



Aviation Investigation Final Report

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| Location: | ALBUQUERQUE, New Mexico | Accident Number: | DEN99LA078 |
| Date & Time: | May 14, 1999, 13:30 Local | Registration: | N107BB |
| Aircraft: | Bell/Mason RV-6 | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 1 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The airplane was on final approach for runway 22, and the wind was 260 degrees at 22 knots with gusts to 31 knots. A witness reported that moments before the accident, the wind shifted around to the right approximately 90 degrees. The pilot said the airplane suddenly yawed to the right 35 to 45 degrees, and he executed a go-around. A pilot flying a helicopter approximately 1 mile behind the accident airplane reported seeing the airplane 'dutch roll' approximately 3 or 4 times with bank angles of approximately 35 to 40 degrees. The airplane appeared to 'snap roll to the left,' and stall/mush to the ground with the left wing tip impacting first.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of aircraft control for undetermined reasons. Factors were the sudden wind shift and wind gusts weather condition.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

1. (F) WEATHER CONDITION - SUDDEN WINDSHIFT
2. (F) WEATHER CONDITION - GUSTS

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

3. (C) AIRCRAFT CONTROL - NOT MAINTAINED

4. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. TERRAIN CONDITION - GROUND

Factual Information

On May 14, 1999, approximately 1330 mountain daylight time, a Bell/Mason RV-6, N107BB, was substantially damaged during a landing at Double Eagle II Airport, Albuquerque, New Mexico. The certificated commercial pilot, who was the sole occupant, received minor injuries. The airplane was being operated by the pilot under Title 14 CFR Part 91. Visual meteorological conditions prevailed for the cross-country personal flight which originated from Ft. Worth, Texas, 3.5 hours before the accident. No flight plan had been filed.

The airplane was on final approach for runway 22, at approximately 200 feet above ground level (agl), flying between 85 to 90 mph with full flaps. The pilot, a former military test pilot, said that the airplane suddenly yawed to the right approximately 35 to 45 degrees. He applied full power, raised the flaps, and executed a go-around. He said the airplane sideslipped to the left, then sideslipped to the right, and repeated this pattern for 3 to 4 cycles. The pilot said that "attempts to dampen the oscillation by leading the yaw were unsuccessful." He said that the sideslipping oscillations caused the airspeed to decrease to approximately 65 mph. During the 4th cycle of oscillations, the "aircraft made a rapid left roll to near inverted attitude," and he managed to continue to roll the airplane to the upright position. The airplane immediately impacted the ground "in a generally flat attitude with the left wing striking the ground first." He stated that the whole sequence extended for over a mile, or 30 to 45 seconds.

The pilot said that he heard on the airport's Common Traffic Advisory Frequency that the wind was 260 degrees at 22 knots with gusts to 31 knots. A witness on the ground reported that moments before the accident, the wind had shifted around to the right approximately 90 degrees.

A pilot flying a helicopter approximately 1 mile behind the accident airplane reported seeing the airplane "dutch roll" approximately 3 or 4 times with bank angles of approximately 35 to 40 degrees. The airplane appeared to "snap roll to the left," and stall/mush to the ground with the left wing tip impacting first.

Pilot Information

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|----------------------------------|---|--|--------------|
| Certificate: | Commercial | Age: | 60,Male |
| Airplane Rating(s): | Single-engine land; Multi-engine land | Seat Occupied: | Right |
| Other Aircraft Rating(s): | Glider | Restraint Used: | |
| 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: | May 15, 1998 |
| Occupational Pilot: | UNK | Last Flight Review or Equivalent: | |
| Flight Time: | 5000 hours (Total, all aircraft), 90 hours (Total, this make and model), 4800 hours (Pilot In Command, all aircraft), 17 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|--------------------------|---------------------------------------|-----------------|
| Aircraft Make: | Bell/Mason | Registration: | N107BB |
| Model/Series: | RV-6 RV-6 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | Yes |
| Airworthiness Certificate: | Experimental (Special) | Serial Number: | 21244 |
| Landing Gear Type: | Tailwheel | Seats: | 2 |
| Date/Type of Last Inspection: | May 8, 1999 Annual | Certified Max Gross Wt.: | 1800 lbs |
| Time Since Last Inspection: | 4 Hrs | Engines: | 1 Reciprocating |
| Airframe Total Time: | 221 Hrs | Engine Manufacturer: | Lycoming |
| ELT: | Installed, not activated | Engine Model/Series: | IO-320 |
| Registered Owner: | THOMAS P. MCATEE | Rated Power: | 160 Horsepower |
| Operator: | | Operating Certificate(s) Held: | None |
| Operator Does Business As: | | Operator Designator Code: | |

Meteorological Information and Flight Plan

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|---|----------------------------------|---|------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | AEG ,5834 ft msl | Distance from Accident Site: | 1 Nautical Miles |
| Observation Time: | 14:00 Local | Direction from Accident Site: | 45° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 20 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 260° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 29 inches Hg | Temperature/Dew Point: | |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | FT. WORTH (T67) | Type of Flight Plan Filed: | None |
| Destination: | (AEG) | Type of Clearance: | None |
| Departure Time: | 10:00 Local | Type of Airspace: | Class D |

Airport Information

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|-----------------------------|---------------------|----------------------------------|-----------|
| Airport: | DOUBLE EAGLE II AEG | Runway Surface Type: | Concrete |
| Airport Elevation: | 5834 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 22 | IFR Approach: | None |
| Runway Length/Width: | 7398 ft / 100 ft | VFR Approach/Landing: | Full stop |

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|----------------------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 None | Latitude, Longitude: | 35.059513,-106.620979(est) |

Administrative Information

Investigator In Charge (IIC): Struhsaker, James

Additional Participating Persons: J.D. HUSS; ALBUQUERQUE, NM

Original Publish Date: June 22, 2000

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=46379>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).