

Aviation Investigation Final Report

Location: Jackpot, Nevada Accident Number: LAX07CA138

Date & Time: April 28, 2007, 13:45 Local Registration: N211RT

Aircraft: Tolsma Tony G Avid Magnum Aircraft Damage: Substantial

Defining Event: 2 None

Flight Conducted Under: Part 91: General aviation - Personal

Analysis

The experimental conventional landing gear equipped airplane ground looped and nosed over following a hard landing. The pilot flew crosswind to check the wind direction, and he thought that the winds favored landing on runway 33. They were variable at 5 knots gusting to 10. On downwind, the windsock indicated that he would have a quartering tail wind. He decided to continue the landing on 33 because it was uphill, and he didn't think that the wind was too bad. But during the landing, the airplane stalled about 3 feet over the runway, impacted the runway hard, and bounced into the air. When the airplane touched down again, it veered left and ground looped. The right wing impacted a runway sign, and the airplane nosed over. When the pilot exited the airplane, he noticed that the winds were gusting more than he expected. He also reported that there were no malfunctions with the airplane prior to the accident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate weather evaluation, inadequate compensation for the wind conditions, and decision to land with a gusty, quartering tailwind. Also causal was the pilot's misjudged landing flare and inadequate recovery from a bounced landing, resulting in a loss of directional control, collision with an object, and a nose over.

Findings

Occurrence #1: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

- 1. WEATHER CONDITION CROSSWIND
- 2. WEATHER CONDITION GUSTS
- 3. WEATHER CONDITION TAILWIND
- 4. (C) COMPENSATION FOR WIND CONDITIONS INADEQUATE PILOT IN COMMAND
- 5. (C) WEATHER EVALUATION INADEQUATE PILOT IN COMMAND
- 6. (C) FLARE MISJUDGED PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

7. (C) RECOVERY FROM BOUNCED LANDING - INADEQUATE - PILOT IN COMMAND

8. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND

9. GROUND LOOP/SWERVE - NOT CORRECTED - PILOT IN COMMAND

Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - ROLL

Findings

10. OBJECT - SIGN

Occurrence #4: NOSE OVER

Phase of Operation: LANDING - ROLL

Page 2 of 6 LAX07CA138

Factual Information

On April 28, 2007, at 1345 mountain daylight time, an experimental conventional geared Tolsma Avid Magnum, N211RT, departed the runway during landing and nosed over at Jackpot Airport/Hayden Field, Jackpot, Nevada. The owner/pilot was operating the airplane under the provisions of 14 CFR Part 91. The private pilot and one passenger were not injured; the airplane sustained substantial damage. The cross-country personal flight departed Caldwell, Idaho, at 1222, with a planned destination of Jackpot. Visual meteorological conditions prevailed, and no flight plan had been filed. The approximate global positioning system (GPS) coordinates of the primary wreckage were 41 degrees 58.56 minutes north latitude and 114 degrees 39.49 minutes west longitude.

According to the pilot, he flew crosswind to check the wind direction, and thought that the winds favored landing on runway 33. He said that they were variable at 5 knots gusting to 10. On downwind, the windsock indicated that he would have a quartering tail wind. He decided to land on runway 33 because it was uphill, and he didn't think that the wind was too bad.

On final, the pilot pulled power about 3 feet over the runway because he thought that he was too fast. The airplane stalled, impacted the runway hard, and bounced into the air. When the airplane touched down again, it veered to the left. He added power, but that didn't prevent a ground loop. The right wing impacted a runway sign, and the airplane nosed over. When the pilot exited the airplane he noticed that the winds were gusting more than he expected. He thought that the tail wind, high altitude, and warm temperature caused the airplane to stall before he was ready for touchdown. He also reported that there were no malfunctions with the airplane prior to the accident.

Pilot Information

| Certificate: | Private | Age: | 60,Male |
|---------------------------|---|-----------------------------------|--------------|
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | None | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 With waivers/limitations | Last FAA Medical Exam: | July 1, 2006 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | May 1, 2006 |
| Flight Time: | 742 hours (Total, all aircraft), 650 hours (Total, this make and model), 742 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft) | | |

Page 3 of 6 LAX07CA138

Aircraft and Owner/Operator Information

| Aircraft Make: | Tolsma Tony G | Registration: | N211RT |
|-------------------------------|-------------------------------|-----------------------------------|-----------------|
| Model/Series: | Avid Magnum | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | Yes |
| Airworthiness Certificate: | Experimental (Special) | Serial Number: | 02M |
| Landing Gear Type: | Tailwheel | Seats: | 2 |
| Date/Type of Last Inspection: | April 1, 2006 Annual | Certified Max Gross Wt.: | |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 170.2 Hrs at time of accident | Engine Manufacturer: | Lycoming |
| ELT: | Installed, not activated | Engine Model/Series: | O-320-B3B |
| Registered Owner: | On file | Rated Power: | 160 Horsepower |
| Operator: | On file | Operating Certificate(s) Held: | None |
| | | | |

Meteorological Information and Flight Plan

| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
|----------------------------------|-----------------------------|--------------------------------------|----------|
| Observation Facility, Elevation: | | Distance from Accident Site: | |
| Observation Time: | | Direction from Accident Site: | |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 5 knots / 10 knots | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.04 inches Hg | Temperature/Dew Point: | 24°C |
| Precipitation and Obscuration: | No Obscuration; No Precipit | ation | |
| Departure Point: | CALDWELL, ID (U35) | Type of Flight Plan Filed: | None |
| Destination: | Jackpot, NV | Type of Clearance: | None |
| Departure Time: | 12:22 Local | Type of Airspace: | |
| | | | |

Page 4 of 6 LAX07CA138

Airport Information

| Airport: | JACKPOT/HAYDEN FIELD 06U | Runway Surface Type: | Asphalt |
|----------------------|--------------------------|----------------------------------|-----------------|
| Airport Elevation: | 5213 ft msl | Runway Surface Condition: | Dry |
| Runway Used: | 33 | IFR Approach: | None |
| Runway Length/Width: | 6200 ft / 60 ft | VFR Approach/Landing: | Traffic pattern |

Wreckage and Impact Information

| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
|------------------------|--------|-------------------------|-----------------------|
| Passenger Injuries: | 1 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 2 None | Latitude, Longitude: | 41.976112,-114.658058 |

Page 5 of 6 LAX07CA138

Administrative Information

| Investigator In Charge (IIC): | Jones, Patrick |
|-----------------------------------|---|
| Additional Participating Persons: | Jerry Roberts; Federal Aviation Administration; Reno, NV |
| Original Publish Date: | July 25, 2007 |
| Last Revision Date: | |
| Investigation Class: | <u>Class</u> |
| Note: | This accident report documents the factual circumstances of this accident as described to the NTSB. |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=65717 |

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.

Page 6 of 6 LAX07CA138