

# **Aviation Investigation Final Report**

| Location:               | RIDGELAND, South    | Carolina          | Accident Number:     | ATL96LA012  |
|-------------------------|---------------------|-------------------|----------------------|-------------|
| Date & Time:            | November 18, 1995   | 5, 11:00 Local    | <b>Registration:</b> | N950E       |
| Aircraft:               | Waco                | ASO               | Aircraft Damage:     | Substantial |
| Defining Event:         |                     |                   | Injuries:            | 2 None      |
| Flight Conducted Under: | Part 91: General av | iation - Personal |                      |             |

#### **Analysis**

After climbing approximately 300 feet after takeoff, the aircraft's engine stopped producing power. The pilot stated that he lowered the nose and banked the aircraft back toward the runway. He attempted to align the aircraft with a runway, but was unable. Subsequently, the aircraft slid off the side of the runway, went down a dirt embankment, and nosed over. Postcrash examination of the aircraft disclosed the ignition system was producing a weak spark.

### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Failure of the ignition system after takeoff, which resulted the loss of engine power.

#### **Findings**

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

Findings 1. (C) IGNITION SYSTEM - FAILURE

Occurrence #2: FORCED LANDING Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY) Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER Phase of Operation: EMERGENCY LANDING

Findings 2. TERRAIN CONDITION - ROUGH/UNEVEN

### **Factual Information**

On November 18, 1995, at 1100 eastern standard time, a Waco ASO, N950E, was substantially damaged following a collision with the terrain, while maneuvering for an emergency landing at the Ridgeland Municipal Airport in Ridgeland, South Carolina. Neither the commercial pilot nor his passenger were injured in the accident. The flight was being conducted under the provisions of 14 CFR Part 91 by the pilot. Visual meteorological conditions existed at the time of the accident, and no flight plan had been filed for the local, personal flight.

According to the pilot, shortly after liftoff the engine lost power. The pilot attempted a course reversal to the airport. As he maneuvered the airplane for the emergency landing, it collided with runway 3, skidded down a 30 foot embankment, and nosed over.

Post crash engine examination verified that the engine would not run. It was discovered that the spark being produced by the ignition system was weak.

| Certificate:              | Commercial   | Age:                              | 71,Male            |
|---------------------------|--|-----------------------------------|--------------------|
| Airplane Rating(s):       | Single-engine land; Single-engine<br>sea; Multi-engine land  | Seat Occupied:                    | Rear               |
| Other Aircraft Rating(s): | Glider   | Restraint Used:                   |                    |
| Instrument Rating(s):     | None   | Second Pilot Present:             | No                 |
| Instructor Rating(s):     | None   | Toxicology Performed:             | No                 |
| Medical Certification:    | Class 2 Valid Medicalw/<br>waivers/lim   | Last FAA Medical Exam:            | September 27, 1995 |
| Occupational Pilot:       | No   | Last Flight Review or Equivalent: |                    |
| Flight Time:              | 3835 hours (Total, all aircraft), 541 hours (Total, this make and model), 3350 hours (Pilot In<br>Command, all aircraft), 70 hours (Last 90 days, all aircraft), 26 hours (Last 30 days, all aircraft),<br>1 hours (Last 24 hours, all aircraft) |                                   |                    |

#### **Pilot Information**

### Aircraft and Owner/Operator Information

| Aircraft Make:                   | Waco                 | Registration:                     | N950E           |
|----------------------------------|----------------------|-----------------------------------|-----------------|
| Model/Series:                    | ASO ASO              | Aircraft Category:                | Airplane        |
| Year of Manufacture:             |                      | Amateur Built:                    |                 |
| Airworthiness Certificate:       | Normal               | Serial Number:                    | 142             |
| Landing Gear Type:               | Tailwheel            | Seats:                            | 3               |
| Date/Type of Last<br>Inspection: | June 1, 1995 Annual  | Certified Max Gross Wt.:          | 2600 lbs        |
| Time Since Last Inspection:      | 20 Hrs               | Engines:                          | 1 Reciprocating |
| Airframe Total Time:             | 3085 Hrs             | Engine Manufacturer:              | Continental     |
| ELT:                             | Not installed        | Engine Model/Series:              | W-670-N         |
| Registered Owner:                | GEORGE B. FARNSWORTH | Rated Power:                      | 220 Horsepower  |
| Operator:                        |                      | Operating Certificate(s)<br>Held: | None            |
| Operator Does Business As:       |                      | Operator Designator Code:         |                 |

# Meteorological Information and Flight Plan

|   |                                  |   | 6                 |
|---|----------------------------------|---|-------------------|
| Conditions at Accident Site:            | Visual (VMC)                     | Condition of Light:                     | Day               |
| <b>Observation Facility, Elevation:</b> | CAE ,236 ft msl                  | Distance from Accident Site:            | 15 Nautical Miles |
| Observation Time:                       | 10:50 Local                      | Direction from Accident Site:           | 310°              |
| Lowest Cloud Condition:                 | Clear                            | Visibility                              | 10 miles          |
| Lowest Ceiling:                         | None                             | Visibility (RVR):                       |                   |
| Wind Speed/Gusts:                       | 5 knots /                        | Turbulence Type<br>Forecast/Actual:     | /                 |
| Wind Direction:                         | 270°                             | Turbulence Severity<br>Forecast/Actual: | /                 |
| Altimeter Setting:                      | 29 inches Hg                     | Temperature/Dew Point:                  | 16°C              |
| Precipitation and Obscuration:          | No Obscuration; No Precipitation |   |                   |
| Departure Point:                        |                                  | Type of Flight Plan Filed:              | None              |
| Destination:                            |                                  | Type of Clearance:                      | None              |
| Departure Time:                         | 00:00 Local                      | Type of Airspace:                       | Class G           |

#### **Airport Information**

| Airport:             | RIDGELAND MUNICIPAL 3J1 | Runway Surface Type:      | Asphalt        |
|----------------------|-------------------------|---------------------------|----------------|
| Airport Elevation:   | 79 ft msl               | Runway Surface Condition: | Dry            |
| Runway Used:         | 3                       | IFR Approach:             | None           |
| Runway Length/Width: | 3100 ft / 70 ft         | VFR Approach/Landing:     | Forced landing |

# Wreckage and Impact Information

| Crew Injuries:         | 1 None | Aircraft Damage:        | Substantial               |
|------------------------|--------|-------------------------|---------------------------|
| Passenger<br>Injuries: | 1 None | Aircraft Fire:          | None                      |
| Ground Injuries:       | N/A    | Aircraft Explosion:     | None                      |
| Total Injuries:        | 2 None | Latitude,<br>Longitude: | 32.479377,-80.980316(est) |

#### **Administrative Information**

| Investigator In Charge (IIC):        | Sasser, Roff                                |  |
|--------------------------------------|---|--|
| Additional Participating<br>Persons: | LEWIS BLACKWELL; COLUMBIA, , SC             |  |
| Original Publish Date:               | June 7, 1996                                |  |
| Last Revision Date:                  |   |  |
| Investigation Class:                 | <u>Class</u>                                |  |
| Note:                                |   |  |
| Investigation Docket:                | https://data.ntsb.gov/Docket?ProjectID=3671 |  |

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