

Mishap Summary

1961 172B, S/N: 17248050, N7550X, D/A: 07/08/02, Denton, TX
NTSB Report No: FTW02LA203

History of Flight

The pilot and his passenger met for breakfast and decided to take a local sight seeing flight in the pilot's aircraft. The NTSB-IIC interviewed the pilot via telephone on 7/11/02 and provided the following information. The pilot and passenger arrived at the Denton Municipal Airport (DTO) Denton, TX at approximately 1100 CDT. The Denton Airport is an uncontrolled airport. Runway 17/35 is an asphalt runway, which is 5,999 ft. in length and 150 ft. wide. The nose wheel was flat and was inflated prior to departure. The aircraft departed on a local VFR flight to Lake Ray Roberts, located approximately 10 nm northwest of DTO, and then to Sanger, TX, which is located approximately 5 nm west of the lake.

After a flight of less than an hour, the aircraft returned to DTO at approximately 1145 CDT. The aircraft performed two low passes over Runway 17 due to an aircraft on the runway. The pilot reported making radio calls while operating in the pattern. On his third approach, the pilot was advised that his radio transmissions were garbled and hard to understand. He observed the aircraft that was sitting on the runway was taking off. The pilot reported his aircraft was high and fast and that he was distracted due to the aircraft on the runway. He landed near the departure end of the runway according to a witness. The aircraft departed the end of Runway 17 and veered slightly left. The aircraft impacted the localizer antenna array and came to rest south of the antenna array. Portions of the antenna array came through the windshield. The pilot had minor injuries and the passenger was taken to the hospital.

Pilot Information

The 81-year-old pilot had a commercial pilot's license with single and multi-engine aircraft ratings at the time of the mishap. The pilot reportedly flew once or twice a week. His third class medical was issued 8/22/01 with the limitation for corrective lenses. The pilot is retired.

Medical and Injury Information

The pilot had minor superficial injuries according the Denton Police Department report. He was treated on the scene by rescue personnel and released.

The 70-year-old passenger succumbed at the hospital due to his injuries. The autopsy report indicated the cause of death was multiple blunt force injuries. He was a University of North Texas education professor. He is survived by his wife and two children.

Aircraft Information

The aircraft was originally delivered to Airflite, Inc. of Long Beach, CA on 10/27/60. The aircraft was purchased by the pilot from Valley Flyer, Inc., of Salem, OR. The aircraft was registered by the current owner in June 2002. The last aircraft annual was completed on 9/2/01 at 5,779 hours total time according to the logbook. The left and right brake discs were replaced at the annual. A Supplemental Type Certificate was observed in the aircraft paperwork for the installation of Madras Air Service "Super Tips." No FAA Form 337 paperwork was observed for installation of the wing tips. Drooped wing tips were observed installed on the wings.

Witnesses

The pilot reported to the NTSB-IIC during the telephone interview that he made a few low passes over Runway 17 due to an aircraft sitting on the runway. On his third approach, he was advised by someone over the radio that his radio transmissions were garbled. The pilot did not hear any transmissions from the aircraft on the runway. On the third approach he observed the aircraft, which had been sitting on the runway, was taking off. The pilot started down intending to land on Runway 17. The pilot reported he was high and fast and with flaps was also floating. He touched down and the aircraft ran off the end of Runway 17. The aircraft struck "lights or something" according to the pilot. He reported landing halfway down the runway or "maybe with 1,500 ft. remaining."

A ground witness, Mr. Reed Parsons, was located in a hangar near the departure end of Runway 17. He reported the aircraft had a fairly steep angle of descent and a fairly high speed. The witness reported that the aircraft landed beyond the area of the last taxiway on the left beyond the Runway 35 1,000 ft. runway marks. The witnesses stated the aircraft went through the localizer antenna "while still at a high speed." The witness and another person went to the mishap site and helped open the pilot's door. The pilot reported the passenger was injured. The pilot exited the aircraft.

Weather Information

The weather at Denton Municipal Airport (DTO) Denton, TX, at 1153 CDT was winds variable at 4 kts., 9 sm visibility, clear, temperature 33° C, dew point 24° and altimeter 30.18 inHg.

Airframe Examination

An FAA Fort Worth Flight Standards District Office inspector conducted the on scene investigation. The first touchdown marks were observed 271 ft. from the departure end of Runway 17 and were located on the runway numbers for Runway 35. Two additional sets of marks were observed between the initial touchdown point and the end of the runway according to the Denton Police Department. The aircraft departed the runway and impacted the antenna array approximately 304 ft. south from the end of the runway. Tracks through the dirt indicated the aircraft veered left prior to impacting the antenna array. After striking the antennas, the aircraft came to rest upright approximately 108 ft. south of the antennas. The orange antenna array was penetrated "nearly through the center" when it was struck by the aircraft, according to the Denton Police Department report.

The aircraft was recovered to Air Salvage of Dallas located in Lancaster, TX. The left and right wings were removed during aircraft recovery. The aircraft was inspected by the NTSB-IIC, the engine manufacturer investigator, and this writer on 7/16/02.

Fuselage

The fuselage was intact and there was no evidence of fire. The right side of the firewall and lower portion of the cowl had impact damage due to ground impact. The right side of the tailcone had buckling and orange paint transfer was observed along the tailcone back to the horizontal stabilizer. No damage was observed to the left side of the fuselage.

Flight Controls and Aerodynamic Surfaces

The left wing leading edge had impact damage approximately two feet inboard of the wing tip, which extended inboard to the landing light. The area was crushed aft to the wing spar and orange paint transfer marks were observed. Impact damage was also observed outboard of the fuel tank to the stall warning horn. The left lift strut was bent at approximately a 45° angle 28" from the wing attachment point.

The right wing had impact damage to the leading edge approximately 4 ft. from the wing root. Orange paint transfer was observed on the bottom of the wing.

The aileron and flaps remained attached to the wings. The aileron and flap cable attachments had been disconnected in the wings by recovery personnel. Aileron control cable continuity was established from the cable ends to the control yoke. The mechanical flap handle was observed in the 20° detent.

The elevator remained attached to the horizontal stabilizer. Impact damage was observed on the right side of the horizontal stabilizer leading edge near the root. The trim tab remained attached and was measured at approximately 4° tab down. Control continuity was established from the elevator surface to the control yoke.

The rudder remained attached and no damage to the rudder was observed. Rudder control cable continuity was established from the surface to the pedals.

Landing Gear and Brake System

The left and right main gear remained attached to the fuselage. The front of the right main wheel fairing had impact damage. The nose gear separated from the fuselage due to impact damage. The nose gear steering rods remained attached to the fuselage. Continuity was established between the steering rods and the rudder pedals. The nose gear remained attached to the strut and rotated freely.

The left tire rotated freely. The left tire had a flat spot on the outside edge. The flat spot on the left tire was more pronounced than the flat spot on the right tire. The brake disc had slight corrosion and no deep grooves were observed on the disc. The disc thickness was .222". The minimum disc thickness replacement requirement is .190". The pressure plate thickness was .204". The back plate thickness was .1945". A crack was observed in the pad of the left back plate. The minimum plate thickness replacement requirement is .100".

The right tire rotated freely. The right tire had a flat spot on the outer edge. The brake disc had slight corrosion and no deep grooves were observed. The brake disc thickness was .222". The pressure pad thickness was .195". The back plate thickness was .218".

The brakes were functionally tested. The brakes were applied in the cockpit and the left and right wheels would not rotate.

Seats/Restraint Systems/Cabin Environment

The cabin volume was not reduced. The windshield was broken out. The left door was observed separated from the cabin. The left and right front seats remained attached to the seat tracks. The seat backs remained attached to the seat bases. The non-Cessna left and right front seat belts manufactured by Safety Commercial Products (Model No: 6800-16) remained attached to structure. No shoulder harnesses were observed in the aircraft.

Aircraft Cockpit Instrumentation and Equipment

Cockpit Documentation is listed below

Flight Instruments	L
Airspeed:	0
Altimeter	470 ft
Altimeter Setting	30.07
Heading Indicator	320°
Vertical Speed Indicator	+100
Attitude Indicator (pitch)	level
Attitude Indicator (roll)	45° Rgt.
Turn Coordinator (Airplane)	level
Turn Coordinator (Ball)	center

Electrical Switches

Master Switch	Off
Avionics Switch #1	Off
Navigation Lights	Off
Rotating Beacon	Off
Left Magneto	Off
Right Magneto	Off

Radio and Navigation Equipment

	Frequency
Communication Radio #1	122.7
Navigation Radio #1	115.8
Transponder	1200

Engine Instruments

Hourmeter	3422.4
Tachometer-RPM	0
Tachometer-Hours	998.0
Oil Pressure	0
Oil Temperature	<Green
Ammeter	0
Instrument Suction Gage	0

Engine Control Positions (Cockpit)

Throttle	Out
Mixture Control	Full rich
Carburetor Heat	In

Fuel System

Fuel was reported leaking from the left wing by on scene personnel. During the examination at Air Salvage, the fuel caps were observed secure on the fuel tanks. A sticker for 80 octane fuel was observed. The fuel selector was observed in the Both position. A detailed examination of the fuel system was not performed.

Power Plant Examination

The engine remained attached to the firewall. The propeller remained attached to the engine. One blade tip was bent forward and the outer portion of the other blade was bent aft. Orange paint transfer was observed on both blade tips.

Engine continuity and compression was established on all cylinders by rotating the crankshaft by hand. The top spark plugs were removed and had moderate wear and deposits according to the engine manufacturer investigator. The magnetos were checked and sparked at all terminals. The engine exhaust pipes were crushed due to impact damage.

The carburetor separated from the engine and had light impact damage. Fuel was observed in the carburetor bowl. A small amount debris was observed in the finger screen.

Tom Teplik
Cessna Aircraft Company
Air Safety Investigator