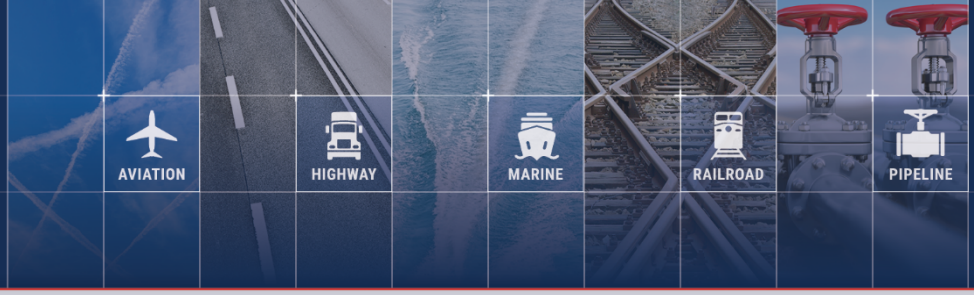


# Aviation Investigation Final Report

| | | | |
|---|---|---|---|
| **Location:** | Pell City, Alabama | **Accident Number:** | ATL03LA109 |
| **Date & Time:** | July 16, 2003, 19:45 Local | **Registration:** | N9110T |
| **Aircraft:** | Keuthan Buccaneer II | **Aircraft Damage:** | Substantial |
| **Defining Event:** | | **Injuries:** | 2 None |
| **Flight Conducted Under:** | Part 91: General aviation - Personal | | |

## Analysis

The pilot was in cruise flight when the airplane experienced a loss of engine power. An engine restart was unsuccessful and a forced landing was made to an open field which ran up slope. Examination of the airplane revealed the throttle cable had broken and the left main landing gear had separated. Further examination of the throttle cable by the NTSB Materials Laboratory revealed the cable had failed in fatigue.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the throttle cable due to fatigue resulting in a loss of engine power. Factor were uphill rough and uneven terrain.

## Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: DESCENT - EMERGENCY

Findings
1. (C) THROTTLE/POWER LEVER,CABLE - FAILURE,TOTAL
2. (C) THROTTLE/POWER LEVER,CABLE - FATIGUE
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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 - UPHILL
4. (F) TERRAIN CONDITION - ROUGH/UNEVEN
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Occurrence #4: GEAR COLLAPSED
Phase of Operation: EMERGENCY LANDING

Findings
5. LANDING GEAR,MAIN GEAR - OVERLOAD
6. LANDING GEAR,MAIN GEAR - COLLAPSED

## Factual Information

On July 16, 2003, at 1945 central daylight time, a Keuthan, Buccaneer II, N9110T, registered to Keuthan Aviation Inc., operating as a 14 CFR Part 91 personal flight, had an in flight loss of engine power in cruise flight near Pell City, Alabama. The pilot made a forced landing and collided with the ground. The left main landing gear separated at the keel beam attach point. Visual meteorological conditions prevailed and no flight plan was filed. The airplane sustained substantial damage, and the commercial pilot and one passenger reported no injuries. The flight originated from St. Clair County Airport, Pell City, Alabama, on July 16, 2003, at 1900.

The pilot stated he departed the airport and climbed to 1,500 feet. He was about 2 ½ miles southwest of the airport when the airplane lost engine power. He immediately checked the magnetos to see if both magnetos were in the "on" position. He suspected there was no fuel going to the engine, and squeezed the pump going to the fuel line and fuel was visible in the fuel line. He primed the engine and attempted an engine restart. The engine did not start, and he made a forced landing to an open field, which ran up slope. A post accident examination of the airplane revealed the throttle cable was broken. Review of the airplane logbooks revealed the throttle cable had 235.8 total hours.

The throttle cable was removed from the airplane and forwarded to the NTSB laboratory for examination. Examination of the cable revealed a general bending curvature near the fracture surface and heavy wear was present around 180 degrees of the circumference of the cable within 0.1 inches of the fracture surface. The mating surface of the throttle cable was not recovered. Nearly all strands in the cable had fracture surfaces that were in flat plane perpendicular to the longitudinal direction, features consistent with brittle fracture mechanism such as fatigue. The fracture surfaces were viewed at high magnification using scanning electron microscopy and they were smooth and consistent with fatigue.

The throttle cable was released to a representative for the registered owner on September 11, 2003.

## Pilot Information

| | | | |
|---|---|---|---|
| **Certificate:** | Commercial | **Age:** | 24,Male |
| **Airplane Rating(s):** | Single-engine land; Multi-engine land | **Seat Occupied:** | Left |
| **Other Aircraft Rating(s):** | None | **Restraint Used:** | |
| **Instrument Rating(s):** | Airplane | **Second Pilot Present:** | No |
| **Instructor Rating(s):** | None | **Toxicology Performed:** | No |
| **Medical Certification:** | Class 2 None | **Last FAA Medical Exam:** | February 4, 2003 |
| **Occupational Pilot:** | No | **Last Flight Review or Equivalent:** | July 3, 2002 |
| **Flight Time:** | 768 hours (Total, all aircraft), 29 hours (Total, this make and model), 698 hours (Pilot In Command, all aircraft), 26 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft) | | |

## Aircraft and Owner/Operator Information

| | | | |
|---|---|---|---|
| **Aircraft Make:** | Keuthan | **Registration:** | N9110T |
| **Model/Series:** | Buccaneer II | **Aircraft Category:** | Airplane |
| **Year of Manufacture:** | | **Amateur Built:** | Yes |
| **Airworthiness Certificate:** | Experimental (Special) | **Serial Number:** | B2B-KO63 |
| **Landing Gear Type:** | Retractable - Tailwheel; Amphibian | **Seats:** | 2 |
| **Date/Type of Last Inspection:** | March 31, 2003 Condition | **Certified Max Gross Wt.:** | 490 lbs |
| **Time Since Last Inspection:** | 58 Hrs | **Engines:** | 1 Reciprocating |
| **Airframe Total Time:** | 236 Hrs at time of accident | **Engine Manufacturer:** | Rotax |
| **ELT:** | Not installed | **Engine Model/Series:** | 582 |
| **Registered Owner:** | Keuthan Aviation Inc. | **Rated Power:** | 64 Horsepower |
| **Operator:** | Charles B. Sapp | **Operating Certificate(s) Held:** | None |

## Meteorological Information and Flight Plan

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|---|---|---|---|
| **Conditions at Accident Site:** | Visual (VMC) | **Condition of Light:** | Dusk |
| **Observation Facility, Elevation:** | BHM,644 ft msl | **Distance from Accident Site:** | 35 Nautical Miles |
| **Observation Time:** | 19:53 Local | **Direction from Accident Site:** | 260° |
| **Lowest Cloud Condition:** | | **Visibility** | 10 miles |
| **Lowest Ceiling:** | Broken / 5000 ft AGL | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 3 knots / | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | 30° | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 30.14 inches Hg | **Temperature/Dew Point:** | 27°C / 24°C |
| **Precipitation and Obscuration:** | No Obscuration; No Precipitation | | |
| **Departure Point:** | Pell City, AL (PLR ) | **Type of Flight Plan Filed:** | None |
| **Destination:** | | **Type of Clearance:** | None |
| **Departure Time:** | 19:00 Local | **Type of Airspace:** | Class E |

## Wreckage and Impact Information

| | | | |
|---|---|---|---|
| **Crew Injuries:** | 1 None | **Aircraft Damage:** | Substantial |
| **Passenger Injuries:** | 1 None | **Aircraft Fire:** | None |
| **Ground Injuries:** | N/A | **Aircraft Explosion:** | None |
| **Total Injuries:** | 2 None | **Latitude, Longitude:** | 33.563888,-86.247222 |

## Administrative Information

| | |
|---|---|
| **Investigator In Charge (IIC):** | Smith, Carrol |
| **Additional Participating Persons:** | Steve A Blanset; Birmingham FSDO-09; Birmingham, AL |
| **Original Publish Date:** | September 1, 2004 |
| **Last Revision Date:** | |
| **Investigation Class:** | Class |
| **Note:** | |
| **Investigation Docket:** | https://data.ntsb.gov/Docket?ProjectID=57497 |