# Aviation Investigation Final Report

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| **Location:** | Las Cruces, New Mexico | **Accident Number:** | FTW02LA250 |
| **Date & Time:** | September 5, 2002, 08:30 Local | **Registration:** | N716JB |
| **Aircraft:** | Gray Rotorway Exec 90 | **Aircraft Damage:** | Substantial |
| **Defining Event:** | | **Injuries:** | 1 None |
| **Flight Conducted Under:** | Part 91: General aviation - Personal | | |

## Analysis

The student pilot checked the fuel tanks prior to the flight and determined the tanks contained enough fuel for the short trip. Shortly after takeoff, the engine lost total power. The student pilot initiated an autorotation, and subsequently, the helicopter sustained a hard landing. The student pilot did not have an endorsement for solo flight in the helicopter. Numerous attempts to obtain a completed Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2) from the pilot were unsuccessful.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to refuel the helicopter, which resulted in fuel exhaustion.

### Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CLIMB

Findings
1. FLUID,FUEL - EXHAUSTION
2. (C) REFUELING - NOT PERFORMED - PILOT IN COMMAND
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Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

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Occurrence #3: HARD LANDING
Phase of Operation: EMERGENCY LANDING

Findings
3. AUTOROTATION - PERFORMED - PILOT IN COMMAND

## Factual Information

On September 5, 2002, approximately 0830 mountain daylight time, a Gray RotorWay Exec 90 single-engine helicopter, N716JB, sustained substantial damage during a hard landing following a loss of engine power at the Las Cruces International Airport (LRU), Las Cruces, New Mexico. The student pilot, sole occupant and registered owner of the helicopter, was not injured. Visual meteorological conditions prevailed, and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 personal flight. The local flight was originating at the time of the accident.

According to an FAA inspector, who responded to the accident site, the student pilot checked the fuel tanks prior to the flight and determined that the tanks contained enough fuel for the short trip. Shortly after takeoff, the engine lost total power. The student pilot initiated an autorotation, and subsequently, the helicopter landed hard. The main rotor blades were bent, the tail rotor was destroyed, and the tail boom was separated. In addition, the inspector stated that the student pilot did not have an endorsement for solo flight in the helicopter.

Numerous attempts to obtain a completed Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2) from the pilot were unsuccessful.

### Student pilot Information

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| **Certificate:** | Student | **Age:** | 54,Male |
| **Airplane Rating(s):** | None | **Seat Occupied:** | Unknown |
| **Other Aircraft Rating(s):** | None | **Restraint Used:** | |
| **Instrument Rating(s):** | None | **Second Pilot Present:** | No |
| **Instructor Rating(s):** | None | **Toxicology Performed:** | No |
| **Medical Certification:** | Class 3 Valid Medical--w/ waivers/lim | **Last FAA Medical Exam:** | June 6, 2000 |
| **Occupational Pilot:** | UNK | **Last Flight Review or Equivalent:** | |
| **Flight Time:** | 197 hours (Total, all aircraft), 197 hours (Total, this make and model), 1 hours (Last 90 days, all aircraft) | | |

## Aircraft and Owner/Operator Information

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|---|---|---|---|
| **Aircraft Make:** | Gray | **Registration:** | N716JB |
| **Model/Series:** | Rotorway Exec 90 | **Aircraft Category:** | Helicopter |
| **Year of Manufacture:** | | **Amateur Built:** | Yes |
| **Airworthiness Certificate:** | Experimental (Special) | **Serial Number:** | EXEC-3000 |
| **Landing Gear Type:** | Skid | **Seats:** | 2 |
| **Date/Type of Last Inspection:** | Unknown | **Certified Max Gross Wt.:** | 1450 lbs |
| **Time Since Last Inspection:** | | **Engines:** | 1 Reciprocating |
| **Airframe Total Time:** | 197 Hrs at time of accident | **Engine Manufacturer:** | Rotorway |
| **ELT:** | Not installed | **Engine Model/Series:** | RW-152 |
| **Registered Owner:** | Jim Robert Gray | **Rated Power:** | 152 Horsepower |
| **Operator:** | | **Operating Certificate(s) Held:** | None |

## Meteorological Information and Flight Plan

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| **Conditions at Accident Site:** | Visual (VMC) | **Condition of Light:** | Day |
| **Observation Facility, Elevation:** | LRU,4456 ft msl | **Distance from Accident Site:** | 0 Nautical Miles |
| **Observation Time:** | 14:30 Local | **Direction from Accident Site:** | 0° |
| **Lowest Cloud Condition:** | Clear | **Visibility** | 10 miles |
| **Lowest Ceiling:** | None | **Visibility (RVR):** | |
| **Wind Speed/Gusts:** | 3 knots / 0 knots | **Turbulence Type Forecast/Actual:** | / |
| **Wind Direction:** | 110° | **Turbulence Severity Forecast/Actual:** | / |
| **Altimeter Setting:** | 30.2 inches Hg | **Temperature/Dew Point:** | 26°C / 8°C |
| **Precipitation and Obscuration:** | No Obscuration; No Precipitation | | |
| **Departure Point:** | Las Cruces, NM (LRU ) | **Type of Flight Plan Filed:** | None |
| **Destination:** | Las Cruces, NM (LRU ) | **Type of Clearance:** | None |
| **Departure Time:** | 08:30 Local | **Type of Airspace:** | Class E |

## Airport Information

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| **Airport:** | Las Cruces International LRU | **Runway Surface Type:** | |
| **Airport Elevation:** | 4456 ft msl | **Runway Surface Condition:** | Unknown |
| **Runway Used:** | | **IFR Approach:** | Unknown |
| **Runway Length/Width:** | | **VFR Approach/Landing:** | Forced landing |

## Wreckage and Impact Information

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| **Crew Injuries:** | 1 None | **Aircraft Damage:** | Substantial |
| **Passenger Injuries:** | | **Aircraft Fire:** | None |
| **Ground Injuries:** | N/A | **Aircraft Explosion:** | None |
| **Total Injuries:** | 1 None | **Latitude, Longitude:** | 32.293609,-106.925552 |

## Administrative Information

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| **Investigator In Charge (IIC):** | Sauer, Aaron |
| **Additional Participating Persons:** | Earl K Branham; Federal Aviation Administration; Albuquerque, NM |
| **Original Publish Date:** | April 23, 2003 |
| **Last Revision Date:** | |
| **Investigation Class:** | Class |
| **Note:** | |
| **Investigation Docket:** | https://data.ntsb.gov/Docket?ProjectID=55649 |