



# National Transportation Safety Board Aviation Accident Final Report

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|-------------------------|----------------------|-------------------------|-------------|
| <b>Location:</b>        | CONROE, TX           | <b>Accident Number:</b> | FTW99LA128  |
| <b>Date &amp; Time:</b> | 05/01/1999, 0740 CDT | <b>Registration:</b>    | N2638K      |
| <b>Aircraft:</b>        | Luscombe 8E          | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>  |                      | <b>Injuries:</b>        | 1 Serious   |

**Flight Conducted Under:** Part 91: General Aviation - Positioning

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## Analysis

While at a cruise altitude of 3,500 feet msl, the pilot observed a fuel flow fluctuation, and the experimental airplane's engine lost power. The pilot was unable to restart the turboprop engine and prepared for a forced landing to a road. During the forced landing, about 100 feet agl, the pilot initiated a turn in order to see the traffic on the road. As the airplane crossed the road, 'the left wingtip and left main gear contacted the asphalt road, very hard.' The airplane came to rest upright in a ditch, which paralleled the road. Examination of the fuel system by the pilot revealed a caterpillar was lodged in the forward facing vent to the right wing fuel tank.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power due to fuel starvation as a result of a blocked fuel vent. A factor was the lack of suitable terrain for the forced landing.

## Findings

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Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF  
Phase of Operation: CRUISE

### Findings

1. (C) FLUID,FUEL - STARVATION
2. (C) FUEL SYSTEM,VENT - BLOCKED(TOTAL)

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Occurrence #2: FORCED LANDING  
Phase of Operation: DESCENT - EMERGENCY

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: EMERGENCY DESCENT/LANDING

### Findings

3. (F) TERRAIN CONDITION - NONE SUITABLE
4. TERRAIN CONDITION - ROADWAY/HIGHWAY
5. TERRAIN CONDITION - DITCH

## Factual Information

On May 1, 1999, approximately 0740 central daylight time, a Luscombe 8E experimental airplane, N2638K, was substantially damaged during a forced landing, following a loss of engine power near Conroe, Texas. Visual meteorological conditions prevailed, and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 cross-country positioning flight. The aircraft was registered to and operated by the Don Luscombe Aviation History Foundation of Chandler, Arizona. The airline transport pilot, sole occupant of the aircraft, was seriously injured. The flight originated from Lafayette, Louisiana, at 0600, and was en route to Austin, Texas.

According to the FAA inspector, the pilot contacted Houston Center and reported the turboprop powered aircraft was experiencing engine problems. Houston Center gave the pilot radar vectors to the nearest airport; however, the aircraft was unable to make the airport.

The pilot reported that he descended from 5,500 feet msl to 3,500 feet msl in order to take advantage of the "higher tailwinds." After about 10 to 15 minutes, he observed a fuel flow "fluctuation from 15 GPH to 12 GPH, back to 15 GPH, then 11 GPH, and finally to about 2 GPH." Subsequently, the engine lost power. "Two restart cycles were attempted. One on the right tank, and a second on the left tank, though abbreviated due to proximity to the ground. The engine did not re-light, and power was not regained."

The 14,000-hour pilot reported to the NTSB investigator-in-charge that he was unable to locate the airport that ATC had identified as the nearest airport and prepared for a forced landing to a road. At about 100 feet agl, he initiated a turn to the west in order to see the traffic on the road. The aircraft passed under a 35 foot high power line. As the aircraft crossed over the road, "the left wingtip and left main gear contacted the asphalt road, very hard. The gear sheared and ricocheted off the wing strut. The propeller hit at a 15 degree nose down attitude, and the right gear sheared, leaving me [the aircraft] skidding on the belly." The aircraft came to rest upright in a ditch, which paralleled the road.

Examination of the aircraft by the FAA inspector revealed that both wings were structurally damaged, the firewall was buckled, and the empennage was bent. There was evidence at the accident site of a fuel spill.

Examination of the fuel system by the pilot revealed a "caterpillar lodged in the forward facing vent" to the right wing fuel tank. The other four small auxiliary holes in the tank cap did not "seem capable of venting the tank while fuel is used at a rate of 15 GPH."

According to the pilot, a post accident examination and test run of the engine was satisfactory. At the time of the accident, there were 30 gallons of fuel on board.

## Pilot Information

|                                  |   |  |                            |
|----------------------------------|---|--|----------------------------|
| <b>Certificate:</b>              | Airline Transport; Flight Instructor; Commercial; Flight Engineer   | <b>Age:</b>                              | 45, Male                   |
| <b>Airplane Rating(s):</b>       | Multi-engine Land; Single-engine Land; Single-engine Sea  | <b>Seat Occupied:</b>                    | Left                       |
| <b>Other Aircraft Rating(s):</b> | None  | <b>Restraint Used:</b>                   | Seatbelt, Shoulder harness |
| <b>Instrument Rating(s):</b>     | Airplane  | <b>Second Pilot Present:</b>             | No                         |
| <b>Instructor Rating(s):</b>     | Airplane Single-engine  | <b>Toxicology Performed:</b>             | No                         |
| <b>Medical Certification:</b>    | Class 1 Valid Medical--no waivers/lim.  | <b>Last FAA Medical Exam:</b>            | 02/11/1999                 |
| <b>Occupational Pilot:</b>       |   | <b>Last Flight Review or Equivalent:</b> |                            |
| <b>Flight Time:</b>              | 14000 hours (Total, all aircraft), 4000 hours (Total, this make and model), 10200 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft) |  |                            |

## Aircraft and Owner/Operator Information

|                                      |  |                                       |              |
|--------------------------------------|--|---------------------------------------|--------------|
| <b>Aircraft Make:</b>                | Luscombe   | <b>Registration:</b>                  | N2638K       |
| <b>Model/Series:</b>                 | 8E 8E  | <b>Aircraft Category:</b>             | Airplane     |
| <b>Year of Manufacture:</b>          |  | <b>Amateur Built:</b>                 | No           |
| <b>Airworthiness Certificate:</b>    | Experimental   | <b>Serial Number:</b>                 | 5365         |
| <b>Landing Gear Type:</b>            | Tailwheel  | <b>Seats:</b>                         | 3            |
| <b>Date/Type of Last Inspection:</b> | Annual   | <b>Certified Max Gross Wt.:</b>       | 1700 lbs     |
| <b>Time Since Last Inspection:</b>   | 60 Hours   | <b>Engines:</b>                       | 1 Turbo Prop |
| <b>Airframe Total Time:</b>          |  | <b>Engine Manufacturer:</b>           | Apex         |
| <b>ELT:</b>                          | Installed, activated, did not aid in locating accident | <b>Engine Model/Series:</b>           | T62-AZ-32    |
| <b>Registered Owner:</b>             | DON LUSCOMBE AVN HIST. FOUNDAT                         | <b>Rated Power:</b>                   | 150 hp       |
| <b>Operator:</b>                     | DON LUSCOMBE AVN HIST. FOUNDAT                         | <b>Operating Certificate(s) Held:</b> | None         |

## Meteorological Information and Flight Plan

|                                  |                     |   |                  |
|----------------------------------|---------------------|---|------------------|
| Conditions at Accident Site:     | Visual Conditions   | Condition of Light:                     | Day              |
| Observation Facility, Elevation: | , 0 ft msl          | Distance from Accident Site:            | 0 Nautical Miles |
| Observation Time:                | 0000                | Direction from Accident Site:           | 0°               |
| Lowest Cloud Condition:          | Clear / 0 ft agl    | Visibility                              | 10 Miles         |
| Lowest Ceiling:                  | None / 0 ft agl     | Visibility (RVR):                       | 0 ft             |
| Wind Speed/Gusts:                | 8 knots /           | Turbulence Type<br>Forecast/Actual:     | /                |
| Wind Direction:                  | 90°                 | Turbulence Severity<br>Forecast/Actual: | /                |
| Altimeter Setting:               |                     | Temperature/Dew Point:                  |                  |
| Precipitation and Obscuration:   |                     |   |                  |
| Departure Point:                 | LAFAYETTE, LA (LFT) | Type of Flight Plan Filed:              | None             |
| Destination:                     | AUSTIN, TX (AUS)    | Type of Clearance:                      | VFR on top       |
| Departure Time:                  | 0600 CDT            | Type of Airspace:                       | Class G          |

## Wreckage and Impact Information

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

## Administrative Information

|                                   |  |              |            |
|-----------------------------------|--|--------------|------------|
| Investigator In Charge (IIC):     | DOUGLAS D WIGINGTON  | Report Date: | 06/21/2000 |
| Additional Participating Persons: | GALE HUEY; HOUSTON, TX   |              |            |
| 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 <a href="mailto:pubinquiry@ntsb.gov">pubinquiry@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> . |              |            |

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).