



Aviation Investigation Final Report

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|--------------------------------|---|-------------------------|-------------|
| Location: | SARASOTA, Florida | Accident Number: | MIA89LA213 |
| Date & Time: | August 5, 1989, 14:30 Local | Registration: | N3550 |
| Aircraft: | BELL 47G-2 | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 1 None |
| Flight Conducted Under: | Part 91: General aviation - Instructional | | |

Analysis

THE STUDENT PLT OBSERVED THAT HE HAD LESS THAN FULL FUEL DURING HIS PREFLT INSPN; HOWEVER, HE THOUGHT HE WOULD HAVE ENOUGH FUEL FOR HIS INTENDED SOLO X-COUNTRY FLT. NEARING THE END OF HIS ROUND ROBIN FLT (ABOUT 1 MI FROM HIS HOME BASE), THE ENG LOST POWER. THE STUDENT MADE AN AUTOROTATION, BUT THE HELICOPTER HIT A TREE DURING THE LANDING.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE STUDENT PILOT'S INADEQUATE PREFLIGHT PLANNING/PREPARATION, WHICH RESULTED IN FUEL EXHAUSTION DUE TO AN INADEQUATE SUPPLY OF FUEL. FACTORS RELATED TO THE ACCIDENT WERE: THE STUDENT PILOT'S LACK OF TOTAL EXPERIENCE & TREE(S) IN THE EMERGENCY LANDING AREA.

Findings

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

Findings

1. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
2. (C) FLUID,FUEL - EXHAUSTION
3. (C) FUEL SUPPLY - INADEQUATE - PILOT IN COMMAND
4. (F) LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Findings
5. AUTOROTATION

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: LANDING

Findings
6. (F) OBJECT - TREE(S)

Factual Information

Pilot Information

| | | | |
|----------------------------------|--|--|---------------|
| Certificate: | Private | Age: | 28, Male |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Right |
| Other Aircraft Rating(s): | None | Restraint Used: | |
| Instrument Rating(s): | None | Second Pilot Present: | No |
| Instructor Rating(s): | | Toxicology Performed: | No |
| Medical Certification: | Class 2 Valid Medical--no waivers/lim. | Last FAA Medical Exam: | July 25, 1989 |
| Occupational Pilot: | UNK | Last Flight Review or Equivalent: | |
| Flight Time: | 224 hours (Total, all aircraft), 44 hours (Total, this make and model), 114 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

| | | | |
|--------------------------------------|------------------|---------------------------------------|-----------------|
| Aircraft Make: | BELL | Registration: | N3550 |
| Model/Series: | 47G-2 47G-2 | Aircraft Category: | Helicopter |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 1942 |
| Landing Gear Type: | Skid | Seats: | 3 |
| Date/Type of Last Inspection: | Unknown | Certified Max Gross Wt.: | 2450 lbs |
| Time Since Last Inspection: | 0 Hrs | Engines: | 1 Reciprocating |
| Airframe Total Time: | | Engine Manufacturer: | LYCOMING |
| ELT: | Not installed | Engine Model/Series: | VO-435-A1D |
| Registered Owner: | | Rated Power: | 200 Horsepower |
| Operator: | DOLPHIN AVIATION | Operating Certificate(s) Held: | None |
| 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: | SRQ ,14 ft msl | Distance from Accident Site: | 1 Nautical Miles |
| Observation Time: | 13:50 Local | Direction from Accident Site: | 270° |
| Lowest Cloud Condition: | Unknown | Visibility | 10 miles |
| Lowest Ceiling: | Broken / 25000 ft AGL | Visibility (RVR): | |
| Wind Speed/Gusts: | 5 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 50° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | | Temperature/Dew Point: | -18°C / -18°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | SARASOTA , FL (SRQ) | Type of Flight Plan Filed: | None |
| Destination: | | Type of Clearance: | None |
| Departure Time: | 11:30 Local | Type of Airspace: | |

Airport Information

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

Administrative Information

Investigator In Charge (IIC): Bird, Ronald

Additional Participating Persons:

Original Publish Date: June 28, 1991

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=32474>

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](#).