



Aviation Investigation Final Report

Location:	PRESCOTT, Arizona	Accident Number:	LAX89LA151
Date & Time:	April 8, 1989, 11:00 Local	Registration:	N9705M
Aircraft:	MOONEY M20F	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

THE AIRPORT ELEVATION WAS 5,042 FEET, AND THE DENSITY ALTITUDE WAS 7,600 FEET. THE FLIGHT INSTRUCTOR STATED THEY HAD ABORTED THE FIRST TAKEOFF ATTEMPT BECAUSE THE ENGINE RPM WAS INSUFFICIENT FOR TAKEOFF. ON THE NEXT ATTEMPT, THE AIRPLANE BECAME AIRBORNE AND FLEW IN GROUND EFFECT. THE ENGINE RPM WAS INSUFFICIENT TO SUSTAIN FLIGHT. THE FLIGHT INSTRUCTOR TOOK CONTROL AND BANKED THE AIRPLANE TO AVOID POWERLINES. THE AIRPLANE DESCENDED INTO AN OPEN FIELD. THE CFI DID NOT LEAN THE MIXTURE FOR TAKEOFF. HE SAID HE BELIEVED THE CARBURETOR HAD AN AUTO-LEAN FEATURE AND HE DID NOT HAVE TO LEAN THE MIXTURE. THE IO-360 ENGINE IS FUEL INJECTED AND DOES NOT HAVE AUTO-LEAN. POST ACCIDENT ENGINE RUN REVEALED THE ENGINE WAS CAPABLE OF NORMAL OPERATION WITH FUEL MIXTURE PROPERLY SET.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE FAILURE OF THE PLT TO LEAN THE FUEL MIXTURE FOR THE HIGH DENSITY ALTITUDE. CONTRIBUTING TO THE ACCIDENT WAS THE CFI'S LACK OF FAMILIARITY WITH THE AIRPLANE AND ENGINE OPERATING PROCEDURES.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
2. (C) PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND(CFI)
3. (C) MIXTURE - IMPROPER USE OF - PILOT IN COMMAND(CFI)
4. (F) LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND(CFI)

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	23, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	August 1, 1988
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	1450 hours (Total, all aircraft), 2 hours (Total, this make and model), 1360 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MOONEY	Registration:	N9705M
Model/Series:	M20F M20F	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	670265
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	April 1, 1989 Annual	Certified Max Gross Wt.:	2740 lbs
Time Since Last Inspection:	2 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3323 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed	Engine Model/Series:	IO-360-A1A
Registered Owner:	LEYVA, JOSEPH B	Rated Power:	200 Horsepower
Operator:	JOSEPH LEYVA	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:	PRC ,5000 ft msl	Distance from Accident Site:	
Observation Time:	11:03 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	65 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	270°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	28°C / -7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(PRC)	Type of Flight Plan Filed:	None
Destination:	WINSLOW , AZ (INW)	Type of Clearance:	None
Departure Time:	10:57 Local	Type of Airspace:	Class G

Airport Information

Airport:	ERNEST A LOVE FIELD PRC	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:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 None	Latitude, Longitude:	34.619522,-112.4207(est)

Administrative Information

Investigator In Charge (IIC):	Isbell, Shelby
Additional Participating Persons:	DAVID VAUGHN; PHOENIX , AZ
Original Publish Date:	August 2, 1990
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=26372

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