



National Transportation Safety Board Aviation Accident Final Report

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| Location: | RICHARDSVILLE, KY | Accident Number: | BF091LA047 |
| Date & Time: | 05/04/1991, 1715 EDT | Registration: | N5590M |
| Aircraft: | Aerospace Tech. of Australia N22B | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 2 None |
| Flight Conducted Under: | Part 91: General Aviation - Business | | |

Analysis

THE PILOT HAD JUST LEVELED AT FOUR THOUSAND FEET WHEN THE RIGHT ENGINE LOST POWER. HE IMMEDIATELY TURNED BACK TOWARD HIS DEPARTURE FIELD BUT COULD NOT MAINTAIN ALTITUDE WITH THE REMAINING ENGINE. HE THEN ELECTED TO MAKE A GEAR UP LANDING IN AN OPEN FIELD. ON TOUCHDOWN, THE AIRCRAFT SUSTAINED SUBSTANTIAL DAMAGE AS IT CAME TO A STOP IN THE GRASSY FIELD. THE PILOT AND PASSENGER EXITED THROUGH THE FORWARD DOORS WITHOUT FURTHER INCIDENT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE LOSS OF ENGINE POWER BROUGHT ON BY A FAILURE OF THE NO.2 MAIN ENGINE BEARING. CONTRIBUTING TO THE ACCIDENT WAS THE LACK OF SUFFICIENT POWER ON THE REMAINING ENGINE TO MAINTAIN LEVEL FLIGHT.

Findings

Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: CRUISE

Findings

1. (C) ENGINE ASSEMBLY, BEARING - FAILURE, TOTAL

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Findings

2. (F) AIRCRAFT PERFORMANCE, ENGINE OUT CAPABILITY - INADEQUATE

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

3. (F) TERRAIN CONDITION - ROUGH/UNEVEN

4. AIRCRAFT CONTROL - PERFORMED - PILOT IN COMMAND

Factual Information

Pilot Information

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|----------------------------------|---|-------------------------------|----------------------------|
| Certificate: | Airline Transport | Age: | 43, Male |
| Airplane Rating(s): | Multi-engine Land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | Helicopter | Restraint Used: | Seatbelt, Shoulder harness |
| Instrument Rating(s): | Airplane; Helicopter | Second Pilot Present: | No |
| Instructor Rating(s): | Helicopter | Toxicology Performed: | No |
| Medical Certification: | Class 1 Valid Medical--no waivers/lim. | Last FAA Medical Exam: | 05/11/1990 |
| Occupational Pilot: | Last Flight Review or Equivalent: | | |
| Flight Time: | 6400 hours (Total, all aircraft), 40 hours (Total, this make and model), 4800 hours (Pilot In Command, all aircraft), 90 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|------------------------------|---------------------------------------|-----------------|
| Aircraft Make: | Aerospace Tech. of Australia | Registration: | N5590M |
| Model/Series: | N22B N22B | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | No |
| Airworthiness Certificate: | Normal | Serial Number: | 18 |
| Landing Gear Type: | Amphibian | Seats: | 8 |
| Date/Type of Last Inspection: | 04/03/1991, 100 Hour | Certified Max Gross Wt.: | 8300 lbs |
| Time Since Last Inspection: | 17 Hours | Engines: | 2 Reciprocating |
| Airframe Total Time: | 770 Hours | Engine Manufacturer: | ALLISON |
| ELT: | | Engine Model/Series: | 250-C17B |
| Registered Owner: | S.C. JOHNSON & SON | Rated Power: | 420 hp |
| Operator: | S.C. JOHNSON & SON | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

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|----------------------------------|----------------------------|---|-------------------|
| Conditions at Accident Site: | Visual Conditions | Condition of Light: | Day |
| Observation Facility, Elevation: | BNA, 599 ft msl | Distance from Accident Site: | 68 Nautical Miles |
| Observation Time: | 1850 CDT | Direction from Accident Site: | 190° |
| Lowest Cloud Condition: | Scattered / 0 ft agl | Visibility | 7 Miles |
| Lowest Ceiling: | Broken / 2000 ft agl | Visibility (RVR): | 0 ft |
| Wind Speed/Gusts: | 9 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 160° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 29 inches Hg | Temperature/Dew Point: | 24° C / 19° C |
| Precipitation and Obscuration: | | | |
| Departure Point: | BOWLING GREEN, KY (BWG) | Type of Flight Plan Filed: | IFR |
| Destination: | RACINE, WI (RAC) | Type of Clearance: | IFR |
| Departure Time: | 0000 | Type of Airspace: | |

Wreckage and Impact Information

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|---------------------|--------|----------------------|-------------|
| 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: | |

Administrative Information

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|-----------------------------------|--|--------------|------------|
| Investigator In Charge (IIC): | ALBERT G REITAN | Report Date: | 12/14/1992 |
| Additional Participating Persons: | G. BLACKMAN; LOUISVILLE, KY | | |
| Publish Date: | | | |
| Investigation Docket: | NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ . | | |

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).