

National Transportation Safety Board Aviation Accident Final Report

Location: MUSCATINE, IA Accident Number: CHI97LA053

Date & Time: 01/16/1997, 1428 CST Registration: N991TD

Aircraft: LEARJET 24 Aircraft Damage: Substantial

Defining Event: Injuries: 2 None

Flight Conducted Under: Part 91: General Aviation - Positioning

Analysis

According to the pilot, the airplane '...began moving to the left side of the runway...' immediately upon touchdown. He attempted to abort the landing but the airplane contacted snow at the runway's left edge. The airplane exited the runway's left edge and slid sideways, about 300 yards.

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 directional control. A factor was the snow covered runway edge.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING - ROLL

Findings

- 1. (F) AIRPORT FACILITIES, RUNWAY/LANDING AREA CONDITION SNOW COVERED
- 2. (C) DIRECTIONAL CONTROL NOT MAINTAINED PILOT IN COMMAND
- 3. GROUND LOOP/SWERVE INADVERTENT PILOT IN COMMAND
- 4. ABORTED LANDING ATTEMPTED PILOT IN COMMAND

Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Factual Information

On January 16, 1997, at 1428 central standard time, a Lear 24, N991TD, piloted by a commercial pilot, was substantially damaged when it departed the left side of runway 23 (5,500' X 100' asphalt with patchy snow-pack and ice) at the Muscatine Municipal Airport, Muscatine, Iowa. Visual meteorological conditions prevailed at the time of the accident. The 14 CFR Part 91 positioning flight had been operating on an IFR flight plan. The pilot and copilot reported no injuries. The flight departed Ft. Wayne, Indiana, 1500 est.

The pilot-in-command's written statement said the airplane "...began moving to the left side of the runway..." immediately upon touch down. He said he applied power to abort the landing "...but contacted [a snow] drift of the left side of the runway...." He said the airplane departed the runway and went out of control. The co-pilot's written statment reflects the pilot's statement.

A Federal Aviation Administration (FAA) Principal Operations Inspector (POI) represented the NTSB on-scene. He said the airplane began to drift to the left when it touched down. According to the POI, the pilot said he had attempted a go-around but the left main gear tires began to roll through snow near the runway's edge. The POI said the pilot stated the snow dragged the airplane further left. The POI said the airplane departed the runway edge about 800 feet from runway 23's approach threshold. The airplane slid sideways about 300 yards before coming to a stop.

The on-scene investigation revealed N991TD's nose gear had collapsed aft and penetrated the fuselage skin. Fuselage stringers and bulkheads at the penetration area were bent and the surrounding skin wrinkled. The right wing tip tank was ruptured, and wing spar number 7 had a sheared web at the landing gear support pillar. Fuel was observed leaking from the bottom wing skin between the main landing gear assemblies.

Pilot Information

| Certificate: | Commercial | Age: | 34, Male |
|---------------------------|---|-----------------------------------|----------------------------|
| Airplane Rating(s): | Multi-engine Land; Single-engine Land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | Seatbelt, Shoulder harness |
| Instrument Rating(s): | Airplane | Second Pilot Present: | Yes |
| Instructor Rating(s): | Airplane Single-engine | Toxicology Performed: | No |
| Medical Certification: | Class 1 Valid Medicalw/waivers/lim. | Last FAA Medical Exam: | 09/23/1996 |
| Occupational Pilot: | | Last Flight Review or Equivalent: | |
| Flight Time: | 6200 hours (Total, all aircraft), 700 hours (Total, this make and model), 6000 hours (Pilot In Command, all aircraft), 250 hours (Last 90 days, all aircraft), 70 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft) | | |

Page 2 of 4 CHI97LA053

Aircraft and Owner/Operator Information

| Aircraft Make: | LEARJET | Registration: | N991TD |
|-------------------------------|------------------------|-----------------------------------|--------------------------|
| Model/Series: | 24 24 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | No |
| Airworthiness Certificate: | Normal | Serial Number: | 24124 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 6 |
| Date/Type of Last Inspection: | Unknown | Certified Max Gross Wt.: | 13000 lbs |
| Time Since Last Inspection: | | Engines: | 2 Turbo Jet |
| Airframe Total Time: | | Engine Manufacturer: | GE |
| ELT: | | Engine Model/Series: | CJ-610 |
| Registered Owner: | AIR CARGO EXPRESS | Rated Power: | 2850 lbs |
| Operator: | AMERICAN AIR NETWORK | Operating Certificate(s) Held: | On-demand Air Taxi (135) |
| Operator Does Business As: | | Operator Designator Code: | ESUA |
| | | | |

Meteorological Information and Flight Plan

| Conditions at Accident Site: | Visual Conditions | Condition of Light: | Day |
|----------------------------------|----------------------|--------------------------------------|------------------|
| Observation Facility, Elevation: | MUT, 547 ft msl | Distance from Accident Site: | 1 Nautical Miles |
| Observation Time: | 1400 CST | Direction from Accident Site: | 270° |
| Lowest Cloud Condition: | Clear / 0 ft agl | Visibility | 10 Miles |
| Lowest Ceiling: | None / 0 ft agl | Visibility (RVR): | 0 ft |
| Wind Speed/Gusts: | 19 knots / 29 knots | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 290° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30 inches Hg | Temperature/Dew Point: | -16°C / -18°C |
| Precipitation and Obscuration: | | | |
| Departure Point: | FORT WAYNE, IN (FTW) | Type of Flight Plan Filed: | IFR |
| Destination: | (MUT) | Type of Clearance: | None |
| Departure Time: | 1500 EST | Type of Airspace: | Class G |

Airport Information

| Airport: | MUSCATINE MUNICIPAL (MUT) | Runway Surface Type: | Asphalt |
|----------------------|---------------------------|---------------------------|--------------------|
| Airport Elevation: | 547 ft | Runway Surface Condition: | Ice; Snowcompacted |
| Runway Used: | 23 | IFR Approach: | None |
| Runway Length/Width: | 5500 ft / 100 ft | VFR Approach/Landing: | Full Stop |

Page 3 of 4 CHI97LA053

Wreckage and Impact Information

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

Administrative Information

| Investigator In Charge (IIC): | FRANK S GATTOLIN | Report Date: | 08/25/1997 |
|-----------------------------------|--|--------------|------------|
| Additional Participating Persons: | TOM WOODS; DES MOINES, IA | | |
| 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 publing@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/ . | | |

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available here.

Page 4 of 4 CHI97LA053