



# **Aviation Investigation Final Report**

Location: Reno, Nevada Accident Number: GAA17CA478

Date & Time: August 8, 2017, 12:20 Local Registration: N993JK

Aircraft: KING JOHN E JR KITFOX Aircraft Damage: Substantial

**Defining Event:** Loss of control on ground **Injuries:** 1 None

Flight Conducted Under: Part 91: General aviation - Personal

### **Analysis**

According to the pilot in the tailwheel-equipped, experimental, amateur-built airplane, he attempted to land in shifting wind conditions. He reported that, during the landing flare on runway 8, a wind gust from the south caused the right wing to rise. He reported that he made the approach with full flaps applied and about 60 knots airspeed and corrected with right aileron, but the airplane landed with a left sideload. During the landing roll, the airplane veered to the right, and the left main landing gear wheel separated from the airplane. The airplane then veered to the left and sustained substantial damage to the lower left side of the fuselage.

The pilot reported that he "knew the winds were swirling and should have taken another look at it or found another runway for the newer developing wind conditions."

METARs at the accident airport are issued about every 20 minutes. Ten minutes before the accident, the METAR indicated that the wind was from 080° at 6 knots. About 10 minutes after the accident, the METAR indicated that the wind was from 140° at 5 knots.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

### **Probable Cause and Findings**

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

The pilot's failure to maintain directional control during landing in variable wind conditions.

#### **Findings**

Aircraft Directional control - Not attained/maintained

Personnel issues Aircraft control - Pilot

Environmental issues Variable wind - Effect on operation

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# **Factual Information**

# History of Flight

| Landing-landing roll | Other weather encounter                    |
|----------------------|--|
| Landing-landing roll | Attempted remediation/recovery             |
| Landing-landing roll | Loss of control on ground (Defining event) |

#### **Pilot Information**

| Certificate:              | Private   | Age:                              | 50,Male      |
|---------------------------|---|-----------------------------------|--------------|
| Airplane Rating(s):       | Single-engine land  | Seat Occupied:                    | Left         |
| Other Aircraft Rating(s): | None  | Restraint Used:                   | 4-point      |
| 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:            | June 2, 2017 |
| Occupational Pilot:       | No  | Last Flight Review or Equivalent: | July 5, 2017 |
| Flight Time:              | (Estimated) 209 hours (Total, all aircraft), 50 hours (Total, this make and model), 209 hours (Pilot In Command, all aircraft), 55 hours (Last 90 days, all aircraft), 21 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft) |                                   |              |

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# **Aircraft and Owner/Operator Information**

| Aircraft Make:                | KING JOHN E JR               | Registration:                     | N993JK          |
|-------------------------------|------------------------------|-----------------------------------|-----------------|
| Model/Series:                 | KITFOX SERIES 6              | Aircraft Category:                | Airplane        |
| Year of Manufacture:          | 2002                         | Amateur Built:                    | Yes             |
| Airworthiness Certificate:    | Experimental (Special)       | Serial Number:                    | S6004-024       |
| Landing Gear Type:            | Tailwheel                    | Seats:                            | 2               |
| Date/Type of Last Inspection: | April 20, 2017 Annual        | Certified Max Gross Wt.:          | 1550 lbs        |
| Time Since Last Inspection:   |                              | Engines:                          | 1 Reciprocating |
| Airframe Total Time:          | 824 Hrs at time of accident  | Engine Manufacturer:              | Rotax           |
| ELT:                          | C91 installed, not activated | Engine Model/Series:              | 912-ULS         |
| Registered Owner:             | On file                      | Rated Power:                      | 100 Horsepower  |
| Operator:                     | On file                      | Operating Certificate(s)<br>Held: | None            |

# Meteorological Information and Flight Plan

| Conditions at Accident Site:     | Visual (VMC)                     | Condition of Light:                  | Day              |
|----------------------------------|----------------------------------|--------------------------------------|------------------|
| Observation Facility, Elevation: | RTS,5026 ft msl                  | Distance from Accident Site:         | 0 Nautical Miles |
| Observation Time:                | 07:10 Local                      | Direction from Accident Site:        | 98°              |
| <b>Lowest Cloud Condition:</b>   | Clear                            | Visibility                           | 10 miles         |
| Lowest Ceiling:                  | None                             | Visibility (RVR):                    |                  |
| Wind Speed/Gusts:                | 3 knots /                        | Turbulence Type Forecast/Actual:     | / None           |
| Wind Direction:                  | 240°                             | Turbulence Severity Forecast/Actual: | / N/A            |
| Altimeter Setting:               | 30.18 inches Hg                  | Temperature/Dew Point:               | 13°C / 11°C      |
| Precipitation and Obscuration:   | No Obscuration; No Precipitation |                                      |                  |
| Departure Point:                 | Reno, NV (RTS)                   | Type of Flight Plan Filed:           | None             |
| Destination:                     | Reno, NV (RTS )                  | Type of Clearance:                   | None             |
| Departure Time:                  | 08:00 Local                      | Type of Airspace:                    | Class G          |
|                                  |                                  |                                      |                  |

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# **Airport Information**

| Airport:             | RENO/STEAD RTS   | Runway Surface Type:             | Asphalt                   |
|----------------------|------------------|----------------------------------|---------------------------|
| Airport Elevation:   | 5050 ft msl      | <b>Runway Surface Condition:</b> | Dry                       |
| Runway Used:         | 08               | IFR Approach:                    | None                      |
| Runway Length/Width: | 7608 ft / 150 ft | VFR Approach/Landing:            | Full stop;Traffic pattern |

# Wreckage and Impact Information

| Crew Injuries:         | 1 None | Aircraft Damage:        | Substantial                |
|------------------------|--------|-------------------------|----------------------------|
| Passenger<br>Injuries: |        | Aircraft Fire:          | None                       |
| Ground Injuries:       | N/A    | Aircraft Explosion:     | None                       |
| Total Injuries:        | 1 None | Latitude,<br>Longitude: | 39.668056,-119.876388(est) |

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#### **Administrative Information**

| Investigator In Charge (IIC):     | Hicks, Michael  |
|-----------------------------------|---|
| Additional Participating Persons: | Lee Oscar; FAA; Reno, NV  |
| Original Publish Date:            | April 23, 2018  |
| Last Revision Date:               |   |
| Investigation Class:              | <u>Class</u>  |
| Note:                             | This accident report documents the factual circumstances of this accident as described to the NTSB. |
| Investigation Docket:             | https://data.ntsb.gov/Docket?ProjectID=95778  |

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.

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