

# **Aviation Investigation Final Report**

| Location:               | OKLAWAHA, Florid                           | da            | Accident Number:     | MIA89LA092  |
|-------------------------|--|---------------|----------------------|-------------|
| Date & Time:            | February 24, 1989,                         | , 07:55 Local | <b>Registration:</b> | N863Z       |
| Aircraft:               | BELL                                       | 47G           | Aircraft Damage:     | Substantial |
| Defining Event:         |  |               | Injuries:            | 1 None      |
| Flight Conducted Under: | Part 91: General aviation - Other work use |               |                      |             |

#### **Analysis**

PILOT WAS ATTEMPTING HIS FIRST LANDING ON THE BACK OF A TRUCK WHEN HE ALLOWED THE HELICOPTER TO PITCH BACK CAUSING THE TAIL ROTOR TO STRIKE THE GROUND WHICH RESULTED IN THE HELICOPTER ROLLING AND THE MAIN ROTOR STRIKING THE GROUND.

#### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: PILOT'S FAILURE TO PROPERLY CONTROL THE HELICOPTER DURING AN ATTEMPTED LANDING ON THE BACK OF A TRUCK. CONTRIBUTING TO THE ACCIDENT WAS THE PILOT'S LACK OF EXPERIENCE IN PERFORMING SIMILAR LANDINGS.

**Findings** 

Occurrence #1: DRAGGED WING,ROTOR,POD,FLOAT OR TAIL/SKID Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) ROTORCRAFT FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND 2. (C) LACK OF TOTAL EXPERIENCE IN TYPE OPERATION - PILOT IN COMMAND Occurrence #2: ROLL OVER Phase of Operation: LANDING - FLARE/TOUCHDOWN

# **Factual Information**

### **Pilot Information**

| Certificate:              | Commercial   | Age:                              | 27,Male       |
|---------------------------|--|-----------------------------------|---------------|
| Airplane Rating(s):       | Single-engine land; Multi-engine<br>land   | Seat Occupied:                    | Center        |
| Other Aircraft Rating(s): | Helicopter   | Restraint Used:                   |               |
| Instrument Rating(s):     | Airplane   | Second Pilot Present:             | No            |
| Instructor Rating(s):     | None   | Toxicology Performed:             | No            |
| Medical Certification:    | Class 2 Valid Medicalno<br>waivers/lim.  | Last FAA Medical Exam:            | June 15, 1988 |
| Occupational Pilot:       | Yes  | Last Flight Review or Equivalent: |               |
| Flight Time:              | 1460 hours (Total, all aircraft), 3 hours (Total, this make and model), 1350 hours (Pilot In<br>Command, all aircraft), 80 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft),<br>3 hours (Last 24 hours, all aircraft) |                                   |               |

#### Aircraft and Owner/Operator Information

| Aircraft Make:                   | BELL                | Registration:                     | N863Z           |
|----------------------------------|---------------------|-----------------------------------|-----------------|
| Model/Series:                    | 47G 47G             | Aircraft Category:                | Helicopter      |
| Year of Manufacture:             |                     | Amateur Built:                    |                 |
| Airworthiness Certificate:       | Normal              | Serial Number:                    | C5003           |
| Landing Gear Type:               | Skid                | Seats:                            | 3               |
| Date/Type of Last<br>Inspection: | Annual              | Certified Max Gross Wt.:          | 2350 lbs        |
| Time Since Last Inspection:      |                     | Engines:                          | 1 Reciprocating |
| Airframe Total Time:             |                     | Engine Manufacturer:              | LYCOMING        |
| ELT:                             | Not installed       | Engine Model/Series:              | VO-435-A1B      |
| Registered Owner:                | KENNETH T. MCDOWELL | Rated Power:                      | 200 Horsepower  |
| Operator:                        |                     | Operating Certificate(s)<br>Held: |                 |
| Operator Does Business As:       |                     | Operator Designator Code:         |                 |

### Meteorological Information and Flight Plan

| Conditions at Accident Site:            | Visual (VMC)                     | Condition of Light:                     | Day               |
|---|----------------------------------|---|-------------------|
| <b>Observation Facility, Elevation:</b> | GNV ,152 ft msl                  | Distance from Accident Site:            | 35 Nautical Miles |
| Observation Time:                       | 07:47 Local                      | Direction from Accident Site:           | 330°              |
| Lowest Cloud Condition:                 | Clear                            | Visibility                              | 8 miles           |
| Lowest Ceiling:                         | None                             | Visibility (RVR):                       |                   |
| Wind Speed/Gusts:                       | 10 knots / 18 knots              | Turbulence Type<br>Forecast/Actual:     | /                 |
| Wind Direction:                         | 310°                             | Turbulence Severity<br>Forecast/Actual: | /                 |
| Altimeter Setting:                      | 30 inches Hg                     | Temperature/Dew Point:                  | -3°C / -9°C       |
| Precipitation and Obscuration:          | No Obscuration; No Precipitation |   |                   |
| Departure Point:                        |                                  | Type of Flight Plan Filed:              | None              |
| Destination:                            |                                  | Type of Clearance:                      | None              |
| Departure Time:                         | 07:54 Local                      | Type of Airspace:                       | Class G           |

## **Airport Information**

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

### Wreckage and Impact Information

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

#### **Administrative Information**

| Investigator In Charge (IIC):        | Kennedy, Jeffrey                             |  |
|--------------------------------------|--|--|
| Additional Participating<br>Persons: | HARRIS HOOPER; ORLANDO , FL                  |  |
| Original Publish Date:               | January 31, 1991                             |  |
| Last Revision Date:                  |  |  |
| Investigation Class:                 | <u>Class</u>                                 |  |
| Note:                                |  |  |
| Investigation Docket:                | https://data.ntsb.gov/Docket?ProjectID=32402 |  |

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