



Aviation Investigation Final Report

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| Location: | Hamilton, Ohio | Accident Number: | ERA22LA334 |
| Date & Time: | July 26, 2022, 04:55 Local | Registration: | N520CF |
| Aircraft: | Eurocopter AS365 | Aircraft Damage: | Substantial |
| Defining Event: | Collision during takeoff/land | Injuries: | 3 Minor |
| Flight Conducted Under: | Part 135: Air taxi & commuter - Non-scheduled - Air Medical (Medical emergency) | | |

Analysis

The pilot was conducting an air medical flight in the helicopter during early morning hours in dark night visual meteorological conditions. About 9 miles out from the intended landing zone, he contacted on-scene fire department personnel and asked for site information. The fire department personnel reported that there were high voltage power lines on the south side of the landing zone. The pilot made an approach and was looking out for the powerlines but could not locate the wires. He was wearing night vision goggles and could see the tower but not the wires. He also could not determine which way the wires were running off the tower. The pilot used the landing light and moved it up and down to try and find the wires but could not locate them. He thought the wires were farther out from the landing zone and not below the helicopter. However, as the helicopter descended for landing, the main rotor blades contacted the wires and the helicopter fell about 30 to 50 ft. All three crew members egressed after the pilot shut down the engines. The helicopter sustained substantial damage to the main rotor blades, main rotor gearbox, and motor mounts; additionally, the left engine was hanging off the side of the helicopter.

Probable Cause and Findings

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

The pilot's decision to continue the landing without having visually identified wires that were known to be in the vicinity of the landing zone, which resulted in a collision with the wires while attempting an off-airport landing in dark night visual meteorological conditions.

Findings

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| Personnel issues | Decision making/judgment - Pilot |
| Environmental issues | Wire - Awareness of condition |
| Environmental issues | Dark - Effect on operation |

Factual Information

History of Flight

| Approach | Collision during takeoff/land (Defining event) |
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On July 26, 2022, at 0455 eastern daylight time, a Eurocopter AS365N3, N520CF, was substantially damaged when it was involved in an accident near Hamilton, Ohio. The pilot and two crew members sustained minor injuries. The helicopter was operated as a Title 14 *Code of Federal Regulations* Part 135 air medical flight.

According to the pilot, he was dispatched to a car accident in Hamilton, Ohio. He checked the weather, approved the flight, and departed for the accident scene around 0428 in dark night visual meteorological conditions. About 9 miles out from the scene, he contacted on-scene fire department personnel, stated that he was a few minutes out, and asked for site information. The fire department personnel reported that there were high voltage power lines on the south side of the landing zone.

As the pilot continued to the scene, he knew the winds were calm and, therefore, he orbited the scene from the south to the north. The pilot made an approach from the south and was looking out for the powerlines but could not locate the wires. The pilot stated that he did not think the wires would be in and around the landing zone. He stated that he was wearing night vision goggles and could see the tower but not the wires. Furthermore, he did not know which way the wires were running off the tower. The pilot used the landing light and moved it up and down to try and find the wires but could not locate them. He thought the wires were further out from the landing zone and not below the helicopter. As the helicopter descended, the main rotor blades contacted the wires and the helicopter fell about 30 to 50 ft. All three crew members egressed after the pilot shut down the engines.

Postaccident examination of the helicopter by a Federal Aviation Administration inspector revealed that the helicopter struck the high voltage wires, severing one wire, and then landed hard. Portions of each main rotor blade were separated near their mid-span, and the main rotor gearbox and mounts were fractured. The left engine was hanging off the engine motor mounts. The helicopter came to rest on its left side with. The stabilizer was bent and substantially damaged, and the landing gear were impact damaged.

Pilot Information

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| Certificate: | Commercial | Age: | 50, Male |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Front |
| Other Aircraft Rating(s): | Helicopter | Restraint Used: | 5-point |
| Instrument Rating(s): | Airplane; Helicopter | Second Pilot Present: | Yes |
| Instructor Rating(s): | None | Toxicology Performed: | |
| Medical Certification: | Class 2 With waivers/limitations | Last FAA Medical Exam: | December 15, 2021 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | August 17, 2021 |
| Flight Time: | 4336 hours (Total, all aircraft), 620 hours (Total, this make and model), 2075 hours (Pilot In Command, all aircraft), 26 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|-------------------------------|---------------------------------------|----------------------------|
| Aircraft Make: | Eurocopter | Registration: | N520CF |
| Model/Series: | AS365 N3 | Aircraft Category: | Helicopter |
| Year of Manufacture: | 1998 | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 6537 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 5 |
| Date/Type of Last Inspection: | July 25, 2022 AAIP | Certified Max Gross Wt.: | |
| Time Since Last Inspection: | | Engines: | 2 Turbo shaft |
| Airframe Total Time: | 6390 Hrs at time of accident | Engine Manufacturer: | Turbomeca |
| ELT: | C126 installed, not activated | Engine Model/Series: | Arriel 2C |
| Registered Owner: | MIAMI VALLEY HOSPITAL | Rated Power: | 712 |
| Operator: | Air Methods Corp | Operating Certificate(s) Held: | Commuter air carrier (135) |

Meteorological Information and Flight Plan

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| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Night/dark |
| Observation Facility, Elevation: | HA0,606 ft msl | Distance from Accident Site: | 3 Nautical Miles |
| Observation Time: | 04:53 Local | Direction from Accident Site: | 139° |
| Lowest Cloud Condition: | Clear | Visibility | 10 miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | / | Turbulence Type Forecast/Actual: | None / None |
| Wind Direction: | | Turbulence Severity Forecast/Actual: | N/A / N/A |
| Altimeter Setting: | 30.02 inches Hg | Temperature/Dew Point: | 20°C / 18°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Lebanon, OH (I68) | Type of Flight Plan Filed: | Company VFR |
| Destination: | Hamilton, OH | Type of Clearance: | None |
| Departure Time: | 04:28 Local | Type of Airspace: | Class G |

Wreckage and Impact Information

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| Crew Injuries: | 3 Minor | Aircraft Damage: | Substantial |
| Passenger Injuries: | N/A | Aircraft Fire: | None |
| Ground Injuries: | | Aircraft Explosion: | None |
| Total Injuries: | 3 Minor | Latitude, Longitude: | 39.396795,-84.561443(est) |

Administrative Information

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| Investigator In Charge (IIC): | Boggs, Daniel |
| Additional Participating Persons: | Sharla Stanek; FAA/FSDO; Cincinnati, OH Seth Buttner; Airbus Helicopters Jerome Fragert; BeA Aero |
| Original Publish Date: | February 7, 2024 |
| Last Revision Date: | |
| Investigation Class: | Class 3 |
| Note: | The NTSB did not travel to the scene of this accident. |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=105574 |

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](#).