

Aviation Investigation Final Report

| Location: | ANDALUSIA, Alabama | | Accident Number: | ATL83LA382 |
|-------------------------|-----------------------------|------|------------------|-------------|
| Date & Time: | September 26, 1983, 09:00 L | ocal | Registration: | N8031V |
| Aircraft: | AERO COMMANDER | A-9 | Aircraft Damage: | Substantial |
| Defining Event: | | | Injuries: | 1 Minor |
| Flight Conducted Under: | Part 137: Agricultural | | | |

Analysis

AFTER SPRAYING 2 FIELDS, THE PLT WAS EN ROUTE TO SPRAY A 3RD FIELD WHEN A SEVERE VIBRATION OF THE ACFT WAS ENCOUNTERED. HE ELECTED TO LAND IN THE 1ST AVAILABLE FIELD & DUMPED HIS CHEMICAL LOAD. DURING THE LANDING, THE ACFT HIT A TERRACE & NOSED OVER. THE PLT STATED THAT HE DID NOT REALIZE THE FIELD WAS UNEVEN & TERRACED UNTIL THE ACFT WAS ON THE GROUND. GRASS & TALL WEEDS WERE GROWING IN THE FIELD. AN INVESTIGATION REVEALED THAT THE UPPER RIGHT ENG MOUNT HAD FAILED. NO FATIGUE WAS FOUND; HOWEVER, THERE WAS EVIDENCE OF HAMMERING, INDICATING MULTIPLE IMPACTS AFTER THE INITIAL FAILURE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION Phase of Operation: CRUISE

Findings 1. (C) ENGINE ASSEMBLY, MOUNT - FAILURE, TOTAL 2. (C) ENGINE ASSEMBLY - VIBRATION Occurrence #2: FORCED LANDING Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. LOAD JETTISON - PERFORMED - PILOT IN COMMAND

Occurrence #3: NOSE OVER Phase of Operation: LANDING - ROLL

Findings

4. PRECAUTIONARY LANDING - INITIATED - PILOT IN COMMAND

5. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - SELECTED - PILOT IN COMMAND

6. (F) TERRAIN CONDITION - HIGH VEGETATION

7. (F) TERRAIN CONDITION - HIDDEN OBSTRUCTION(S)

8. (F) TERRAIN CONDITION - DIRT BANK/RISING EMBANKMENT

Factual Information

Pilot Information

| Certificate: | Commercial | Age: | 35,Male |
|---------------------------|--|-----------------------------------|-------------------|
| Airplane Rating(s): | Single-engine land; Multi-engine land | Seat Occupied: | Front |
| Other Aircraft Rating(s): | Helicopter | Restraint Used: | |
| Instrument Rating(s): | Airplane | Second Pilot Present: | No |
| Instructor Rating(s): | | Toxicology Performed: | No |
| Medical Certification: | Class 2 Valid Medicalno waivers/lim. | Last FAA Medical Exam: | February 16, 1983 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | |
| Flight Time: | 8000 hours (Total, all aircraft), 150 hours (Total, this make and model) | | |
| | | | |

Aircraft and Owner/Operator Information

| Aircraft Make: | AERO COMMANDER | Registration: | N8031V |
|----------------------------------|----------------------|-----------------------------------|-----------------|
| Model/Series: | A-9 A-9 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Restricted (Special) | Serial Number: | 1598 |
| Landing Gear Type: | Tailwheel | Seats: | 1 |
| Date/Type of Last Inspection: | June 1, 1983 Annual | Certified Max Gross Wt.: | 3000 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 1668 Hrs | Engine Manufacturer: | LYCOMING |
| ELT: | Not installed | Engine Model/Series: | O-540-B2B5 |
| Registered Owner: | FERRIN D. EASON | Rated Power: | 235 Horsepower |
| Operator: | FERRIN D. EASON | Operating Certificate(s) Held: | |
| Operator Does Business As: | | Operator Designator Code: | |

Meteorological Information and Flight Plan

| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
|----------------------------------|----------------------------------|---|-------------------|
| Observation Facility, Elevation: | CEW ,215 ft msl | Distance from Accident Site: | 32 Nautical Miles |
| Observation Time: | 08:54 Local | Direction from Accident Site: | 180° |
| Lowest Cloud Condition: | Clear | Visibility | 7 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 4 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 70° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30 inches Hg | Temperature/Dew Point: | 18°C / 13°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | FLORALA , AL (0J4) | Type of Flight Plan Filed: | None |
| Destination: | | Type of Clearance: | None |
| Departure Time: | 08:30 Local | Type of Airspace: | Class G |

Airport Information

| Airport: | | Runway Surface Type: | Grass/turf |
|----------------------|---|---------------------------|----------------|
| Airport Elevation: | | Runway Surface Condition: | Dry |
| Runway Used: | 0 | IFR Approach: | None |
| Runway Length/Width: | | VFR Approach/Landing: | Forced landing |

Wreckage and Impact Information

| Crew Injuries: | 1 Minor | Aircraft Damage: | Substantial |
|------------------------|---------|-------------------------|---------------------------|
| Passenger Injuries: | | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 Minor | Latitude, Longitude: | 31.299377,-86.479652(est) |

Administrative Information

| Investigator In Charge (IIC): | Drake, John |
|--------------------------------------|---|
| Additional Participating Persons: | |
| Original Publish Date: | |
| Last Revision Date: | |
| Investigation Class: | <u>Class</u> |
| Note: | |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=6215 |

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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.