



Aviation Investigation Final Report

| Location: | McKinney, Texas | Accident Number: | CEN11LA142 |
|-------------------------|---|------------------|-------------|
| Date & Time: | January 2, 2011, 09:00 Local | Registration: | N102PJ |
| Aircraft: | AMERICAN LEGEND AIRCRAFT CO AL3 | Aircraft Damage: | Substantial |
| Defining Event: | Loss of control on ground | Injuries: | 1 None |
| Flight Conducted Under: | Part 91: General aviation - Instructional | | |

Analysis

The student pilot was performing a landing when the airplane bounced several times before he lost control of the airplane. The airplane veered to the right and departed the runway. As the airplane continued through the grass, the right wing contacted a construction sign and impacted a ditch, coming to rest inverted. An eyewitness reported that the tailwheel never fully contacted the ground prior to departing the runway. No preimpact anomalies were reported by the pilot.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's loss of directional control during landing.

Findings

Aircraft

Personnel issues

Directional control - Not attained/maintained Aircraft control - Pilot

Factual Information

| History of Flight | |
|----------------------|--|
| Landing-landing roll | Loss of control on ground (Defining event) |
| Landing-landing roll | Runway excursion |
| Landing-landing roll | Collision with terr/obj (non-CFIT) |

On January 2, 2011, approximately 0900 central standard time, an American Legend Aircraft AL3, N102PJ, impacted an construction sign and nosed over following a runway excursion at the Aero Country Airport (T31), McKinney, Texas. The student pilot was not injured. The airplane sustained substantial crushing damage to the right wing and vertical stabilizer. The aircraft was registered to and operated by Shell Air LLC, Olathe, Kansas, under the provisions of 14 Code of Federal Regulations Part 91 as a local training flight. Visual meteorological conditions prevailed for the flight, which operated without a flight plan. The local flight originated from T31 approximately 0855.

According to a statement provided by the pilot, upon landing at the airport, the airplane bounced several times before he lost control of the airplane. The airplane veered to the right and departed the runway. After departing the runway the airplane's right wing struck a construction sign. The airplane then impacted a ditch and came to rest inverted. The pilot did not report any anomalies with the airplane prior to the accident landing. A certified flight instructor saw the landing and reported that the airplane's tailwheel did not appear to fully contact the ground prior to the airplane departing the runway.

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|---------------------------|--|-----------------------------------|--------------|
| Certificate: | Student | Age: | 16,Male |
| Airplane Rating(s): | None | Seat Occupied: | |
| 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 Without waivers/limitations | Last FAA Medical Exam: | July 9, 2010 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | |
| Flight Time: | (Estimated) | | |

Student pilot Information

Aircraft and Owner/Operator Information

| Aircraft Make: | AMERICAN LEGEND AIRCRAFT CO | Registration: | N102PJ |
|----------------------------------|--------------------------------|-----------------------------------|----------------------|
| Model/Series: | AL3 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Special light-sport (Special) | Serial Number: | AL-1104 |
| Landing Gear Type: | Tailwheel | Seats: | 2 |
| Date/Type of Last Inspection: | | Certified Max Gross Wt.: | 1320 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | | Engine Manufacturer: | Teledyne Continental |
| ELT: | | Engine Model/Series: | 0-200 |
| Registered Owner: | SHELL AIR LLC | Rated Power: | 100 Horsepower |
| Operator: | SHELL AIR LLC | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
|---|----------------------------------|---|------------------|
| Observation Facility, Elevation: | TKI,585 ft msl | Distance from Accident Site: | 8 Nautical Miles |
| Observation Time: | 09:53 Local | Direction from Accident Site: | 90° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.43 inches Hg | Temperature/Dew Point: | 0°C / -6°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | McKinney, TX (T31) | Type of Flight Plan Filed: | None |
| Destination: | McKinney, TX (T31) | Type of Clearance: | None |
| Departure Time: | | Type of Airspace: | |

Airport Information

| Airport: | Aero Country T31 | Runway Surface Type: | Asphalt |
|----------------------|------------------|---------------------------|---------------------------|
| Airport Elevation: | 792 ft msl | Runway Surface Condition: | |
| Runway Used: | 35 | IFR Approach: | None |
| Runway Length/Width: | 4305 ft / 40 ft | VFR Approach/Landing: | Full stop;Traffic pattern |

Wreckage and Impact Information

| 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: | 33.208332,-96.741943(est) |

Administrative Information

| Investigator In Charge (IIC): | Aguilera, Jason | |
|--------------------------------------|--|--|
| Additional Participating Persons: | James R Minter; FAA FSDO; Dallas, TX | |
| Original Publish Date: | October 3, 2011 | |
| Last Revision Date: | | |
| Investigation Class: | <u>Class</u> | |
| Note: | | |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=78112 | |

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 <u>here</u>.