



National Transportation Safety Board Aviation Accident Final Report

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|--------------------------------|-----------------------------------|-------------------------|-------------|
| Location: | Joice, IA | Accident Number: | CEN11CA535 |
| Date & Time: | 08/01/2011, 0930 CDT | Registration: | N51857 |
| Aircraft: | TEXAS HELICOPTER CORP OH-13H/M74A | Aircraft Damage: | Substantial |
| Defining Event: | Low altitude operation/event | Injuries: | 1 None |
| Flight Conducted Under: | Part 137: Agricultural | | |

Analysis

The pilot reported that during an aerial application flight, he was paralleling a highway as he was applying chemical to a cornfield. He gained altitude to clear a homestead and then descended into the field to continue spraying. He reported that the helicopter impacted an unmarked wire that was strung diagonally between the road he was paralleling and the corner of the property. The helicopter impacted the field and the main rotor blades separated from the airframe, causing the helicopter to cartwheel prior coming to a stop. The helicopter sustained substantial damage to the main rotor blades and fuselage. The pilot reported that there was no mechanical malfunction or failure of the helicopter prior to the wire strike.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain clearance from the wire.

Findings

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| Personnel issues | Incorrect action performance - Pilot (Cause) Monitoring environment - Pilot (Cause) |
| Environmental issues | Wire - Contributed to outcome |

Factual Information

History of Flight

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|----------------------------|---|
| Maneuvering-low-alt flying | Collision with terr/obj (non-CFIT) |
| Uncontrolled descent | Collision with terr/obj (non-CFIT) |
| Maneuvering-low-alt flying | Low altitude operation/event (Defining event) |

Pilot Information

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|---------------------------|---|-----------------------------------|----------------------------|
| Certificate: | Commercial | Age: | 25, Male |
| Airplane Rating(s): | Single-engine Land | Seat Occupied: | |
| Other Aircraft Rating(s): | None | Restraint Used: | Seatbelt, Shoulder harness |
| Instrument Rating(s): | Helicopter | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | |
| Medical Certification: | Class 2 Without Waivers/Limitations | Last Medical Exam: | 12/20/2010 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | 03/30/2011 |
| Flight Time: | 1840 hours (Total, all aircraft), 1400 hours (Total, this make and model) | | |

Aircraft and Owner/Operator Information

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| Aircraft Manufacturer: | TEXAS HELICOPTER CORP | Registration: | N51857 |
| Model/Series: | OH-13H/M74A | Aircraft Category: | Helicopter |
| Year of Manufacture: | | Amateur Built: | No |
| Airworthiness Certificate: | Restricted | Serial Number: | 78-024 |
| Landing Gear Type: | Skid | Seats: | 1 |
| Date/Type of Last Inspection: | 03/01/2011, Annual | Certified Max Gross Wt.: | 2850 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 4723 Hours | Engine Manufacturer: | Lycoming |
| ELT: | Not installed | Engine Model/Series: | VO-435-AIF |
| Registered Owner: | SCOTTS HELICOPTER SERVICE INC | Rated Power: | 260 hp |
| Operator: | SCOTTS HELICOPTER SERVICE INC | Air Carrier Operating Certificate: | |

Meteorological Information and Flight Plan

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|----------------------------------|------------------|------------------------------|-------------------|
| Observation Facility, Elevation: | | Observation Time: | |
| Distance from Accident Site: | | Condition of Light: | Day |
| Direction from Accident Site: | | Conditions at Accident Site: | Visual Conditions |
| Lowest Cloud Condition: | | Temperature/Dew Point: | |
| Lowest Ceiling: | | Visibility | 10 Miles |
| Wind Speed/Gusts, Direction: | 6 knots, 180° | Visibility (RVR): | |
| Altimeter Setting: | | Visibility (RVV): | |
| Precipitation and Obscuration: | No Precipitation | | |
| Departure Point: | Joice, IA | Type of Flight Plan Filed: | None |
| Destination: | Joice, IA | Type of Clearance: | None |
| Departure Time: | CDT | Type of Airspace: | |

Wreckage and Impact Information

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|---------------------|--------|---------------------|-------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | N/A | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 None | | |

Administrative Information

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| Investigator In Charge (IIC): | James P Silliman | Adopted Date: | 10/17/2011 |
| Additional Participating Persons: | Terry Warren; FAA Des Moines FSDO; Ankeny, IA | | |
| Publish Date: | 10/17/2011 | | |
| Note: | This accident report documents the factual circumstances of this accident as described to the NTSB. | | |
| Investigation Docket: | http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=81329 | | |

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.