



# **Aviation Investigation Final Report**

Location: DONNA, Texas Accident Number: FTW97LA131

Date & Time: March 19, 1997, 17:30 Local Registration: N136HA

Aircraft: Hiller UH-12E Aircraft Damage: Substantial

**Defining Event:** 1 Serious

Flight Conducted Under: Part 137: Agricultural

#### **Analysis**

The helicopter impacted a set of north-south aligned power lines at the mid point between two poles during an aerial application flight. The helicopter came to rest on its side in an onion field approximately 400 feet east from the point of impact with the wires. Authorities reported that wires were found wrapped around the helicopter's tail rotor assembly. According to the FAA inspector, the helicopter approached the dark green onion field to be sprayed from the east, while flying over a fleshly plowed field which exhibited a light tan/sandy shade of color. The FAA inspector added that the poles and the power lines that the helicopter impacted with lay directly between light and dark colored fields. A completed NTSB Form 6120.1/2 was not received from the pilot/operator 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 failure to maintain clearance with the power lines during an aerial application flight. A factor was the power lines.

#### **Findings**

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (F) OBJECT - WIRE, TRANSMISSION

#### 2. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

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#### **Factual Information**

On March 19, 1997, at 1730 central standard time, a Hiller UH-12E helicopter, N136HA, was substantially damaged when it impacted wires while maneuvering near Donna, Texas. The commercial pilot, sole occupant of the helicopter, was seriously injured. The helicopter was being operated by the pilot under Title 14 CFR Part 137. Visual meteorological conditions prevailed for the aerial application flight for which a flight plan was not filed. The helicopter's time of departure is unknown.

According to local law enforcement personnel, the helicopter impacted a set of north-south aligned power lines at the mid point between two poles during an aerial application flight. The helicopter came to rest on its side in an onion field approximately 400 feet east from the point of impact with the wires. Authorities further reported that wires were found wrapped around the helicopter's tail rotor assembly.

According to the FAA inspector, the helicopter approached the dark green onion field to be sprayed from the east, while flying over a fleshly plowed field which exhibited a light tan/sandy shade of color. The FAA inspector added that the poles and the power lines that the helicopter impacted lay directly between light and dark colored fields.

Examination of the helicopter revealed that the lower portion of the fuselage structure sustained structural damage, the skid landing gear collapsed and the fertilizer tank was intact. Imprints of the electrical wires were found on the front landing gear cross tubes.

The pilot was interviewed by an FAA inspector at the hospital. The result of the interview is enclosed in the attached inspector's statement. Numerous attempts, albeit unsuccessful, were made by the NTSB investigator-in-charge to obtain a Pilot/Operator Report (NTSB Form 6120.1/2) from the pilot/operator of the helicopter.

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#### **Pilot Information**

| Certificate:              | Commercial                             | Age:                              | 53,Male       |
|---------------------------|--|-----------------------------------|---------------|
| Airplane Rating(s):       | Single-engine land; Multi-engine land  | Seat Occupied:                    | Center        |
| Other Aircraft Rating(s): | Helicopter                             | Restraint Used:                   |               |
| Instrument Rating(s):     | None                                   | Second Pilot Present:             | No            |
| Instructor Rating(s):     | None                                   | Toxicology Performed:             | No            |
| Medical Certification:    | Class 2 Valid Medicalw/<br>waivers/lim | Last FAA Medical Exam:            | April 3, 1996 |
| Occupational Pilot:       | Yes                                    | Last Flight Review or Equivalent: |               |
| Flight Time:              | 3000 hours (Total, all aircraft)       |                                   |               |

### **Aircraft and Owner/Operator Information**

| Aircraft Make:                | Hiller                   | Registration:                     | N136HA          |
|-------------------------------|--------------------------|-----------------------------------|-----------------|
| Model/Series:                 | UH-12E UH-12E            | Aircraft Category:                | Helicopter      |
| Year of Manufacture:          |                          | Amateur Built:                    |                 |
| Airworthiness Certificate:    | Restricted (Special)     | Serial Number:                    | HA3036          |
| Landing Gear Type:            | Skid                     | Seats:                            | 2               |
| Date/Type of Last Inspection: | Annual                   | Certified Max Gross Wt.:          | 1700 lbs        |
| Time Since Last Inspection:   |                          | Engines:                          | 1 Reciprocating |
| Airframe Total Time:          |                          | Engine Manufacturer:              | Lycoming        |
| ELT:                          |                          | Engine Model/Series:              | O-540-A         |
| Registered Owner:             | CONVERSION AVIATION INC. | Rated Power:                      | 300 Horsepower  |
| Operator:                     |                          | Operating Certificate(s)<br>Held: |                 |
| Operator Does Business As:    |                          | Operator Designator Code:         | UNK             |

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### Meteorological Information and Flight Plan

| Conditions at Accident Site:     | Visual (VMC)                | Condition of Light:                  | Day      |
|----------------------------------|-----------------------------|--------------------------------------|----------|
| Observation Facility, Elevation: |                             | Distance from Accident Site:         |          |
| Observation Time:                |                             | Direction from Accident Site:        |          |
| <b>Lowest Cloud Condition:</b>   | Unknown                     | Visibility                           | 10 miles |
| Lowest Ceiling:                  | None                        | Visibility (RVR):                    |          |
| Wind Speed/Gusts:                | /                           | Turbulence Type<br>Forecast/Actual:  | /        |
| Wind Direction:                  | 0°                          | Turbulence Severity Forecast/Actual: | /        |
| Altimeter Setting:               |                             | Temperature/Dew Point:               |          |
| Precipitation and Obscuration:   | No Obscuration; No Precipit | ation                                |          |
| Departure Point:                 | ALICE , TX (ALI )           | Type of Flight Plan Filed:           | None     |
| Destination:                     |                             | Type of Clearance:                   | None     |
| Departure Time:                  | 00:00 Local                 | Type of Airspace:                    | Class G  |
|                                  |                             |                                      |          |

### **Airport Information**

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

## Wreckage and Impact Information

| Crew Injuries:         | 1 Serious | Aircraft Damage:        | Substantial               |
|------------------------|-----------|-------------------------|---------------------------|
| Passenger<br>Injuries: |           | Aircraft Fire:          | None                      |
| Ground Injuries:       | N/A       | Aircraft Explosion:     | None                      |
| Total Injuries:        | 1 Serious | Latitude,<br>Longitude: | 26.159246,-98.049499(est) |

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#### **Administrative Information**

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.

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