
<b>Model/Series:</b>	414 414	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	414-0630
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	January 2, 2000 Annual	<b>Certified Max Gross Wt.:</b>	6350 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	TSIO-520-J
<b>Registered Owner:</b>	MEANS, GARY L.	<b>Rated Power:</b>	310 Horsepower
<b>Operator:</b>	MEANS, GARY L.	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument (IMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	TRK ,5900 ft msl	<b>Distance from Accident Site:</b>	2 Nautical Miles
<b>Observation Time:</b>	08:25 Local	<b>Direction from Accident Site:</b>	110°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	-7°C / -7°C
<b>Precipitation and Obscuration:</b>	N/A - None - Fog		
<b>Departure Point:</b>	(TRK )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	FARMINGTON , NM (FMN )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	08:15 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	3 Fatal	<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	On-ground
<b>Total Injuries:</b>	4 Fatal	<b>Latitude, Longitude:</b>	

## Administrative Information

**Investigator In Charge (IIC):** Wilcox, Thomas

**Additional Participating Persons:** DICK JONES; RENO , NV  
WILLIAM B WELCH; WICHITA , KS  
R.S. SCOTT BOYLE; MOBILE , AL  
STEVEN C MACON; PHOENIX , AZ

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**Last Revision Date:**

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

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=27823>

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