



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	Big Bear City, CA	<b>Accident Number:</b>	LAX04GA051
<b>Date &amp; Time:</b>	11/21/2003, 2100 PDT	<b>Registration:</b>	N7292W
<b>Aircraft:</b>	Piper PA-28-180	<b>Injuries:</b>	2 Fatal
<b>Flight Conducted Under:</b>	Public Aircraft		

## Analysis

While flying on a moonless night in mountainous terrain to an airport in a mountain valley, the aircraft encountered mountain wave conditions and downdrafts in the 500 to 1,000 foot-per-minute range, which resulted in a collision with mountainous terrain. The two-man aircrew participated in a Civil Air Patrol (CAP) search and rescue training exercise (SAREX) being held over the weekend, and had flown from the mountain valley airport along the accident route of flight that morning. The CAP group was informed that high winds were expected the following day and flying operations might be cancelled. The aircrew decided to return to their home base in a small mountain town (elev: 6,748 feet) instead of staying at the SAREX base for the night. The aircrew had commented to the CAP Incident Commander that they had experienced some moderate turbulence on the flight out of the mountains severe enough to have their heads hit the cockpit canopy and toss a cell phone out of the passenger's shirt pocket. They departed the SAREX base at night and there was no moon illumination at the time they approached the 8,000-9,000 foot mountain ridgeline. The airplane approached the mountains at 10,300 feet, and shortly thereafter entered a mountain wave, and experienced turbulence and downdrafts. Radar data showed that the airplane steadily descended through 8,000 feet during the last 4 minutes of the flight. The airplane impacted the side of the mountain at the 6,970 foot elevation with low energy, in a very steep left turn; left wing down. Analysis of the weather conditions established that mountain wave conditions existed at 9,000 feet with a wavelength of 2.79 miles, amplitude of 717 feet, and a maximum vertical velocity of 1,185 fpm. This wave had a potential for moderate to severe turbulence. There is no record that the pilot requested or received a weather briefing. At the cruise altitude of the airplane, the performance charts show that it had a maximum climb capability of about 400 feet per minute.

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilots inadequate preflight planning and intentional flight into known adverse weather conditions. Contributing to this accident was the fact that it was a dark night with no moon illumination.

## Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER  
Phase of Operation: CRUISE

### Findings

1. LIGHT CONDITION - DARK NIGHT
2. (F) WEATHER CONDITION - MOUNTAIN WAVE
3. (F) WEATHER CONDITION - DOWNDRAFT

4. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
5. (C) FLIGHT INTO KNOWN ADVERSE WEATHER - PERFORMED - PILOT IN COMMAND
6. DESCENT - ENCOUNTERED

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 Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER  
 Phase of Operation: MANEUVERING - TURN TO REVERSE DIRECTION

**Findings**

7. AIRCRAFT PERFORMANCE, CLIMB CAPABILITY - EXCEEDED
8. CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
9. TERRAIN CONDITION - MOUNTAINOUS/HILLY

**Pilot Information**

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	68
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>		<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane
<b>Flight Time:</b>	2640 hours (Total, all aircraft), 102 hours (Total, this make and model), 11 hours (Last 90 days, all aircraft), 0 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

**Other Flight Crew Information**

<b>Certificate:</b>		<b>Age:</b>	
<b>Airplane Rating(s):</b>		<b>Instrument Rating(s):</b>	
<b>Other Aircraft Rating(s):</b>		<b>Instructor Rating(s):</b>	
<b>Flight Time:</b>			

**Aircraft and Owner/Operator Information**

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N7292W
<b>Model/Series:</b>	PA-28-180	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	CIVIL AIR PATROL	<b>Engine Manufacturer:</b>	Lycoming
<b>Operating Certificate(s) Held:</b>	None	<b>Engine Model/Series:</b>	O-360-A36A
<b>Flight Conducted Under:</b>	Public Aircraft		

**Meteorological Information and Flight Plan**

<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Condition of Light:</b>	Night/Dark
<b>Observation Facility, Elevation:</b>	L35, 6748 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Lowest Ceiling:</b>	None	<b>Wind Speed/Gusts, Direction:</b>	3 knots / 12 knots, 180°
<b>Temperature:</b>	3°C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Palm Springs, CA (PSP)	<b>Destination:</b>	Big Bear City, CA (L35)

## Airport Information

Airport:	Big Bear (L35)	Runway Surface Type:	Unknown
Runway Used:	NA	Runway Surface Condition:	Unknown
Runway Length/Width:			

## Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	
Latitude, Longitude:	34.257778, -116.703333		

## Administrative Information

Investigator In Charge (IIC):	Van S McKenny	Adopted Date:	12/28/2004
Investigation Docket:	NTSB accident and incident docket 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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