



Aviation Investigation Preliminary Report

| | | | |
|--------------------------------|--------------------------------------|-------------------------|--------------------|
| Location: | Raleigh, NC | Accident Number: | ERA24LA191 |
| Date & Time: | April 24, 2024, 10:10 Local | Registration: | N228CH |
| Aircraft: | Socata TBM 850 | Injuries: | 1 Serious, 1 Minor |
| Flight Conducted Under: | Part 91: General aviation - Business | | |

On April 24, 2024, about 1010 eastern daylight time, a Socata TBM 850, N228CH, was substantially damaged when it was involved in an accident near Raleigh, North Carolina. The airline transport pilot was seriously injured, and the passenger received minor injuries. The airplane was operated by Medical Air, Inc. as a Title 14 *Code of Federal Regulations* Part 91 business flight.

The accident occurred following an aborted landing on runway 32 at Raleigh-Durham International Airport (RDU). The pilot was unavailable for interview due to his injuries, but preliminary reports from the RDU air traffic control tower revealed that the airplane was cleared to land, then bounced on the runway before it “began a missed approach and started a left turn... then appeared to have stalled and hit the ground.”

Airport surveillance video captured the airplane on final approach in the area consistent with the touchdown zone of runway 32. As the airplane approached the surface, it was temporarily blocked from view by a VOR antenna, and a plume consistent with dust or smoke bloomed around the propeller and briefly enveloped the fuselage as it continued just above the surface for about 1,500 ft before it transitioned to a climb attitude and banked left. The airplane stopped its climb about 100 ft above ground level and slowed while the left bank steepened to nearly 90° as the airplane descended to ground contact.

According to the passenger, the airplane was “rolling” and “tobogganing...as if we were descending a hill on the snow” during the final approach. He said the airplane touched down twice, after which the pilot appeared to “turn and roll the airplane left as if to take off again.” He added that the pilot made no announcements, and that there was no communication between them from runway contact to the accident site. The passenger stated that in the bank, “it felt as if the plane lost power” but that he couldn’t detect if the engine had stopped.

Review of surveillance videos and photographs revealed that the airplane impacted the ground with its left wingtip and nose almost simultaneously. The airplane rotated an additional 45°, coming to rest upright. The propeller was separated from the engine and the leading edges of each of the four blades displayed gouging and chordwise scratching near the tips. The engine and engine compartment displayed significant impact damage. Aft of the engine, its firewall, windshield posts, windshield, instrument panel, and the cockpit area were intact. The fuselage was fractured between the cockpit and cabin areas, and the empennage and vertical stabilizer appeared largely intact. The horizontal stabilizer was damaged and displaced by impact but remained attached. There was no evidence of fire.

The left wing was severely impact damaged and outboard of mid-span was destroyed and scattered closely to the main wreckage. The right wing was attached, largely intact, and displayed an upward bend at its tip consistent with impact.

The airplane was recovered and retained for further examination.

The pilot held an airline transport pilot certificate with a rating for airplane multiengine land, with commercial privileges for airplane single-engine land. His most recent Federal Aviation Administration (FAA) second-class medical certificate was issued on October 20, 2023. The operator declared that the pilot had accrued 16,000 total hours of flight experience, of which 2,500 hours were in the accident airplane make and model.

According to FAA and maintenance records, the airplane was manufactured in 2006 and was powered by a Pratt & Whitney PT6A-66D turboshaft engine rated at 850 shaft horsepower. The airplane’s most recent annual inspection was completed on August 24, 2023, at 4,402 total aircraft hours. The Hobbs time displayed at the accident site was 4,524 hours.

Aircraft and Owner/Operator Information

| | | | |
|----------------------------------|---------|---------------------------------------|----------|
| Aircraft Make: | Socata | Registration: | N228CH |
| Model/Series: | TBM 850 | Aircraft Category: | Airplane |
| Amateur Built: | | | |
| Operator: | On file | Operating Certificate(s) Held: | None |
| Operator Designator Code: | | | |

Meteorological Information and Flight Plan

| | | | |
|---|-----------------------|-------------------------------------|------------------|
| Conditions at Accident Site: | VMC | Condition of Light: | Day |
| Observation Facility, Elevation: | KRDU,395 ft msl | Observation Time: | 10:20 Local |
| Distance from Accident Site: | 1 Nautical Miles | Temperature/Dew Point: | 18°C /8°C |
| Lowest Cloud Condition: | | Wind Speed/Gusts, Direction: | 6 knots / , 290° |
| Lowest Ceiling: | Broken / 9000 ft AGL | Visibility: | 10 miles |
| Altimeter Setting: | 30.05 inches Hg | Type of Flight Plan Filed: | IFR |
| Departure Point: | Wilmington, NC (KILM) | Destination: | Raleigh, NC |

Wreckage and Impact Information

| | | | |
|----------------------------|--------------------|-----------------------------|----------------------------|
| Crew Injuries: | 1 Serious | Aircraft Damage: | Substantial |
| Passenger Injuries: | 1 Minor | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 Serious, 1 Minor | Latitude, Longitude: | 35.870384,-78.778245 (est) |

Administrative Information

| | |
|--|---|
| Investigator In Charge (IIC): | Rayner, Brian |
| Additional Participating Persons: | Phillipe Santoro; Daher Howard Stevens; FAA FSDO; Greensboro, NC |
| Investigation Class: | Class 3 |
| Note: | The NTSB did not travel to the scene of this accident. |