



Aviation Investigation Final Report

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|--------------------------------|--------------------------------------|-------------------------|-------------|
| Location: | Amarillo, Texas | Accident Number: | DFW05CA174 |
| Date & Time: | July 1, 2005, 11:30 Local | Registration: | N345MC |
| Aircraft: | Learjet 25 | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 4 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

The 7,300-hour captain was unable to maintain directional control of the twin turbojet airplane while landing on Runway 04 during day VMC conditions with winds from 130 degrees at 17 knots. The 13,502-foot-long, by 300-foot-wide-grooved runway was reported as dry at the time of the mishap. The airplane struck a runway distance marker, and exited the runway to the left during landing roll. The left wingtip tank fuel load was 200-300 pounds heavier than the right wingtip during landing. Examination of the airplane by maintenance personnel did not reveal any discrepancies in the fuel transfer system.

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 during the landing roll. A contributing factor was the prevailing crosswind.

Findings

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

Findings

1. (F) WEATHER CONDITION - CROSSWIND
2. FUEL MANAGEMENT - INADEQUATE - PILOT IN COMMAND
3. (F) WEATHER CONDITION - TAILWIND
4. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - ROLL

Findings

5. OBJECT - AIRPORT SIGN/MARKER

Factual Information

On July 1, 2005, at 1130 central daylight time (CDT), a twin-turbojet Learjet 25 airplane, N345MC, was substantially damaged when it struck a runway distance marker following a loss of directional control while landing at the Rick Husband Amarillo International Airport (AMA), near Amarillo, Texas. The airline transport rated captain, commercial pilot first officer, and 2 passengers were not injured. The airplane was registered to MCOCO Inc., of Houston, Texas, and operated by Air America Jet Charter, of Houston, Texas. Visual meteorological conditions prevailed and an instrument flight rules flight plan was filed for the 14 Code of Federal Regulations Part 91 personal flight. The 466-nautical mile cross country flight originated from the William P. Hobby Airport (HOU) near Houston, Texas, at 1010 CDT.

The 7,300-hour captain reported in the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2) that approximately 30 miles from the airport he noticed the left wingtip fuel tank was "heavy." He started to transfer fuel, and then stopped the transfer due to being on approach and preparing to land. After being cleared for a visual approach to Runway 04 (13,502 feet long by 300 feet wide grooved concrete runway), the pilot stated that he was able to trim the airplane for "hands off." During the final approach, the pilot noted that the airplane "would not bank to the right without almost full right aileron." The airplane "started raising right wing as full aileron was applied, even with the first officer assisting." At this point, the pilot added that the right wing stopped coming up, but would not go level.

The captain further reported that he elected to land rather than add full power and go-around, instead of risking a potential roll situation. The captain added that "alignment to runway was off due to right wing." Subsequently, the airplane exited the left side of the runway striking a runway distance marker.

The first officer reported to an Federal Aviation Administration (FAA) inspector that the landing fuel load was as follows:

- Left Wingtip Tank: 600 pounds
- Left Wing Tank: 1,100 - 1,300 pounds
- Fuselage Tank: 400 - 500 pounds
- Right Wing Tank: 1,000 - 1,200 pounds
- Right Wing Tip Tank: 300 - 400 pounds

Maintenance personnel at a repair facility in San Antonio, Texas, where the airplane was ferried for maintenance, stated that they were not able to find any discrepancies in the fuel transfer system.

At 1141, the automated surface observation system at AMA reported wind from 130 degrees

at 17 knots, visibility 10 statute miles, few clouds at 7,000 feet, scattered clouds at 12,000 feet, temperature 28 degrees Celsius, dew point 13 degrees Celsius, and an altimeter setting of 30.09 inches of Mercury. The runway was reported as dry during the time of the mishap.

Pilot Information

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|----------------------------------|--|--|---------------|
| Certificate: | Airline transport | Age: | 62, Male |
| Airplane Rating(s): | Single-engine land; Multi-engine land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 1 | Last FAA Medical Exam: | June 1, 2005 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | April 1, 2005 |
| Flight Time: | 7300 hours (Total, all aircraft), 3500 hours (Total, this make and model), 150 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft) | | |

Co-pilot Information

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|----------------------------------|---------|--|-----------------|
| Certificate: | | Age: | 25, Male |
| Airplane Rating(s): | | Seat Occupied: | Right |
| Other Aircraft Rating(s): | | Restraint Used: | |
| Instrument Rating(s): | | Second Pilot Present: | |
| Instructor Rating(s): | | Toxicology Performed: | No |
| Medical Certification: | Class 1 | Last FAA Medical Exam: | October 1, 2004 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | |
| Flight Time: | | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|-------------------------|---------------------------------------|--------------------------|
| Aircraft Make: | Learjet | Registration: | N345MC |
| Model/Series: | 25 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 046 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | |
| Date/Type of Last Inspection: | | Certified Max Gross Wt.: | |
| Time Since Last Inspection: | | Engines: | 2 Turbo jet |
| Airframe Total Time: | | Engine Manufacturer: | General Electric |
| ELT: | | Engine Model/Series: | CJ610-6 |
| Registered Owner: | MCOCO Inc. | Rated Power: | |
| Operator: | MCOCO Inc. | Operating Certificate(s) Held: | On-demand air taxi (135) |
| Operator Does Business As: | Air America Jet Charter | Operator Designator Code: | VKMA |

Meteorological Information and Flight Plan

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|---|--------------------|---|-------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | AMA | Distance from Accident Site: | |
| Observation Time: | 11:41 Local | Direction from Accident Site: | |
| Lowest Cloud Condition: | Few / 7000 ft AGL | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 15 knots / 0 knots | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 150° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.07 inches Hg | Temperature/Dew Point: | 29°C / 14°C |
| Precipitation and Obscuration: | | | |
| Departure Point: | Houston, TX (HOU) | Type of Flight Plan Filed: | IFR |
| Destination: | Amarillo, TX (AMA) | Type of Clearance: | IFR |
| Departure Time: | 10:10 Local | Type of Airspace: | |

Airport Information

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|-----------------------------|----------------------------|----------------------------------|----------|
| Airport: | Amarillo International AMA | Runway Surface Type: | Concrete |
| Airport Elevation: | | Runway Surface Condition: | |
| Runway Used: | 4 | IFR Approach: | Visual |
| Runway Length/Width: | | VFR Approach/Landing: | |

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|-----------------------|
| Crew Injuries: | 2 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | 2 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | |
| Total Injuries: | 4 None | Latitude, Longitude: | 35.219165,-101.705833 |

Administrative Information

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|--|---|
| Investigator In Charge (IIC): | McGill, C Frank |
| Additional Participating Persons: | Arturo Castillo; Lubbock, Texas |
| Original Publish Date: | October 27, 2005 |
| Investigation Class: | Class |
| Note: | This accident report documents the factual circumstances of this accident as described to the NTSB. |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=61885 |

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](#).