



Aviation Investigation Final Report

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|--------------------------------|----------------------------|-------------------------|-------------|
| Location: | Orland, California | Accident Number: | WPR23LA118 |
| Date & Time: | March 2, 2023, 15:00 Local | Registration: | N234SJ |
| Aircraft: | Bell UH-1B | Aircraft Damage: | Substantial |
| Defining Event: | Fuel exhaustion | Injuries: | 1 None |
| Flight Conducted Under: | Part 137: Agricultural | | |

Analysis

The pilot reported that, during the final run for the aerial application flight, he noticed the engine spooling down. He attempted to land on a nearby road but collided with the terrain, resulting in substantial damage to the fuselage. The pilot reported that there were no preaccident mechanical malfunctions or failures with the helicopter or engine that would have precluded normal operation and that the loss of engine power was due to fuel exhaustion.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's inadequate fuel planning, which resulted in fuel exhaustion and a loss of engine power.

Findings

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|-------------------------|-----------------------|
| Personnel issues | Fuel planning - Pilot |
| Aircraft | Fuel - Fluid level |

Factual Information

History of Flight

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|-----------------------------------|------------------------------------|
| Maneuvering-low-alt flying | Fuel exhaustion (Defining event) |
| Maneuvering-low-alt flying | Loss of engine power (total) |
| Emergency descent | Collision with terr/obj (non-CFIT) |
| Emergency descent | Off-field or emergency landing |

Pilot Information

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|----------------------------------|--|--|----------------|
| Certificate: | Commercial | Age: | 70, Male |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Right |
| Other Aircraft Rating(s): | Helicopter | Restraint Used: | 4-point |
| Instrument Rating(s): | None | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | |
| Medical Certification: | Class 2 With waivers/limitations | Last FAA Medical Exam: | March 28, 2022 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | |
| Flight Time: | 21000 hours (Total, all aircraft), 25 hours (Total, this make and model) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|----------------------------|---------------------------------------|-----------------------------|
| Aircraft Make: | Bell | Registration: | N234SJ |
| Model/Series: | UH-1B | Aircraft Category: | Helicopter |
| Year of Manufacture: | 1962 | Amateur Built: | |
| Airworthiness Certificate: | Restricted (Special) | Serial Number: | 388 |
| Landing Gear Type: | Skid | Seats: | 2 |
| Date/Type of Last Inspection: | February 14, 2023 Annual | Certified Max Gross Wt.: | 9500 lbs |
| Time Since Last Inspection: | | Engines: | 1 Turbo shaft |
| Airframe Total Time: | 8295 Hrs | Engine Manufacturer: | Lycoming |
| ELT: | Not installed | Engine Model/Series: | T53-L-13B |
| Registered Owner: | PORTER FLYING SERVICES INC | Rated Power: | 1200 Horsepower |
| Operator: | PORTER FLYING SERVICES INC | Operating Certificate(s) Held: | Agricultural aircraft (137) |
| Operator Does Business As: | Agricultural | Operator Designator Code: | |

Meteorological Information and Flight Plan

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|---|----------------------------------|---|-------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | KCIC, 226 ft msl | Distance from Accident Site: | 14 Nautical Miles |
| Observation Time: | 14:47 Local | Direction from Accident Site: | 76° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 9 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 150° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.09 inches Hg | Temperature/Dew Point: | 13°C / -1°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Chico, CA | Type of Flight Plan Filed: | None |
| Destination: | Chicoc, CA | Type of Clearance: | None |
| Departure Time: | 07:00 Local | Type of Airspace: | Class G |

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|---------------------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | | Aircraft Fire: | None |
| Ground Injuries: | | Aircraft Explosion: | None |
| Total Injuries: | 1 None | Latitude, Longitude: | 39.727032,-122.07095(est) |

Administrative Information

Investigator In Charge (IIC): Rho, Paul

Additional Participating Persons: Tim Snyder; FAA

Original Publish Date: June 6, 2023

Last Revision Date:

Investigation Class: [Class 4](#)

Note: The NTSB did not travel to the scene of this accident.

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=106831>

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](#).