



National Transportation Safety Board Aviation Accident Final Report

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| Location: | LODI, CA | Accident Number: | LAX92LA076 |
| Date & Time: | 01/01/1992, 1420 PST | Registration: | N889KT |
| Aircraft: | ROBINSON R-22B | Aircraft Damage: | Substantial |
| Defining Event: | | Injuries: | 2 None |
| Flight Conducted Under: | Part 91: General Aviation - Personal | | |

Analysis

WEATHER CONDITIONS ALONG THE AIRCRAFT'S FLIGHT ROUTE WERE CONDUCTIVE TO CARBURETOR ICING. THE PILOT ENTERED AN AUROTATIVE DESCENT WITHOUT APPLYING FULL CARBURETOR HEAT AS RECOMMENDED BY THE AIRCRAFT MANUFACTURER. THE ENGINE FAILED DURING THE DESCENT AND THE HELICOPTER LANDED HARD AND ROLLED OVER ON ITS SIDE. THE PILOT HAD RECEIVED MOST OF HIS FLIGHT EXPERIENCE IN TURBINE POWERED HELICOPTERS.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S IMPROPER USE OF THE CARBURETOR HEAT CONTROL AND DELAY IN FLARING THE HELICOPTER FOR AN AUTOROTATIVE TOUCHDOWN. CARBURETOR ICING CONDITIONS AND THE SOFT TERRAIN WERE CONTRIBUTING FACTORS IN THE ACCIDENT.

Findings

Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: DESCENT

Findings

1. (C) CARBURETOR HEAT - IMPROPER USE OF - PILOT IN COMMAND
2. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: HARD LANDING

Phase of Operation: DESCENT - EMERGENCY

Findings

3. (C) FLARE - DELAYED - PILOT IN COMMAND

Occurrence #4: ROLL OVER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

4. (F) TERRAIN CONDITION - SOFT

Factual Information

Pilot Information

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|----------------------------------|--|-------------------------------|----------------------------|
| Certificate: | Commercial; Military | Age: | 27 |
| Airplane Rating(s): | None | Seat Occupied: | Left |
| Other Aircraft Rating(s): | Helicopter | Restraint Used: | Seatbelt, Shoulder harness |
| Instrument Rating(s): | Helicopter | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 2 Valid Medical--no waivers/lim. | Last FAA Medical Exam: | 07/28/1991 |
| Occupational Pilot: | Last Flight Review or Equivalent: | | |
| Flight Time: | 740 hours (Total, all aircraft), 54 hours (Total, this make and model), 364 hours (Pilot In Command, all aircraft), 39 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|-----------------------------|---------------------------------------|-----------------|
| Aircraft Make: | ROBINSON | Registration: | N889KT |
| Model/Series: | R-22B R-22B | Aircraft Category: | Helicopter |
| Year of Manufacture: | | Amateur Built: | |
| Airworthiness Certificate: | Normal | Serial Number: | 1158 |
| Landing Gear Type: | Skid | Seats: | 2 |
| Date/Type of Last Inspection: | 12/27/1991, Annual | Certified Max Gross Wt.: | 1370 lbs |
| Time Since Last Inspection: | 3 Hours | Engines: | 1 Reciprocating |
| Airframe Total Time: | 1808 Hours | Engine Manufacturer: | LYCOMING |
| ELT: | Not installed | Engine Model/Series: | O-320-B2C |
| Registered Owner: | MR. & MRS. WILLIAM C. MOORE | Rated Power: | 160 hp |
| Operator: | MR. & MRS. WILLIAM C. MOORE | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

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|----------------------------------|--------------------|---|-------------------|
| Conditions at Accident Site: | Visual Conditions | Condition of Light: | Day |
| Observation Facility, Elevation: | SCK, 30 ft msl | Distance from Accident Site: | 13 Nautical Miles |
| Observation Time: | 1348 PST | Direction from Accident Site: | 158° |
| Lowest Cloud Condition: | Clear / 0 ft agl | Visibility | 6 Miles |
| Lowest Ceiling: | None / 0 ft agl | Visibility (RVR): | 0 ft |
| Wind Speed/Gusts: | 3 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 80° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30 inches Hg | Temperature/Dew Point: | 10° C / 7° C |
| Precipitation and Obscuration: | | | |
| Departure Point: | STOCKTON, CA (SCK) | Type of Flight Plan Filed: | None |
| Destination: | | Type of Clearance: | None |
| Departure Time: | 1400 PST | Type of Airspace: | Class G |

Wreckage and Impact Information

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|---------------------|--------|----------------------|-------------|
| Crew Injuries: | 1 None | Aircraft Damage: | Substantial |
| Passenger Injuries: | 1 None | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 2 None | Latitude, Longitude: | |

Administrative Information

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|-----------------------------------|--|--------------|------------|
| Investigator In Charge (IIC): | James A Wall | Report Date: | 08/26/1993 |
| Additional Participating Persons: | KIM DAVIES; OAKLAND, CA | | |
| Publish Date: | | | |
| Investigation Docket: | NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ . | | |

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).