



Aviation Investigation Preliminary Report

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|--------------------------------|--------------------------------------|-------------------------|------------|
| Location: | Houston, TX | Accident Number: | CEN25FA019 |
| Date & Time: | October 20, 2024, 19:51 Local | Registration: | N881KE |
| Aircraft: | Robinson R44 | Injuries: | 4 Fatal |
| Flight Conducted Under: | Part 91: General aviation - Business | | |

On October 20, 2024, about 1951 central daylight time, a Robinson R44 helicopter, N881KE, was destroyed when it impacted a radio tower near Houston, Texas. The pilot and three passengers sustained fatal injuries. The helicopter was operated as a 14 *Code of Federal Regulations (CFR)* Part 91 revenue sightseeing flight.

According to preliminary Automatic Dependent Surveillance Broadcast (ADS-B) data and recorded air traffic control communications, the helicopter departed Ellington Airport, Houston, Texas, about 1942, and flew north, then northwest about 900 ft msl (see Figure 1). The pilot established communications with the local air traffic controller and requested the “downtown loop.” Several minutes later, the controller issued a traffic advisory for a company tour helicopter, N233JD. The accident pilot acknowledged traffic in sight on her ADS-B. The controller requested the accident pilot to maintain visual separation from the traffic, and the pilot was reading the instructions when the radio transmission abruptly ended. No further communications from the accident helicopter were received.

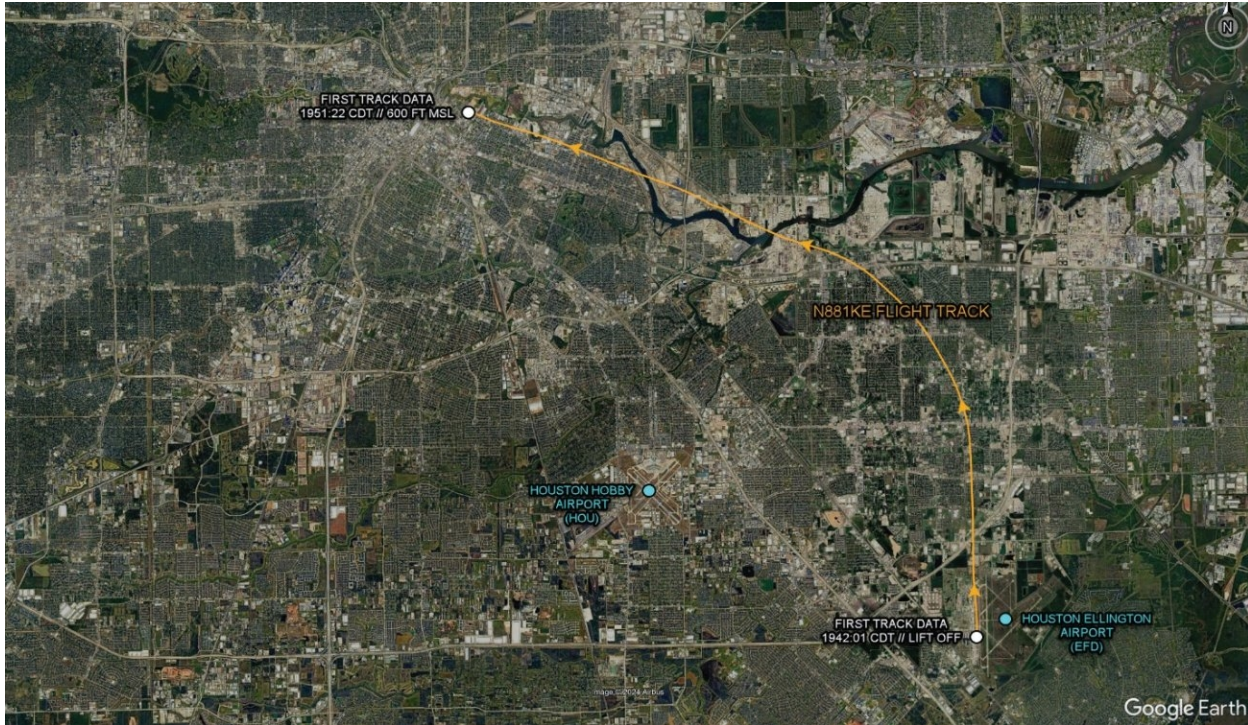


Figure 1. Overview of accident helicopter flight track.

Surveillance videos, several witnesses, and helicopter structure embedded in the radio tower indicated that the helicopter impacted the tower about 100 ft from the top of the 1,003 ft radio tower. The tower was equipped with flashing light beacons at 1,000 ft, 639 ft, and 340 ft from the surface. A surveillance video showed the tower's top and middle beacons flashing as the helicopter approached the tower (see Figure 2); the tower's lower beacons were not visible in the video.

During the impact with the radio tower, there was an explosion, and the helicopter fell to the ground. The radio tower collapsed onto the helicopter, and a post-impact fire destroyed the helicopter (see Figure 3).

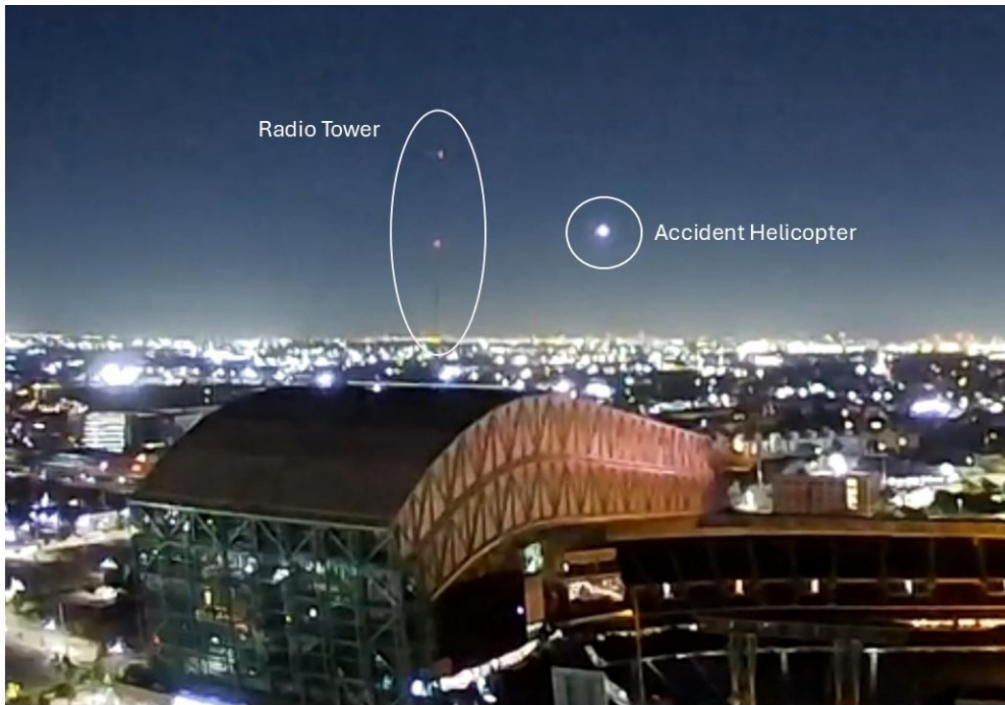


Figure 2. Surveillance video screenshot of accident helicopter approaching the radio tower. The tower's top and middle flashing beacons are visible in the screenshot.



Figure 3. Accident site with collapsed radio tower.

The debris field measured about $\frac{1}{4}$ mile northwest of the radio tower and contained fragmented sections of plexiglass, main rotor blades, console components, upholstery, flight controls, and landing gear. Portions of the forward fuselage structure were found embedded in the radio tower structure about 100 ft from the top, consistent with the video and witness information.

The helicopter wreckage was retained for further examination.

On October 7, 2024, the Federal Aviation Administration issued a letter of authorization to the operator to conduct commercial air tour operations under 14 *CFR* Part 91.147.

On October 16, 2024, at 2344, the following Notice to Air Missions (NOTAM) was issued for the radio tower: !HOU 10/073 HOU OBST TOWER LGT (ASR 1052552) 294527.00N0952020.00W (7.4NM NNW HOU) 1033.8FT (999.0FT AGL) U/S 2410170444-2410312359.

According to the radio tower owner, the NOTAM was issued due to the recent change in ownership, and there were no outages with the tower flashing beacons.

Aircraft and Owner/Operator Information

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|----------------------------------|------------------------------------|---------------------------------------|------------|
| Aircraft Make: | Robinson | Registration: | N881KE |
| Model/Series: | R44 II | Aircraft Category: | Helicopter |
| Amateur Built: | | | |
| Operator: | National Helicopter Solutions, LLC | Operating Certificate(s) Held: | None |
| Operator Designator Code: | | | |

Meteorological Information and Flight Plan

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|---|-------------------|-------------------------------------|-------------------|
| Conditions at Accident Site: | VMC | Condition of Light: | NightDark |
| Observation Facility, Elevation: | KMCJ,227 ft msl | Observation Time: | 19:55 Local |
| Distance from Accident Site: | 3 Nautical Miles | Temperature/Dew Point: | 23°C /14°C |
| Lowest Cloud Condition: | Clear | Wind Speed/Gusts, Direction: | 12 knots / , 130° |
| Lowest Ceiling: | None | Visibility: | 10 miles |
| Altimeter Setting: | 30.22 inches Hg | Type of Flight Plan Filed: | Company VFR |
| Departure Point: | Houston, TX (EFD) | Destination: | Houston, TX (EFD) |

Wreckage and Impact Information

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|----------------------------|---------|-----------------------------|------------------------------|
| Crew Injuries: | 1 Fatal | Aircraft Damage: | Destroyed |
| Passenger Injuries: | 3 Fatal | Aircraft Fire: | Both in-flight and on-ground |
| Ground Injuries: | N/A | Aircraft Explosion: | In-flight |
| Total Injuries: | 4 Fatal | Latitude, Longitude: | 29.757248,-95.338352 (est) |

Administrative Information

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| Investigator In Charge (IIC): | Sauer, Aaron |
| Additional Participating Persons: | Ron Jacobs; Federal Aviation Administration - Houston FSDO; Houston, TX Thom Webster; Robinson Helicopter; Torrence, CA |
| Investigation Class: | Class 3 |
| Note: | |