



National Transportation Safety Board Aviation Accident Factual Report

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|--------------------------------|--------------------------------------|-------------------------|--------------------|
| Location: | Delano, CA | Accident Number: | LAX05LA253 |
| Date & Time: | 08/01/2005, 1730 PDT | Registration: | N870BM |
| Aircraft: | Malechek Q-200 | Aircraft Damage: | Destroyed |
| Defining Event: | | Injuries: | 1 Serious, 1 Minor |
| Flight Conducted Under: | Part 91: General Aviation - Personal | | |

On August 1, 2005, about 1730 Pacific daylight time, a privately owned and operated Malechek, Q-200, N870BM, experienced the in-flight separation of the outer portion of one propeller blade during cruise flight. The pilot received directions to the nearest airport from a Federal Aviation Administration (FAA) air traffic controller (ATC). During the forced landing, the experimental airplane collided with objects while on final approach to runway 14 at the Delano Municipal Airport, Delano, California. Visual meteorological conditions prevailed at the time, and no flight plan had been filed. The airplane was destroyed. The private pilot was seriously injured, and the passenger sustained minor injuries. The flight was performed under the provisions of 14 CFR Part 91. The personal flight originated from Modesto, California, about 1630.

The pilot reported to the National Transportation Safety Board investigator that, while en route to his intended Ramona, California, destination, and cruising at 9,500 feet mean sea level, he had suddenly experienced a severe vibration and believed one propeller had separated from the engine. Thereafter, he shut off the airplane's engine. Ground-based witnesses reported that the airplane approached the Delano Municipal Airport from the north, and it was heading straight for the runway. The pilot made a forced landing and the airplane touched down short of the runway. It collided with a pole and a chain link fence, broke apart, and came to rest upside down approximately 1,000 feet prior to reaching the approach end of the runway. There was no fire.

According to the pilot, 1/2 of the blade's span had broken off. A local FAA certificated airframe and powerplant mechanic recovered some of the airplane's propeller blade. The mechanic noted that the 2-bladed Aymar-DeMuth 60 X 72 wood propeller (S/N 04371) had experienced a separation at the glue joints. The propeller delaminated.

In the pilot's completed "Aircraft Accident Report," he indicated his procedures for torquing the propeller blade's attachment bolts. The owner reported that rather than torquing the bolts to the recommended 15-foot-pound value, he torqued the bolts to 18-foot-pounds, according to a placard on the propeller.

The FAA coordinator reported observing evidence of a hair-line crack emanating from one of the propeller's attachment bolt holes. The FAA coordinator reported to the Safety Board investigator that the attachment bolt torquing sequence was not specified by the manufacturer.

Pilot Information

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| Certificate: | Private | Age: | 50, Male |
| Airplane Rating(s): | Single-engine Land | Seat Occupied: | Left |
| Other Aircraft Rating(s): | None | Restraint Used: | Seatbelt, Shoulder harness |
| Instrument Rating(s): | None | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 With Waivers/Limitations | Last FAA Medical Exam: | 11/01/2003 |
| Occupational Pilot: | | Last Flight Review or Equivalent: | 11/01/2003 |
| Flight Time: | 325 hours (Total, all aircraft), 130 hours (Total, this make and model), 285 hours (Pilot In Command, all aircraft), 40 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 12 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|--|---------------------------------------|-----------------|
| Aircraft Make: | Malechek | Registration: | N870BM |
| Model/Series: | Q-200 | Aircraft Category: | Airplane |
| Year of Manufacture: | | Amateur Built: | No |
| Airworthiness Certificate: | Experimental | Serial Number: | 2572 |
| Landing Gear Type: | Tailwheel | Seats: | 2 |
| Date/Type of Last Inspection: | 07/01/2004, Annual | Certified Max Gross Wt.: | |
| Time Since Last Inspection: | 117.5 Hours | Engines: | 1 Reciprocating |
| Airframe Total Time: | 1201 Hours as of last inspection | Engine Manufacturer: | Continental |
| ELT: | Installed, activated, did not aid in locating accident | Engine Model/Series: | O-200A |
| Registered Owner: | Philip S. Lankford | Rated Power: | 100 hp |
| Operator: | Philip S. Lankford | 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: | BFL, 507 ft msl | Distance from Accident Site: | 21 Nautical Miles |
| Observation Time: | 1754 PDT | Direction from Accident Site: | 143° |
| Lowest Cloud Condition: | Clear | Visibility | 10 Miles |
| Lowest Ceiling: | None | Visibility (RVR): | |
| Wind Speed/Gusts: | 12 knots / | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 320° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 29.79 inches Hg | Temperature/Dew Point: | 38° C / 9° C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Modesto, CA (MOD) | Type of Flight Plan Filed: | None |
| Destination: | RAMONA, CA (RNM) | Type of Clearance: | None |
| Departure Time: | 1630 PDT | Type of Airspace: | |

Airport Information

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|----------------------|------------------------|---------------------------|----------------|
| Airport: | Delano Municipal (DLO) | Runway Surface Type: | Asphalt |
| Airport Elevation: | 314 ft | Runway Surface Condition: | Dry |
| Runway Used: | 14 | IFR Approach: | None |
| Runway Length/Width: | 5650 ft / 75 ft | VFR Approach/Landing: | Forced Landing |

Wreckage and Impact Information

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| Crew Injuries: | 1 Serious | Aircraft Damage: | Destroyed |
| Passenger Injuries: | 1 Minor | Aircraft Fire: | None |
| Ground Injuries: | N/A | Aircraft Explosion: | None |
| Total Injuries: | 1 Serious, 1 Minor | Latitude, Longitude: | 35.755000, -119.241667 |

Administrative Information

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| Investigator In Charge (IIC): | Wayne Pollack |
| Additional Participating Persons: | Gene Sweet; Federal Aviation Administration; Fresno, CA |
| 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 pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ . |