



Aviation Investigation Final Report

Location:	BIG BEAR, California	Accident Number:	LAX92LA360
Date & Time:	August 22, 1992, 17:00 Local	Registration:	N20BN
Aircraft:	SOCATA TB-10	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	4 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

IN HIS WRITTEN STATEMENT THE PILOT SAID THAT AFTER DEPARTURE ON RUNWAY 25 HE TURNED IN A SOUTHWEST DIRECTION TO CROSS A RIDGE LINE AT AN ALTITUDE OF ABOUT 7,900 FEET MSL. HE SAID THAT NEAR THE RIDGE LINE THEY ENCOUNTERED A SUDDEN DOWN DRAFT AND HE COULD NOT ARREST THE DESCENT PRIOR TO COLLIDING WITH TREES. AN EYE WITNESS TO THE CRASH SAID THE AIRCRAFT NEVER ACHIEVED MORE THAN ABOUT 300 FEET AGL AT ANY TIME AFTER TAKEOFF. THE WITNESS OBSERVED THE AIRCRAFT IN A NOSE HIGH ATTITUDE BEGIN A RIGHT TURN, THEN IT DESCENDED BELOW THE TOPS OF SOME TREES AND OUT OF VIEW. TWO OTHER WITNESSES REPORTED HEARING THE SOUNDS OF A LOUD AND STRONG ENGINE UNTIL THE SOUNDS OF TREE IMPACTS WERE HEARD. THE AIRPORT IS IN A MOUNTAIN VALLEY AT AN ELEVATION OF 6,750 FEET. MOUNTAIN RIDGES AND PEAKS RISE AN AVERAGE OF 2,000 FEET ABOVE THE VALLEY FLOOR ON ALL SIDES OF THE AIRPORT. THE AIRPORT IS AT THE EAST END OF THE VALLEY AND A LARGE LAKE. A DAM IS AT THE WEST END OF THE VALLEY AT A 'V' NOTCH IN THE SURROUNDING MOUNTAINS. WEST OF THE DAM THE TERRAIN DROPS OFF RAPIDLY TO THE GREATER LOS ANGELES BASIN. THE DENSITY ALTITUDE WAS CALCULATED TO BE ABOUT 9,400 FEET. OTHER PILOTS WHO DEPARTED FROM THE AIRPORT REPORTED THAT TURBULENCE EXISTED OVER THE VALLEY NEAR THE SURROUNDING RIDGES.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOTS DECISION TO ATTEMPT CROSSING A RIDGE LINE AT AN ALTITUDE INSUFFICIENT TO ALLOW FOR CONTINGENCY ACTIONS IN THE EVENT OF AN ENCOUNTER WITH DOWN DRAFTS OR TURBULENCE. FACTORS IN THE ACCIDENT WERE THE HIGH DENSITY ALTITUDE AND THE FLIGHT'S ENCOUNTER WITH A DOWN DRAFT.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: CLIMB - TO CRUISE

Findings

1. TERRAIN CONDITION - MOUNTAINOUS/HILLY
2. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
3. (F) WEATHER CONDITION - DOWNDRAFT
4. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
5. (C) ALTITUDE - INADEQUATE - PILOT IN COMMAND
6. COMPENSATION FOR WIND CONDITIONS - NOT POSSIBLE
7. DESCENT - NOT CORRECTED - PILOT IN COMMAND
8. OBJECT - TREE(S)

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Private	Age:	32, 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:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	August 13, 1991
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	213 hours (Total, all aircraft), 50 hours (Total, this make and model), 151 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SOCATA	Registration:	N20BN
Model/Series:	TB-10 TB-10	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	494
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	May 8, 1992 Annual	Certified Max Gross Wt.:	2535 lbs
Time Since Last Inspection:	39 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1336 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	O-360-A1AD
Registered Owner:	CURTIS H. THOMAS	Rated Power:	180 Horsepower
Operator:	GENERAL AVIATION COMPANY	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	27°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(L35)	Type of Flight Plan Filed:	None
Destination:	FULLERTON , CA (FUL)	Type of Clearance:	None
Departure Time:	16:50 Local	Type of Airspace:	Class G

Airport Information

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

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	3 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 Minor	Latitude, Longitude:	34.25962,-116.840095(est)

Administrative Information

Investigator In Charge (IIC):	Rich, Jeff
Additional Participating Persons:	MORGAN RODNEY; RIVERSIDE , CA
Original Publish Date:	September 14, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=27740

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).