



National Transportation Safety Board Aviation Accident Final Report

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|-------------------------|----------------------|-------------------------|-------------|
| Location: | HILLSBORO, OR | Accident Number: | SEA92LA088 |
| Date & Time: | 05/01/1992, 1225 PDT | Registration: | N5211Y |
| Aircraft: | HUGHES 369E | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 3 None |

Flight Conducted Under: Part 91: General Aviation - Instructional

Analysis

DURING AN PRACTICE AUTOROTATION THE PILOT APPLIED TOO MUCH COLLECTIVE TOO EARLY AND THE HELICOPTER LANDED HARD RESULTING IN THE MAIN ROTOR BLADES FLEXING DOWN AND SEVERING THE TAILBOOM ASSEMBLY.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
THE PILOT IN COMMAND'S EXCESSIVE APPLICATION OF COLLECTIVE.

Findings

Occurrence #1: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) COLLECTIVE - EXCESSIVE - PILOT IN COMMAND

Factual Information

Pilot Information

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|----------------------------------|---|--|----------------------------|
| Certificate: | Commercial | Age: | 35, Male |
| Airplane Rating(s): | Single-engine Land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | Helicopter | Restraint Used: | Seatbelt, Shoulder harness |
| Instrument Rating(s): | Helicopter | Second Pilot Present: | Yes |
| Instructor Rating(s): | None | Toxicology Performed: | |
| Medical Certification: | Class 2 Valid Medical--w/ waivers/lim. | Last FAA Medical Exam: | 08/27/1991 |
| Occupational Pilot: | | Last Flight Review or Equivalent: | |
| Flight Time: | 5266 hours (Total, all aircraft), 10 hours (Total, this make and model), 4786 hours (Pilot In Command, all aircraft), 1 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|---|---|--------------------------|
| Aircraft Make: | HUGHES | Registration: | N5211Y |
| Model/Series: | 369E 369E | Aircraft Category: | Helicopter |
| Year of Manufacture: | | Amateur Built: | No |
| Airworthiness Certificate: | Normal | Serial Number: | 0107E |
| Landing Gear Type: | Skid | Seats: | 5 |
| Date/Type of Last Inspection: | 02/27/1992, Annual | Certified Max Gross Wt.: | 3000 lbs |
| Time Since Last Inspection: | 14 Hours | Engines: | 1 Turbo Shaft |
| Airframe Total Time: | 779 Hours | Engine Manufacturer: | ALLISON |
| ELT: | Installed, activated, did not aid in locating accident | Engine Model/Series: | 250-C20B |
| Registered Owner: | STUBBLEFIELD, JERRY D. | Rated Power: | 420 hp |
| Operator: | HILLSBORO HELICOPTERS INC. | Operating Certificate(s) Held: | On-demand Air Taxi (135) |
| Operator Does Business As: | | Operator Designator Code: | LJEA |

Meteorological Information and Flight Plan

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|----------------------------------|-------------------|---|------------------|
| Conditions at Accident Site: | Visual Conditions | Condition of Light: | Day |
| Observation Facility, Elevation: | , 0 ft msl | Distance from Accident Site: | 0 Nautical Miles |
| Observation Time: | 0000 | Direction from Accident Site: | 0° |
| Lowest Cloud Condition: | Clear / 0 ft agl | Visibility | 40 Miles |
| Lowest Ceiling: | None / 0 ft agl | Visibility (RVR): | 0 ft |
| Wind Speed/Gusts: | Calm / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30 inches Hg | Temperature/Dew Point: | 13° C / 6° C |
| Precipitation and Obscuration: | | | |
| Departure Point: | | Type of Flight Plan Filed: | None |
| Destination: | | Type of Clearance: | Traffic Advisory |
| Departure Time: | 1100 PDT | Type of Airspace: | Class D; Class E |

Airport Information

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|----------------------|--------------------------|---------------------------|--------------------------|
| Airport: | PORTLAND-HILLSBORO (HIO) | Runway Surface Type: | Grass/turf |
| Airport Elevation: | 204 ft | Runway Surface Condition: | Dry; Vegetation |
| Runway Used: | 0 | IFR Approach: | None |
| Runway Length/Width: | | VFR Approach/Landing: | Simulated Forced Landing |

Wreckage and Impact Information

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|---------------------|--------|----------------------|-------------|
| Crew Injuries: | 2 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | 1 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 3 None | Latitude, Longitude: | |

Administrative Information

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|-----------------------------------|--|--------------|------------|
| Investigator In Charge (IIC): | STEVEN A MCCREARY | Report Date: | 08/13/1993 |
| Additional Participating Persons: | ROBERT MABREY; HILLSBORO, OR | | |
| 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](#).