



Aviation Investigation Final Report

Location:	LAS VEGAS, Nevada	Accident Number:	LAX94LA275
Date & Time:	July 5, 1994, 09:00 Local	Registration:	N6959U
Aircraft:	MOONEY M20C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT ATTEMPTED A TAKEOFF FROM A 2100 FOOT GRAVEL RUNWAY WITH A DENSITY ALTITUDE OF ABOUT 4200 FEET AND A CROSS WIND FROM THE LEFT AT 12 KNOTS. THE AIRCRAFT DID NOT GET AIRBORNE AND COLLIDED WITH A DIRT EMBANKMENT PAST THE DEPARTURE END OF THE RUNWAY. THE PILOT REPORTED NO MECHANICAL PROBLEMS WITH THE AIRCRAFT WHICH HAD JUST COME OUT OF AN ANNUAL INSPECTION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE FAILURE OF THE PILOT TO OBTAIN THE PROPER TAKEOFF SPEED. FACTORS ARE THE HIGH DENSITY ALTITUDE AND THE CROSSWIND.

Findings

Occurrence #1: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. TERRAIN CONDITION - LOOSE GRAVEL/SANDY
2. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
3. (F) WEATHER CONDITION - CROSSWIND
4. (C) PREFLIGHT PLANNING/PREPARATION - IMPROPER - PILOT IN COMMAND

5. (C) AIRSPEED(VLOF) - NOT ATTAINED - PILOT IN COMMAND
6. TERRAIN CONDITION - DIRT BANK/RISING EMBANKMENT

Factual Information

On July 5, 1994, at 0900 hours Pacific daylight time , a Mooney M20C, N6959U, collided with terrain during a takeoff attempt at Voc Tech Airport at Las Vegas, Nevada. The aircraft was operated by the pilot/owner, and was involved in a personal flight. The aircraft was substantially damaged. The certificated commercial pilot, the sole occupant, sustained serious injuries. Visual meteorological conditions prevailed at the time and no flight plan was filed.

According to the Federal Aviation Administration, the airplane was signed off for its annual inspection on the day of the accident. Witnesses reported seeing the aircraft hop along the runway but did not get airborne. The aircraft departed the end of a 2100 foot long gravel runway, which is oriented east to west.

The reported weather conditions were clear with a temperature of 87 degrees fahrenheit, and winds from 170 degrees at 12 knots. The air traffic controller advised the pilot that the departure would be at his own risk, and the east boundary winds at McCarran were calm.

The pilot reported no mechanical problems.

Pilot Information

Certificate:	Airline transport; Flight engineer	Age:	42, Male
Airplane Rating(s):	Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	June 1, 1994
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	12015 hours (Total, all aircraft), 240 hours (Total, this make and model), 4207 hours (Pilot In Command, all aircraft), 40 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MOONEY	Registration:	N6959U
Model/Series:	M20C M20C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2710
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	July 5, 1994 Annual	Certified Max Gross Wt.:	2575 lbs
Time Since Last Inspection:	1 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3300 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	O-360-A1D
Registered Owner:	CASSEL, JOHN F.	Rated Power:	180 Horsepower
Operator:	CASSEL, JOHN F.	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:	LAS	Distance from Accident Site:	4 Nautical Miles
Observation Time:	15:50 Local	Direction from Accident Site:	225°
Lowest Cloud Condition:	Clear	Visibility	50 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	31°C / 1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	09:00 Local	Type of Airspace:	Class B;Class D

Airport Information

Airport:	VOC TECH NV26	Runway Surface Type:	Gravel
Airport Elevation:	1931 ft msl	Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	
Runway Length/Width:	2100 ft / 100 ft	VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Mucho, Gary
Additional Participating Persons:	DALE NELSON; LAS VEGAS , NV
Original Publish Date:	November 14, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=28790

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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](#).