



# Aviation Investigation Final Report

|                                |   |                         |            |
|--------------------------------|---|-------------------------|------------|
| <b>Location:</b>               | ELKHORN, Wisconsin                            | <b>Accident Number:</b> | CHI90MA244 |
| <b>Date &amp; Time:</b>        | August 27, 1990, 01:00 Local                  | <b>Registration:</b>    | N16933     |
| <b>Aircraft:</b>               | BELL 206B                                     | <b>Aircraft Damage:</b> | Destroyed  |
| <b>Defining Event:</b>         |   | <b>Injuries:</b>        | 5 Fatal    |
| <b>Flight Conducted Under:</b> | Part 135: Air taxi & commuter - Non-scheduled |                         |            |

## Analysis

FOUR HELICOPTERS WERE BEING USED AT NIGHT TO TRANSPORT A CONCERT GROUP FROM A GOLF COURSE AREA NEAR ELKHORN, WI, TO CHICAGO, IL. AS THE THIRD HELICOPTER (N16933) WAS DEPARTING, IT REMAINED AT A LOWER ALTITUDE THAN THE OTHERS, AND THE PILOT TURNED SOUTHEASTERLY TOWARD RISING TERRAIN. SUBSEQUENTLY, THE HELICOPTER CRASHED ON HILLY TERRAIN ABOUT 3/5 MI FROM THE TAKEOFF POINT. ELEVATION OF THE CRASH SITE WAS ABOUT 100 FT ABOVE THE GOLF COURSE AND 50 FT BELOW THE SUMMIT OF THE HILL. NO PREIMPACT PART FAILURE OR MALFUNCTION WAS FOUND DURING THE INVESTIGATION. PILOTS OF THE OTHER HELICOPTERS REPORTED VFR FLIGHT CONDITIONS WITH SOME FOG. A GROUND WITNESS NEAR THE CRASH SITE REPORTED HAZE AND GROUND FOG OF VARYING INTENSITY WITH PATCHES OF LOW CLOUDS, BUT SAID STARS COULD BE SEEN THROUGH THE FOG.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: IMPROPER PLANNING/DECISION BY THE PILOT, AND HIS FAILURE TO ATTAIN ADEQUATE ALTITUDE BEFORE FLYING OVER RISING TERRAIN AT NIGHT. FACTORS RELATED TO THE ACCIDENT WERE: DARKNESS, FOG, HAZE, RISING TERRAIN, AND THE LACK OF VISUAL CUES THAT WERE AVAILABLE TO THE PILOT.

## Findings

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Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: TAKEOFF - INITIAL CLIMB

### Findings

1. (C) PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. (F) LIGHT CONDITION - DARK NIGHT
3. (F) WEATHER CONDITION - FOG
4. (F) WEATHER CONDITION - HAZE/SMOKE
5. (F) TERRAIN CONDITION - RISING
6. (C) PROPER ALTITUDE - NOT ATTAINED - PILOT IN COMMAND
7. (F) VISUAL/AURAL PERCEPTION - PILOT IN COMMAND

## Factual Information

### Pilot Information

|                                  |  |  |               |
|----------------------------------|--|--|---------------|
| <b>Certificate:</b>              | Commercial; Flight instructor  | <b>Age:</b>                              | 42, Male      |
| <b>Airplane Rating(s):</b>       | Single-engine land   | <b>Seat Occupied:</b>                    | Right         |
| <b>Other Aircraft Rating(s):</b> | Helicopter   | <b>Restraint Used:</b>                   |               |
| <b>Instrument Rating(s):</b>     | Airplane   | <b>Second Pilot Present:</b>             | No            |
| <b>Instructor Rating(s):</b>     | Helicopter   | <b>Toxicology Performed:</b>             | Yes           |
| <b>Medical Certification:</b>    | Class 2 Valid Medical-w/<br>waivers/lim  | <b>Last FAA Medical Exam:</b>            | July 11, 1990 |
| <b>Occupational Pilot:</b>       | Yes  | <b>Last Flight Review or Equivalent:</b> |               |
| <b>Flight Time:</b>              | 5043 hours (Total, all aircraft), 1540 hours (Total, this make and model), 4609 hours (Pilot In Command, all aircraft), 264 hours (Last 90 days, all aircraft), 73 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft) |  |               |

## Aircraft and Owner/Operator Information

|                                      |  |                                       |                          |
|--------------------------------------|--|---------------------------------------|--------------------------|
| <b>Aircraft Make:</b>                | BELL   | <b>Registration:</b>                  | N16933                   |
| <b>Model/Series:</b>                 | 206B 206B  | <b>Aircraft Category:</b>             | Helicopter               |
| <b>Year of Manufacture:</b>          |  | <b>Amateur Built:</b>                 |                          |
| <b>Airworthiness Certificate:</b>    | Normal   | <b>Serial Number:</b>                 | 2338                     |
| <b>Landing Gear Type:</b>            | High skid  | <b>Seats:</b>                         | 5                        |
| <b>Date/Type of Last Inspection:</b> | August 8, 1990 AAIP                              | <b>Certified Max Gross Wt.:</b>       | 3200 lbs                 |
| <b>Time Since Last Inspection:</b>   | 36 Hrs   | <b>Engines:</b>                       | 1 Turbo shaft            |
| <b>Airframe Total Time:</b>          | 7018 Hrs   | <b>Engine Manufacturer:</b>           | ALLISON                  |
| <b>ELT:</b>                          | Installed, activated, aided in locating accident | <b>Engine Model/Series:</b>           | 250-C20B                 |
| <b>Registered Owner:</b>             | OMNIFLIGHT HELICOPTERS                           | <b>Rated Power:</b>                   | 317 Horsepower           |
| <b>Operator:</b>                     |  | <b>Operating Certificate(s) Held:</b> | On-demand air taxi (135) |
| <b>Operator Does Business As:</b>    |  | <b>Operator Designator Code:</b>      |                          |

## Meteorological Information and Flight Plan

|   |                  |   |                   |
|---|------------------|---|-------------------|
| <b>Conditions at Accident Site:</b>     | Unknown          | <b>Condition of Light:</b>                  | Night/dark        |
| <b>Observation Facility, Elevation:</b> | MKE ,723 ft msl  | <b>Distance from Accident Site:</b>         | 23 Nautical Miles |
| <b>Observation Time:</b>                | 00:50 Local      | <b>Direction from Accident Site:</b>        | 60°               |
| <b>Lowest Cloud Condition:</b>          | Unknown          | <b>Visibility</b>                           |                   |
| <b>Lowest Ceiling:</b>                  | Unknown          | <b>Visibility (RVR):</b>                    |                   |
| <b>Wind Speed/Gusts:</b>                | /                | <b>Turbulence Type Forecast/Actual:</b>     | /                 |
| <b>Wind Direction:</b>                  | 0°               | <b>Turbulence Severity Forecast/Actual:</b> | /                 |
| <b>Altimeter Setting:</b>               |                  | <b>Temperature/Dew Point:</b>               |                   |
| <b>Precipitation and Obscuration:</b>   | N/A - None - Fog |   |                   |
| <b>Departure Point:</b>                 |                  | <b>Type of Flight Plan Filed:</b>           | None              |
| <b>Destination:</b>                     | CHICAGO (MDW)    | <b>Type of Clearance:</b>                   | None              |
| <b>Departure Time:</b>                  | 01:00 Local      | <b>Type of Airspace:</b>                    | Class G           |

## Airport Information

|                             |   |                                  |      |
|-----------------------------|---|----------------------------------|------|
| <b>Airport:</b>             |   | <b>Runway Surface Type:</b>      |      |
| <b>Airport Elevation:</b>   |   | <b>Runway Surface Condition:</b> |      |
| <b>Runway Used:</b>         | 0 | <b>IFR Approach:</b>             | None |
| <b>Runway Length/Width:</b> |   | <b>VFR Approach/Landing:</b>     | None |

## Wreckage and Impact Information

|                            |         |                             |                           |
|----------------------------|---------|-----------------------------|---------------------------|
| <b>Crew Injuries:</b>      | 1 Fatal | <b>Aircraft Damage:</b>     | Destroyed                 |
| <b>Passenger Injuries:</b> | 4 Fatal | <b>Aircraft Fire:</b>       | None                      |
| <b>Ground Injuries:</b>    | N/A     | <b>Aircraft Explosion:</b>  | None                      |
| <b>Total Injuries:</b>     | 5 Fatal | <b>Latitude, Longitude:</b> | 42.670883,-88.539619(est) |

## Administrative Information

**Investigator In Charge (IIC):** Bruce, William

**Additional Participating Persons:**

**Original Publish Date:** September 11, 1992

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=14789>

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