



# Aviation Investigation Final Report

|                                |                                      |                         |            |
|--------------------------------|--------------------------------------|-------------------------|------------|
| <b>Location:</b>               | Holdenville, Oklahoma                | <b>Accident Number:</b> | DFW05LA069 |
| <b>Date &amp; Time:</b>        | January 14, 2005, 10:05 Local        | <b>Registration:</b>    | N222JN     |
| <b>Aircraft:</b>               | Nolen Lite Squared                   | <b>Aircraft Damage:</b> | Destroyed  |
| <b>Defining Event:</b>         |                                      | <b>Injuries:</b>        | 1 Fatal    |
| <b>Flight Conducted Under:</b> | Part 91: General aviation - Personal |                         |            |

## Analysis

The homebuilt airplane was reported missing on January 14, 2004, when it failed to arrive at its destination during a 127-nautical mile cross-country flight. A farmer located and reported the accident site on February 14, 2005. The accident site was 31-nautical miles short of the destination's airport. A post-impact fire consumed the Rotax-powered airplane; however, flight control continuity was established. The 2,200-hour commercial pilot had his last medical certificate denied on March 30, 1998. An autopsy and toxicological tests could not be performed. The wreckage debris path was along a northwesterly heading in a grassy field. There were no eyewitnesses to the accident. Low clouds prevailed throughout the area during the morning of the accident. Ground scars and signatures of the damage were consistent with an in-flight loss of control; however, the investigation was not able to establish the facts, conditions and circumstances of the mishap.

## Probable Cause and Findings

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

## Findings

Occurrence #1: UNDETERMINED  
Phase of Operation: UNKNOWN  
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: UNKNOWN

Findings

1. TERRAIN CONDITION - GROUND

## Factual Information

On January 14, 2005, about 1005 central standard time, a Nolen Lite Squared single-engine experimental airplane, N222JN, was destroyed following a loss of control while maneuvering near Holdenville, Oklahoma. The commercial pilot, the sole occupant, was fatally injured. The airplane was registered to and operated by the pilot. Visual meteorological conditions prevailed and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 personal flight. The 127 nautical mile cross-country flight originated from the Cox Field Airport (PRX), near Paris, Texas, at approximately 0930, and was en route to Shawnee Regional Airport (SNL), near Shawnee, Oklahoma.

The airplane was reported missing on January 14, 2004, when it failed to arrive at Shawnee Regional Airport. A search for the airplane was conducted during the following weeks until a farmer located and reported the wreckage site on February 14, 2005. The wreckage site was located about four nautical miles northeast of the town of Holdenville, Oklahoma, and 31 nautical miles southeast of the Shawnee Regional Airport. The wreckage site was approximately 15 miles northeast of a straight-line course between Cox Field Airport and Shawnee Regional Airport.

A witness, who was located approximately a half mile southeast of the accident site, reported at about 1000 on the day the airplane was reported missing, she heard an airplane come over her house so low that she thought it was going to land on her roof. The witness further reported that the "motor was very strong sounding."

An inspector from the Federal Aviation Administration (FAA) responded to the accident site on February 15, 2005, and reported that wreckage debris path was along a northwesterly heading in a grassy field. The right wing, which was located at the base of a small group of trees, was approximately 100 feet beyond the initial ground scar. The main wreckage, consisting of the fuselage, engine and left wing were located approximately 10 feet beyond the right wing. A post-impact fire consumed the airplane. According to the inspector, control continuity was established to all flight controls and all major components were accounted for at the accident site.

The 2,200-hour pilot held a FAA commercial pilot certificate with ratings for single-engine land, multi-engine land, and instrument airplane. His last FAA medical was denied on March 30, 1998. The pilot's personal logbooks were not available for review during the course of the accident investigation.

The airplane, manufactured by the pilot, was an experimental Nolen Lite Squared, serial number C02120287. The airplane featured a fabric covered, truss type, welded steel tube fuselage. The folding wings were constructed of wood ribs with aluminum spars. A Rotax

engine was installed. The airplane's logbooks were not available for review during the course of the investigation.

Due to the length of time before the recovery of the pilot, an autopsy could not be performed and the FAA Toxicology and Accident Research Laboratory, in Oklahoma City, Oklahoma, was unable to perform toxicological testing of specimens.

At 1025, central standard time, the weather observation facility at Mc Alester Regional Airport (MLC), near Mc Alester, Oklahoma, which is located approximately 33 miles east of the accident site, was reporting wind from 020 degrees at five knots, visibility 6 statute miles in haze, clouds scattered at 900 feet, temperature 32 degrees Fahrenheit, dew point 27 degrees Fahrenheit, and a barometric pressure setting of 30.55 inches of Mercury.

### Pilot Information

|                                  |                                       |  |                |
|----------------------------------|---------------------------------------|--|----------------|
| <b>Certificate:</b>              | Commercial                            | <b>Age:</b>                              | 73, Male       |
| <b>Airplane Rating(s):</b>       | Single-engine land; Multi-engine land | <b>Seat Occupied:</b>                    | Unknown        |
| <b>Other Aircraft Rating(s):</b> | None                                  | <b>Restraint Used:</b>                   |                |
| <b>Instrument Rating(s):</b>     | Airplane                              | <b>Second Pilot Present:</b>             | No             |
| <b>Instructor Rating(s):</b>     | None                                  | <b>Toxicology Performed:</b>             | No             |
| <b>Medical Certification:</b>    | None None                             | <b>Last FAA Medical Exam:</b>            | March 30, 1998 |
| <b>Occupational Pilot:</b>       | No                                    | <b>Last Flight Review or Equivalent:</b> |                |
| <b>Flight Time:</b>              |                                       |  |                |

## Aircraft and Owner/Operator Information

|                                      |                        |                                       |                 |
|--------------------------------------|------------------------|---------------------------------------|-----------------|
| <b>Aircraft Make:</b>                | Nolen                  | <b>Registration:</b>                  | N222JN          |
| <b>Model/Series:</b>                 | Lite Squared           | <b>Aircraft Category:</b>             | Airplane        |
| <b>Year of Manufacture:</b>          |                        | <b>Amateur Built:</b>                 | Yes             |
| <b>Airworthiness Certificate:</b>    | Experimental (Special) | <b>Serial Number:</b>                 | C02120287       |
| <b>Landing Gear Type:</b>            | Tricycle               | <b>Seats:</b>                         | 2               |
| <b>Date/Type of Last Inspection:</b> | Unknown                | <b>Certified Max Gross Wt.:</b>       | 1200 lbs        |
| <b>Time Since Last Inspection:</b>   |                        | <b>Engines:</b>                       | 1 Reciprocating |
| <b>Airframe Total Time:</b>          |                        | <b>Engine Manufacturer:</b>           | Rotax           |
| <b>ELT:</b>                          | Installed              | <b>Engine Model/Series:</b>           |                 |
| <b>Registered Owner:</b>             | Jack R Nolen           | <b>Rated Power:</b>                   |                 |
| <b>Operator:</b>                     |                        | <b>Operating Certificate(s) Held:</b> | None            |

## Meteorological Information and Flight Plan

|   |                        |   |                   |
|---|------------------------|---|-------------------|
| <b>Conditions at Accident Site:</b>     | Visual (VMC)           | <b>Condition of Light:</b>                  | Day               |
| <b>Observation Facility, Elevation:</b> | MLC,770 ft msl         | <b>Distance from Accident Site:</b>         | 33 Nautical Miles |
| <b>Observation Time:</b>                | 10:25 Local            | <b>Direction from Accident Site:</b>        | 90°               |
| <b>Lowest Cloud Condition:</b>          | Scattered / 900 ft AGL | <b>Visibility</b>                           | 6 miles           |
| <b>Lowest Ceiling:</b>                  | None                   | <b>Visibility (RVR):</b>                    |                   |
| <b>Wind Speed/Gusts:</b>                | 5 knots / None         | <b>Turbulence Type Forecast/Actual:</b>     | /                 |
| <b>Wind Direction:</b>                  | 20°                    | <b>Turbulence Severity Forecast/Actual:</b> | /                 |
| <b>Altimeter Setting:</b>               | 30.54 inches Hg        | <b>Temperature/Dew Point:</b>               | 0°C / -3°C        |
| <b>Precipitation and Obscuration:</b>   | N/A - None - Haze      |   |                   |
| <b>Departure Point:</b>                 | PARIS, TX (PRX )       | <b>Type of Flight Plan Filed:</b>           | None              |
| <b>Destination:</b>                     | SHAWNEE, OK (SNL )     | <b>Type of Clearance:</b>                   | None              |
| <b>Departure Time:</b>                  | 09:30 Local            | <b>Type of Airspace:</b>                    | Class G           |

## Wreckage and Impact Information

|                            |         |                             |                      |
|----------------------------|---------|-----------------------------|----------------------|
| <b>Crew Injuries:</b>      | 1 Fatal | <b>Aircraft Damage:</b>     | Destroyed            |
| <b>Passenger Injuries:</b> |         | <b>Aircraft Fire:</b>       | On-ground            |
| <b>Ground Injuries:</b>    | N/A     | <b>Aircraft Explosion:</b>  | None                 |
| <b>Total Injuries:</b>     | 1 Fatal | <b>Latitude, Longitude:</b> | 35.133335,-96.359443 |

## Administrative Information

**Investigator In Charge (IIC):** LeBaron, Timothy

**Additional Participating Persons:** Joseph Broker; Federal Aviation Administration; Oklahoma City, OK

**Original Publish Date:** July 7, 2005

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=61012>

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](#).