



National Transportation Safety Board Aviation Accident Final Report

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|--------------------------------|------------------------------|-------------------------|-------------|
| Location: | Sula, MT | Accident Number: | GAA19CA238 |
| Date & Time: | 04/30/2019, 1015 MDT | Registration: | N350DL |
| Aircraft: | Aerospatiale AS350 | Aircraft Damage: | Substantial |
| Defining Event: | Low altitude operation/event | Injuries: | 1 None |
| Flight Conducted Under: | Part 137: Agricultural | | |

Analysis

The helicopter pilot reported that, after an agricultural application flight, he set the bucket down in a predetermined operations zone near a semi-truck loading hopper to be refilled. He added that another truck arrived to top off the semi-truck hopper, which emitted fertilizer dust and led to the pilot being concerned that it would deteriorate visibility. He advised the ground crew that he was going to temporarily move out of the operations zone.

The pilot reported that he set the bucket in the new temporary operations zone. As the skid steer approached, he eased the helicopter backward to keep the other ground equipment in his view. The pilot heard a "bang," disconnected the helicopter from the long-line, and then landed the helicopter without further incident.

Postaccident examination revealed that the auger from the semi-truck hopper was fully extended behind the helicopter and that a tail rotor blade had sustained substantial damage. The pilot reported that he might have backed the helicopter into the extended auger.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the helicopter that would have precluded normal operation.

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 adequate clearance from ground equipment, which resulted in a tail rotor blade impact.

Findings

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|----------------------|------------------------------------------------|
| Personnel issues | Monitoring environment - Pilot (Cause) |
| Environmental issues | Ground equipment - Effect on operation (Cause) |

Factual Information

History of Flight

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|--------------------------|-------------------------------------------------------------------------------------|
| Maneuvering-hover | Low altitude operation/event (Defining event) Collision with terr/obj (non-CFIT) |
|--------------------------|-------------------------------------------------------------------------------------|

Pilot Information

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|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------|
| Certificate: | Airline Transport; Flight Instructor; Commercial | Age: | 43, Male |
| Airplane Rating(s): | Multi-engine Land; Multi-engine Sea; Single-engine Land; Single-engine Sea | Seat Occupied: | Right |
| Other Aircraft Rating(s): | Helicopter | Restraint Used: | 3-point |
| Instrument Rating(s): | Airplane; Helicopter | Second Pilot Present: | No |
| Instructor Rating(s): | Airplane Multi-engine; Airplane Single-engine; Helicopter; Instrument Airplane; Instrument Helicopter | Toxicology Performed: | No |
| Medical Certification: | Class 2 Without Waivers/Limitations | Last FAA Medical Exam: | 01/11/2019 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | 03/15/2019 |
| Flight Time: | (Estimated) 8773 hours (Total, all aircraft), 3125 hours (Total, this make and model), 8700 hours (Pilot In Command, all aircraft), 26 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|
| Aircraft Make: | Aerospatiale | Registration: | N350DL |
| Model/Series: | AS350 B3 | Aircraft Category: | Helicopter |
| Year of Manufacture: | | Amateur Built: | No |
| Airworthiness Certificate: | Normal | Serial Number: | 4508 |
| Landing Gear Type: | Skid | Seats: | 6 |
| Date/Type of Last Inspection: | 04/24/2019, Annual | Certified Max Gross Wt.: | 5225 lbs |
| Time Since Last Inspection: | | Engines: | 1 Turbo Shaft |
| Airframe Total Time: | 1103.2 Hours as of last inspection | Engine Manufacturer: | Safran |
| ELT: | C126 installed, not activated | Engine Model/Series: | Arriel 2B1 |
| Registered Owner: | Pj Helicopter Llc | Rated Power: | 749 hp |
| Operator: | Mission Mountain Helicopters | Operating Certificate(s) Held: | Agricultural Aircraft (137); Rotorcraft External Load (133); On-demand Air Taxi (135) |

Meteorological Information and Flight Plan

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|----------------------------------|---------------------------------------------|-----------------------------------------|-------------|
| Conditions at Accident Site: | Visual Conditions | Condition of Light: | Day |
| Observation Facility, Elevation: | | Distance from Accident Site: | |
| Observation Time: | | Direction from Accident Site: | |
| Lowest Cloud Condition: | | Visibility | 10 Miles |
| Lowest Ceiling: | Overcast / 10000 ft agl | Visibility (RVR): | |
| Wind Speed/Gusts: | 8 knots / | Turbulence Type Forecast/Actual: | None / None |
| Wind Direction: | 200° | Turbulence Severity Forecast/Actual: | N/A / N/A |
| Altimeter Setting: | | Temperature/Dew Point: | 2° C |
| Precipitation and Obscuration: | Blowing - Widespread Dust; No Precipitation | | |
| Departure Point: | Soula, MT | Type of Flight Plan Filed: | None |
| Destination: | Soula, MT | Type of Clearance: | None |
| Departure Time: | 0700 MDT | Type of Airspace: | Class G |

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 | Latitude, Longitude: | 45.859444, -113.968056 (est) |

Administrative Information

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|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------|------------|
| Investigator In Charge (IIC): | Kathryn R Benhoff | Report Date: | 03/20/2020 |
| Additional Participating Persons: | Jeff Simmons; FAA; Helena, MT | | |
| Publish Date: | 03/20/2020 | | |
| Note: | This accident report documents the factual circumstances of this accident as described to the NTSB. | | |
| Investigation Docket: | http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=99359 | | |

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](#).