



Aviation Investigation Final Report

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|--------------------------------|----------------------------|-------------------------|-------------|
| Location: | SOLOMAN, Arizona | Accident Number: | LAX83LA177 |
| Date & Time: | April 2, 1983, 12:10 Local | Registration: | N2074J |
| Aircraft: | CESSNA T188C | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 1 Serious |
| Flight Conducted Under: | Part 137: Agricultural | | |

Analysis

THE ACFT EXPERIENCED A PARTIAL POWER LOSS AND MADE AN EMERGENCY LANDING IN THE FIELD IT WAS SPRAYING. THE ACFT HAD ONLY MADE ONE SPRAYING PASS SINCE BEING SERVICED WITH A FULL LOAD OF FUEL AND 140 GALLONS OF CHEMICAL BEFORE THE POWER LOSS OCCURRED. AS THE ACFT CONTINUED TO LOSE POWER IT LOST ALT AND LANDED. THE LANDING GEAR WAS TORN FROM THE ACFT AND IT BOUNCED BUT REMAINED UPRIGHT. THE PILOT ATTEMPTED TO DUMP LOAD BEFORE LANDING BUT GATE STOP WAS INCORRECTLY SET AND WOULD NOT DUMP. THE ENGINE WAS LATER TESTED AND FUEL SYSTEM CONTAMINATION WAS FOUND IN THE FORM OF RUST, SAND GRAINS AND FINE ALUMINUM FRAGMENTS. DURING THE TESTING THE #6 FUEL NOZZLE BECAME PLUGGED ENOUGH TO LOSE POWER ON #6 CYLINDER.

Probable Cause and Findings

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

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (C) FLUID,FUEL - CONTAMINATION

- 2. (C) FLUID,FUEL - WATER
- 3. (C) FUEL SYSTEM,NOZZLE - BLOCKED(TOTAL)

Occurrence #2: FORCED LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

- 4. (F) SPRAY/DUSTING EQUIPMENT - INOPERATIVE
- 5. (F) LOAD JETTISON - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #3: MAIN GEAR COLLAPSED
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

- 6. (F) LANDING GEAR,MAIN GEAR ATTACHMENT - OVERLOAD

Factual Information

Pilot Information

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|----------------------------------|--|--|---------------|
| Certificate: | Commercial; Flight instructor | Age: | 56, Male |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Center |
| Other Aircraft Rating(s): | | Restraint Used: | |
| Instrument Rating(s): | None | Second Pilot Present: | No |
| Instructor Rating(s): | Airplane single-engine | Toxicology Performed: | No |
| Medical Certification: | Class 2 Valid Medical-w/ waivers/lim | Last FAA Medical Exam: | April 1, 1983 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | |
| Flight Time: | 23500 hours (Total, all aircraft), 1000 hours (Total, this make and model), 28 hours (Last 90 days, all aircraft), 3 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|----------------------------|---------------------------------------|-----------------|
| Aircraft Make: | CESSNA | Registration: | N2074J |
| Model/Series: | T188C T188C | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Restricted (Special) | Serial Number: | T188 03364T |
| Landing Gear Type: | Tailwheel | Seats: | 1 |
| Date/Type of Last Inspection: | January 3, 1983 Annual | Certified Max Gross Wt.: | 4400 lbs |
| Time Since Last Inspection: | 29 Hrs | Engines: | 1 Reciprocating |
| Airframe Total Time: | 1485 Hrs | Engine Manufacturer: | CONTINENTAL |
| ELT: | Not installed | Engine Model/Series: | TSIO-520-T |
| Registered Owner: | DAVIS AERIAL SERVICE, INC. | Rated Power: | 310 Horsepower |
| Operator: | | Operating Certificate(s) Held: | |
| Operator Does Business As: | | Operator Designator Code: | |

Meteorological Information and Flight Plan

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|---|----------------------------------|---|-------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | E74 ,3176 ft msl | Distance from Accident Site: | 10 Nautical Miles |
| Observation Time: | 12:10 Local | Direction from Accident Site: | 270° |
| Lowest Cloud Condition: | Clear | Visibility | 40 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 2 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 90° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | | Temperature/Dew Point: | 19°C / -4°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | SAFFORD , AZ (SAD) | Type of Flight Plan Filed: | None |
| Destination: | | Type of Clearance: | None |
| Departure Time: | 12:05 Local | Type of Airspace: | Class G |

Airport Information

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

Wreckage and Impact Information

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|----------------------------|-----------|-----------------------------|----------------------------|
| Crew Injuries: | 1 Serious | Aircraft Damage: | Substantial |
| Passenger Injuries: | | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 Serious | Latitude, Longitude: | 32.800655,-109.610176(est) |

Administrative Information

Investigator In Charge (IIC): Pollack, Wayne

Additional Participating Persons:

Original Publish Date:

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=23667>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).