



# Aviation Investigation Final Report

<b>Location:</b>	Colo Springs, Colorado	<b>Accident Number:</b>	DEN03LA047
<b>Date &amp; Time:</b>	March 9, 2003, 13:46 Local	<b>Registration:</b>	N9313V
<b>Aircraft:</b>	Mooney M20C	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 Minor, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

According to the pilot, the take-off roll was "right on centerline." He rotated after attaining approximately 80 mph, retracted the landing gear, and accelerated to "90 mph." After climbing "approximately 50 to 100 feet in the air," he experienced "a gust and a strong downdraft" and the airplane would not climb. He said the gust and strong downdraft forced the airplane lower and to the right. He lowered the nose of the airplane in an attempt to gain airspeed. All instruments were in the "green" and the last indicated airspeed was 80-85 mph. The airplane impacted the ground approximately 170 feet right of the centerline, and 575 feet beyond the runway's threshold. The airplane slid approximately 140 additional feet. The engine mount was displaced, the firewall was torn, and the fuselage above the windshield was buckled.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's failure to maintain aircraft control during initial climb which resulted in impact with terrain. Contributing factors include the downdraft, crosswind and gusty wind conditions.

### Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: TAKEOFF - INITIAL CLIMB

#### Findings

1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

2. CLIMB - NOT SUCCESSFUL - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

3. (F) WEATHER CONDITION - DOWNDRAFT

4. (F) WEATHER CONDITION - CROSSWIND

5. (F) WEATHER CONDITION - GUSTS

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

6. TERRAIN CONDITION - OPEN FIELD

7. TERRAIN CONDITION - GRASS

## Factual Information

On March 9, 2003, at 1346 mountain standard time, a Mooney M20C, N9313V, operated by the pilot, was substantially damaged when it impacted terrain during initial climb from Colorado Springs Municipal Airport (COS), Colorado Springs, Colorado. The airline transport pilot and front seat passenger sustained minor injuries, and the rear seat passenger was not injured. Visual meteorological conditions prevailed. An instrument flight plan was filed for this cross-country flight being conducted under Title 14 CFR Part 91. The flight was originating at the time of the accident.

According to the pilot, the take-off roll on runway 35L was "right on centerline." He stated that he rotated after attaining approximately 80 mph, retracted the landing gear, and accelerated to "90 mph." After climbing "approximately 50 to 100 feet in the air," he experienced "a gust and a strong downdraft" and the airplane would not climb. He said the "gust and strong downdraft" forced the airplane "lower and to the right." He lowered the nose of the airplane in an attempt to gain airspeed. All instruments were in the "green" and the last indicated airspeed was 80-85 mph. The airplane impacted the ground approximately 170 feet right of the centerline, and 575 feet beyond the runway's threshold. The airplane slid approximately 140 additional feet. The engine mount was displaced, the firewall was torn, and the fuselage above the windshield was buckled.

At 1354, the reported weather at Colorado Springs Municipal Airport was, wind, 290 degrees at 20 knots, gusting to 26 knots; visibility, 10 statute miles; sky condition, clear; temperature, 17 degrees C.; dew point, minus 9 degrees C.; altimeter setting, 30.04. Remarks; peak wind at 1336 was, 300 degrees at 27 knots.

### Pilot Information

<b>Certificate:</b>	Airline transport; Military	<b>Age:</b>	59, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	November 25, 2002
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	May 16, 2002
<b>Flight Time:</b>	5703 hours (Total, all aircraft), 283 hours (Total, this make and model), 3951 hours (Pilot In Command, all aircraft), 66 hours (Last 90 days, all aircraft), 14 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Mooney	<b>Registration:</b>	N9313V
<b>Model/Series:</b>	M20C	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; Restricted (Special)	<b>Serial Number:</b>	690091
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	May 2, 2002 Annual	<b>Certified Max Gross Wt.:</b>	2575 lbs
<b>Time Since Last Inspection:</b>	76 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3399 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-360-AID
<b>Registered Owner:</b>	Lewis A. Hartwell, JR.	<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	COS,6184 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	13:54 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	20 knots / 26 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	290°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.04 inches Hg	<b>Temperature/Dew Point:</b>	17°C / -10°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Colorado Spring, CO (COS )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Enid, OK (WDG )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	13:45 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	City of Colo Sprgs Municipal COS	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	6184 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	35L	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	11021 ft / 150 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 Minor, 1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Minor, 1 None	<b>Latitude, Longitude:</b>	38.80915,-104.710586(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Mayer, Brannon
<b>Additional Participating Persons:</b>	Gary Dupertuis; Denver FSDO; Denver, CO
<b>Original Publish Date:</b>	November 25, 2003
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=56608">https://data.ntsb.gov/Docket?ProjectID=56608</a>

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