



Aviation Investigation Final Report

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| Location: | CHARENTON, Louisiana | Accident Number: | FTW86FA016 |
| Date & Time: | October 17, 1985, 09:15 Local | Registration: | N5013H |
| Aircraft: | Bell 222A | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 5 None |
| Flight Conducted Under: | Part 91: General aviation | | |

Analysis

THE HELICOPTER HAD JUST COMPLETED A PHASE TWO CHECK, TWENTY MINUTES INTO THE FLIGHT THE OCCUPANTS HEARD A LOUD NOISE AND A SEVERE ONE-TO-ONE VIBRATION ENSUED. A SUCCESSFUL EMERGENCY LANDING WAS PERFORMED. EXAMINATION REVEALED THAT ONE SWASH PLATE DRIVE LINK HAD DISCONNECTED. THE MECHANIC STATED HE HAD FORGOTTEN TO TORQUE AND SAFETY A RETAINING NUT.

Probable Cause and Findings

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

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) ROTORCRAFT FLIGHT CONTROL, ROTATING SCISSORS - DISCONNECTED
2. (C) MAINTENANCE, AAIP/PROGRESSIVE PROGRAM - INADEQUATE - COMPANY MAINTENANCE PERSONNEL
3. (C) DIVERTED ATTENTION - COMPANY MAINTENANCE PERSONNEL

Occurrence #2: FORCED LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

Pilot Information

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| Certificate: | Commercial | Age: | 34, Male |
| Airplane Rating(s): | None | Seat Occupied: | Right |
| Other Aircraft Rating(s): | Helicopter | Restraint Used: | |
| Instrument Rating(s): | Helicopter | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 1 Valid Medical--no waivers/lim. | Last FAA Medical Exam: | October 28, 1984 |
| Occupational Pilot: | Yes | Last Flight Review or Equivalent: | |
| Flight Time: | 6194 hours (Total, all aircraft), 1618 hours (Total, this make and model), 4257 hours (Pilot In Command, all aircraft), 116 hours (Last 90 days, all aircraft), 3 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|---------------------------|---------------------------------------|--------------------------|
| Aircraft Make: | Bell | Registration: | N5013H |
| Model/Series: | 222A 222A | Aircraft Category: | Helicopter |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Utility | Serial Number: | 47010 |
| Landing Gear Type: | Retractable - Tricycle | Seats: | 10 |
| Date/Type of Last Inspection: | October 15, 1985 AAIP | Certified Max Gross Wt.: | 7850 lbs |
| Time Since Last Inspection: | 1 Hrs | Engines: | 2 Turbo shaft |
| Airframe Total Time: | 2894 Hrs | Engine Manufacturer: | LYCOMING |
| ELT: | Not installed | Engine Model/Series: | LTS 101-650C2 |
| Registered Owner: | PETROLEUM HELICOPTERS INC | Rated Power: | 620 Horsepower |
| Operator: | | Operating Certificate(s) Held: | On-demand air taxi (135) |
| Operator Does Business As: | | Operator Designator Code: | |

Meteorological Information and Flight Plan

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|---|----------------------------------|---|-------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | 7R3 ,12 ft msl | Distance from Accident Site: | 12 Nautical Miles |
| Observation Time: | 08:50 Local | Direction from Accident Site: | 300° |
| Lowest Cloud Condition: | Scattered / 1500 ft AGL | Visibility | 10 miles |
| Lowest Ceiling: | Broken / 10000 ft AGL | Visibility (RVR): | |
| Wind Speed/Gusts: | 10 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 110° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30 inches Hg | Temperature/Dew Point: | 27°C / 24°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | LAFAYETTE , LA (PHI) | Type of Flight Plan Filed: | Company VFR |
| Destination: | MORGAN CITY , LA (7R3) | Type of Clearance: | None |
| Departure Time: | 09:40 Local | Type of Airspace: | Class G |

Airport Information

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

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|---------------------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | 4 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 5 None | Latitude, Longitude: | 29.880306,-91.470176(est) |

Administrative Information

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| Investigator In Charge (IIC): | Daughtery, Jeanown |
| Additional Participating Persons: | EDWIN R THOMAS; BATON ROUGE , LA W, J CADORET; LAFAYETTE , LA DAVID C DOSKET; FORT WORTH , TX HAROLD L SUMMERS; LAFAYETTE , LA |
| Original Publish Date: | |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | |
| Investigation Docket: | https://data.ntsb.gov/Docket?ProjectID=21875 |

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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](#).