



National Transportation Safety Board Aviation Accident Final Report

Location:	Englewood, CO	Accident Number:	DEN03LA117
Date & Time:	07/01/2003, 1317 MDT	Registration:	N2686W
Aircraft:	Mooney M20C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot said he received instructions to land on runway 28. The pilot set up for a right downwind, base turn, and final approach. The pilot reported, "On final, I had to crab about 20 degrees to the right and lineup for touchdown." The pilot said that in the flare, he transitioned to a slip, and touched down. The pilot said that just after touchdown, a wind gust picked his airplane up about 10 feet off the runway and rolled the airplane into a 20 degree left bank. The pilot said he attempted to go around, but was unable to level the wings or climb. The pilot said the wind blew his airplane off of the runway. About 35 feet left of the runway's edge, the airplane's left wing struck the terrain and the airplane "cartwheeled." An examination of the airplane revealed no anomalies. Reported winds at the time of the accident were 060 degrees at 6 knots, gusting to 30 knots. A peak wind of 360 degrees at 30 knots was recorded 1 minute after the accident time. Density altitude was 9,152 feet msl.

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 landing. Factors contributing to the accident were the gusting crosswinds and the high density altitude.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (F) WEATHER CONDITION - CROSSWIND
3. (F) WEATHER CONDITION - GUSTS
4. (F) WEATHER CONDITION - HIGH DENSITY ALTITUDE
5. GO-AROUND - NOT SUCCESSFUL - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: GO-AROUND (VFR)

Findings

6. TERRAIN CONDITION - GROUND

Factual Information

On July 1, 2003, at 1317 mountain daylight time, a Mooney M20C, N2686W, piloted by a private pilot, was substantially damaged when it impacted terrain during landing at Centennial Airport (APA), Englewood, Colorado. Visual meteorological conditions prevailed at the time of the accident. The personal flight was being conducted on a visual flight rules flight plan under the provisions of Title 14 CFR Part 91. The pilot reported no injuries. The cross-country flight originated at Mason City, Iowa, at 0930 central daylight time, and was en route to Denver, Colorado.

In his written statement, the pilot received instructions from APA air traffic control tower to land on runway 28 (4,903 feet by 62 feet, dry asphalt). The pilot set up for a right downwind, base turn, and final approach. The pilot reported, "On final, I had to crab about 20 degrees to the right and lineup for touchdown." The pilot reported that in the flare, he transitioned to a slip and touched down. The pilot said, "Shortly after touchdown, about 2 seconds, a wind gust picked me up about 10 feet off the runway and put me in about a 20 degree bank to the left." The pilot said he attempted to go around, but was unable to level the wings or climb. The pilot said the wind blew his airplane off of the runway. About 35 feet left of the runway's edge, the airplane's left wing struck the terrain and the airplane "cartwheeled."

An examination of the airplane showed the right main landing gear pushed upward through the wing. The left wing was bent upward and aft, starting at the flap and proceeding outboard to the tip. The bottom fuselage was buckled, starting at the trailing edges of the flaps and proceeding aft to the empennage. The horizontal stabilizer was bent and buckled aft. An examination of the engine, engine controls and other airplane's systems revealed no anomalies.

Weather at the time of the accident was reported as sky conditions scattered 9,000 feet, scattered 12,000 feet, broken 18,000 feet, visibility 10 statute miles, temperature 90 degrees Fahrenheit (F), dew point 32 degrees F, altimeter 30.06 inches of Mercury, winds 060 degrees at 6 knots, gusting to 30 knots. Remarks: peak wind recorded at 1318, was 360 degrees at 30 knots, virga distant southeast. Density altitude was 9,153 feet mean sea level.

Pilot Information

Certificate:	Private	Age:	46, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	08/27/2002
Occupational Pilot:		Last Flight Review or Equivalent:	06/13/2002
Flight Time:	254 hours (Total, all aircraft), 95 hours (Total, this make and model), 139 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	Registration:	N2686W
Model/Series:	M20C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	3321
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	06/01/2003, Annual	Certified Max Gross Wt.:	2575 lbs
Time Since Last Inspection:	11.6 Hours	Engines:	1 Reciprocating
Airframe Total Time:	3336.9 Hours at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-360-A
Registered Owner:	James Brian Voss	Rated Power:	180 hp
Operator:	James Brian Voss	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	APA, 5883 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1327 CST	Direction from Accident Site:	280°
Lowest Cloud Condition:	Scattered / 9000 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 18000 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	6 knots / 30 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	60°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.06 inches Hg	Temperature/Dew Point:	32° C / 0° C
Precipitation and Obscuration:			
Departure Point:	Mason City, IA (MCW)	Type of Flight Plan Filed:	VFR
Destination:	Englewood, CO (APA)	Type of Clearance:	VFR
Departure Time:	0930 CDT	Type of Airspace:	Class B

Airport Information

Airport:	Centennial Airport (APA)	Runway Surface Type:	Asphalt
Airport Elevation:	5883 ft	Runway Surface Condition:	Dry
Runway Used:	28	IFR Approach:	None
Runway Length/Width:	4903 ft / 62 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	39.567222, -104.850000

Administrative Information

Investigator In Charge (IIC):	David C Bowling	Report Date:	11/25/2003
Additional Participating Persons:	Jim B Hopkins; Federal Aviation Administration; Denver, CO		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.ntsbt.gov/pubdms/ .		

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