



# Aviation Investigation Final Report

|                                |                                      |                         |                  |
|--------------------------------|--------------------------------------|-------------------------|------------------|
| <b>Location:</b>               | Midland, Texas                       | <b>Accident Number:</b> | FTW01FA100       |
| <b>Date &amp; Time:</b>        | April 14, 2001, 14:51 Local          | <b>Registration:</b>    | N58123           |
| <b>Aircraft:</b>               | Fairchild PT-19A                     | <b>Aircraft Damage:</b> | Destroyed        |
| <b>Defining Event:</b>         |                                      | <b>Injuries:</b>        | 1 Fatal, 1 Minor |
| <b>Flight Conducted Under:</b> | Part 91: General aviation - Personal |                         |                  |

## Analysis

While climbing out after takeoff, the vintage airplane was observed by several witnesses to execute a climbing right turn, roll left, and then abruptly nose down to impact. The passenger stated that a "downdraft hit" the airplane, and it "nosed" into the ground at a "ninety degree" angle. He heard the engine running throughout the flight. Post-accident examination of the wreckage did not reveal any pre-impact anomalies with the airframe, flight controls, and engine. The wind at the time of the accident was from 250 degrees at 9 knots gusting to 18 knots.

## 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 airspeed which resulted in an inadvertent stall during initial takeoff climb. A contributing factor was wind gusts.

## Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. (C) STALL - INADVERTENT - PILOT IN COMMAND
3. (F) WEATHER CONDITION - GUSTS

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

4. TERRAIN CONDITION - GROUND

## Factual Information

### HISTORY OF FLIGHT

On April 14, 2001, at 1451 central daylight time, a Fairchild PT-19A tandem seat, tailwheel equipped airplane, N58123, registered to the American Airpower Heritage Flying Museum of Midland, Texas, and operated by the Confederate Airforce of Midland, Texas, was destroyed when it impacted the ground shortly after takeoff from runway 16R at the Midland International Airport, Midland, Texas. The commercial pilot received fatal injuries and his pilot-rated passenger received minor injuries. Visual meteorological conditions prevailed and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 personal flight.

According to transcripts of the pilot's radio transmissions with the Midland control tower, the pilot requested that he wanted to execute a right turn out after takeoff to fly over the Confederate Airforce's hangar during his departure. The tower acknowledged his request and cleared him for a "no delay" intersection departure as a Boeing 737 was on a three mile final. An air traffic control specialist located in the tower stated that he observed the airplane take the "wrong" route to the runway and "appeared" to be "at a faster taxi rate than normal." After take off, he observed the airplane climb out to the right and it "appeared to be at a slower airspeed than normal." During the turn, the "wings rocked back and forth a couple of times" and then the airplane made a "hard left turn to the ground."

In an interview with the NTSB investigator-in-charge, the passenger, who was seated in the aft cockpit and who was a rated pilot, stated that the aircraft run-up and takeoff were "normal." He stated that as the airplane passed over the ramp in a climbing right turn, "a downdraft hit the airplane." He could not recall the altitude at the time, but "remembered looking down at the roof of the tower" and that the airplane was still in a climbing attitude when "we started rolling to the left." The next instant, the airplane was "going ninety degrees nose down when we hit the ground." He stated that he heard the engine throughout the flight.

Another witness who was standing on the ramp adjacent to the accident site, reported that he saw the airplane heading west and it "looked like it was in trouble, and then, it was in my opinion, stalling." The airplane then turned to the south and "went into a nose dive from one hundred to two hundred feet."

### PERSONNEL INFORMATION

The pilot held a commercial pilot certificate with single-engine, multi-engine, and instrument ratings. He was issued a second-class medical certificate on May 26, 2000, with a limitation to wear corrective lenses as an airman. According to records provided by the Confederate Airforce, the pilot was approved to fly as pilot in the PT-19 airplane on April, 26, 1999. Since

then, the pilot had accumulated 41 hours in the PT-19. The pilot's total flying time since 1987 was approximately 710 hours, mostly in single-engine airplanes.

## AIRCRAFT INFORMATION

The PT-19A was primarily used as a military trainer in the 1930's and 1940's. The cantilevered low-wing, open cockpit airplane has a fabric covered welded steel fuselage, plywood-covered wing center section and outer wing panels, a two-blade wood propeller, and is powered by a Ranger L-440-1 175 horsepower reciprocating engine. The accident airplane, serial number T42-3230, was one of three restored PT-19A's in the Confederate Airforce fleet. It had accumulated 2,438 total airframe hours at the time of the accident, and its last annual inspection was performed on February 7, 2001. The airplane flew 15 hours since the annual inspection.

## METEOROLOGICAL INFORMATION

The reported wind for Midland at 1453 was from 250 degrees at 9 knots gusting to 18 knots.

## WRECKAGE AND IMPACT INFORMATION

The airplane impacted a concrete ramp area adjacent to taxiway "P" on airport property. The main wreckage was upright, with the airplane standing on its nose. The front cockpit structure was crushed rearward and the aft cockpit structure and empennage were relatively intact. The propeller was found attached to the hub and both wood blades were severely splintered. Several ground scars, which appeared to be propeller strike marks, were observed at the impact point. Remnants of fabric and wood were scattered around the main wreckage. Flight control continuity was confirmed from the cockpit to the elevator, rudder, and aileron control surfaces. Fuel was found in the fuel lines and carburetor, and both fuel tanks were intact with usable fuel present. No pre-impact anomalies with the airframe, flight controls, and engine were found.

## MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy of the pilot was performed by the Texas Tech University Health Sciences Center Division of Forensic Pathology, Lubbock, Texas. No pre-existing medical conditions were found. Toxicology tests were performed by the Civil Aero Medical Institute, Oklahoma City, Oklahoma. The toxicology tests were negative for carbon monoxide, alcohol, and drugs.

## ADDITIONAL INFORMATION

The wreckage was released to the owner on April 15, 2001, at the conclusion of the on-scene investigation.

## Pilot Information

|                                  |   |  |                 |
|----------------------------------|---|--|-----------------|
| <b>Certificate:</b>              | Commercial  | <b>Age:</b>                              | 52, Male        |
| <b>Airplane Rating(s):</b>       | Single-engine land; Multi-engine land   | <b>Seat Occupied:</b>                    | Front           |
| <b>Other Aircraft Rating(s):</b> | None  | <b>Restraint Used:</b>                   |                 |
| <b>Instrument Rating(s):</b>     | Airplane  | <b>Second Pilot Present:</b>             | No              |
| <b>Instructor Rating(s):</b>     | None  | <b>Toxicology Performed:</b>             | Yes             |
| <b>Medical Certification:</b>    | Class 2 Valid Medical-w/ waivers/lim  | <b>Last FAA Medical Exam:</b>            | May 26, 2000    |
| <b>Occupational Pilot:</b>       | No  | <b>Last Flight Review or Equivalent:</b> | August 30, 2000 |
| <b>Flight Time:</b>              | 710 hours (Total, all aircraft), 41 hours (Total, this make and model), 572 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft) |  |                 |

## Aircraft and Owner/Operator Information

|                                      |  |                                       |                 |
|--------------------------------------|--|---------------------------------------|-----------------|
| <b>Aircraft Make:</b>                | Fairchild  | <b>Registration:</b>                  | N58123          |
| <b>Model/Series:</b>                 | PT-19A   | <b>Aircraft Category:</b>             | Airplane        |
| <b>Year of Manufacture:</b>          |  | <b>Amateur Built:</b>                 |                 |
| <b>Airworthiness Certificate:</b>    | Normal; Utility  | <b>Serial Number:</b>                 | T42-3230        |
| <b>Landing Gear Type:</b>            | Tailwheel  | <b>Seats:</b>                         | 2               |
| <b>Date/Type of Last Inspection:</b> | February 7, 2001 Annual                                | <b>Certified Max Gross Wt.:</b>       | 2520 lbs        |
| <b>Time Since Last Inspection:</b>   | 15 Hrs   | <b>Engines:</b>                       | 1 Reciprocating |
| <b>Airframe Total Time:</b>          | 2438 Hrs at time of accident                           | <b>Engine Manufacturer:</b>           | Ranger          |
| <b>ELT:</b>                          | Installed, activated, did not aid in locating accident | <b>Engine Model/Series:</b>           | L-440-C2        |
| <b>Registered Owner:</b>             | American Airpower Heritage Flying Museum               | <b>Rated Power:</b>                   | 175 Horsepower  |
| <b>Operator:</b>                     | Confederate Airforce                                   | <b>Operating Certificate(s) Held:</b> | None            |

## Meteorological Information and Flight Plan

|   |                                  |   |                  |
|---|----------------------------------|---|------------------|
| <b>Conditions at Accident Site:</b>     | Visual (VMC)                     | <b>Condition of Light:</b>                  | Day              |
| <b>Observation Facility, Elevation:</b> | MAF, 2875 ft msl                 | <b>Distance from Accident Site:</b>         | 0 Nautical Miles |
| <b>Observation Time:</b>                | 14:53 Local                      | <b>Direction from Accident Site:</b>        | 0°               |
| <b>Lowest Cloud Condition:</b>          | Clear                            | <b>Visibility</b>                           | 10 miles         |
| <b>Lowest Ceiling:</b>                  | None                             | <b>Visibility (RVR):</b>                    |                  |
| <b>Wind Speed/Gusts:</b>                | 9 knots / 18 knots               | <b>Turbulence Type Forecast/Actual:</b>     | /                |
| <b>Wind Direction:</b>                  | 250°                             | <b>Turbulence Severity Forecast/Actual:</b> | /                |
| <b>Altimeter Setting:</b>               | 29.87 inches Hg                  | <b>Temperature/Dew Point:</b>               | 30°C / 13°C      |
| <b>Precipitation and Obscuration:</b>   | No Obscuration; No Precipitation |   |                  |
| <b>Departure Point:</b>                 | Midland, TX (MAF )               | <b>Type of Flight Plan Filed:</b>           | None             |
| <b>Destination:</b>                     | TX (MAF )                        | <b>Type of Clearance:</b>                   | Traffic advisory |
| <b>Departure Time:</b>                  | 14:49 Local                      | <b>Type of Airspace:</b>                    | Class B          |

## Airport Information

|                             |                                   |                                  |         |
|-----------------------------|-----------------------------------|----------------------------------|---------|
| <b>Airport:</b>             | Midland International Airport MAF | <b>Runway Surface Type:</b>      | Asphalt |
| <b>Airport Elevation:</b>   | 2875 ft msl                       | <b>Runway Surface Condition:</b> | Dry     |
| <b>Runway Used:</b>         | 16                                | <b>IFR Approach:</b>             | Unknown |
| <b>Runway Length/Width:</b> |                                   | <b>VFR Approach/Landing:</b>     | Unknown |

## Wreckage and Impact Information

|                            |                  |                             |           |
|----------------------------|------------------|-----------------------------|-----------|
| <b>Crew Injuries:</b>      | 1 Fatal          | <b>Aircraft Damage:</b>     | Destroyed |
| <b>Passenger Injuries:</b> | 1 Minor          | <b>Aircraft Fire:</b>       |           |
| <b>Ground Injuries:</b>    | N/A              | <b>Aircraft Explosion:</b>  |           |
| <b>Total Injuries:</b>     | 1 Fatal, 1 Minor | <b>Latitude, Longitude:</b> |           |

## Administrative Information

**Investigator In Charge (IIC):** Lemishko, Alexander  
**Additional Participating Persons:** Stanley Hinds; FAA; Lubbock, TX

**Original Publish Date:** April 18, 2003

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=52066>

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](#).