



National Transportation Safety Board Aviation Accident Final Report

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|--------------------------------|--------------------------------------|-------------------------|-----------------|
| Location: | Atlantic City, NJ | Accident Number: | NYC05LA085 |
| Date & Time: | 05/15/2005, 1548 EDT | Registration: | OY-JET |
| Aircraft: | Cessna 525A | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 1 Minor, 3 None |
| Flight Conducted Under: | Part 91: General Aviation - Business | | |

Analysis

The pilot performed "a low pass" over the runway, and then touched down approximately 1,000 feet beyond the approach end of the 2,948-foot long runway, with a tailwind of approximately 10 knots. After touchdown, the airplane continued off the end of the runway, and subsequently impacted water. According to the Cessna 525A Landing Distance Chart, an airplane with a landing weight of 11,400 pounds required 3,000 feet of landing distance, in a no wind situation. With a 10 knot tailwind, the airplane required 3,570 feet of landing distance. The published airport diagram for the airport, was observed attached to the pilot's control column after the accident. A notation, which read, "airport closed to jet aircraft" was observed on the diagram. Additionally, the same notation, "Arpt CLOSED to jet traffic," was observed in the FAA Airport/Facility Directory. Examination of the airplane revealed no mechanical deficiencies.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper decision to plan a flight to a runway of insufficient length, his improper in-flight decision to land on that inadequate runway with a tailwind, and his failure to obtain the proper touchdown point. A factor in the accident was the tailwind condition.

Findings

Occurrence #1: OVERRUN

Phase of Operation: LANDING

Findings

1. (F) WEATHER CONDITION - TAILWIND
2. (C) PREFLIGHT PLANNING/PREPARATION - IMPROPER - PILOT IN COMMAND
3. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
4. (C) PROPER TOUCHDOWN POINT - NOT OBTAINED - PILOT IN COMMAND
5. DISTANCE/SPEED - MISJUDGED - PILOT IN COMMAND

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

Phase of Operation: LANDING - ROLL

Findings

6. TERRAIN CONDITION - WATER

Factual Information

On May 15, 2005, at 1548 eastern daylight time, a Danish-registered (OY-JET), Cessna Citation 525A, was substantially damaged during a runway overrun at Atlantic City Municipal Airport/Bader Field (AIY), Atlantic City, New Jersey. The certificated private pilot received minor injuries, and three passengers received no injuries. Visual meteorological conditions prevailed and an instrument flight rules (IFR) flight plan was filed for the flight which originated at the Burlington International Airport (BTV), Burlington, Vermont. The business flight was conducted under 14 CFR Part 91.

The pilot reported to a Federal Aviation Administration (FAA) inspector, that he performed "one circle" around the airport, observed the windsock, and then performed a landing on runway 11. During the landing roll, approximately 2/3 down the runway, the pilot "lost the brakes," and was unable to stop on the remaining runway. The airplane then continued off the departure end of the runway and impacted the water.

A review of recorded radar data and air traffic control (ATC) communications revealed the pilot contacted Atlantic City (ACY) Approach Control at 1538, and stated he was inbound to "alpha charlie yankee." The pilot was instructed to descend to an altitude of 2,000 feet, and fly heading 220 degrees.

At 1540, ATC instructed the pilot to "proceed direct Bader, descend and maintain 1,500 feet. Expect visual approach." The pilot read back the instructions, stating, "thank you, direct Bader, descend to 1,500."

At 1544, ATC informed the pilot that "the airport is 12 o'clock and 4 miles." The pilot responded that he had the airport in sight, and the controller then cleared the pilot for a "visual approach at Bader airport."

Radar data indicated that the airplane was at an altitude of 800 feet, at 1545, continuing on a heading of 220 degrees. About 1 minute later, the airplane made a 360-degree right turn, and rolled out on its previous heading of 220-degrees. At 1547:10, the airplane crossed abeam the departure end of runway 11, at AIY, at an altitude of 100 feet. The airplane then continued on a westerly (downwind) heading and climbed to an altitude of 300 feet.

The airplane then initiated a right turn back toward runway 11, at an altitude of approximately 200 feet. During the turn, the airplane's groundspeed was approximately 180 knots.

At 1548:42, the airplane was at an altitude of 200 feet, 1.24 nautical miles from the approach end of runway 11, with a groundspeed of 155 knots. Over the next 10 seconds, the airplane's altitude decreased to 0 feet, and the airspeed decreased to 140 knots. The last radar return was recorded approximately 1,000 feet beyond the approach end of runway 11, at an airspeed of 128 knots.

A witness, who was an employee at AIY, was inside a trailer, located about 400 feet to the right of the midfield point of runway 11, at the time of the accident. The witness was in communication with a Cessna 182, on a downwind leg of the traffic pattern for runway 29, when he looked out the window and observed the accident airplane make a "low pass on runway 29 with a climbing right turn out." The witness went outside the trailer and observed the accident airplane touchdown "about halfway down" runway 11. The airplane appeared to slow as it approached the end of the runway; however, it did not stop, and subsequently

impacted the water. The witness further reported that the pilot of the accident airplane did not communicate any intentions on the UNICOM frequency.

Several other witnesses reported that as the airplane touched down, they thought braking was occurring, since smoke was coming from the airplane's tires.

Examination of a video recording, which was taken by a witness at the airport, revealed the airplane touched down about 800-1,000 feet beyond the approach end of runway 11. The video also displayed the windsock at the airport, and according to the witness, it indicated a tailwind at 10-15 knots.

The airplane was examined by an FAA inspector after the accident. According to the inspector, the brake system and emergency brake system were functionally checked, and no abnormalities were noted. The anti-skid system could not be tested, due to salt water damage. Examination of the emergency brake system revealed it had not been used, and the nitrogen bottle gauge indicated 1,800 psi. The flap selector was in the "ground" position, but the indicator was in the 15 degree position. The left throttle lever was observed in idle cut off, and the right throttle lever was bent to the right at the idle stop.

Examination of the runway revealed tread marks beginning approximately two-thirds down the runway, and continuing off the departure end into the grass and dirt.

The winds reported at Atlantic City International Airport (ACY), 9 miles to the northwest, at 1554, were from 280 degrees at 9 knots.

A review of the FAA Airport/Facility Directory for the Northeast U.S., revealed the following notation listed in the Airport Remarks section of the Atlantic City/Bader Field Airport entry, "Arpt CLOSED to jet traffic." Additionally, runway 11 was a 2,948 foot-long, 100 foot-wide, asphalt runway.

Additionally, the airport diagram for Bader Field, was observed attached to the pilot's control column after the accident. A notation, which read, "airport closed to jet aircraft" was observed on the diagram.

According to the Cessna 525A Landing Distance Chart, an airplane with a landing weight of 11,400 pounds required 3,000 feet of landing distance, in a no wind situation. With a 10 knot tailwind, the airplane required 3,570 feet of landing distance.

Pilot Information

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|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------|
| Certificate: | Private | Age: | 61, Male |
| Airplane Rating(s): | Multi-engine Land; Single-engine Land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | Helicopter | Restraint Used: | Seatbelt, Shoulder harness |
| Instrument Rating(s): | None | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 2 Unknown | Last Medical Exam: | 07/01/2004 |
| Occupational Pilot: | | Last Flight Review or Equivalent: | |
| Flight Time: | 2500 hours (Total, all aircraft), 368 hours (Total, this make and model), 2500 hours (Pilot In Command, all aircraft), 10 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|--------------------------------------|-------------------------------------------|------------------------|
| Aircraft Manufacturer: | Cessna | Registration: | OY-JET |
| Model/Series: | 525A | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | No |
| Airworthiness Certificate: | Normal | Serial Number: | 525A-0089 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 5 |
| Date/Type of Last Inspection: | 09/01/2004, Continuous Airworthiness | Certified Max Gross Wt.: | 12375 lbs |
| Time Since Last Inspection: | 28 Hours | Engines: | 2 Turbo Jet |
| Airframe Total Time: | 360 Hours | Engine Manufacturer: | Williams International |
| ELT: | | Engine Model/Series: | FJ44-2C |
| Registered Owner: | Eric Larsen | Rated Power: | 2400 lbs |
| Operator: | Eric Larsen | Air Carrier Operating Certificate: | None |
| Operator Does Business As: | Weibel Scientific | Operator Designator Code: | |

Meteorological Information and Flight Plan

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|----------------------------------|----------------------------------|-------------------------------|-------------|
| Conditions at Accident Site: | Visual Conditions | Condition of Light: | Day |
| Observation Facility, Elevation: | ACY, 75 ft msl | Observation Time: | 1554 EDT |
| Distance from Accident Site: | 9 Nautical Miles | Direction from Accident Site: | 300° |
| Lowest Cloud Condition: | Scattered / 10000 ft agl | Temperature/Dew Point: | 23°C / 13°C |
| Lowest Ceiling: | None | Visibility | 10 Miles |
| Wind Speed/Gusts, Direction: | 9 knots, 280° | Visibility (RVR): | |
| Altimeter Setting: | 29.8 inches Hg | Visibility (RVV): | |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Burlington, VT (BTV) | Type of Flight Plan Filed: | IFR |
| Destination: | Atlantic City, NJ (AIY) | Type of Clearance: | IFR |
| Departure Time: | 1230 EDT | Type of Airspace: | |

Airport Information

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|----------------------|--------------------------------------|---------------------------|-----------------|
| Airport: | Atlantic City Municipal Airpor (AIY) | Runway Surface Type: | Asphalt |
| Airport Elevation: | 8 ft | Runway Surface Condition: | Dry |
| Runway Used: | 11 | IFR Approach: | None |
| Runway Length/Width: | 2948 ft / 100 ft | VFR Approach/Landing: | Traffic Pattern |

Wreckage and Impact Information

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|---------------------|-----------------|----------------------|-----------------------|
| Crew Injuries: | 1 Minor | Aircraft Damage: | Substantial |
| Passenger Injuries: | 3 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 Minor, 3 None | Latitude, Longitude: | 39.358889, -74.449167 |

Administrative Information

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|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------|
| Investigator In Charge (IIC): | Jill M Andrews | Adopted Date: | 05/30/2006 |
| Additional Participating Persons: | Paul Basilotto; FAA/FSDO; Philadelphia, PA Steve Miller; Cessna Aircraft Company; Wichita, KS | | |
| 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 pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ . | | |

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