



Aviation Investigation Final Report

| | | | |
|--------------------------------|--------------------------------------|-------------------------|----------------------------|
| Location: | SCHAGHTICOKE, New York | Accident Number: | BF092LA129 |
| Date & Time: | September 7, 1992, 16:32 Local | Registration: | N400RD |
| Aircraft: | PIPER PA-30K | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 1 Serious, 1 Minor, 2 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Analysis

ABOUT 1 HOUR AFTER TAKEOFF, THE AIRPLANE LOST ALL ELECTRICAL POWER. THE PILOT CONTACTED THE TOWER BY A HAND HELD RADIO AND REPORTED THE SITUATION. IT WAS DECIDED THAT THE FLIGHT WOULD CONTINUE TO ALBANY, NEW YORK, WHERE VMC EXISTED. ON APPROACH INTO ALBANY, ABOUT 2 HOURS AFTER TAKEOFF, BOTH ENGINES LOST TOTAL POWER FOR UNDETERMINED REASONS. THE PILOT MADE AN EMERGENCY LANDING. DURING THE IMPACT SEQUENCE, THE MAIN AND AUXILIARY FUEL TANKS WERE BREACHED. A FUEL QUANTITY COULD NOT BE DETERMINED. THREE QUARTERS OF A GALLON OF FUEL WAS FOUND IN BOTH THE TIP TANKS. EXAMINATION OF THE WRECKAGE SHOWED THAT ALL SWITCHES WERE IN THE OFF POSITION EXCEPT FOR THE FUEL PUMPS AND MAGNETOS SWITCHES. FURTHER EXAMINATION OF THE LEFT ALTERNATOR REVEALED THAT THE NUMBER 2 FIELD WIRE TO THE TERMINAL WAS BROKEN PRIOR TO IMPACT. THE RIGHT ALTERNATOR WAS FUNCTIONAL. THE BATTERY WAS FOUND DISCHARGED. FOR THIS AIRPLANE, ONE ALTERNATOR PROVIDES SUFFICIENT VOLTAGE BUT MUST BE SELECTED IN ORDER TO OPERATE THE ELECTRICAL SYSTEM.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE LOSS OF TOTAL ENGINE POWER DUE TO FUEL STARVATION. CONTRIBUTING TO THE ACCIDENT WAS THE LOSS OF TOTAL ELECTRICAL POWER.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: CRUISE

Findings

1. (F) ELECTRICAL SYSTEM,ALTERNATOR - FAILURE,TOTAL
2. (F) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - ATTEMPTED - PILOT IN COMMAND
3. (F) ELECTRICAL SYSTEM,ALTERNATOR - NOT SWITCHED
4. (F) ELECTRICAL SYSTEM,BATTERY - OUTPUT LOW

Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: APPROACH

Findings

5. (C) FLUID,FUEL - STARVATION

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: DESCENT - EMERGENCY

Factual Information

Pilot Information

| | | | |
|----------------------------------|---|--|-----------------|
| Certificate: | Private | Age: | 37, 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 3 Valid Medical--no waivers/lim. | Last FAA Medical Exam: | October 2, 1990 |
| Occupational Pilot: | UNK | Last Flight Review or Equivalent: | |
| Flight Time: | 746 hours (Total, all aircraft), 143 hours (Total, this make and model), 587 hours (Pilot In Command, all aircraft), 28 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

| | | | |
|--------------------------------------|------------------------------|---------------------------------------|-----------------|
| Aircraft Make: | PIPER | Registration: | N400RD |
| Model/Series: | PA-30K PA-30K | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 30-1769 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 4 |
| Date/Type of Last Inspection: | November 23, 1991 Annual | Certified Max Gross Wt.: | 3600 lbs |
| Time Since Last Inspection: | 113 Hrs | Engines: | 2 Reciprocating |
| Airframe Total Time: | 3830 Hrs | Engine Manufacturer: | LYCOMING |
| ELT: | Installed | Engine Model/Series: | IO 320-C1A |
| Registered Owner: | MARJO FLYERS INCORPORATED | Rated Power: | 160 Horsepower |
| Operator: | MARJO FLYERS INCORPORATED | Operating Certificate(s) Held: | None |
| Operator Does Business As: | | Operator Designator Code: | |

Meteorological Information and Flight Plan

| | | | |
|---|----------------------------------|---|------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Dusk |
| Observation Facility, Elevation: | ALB ,1 ft msl | Distance from Accident Site: | 1 Nautical Miles |
| Observation Time: | 16:55 Local | Direction from Accident Site: | 1° |
| Lowest Cloud Condition: | 1500 ft AGL | Visibility | 20 miles |
| Lowest Ceiling: | Broken / 4500 ft AGL | Visibility (RVR): | |
| Wind Speed/Gusts: | 11 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 180° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30 inches Hg | Temperature/Dew Point: | 21°C / 18°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | ROCKLAND , ME (RKD) | Type of Flight Plan Filed: | IFR |
| Destination: | WHITE PLAINS , NY (HPN) | Type of Clearance: | IFR |
| Departure Time: | 14:32 Local | Type of Airspace: | Class E |

Airport Information

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

Wreckage and Impact Information

| | | | |
|----------------------------|----------------------------|-----------------------------|---------------------------|
| Crew Injuries: | 1 Serious | Aircraft Damage: | Substantial |
| Passenger Injuries: | 1 Minor, 2 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 Serious, 1 Minor, 2 None | Latitude, Longitude: | 42.889289,-73.579254(est) |

Administrative Information

| | |
|--|---|
| Investigator In Charge (IIC): | Napolitan, Margaret |
| Additional Participating Persons: | RAY DARLING; ALBANY , NY |
| Original Publish Date: | June 30, 1993 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=11843 |

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](#).