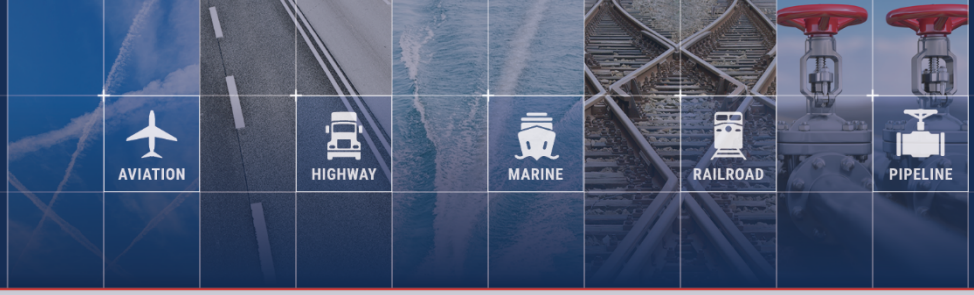

Aviation Investigation Final Report

Location:	BIG BEAR CITY, California	**Accident Number:**	LAX93FA141
Date & Time:	March 7, 1993, 15:02 Local	**Registration:**	N2221G
Aircraft:	PIPER PA-32RT-300	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	2 Fatal, 4 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

DURING TAKEOFF, THE AIRPLANE WAS HEARD TO REDUCE POWER AT MID-FIELD, THEN FULL POWER WAS APPLIED. IT CLIMBED TO ABOUT 6 FT, SETTLED BACK ONTO THE RWY, CLIMBED AGAIN TO 6 FT, SETTLED AGAIN, THEN CONTINUED ITS TAKEOFF ROLL USING MOST OF THE 5,850-FT RWY UNTIL REACHING THE ARPT PERIMETER FENCE. IT CLIMBED TO ABOUT 20 FT AGL, THEN SETTLED INTO A HOUSE. THE DENSITY ALTITUDE WAS 7,800 FT. ENGINE EXAMINATION REVEALED THAT THE MAGNETO-TO-ENGINE TIMING WAS OFF, THE MAGNETO INTERNAL TIMING WAS OFF ON BOTH SETS OF POINTS, AND BOTH POINT GAPS WERE OFF. IN ADDITION, 5 OF THE 12 SPARK PLUGS WERE FOUND TO HAVE WORN ELECTRODES. ONE SPARK PLUG WAS NOT APPROVED FOR THE ENGINE. A 100-HR INSPECTION HAD BEEN COMPLETED ON 2/2/93, ABOUT 17 FLIGHT-HOURS BEFORE THE ACCIDENT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A PARTIAL LOSS OF TAKEOFF POWER DUE TO INADEQUATE MAINTENANCE AND INSPECTION WHICH FAILED TO DETECT MAGNETO AND SPARK PLUG DEFICIENCIES. IN ADDITION, THE PILOT FAILED TO ABORT THE TAKEOFF AFTER TWO UNSUCCESSFUL ATTEMPTS TO GET AIRBORNE. FACTORS WHICH CONTRIBUTED TO THE ACCIDENT WERE: THE HIGH DENSITY ALTITUDE AND THE PILOT'S LACK OF PILOTING EXPERIENCE.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - ROLL/RUN

Findings
1. (C) IGNITION SYSTEM,MAGNETO - INCORRECT
2. (C) IGNITION SYSTEM,IGNITION POINTS - INCORRECT
3. (C) IGNITION SYSTEM,SPARK PLUG - WORN
4. (C) IGNITION SYSTEM,SPARK PLUG - INCORRECT
5. (C) MAINTENANCE,100-HOUR INSPECTION - INADEQUATE - COMPANY MAINTENANCE PERSONNEL

Occurrence #2: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
6. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
7. (C) ABORTED TAKEOFF - NOT PERFORMED - PILOT IN COMMAND
8. (F) LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
9. OBJECT - RESIDENCE

Factual Information

Pilot Information

Certificate:	Private	**Age:**	29,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Unknown
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--w/ waivers/lim	**Last FAA Medical Exam:**	October 4, 1991
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	85 hours (Total, all aircraft), 7 hours (Total, this make and model), 50 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	**Registration:**	N2221G
Model/Series:	PA-32RT-300 PA-32RT-30	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	32R-7985049
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	February 2, 1993 100 hour	**Certified Max Gross Wt.:**	3600 lbs
Time Since Last Inspection:	17 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3083 Hrs	**Engine Manufacturer:**	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	IO-540-K1G5D
Registered Owner:	EFM VENTURE GROUP, INC.	**Rated Power:**	300 Horsepower
Operator:	CALIFORNIA WINGS	**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:	L35 ,6748 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	15:00 Local	**Direction from Accident Site:**	75°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	70°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	14°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(L35)	**Type of Flight Plan Filed:**	VFR
Destination:	SAN DIEGO , CA (MYF)	**Type of Clearance:**	None
Departure Time:	15:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	BIG BEAR CITY L35	**Runway Surface Type:**	Asphalt
Airport Elevation:	6748 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	8	**IFR Approach:**	None
Runway Length/Width:	5850 ft / 75 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal, 4 Serious	**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Fatal, 4 Serious	**Latitude, Longitude:**	34.259826,-116.840103(est)

Administrative Information

Investigator In Charge (IIC):	Wilcox, Thomas
Additional Participating Persons:	DAN ALLISON; RIVERSIDE , CA CHARLES LITTLE; WILLIAMSPORT , PA
Original Publish Date:	August 18, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=27826