



# Aviation Investigation Final Report

<b>Location:</b>	McKinney, Texas	<b>Accident Number:</b>	CEN16LA185
<b>Date &amp; Time:</b>	May 13, 2016, 08:30 Local	<b>Registration:</b>	N700MJ
<b>Aircraft:</b>	JEWETT BRANDON RV 6	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Runway excursion	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The private-rated pilot planned a short, personal cross-country flight. The pilot reported that, as he applied engine power for the takeoff, the airplane "snapped" left. The pilot applied right rudder to correct the turn; however, the airplane continued off the left side of the runway. The pilot reduced the throttle and mixture control but could not stop the airplane before it impacted trees. The pilot reported that the direct link bar to the tailwheel and the bolts that hold the tailwheel were broken postimpact. The pilot also reported that he had 15.5 hours in the airplane make and model with 4 hours as pilot-in-command. The accident is consistent with a loss of directional control during application of engine power for takeoff.

## Probable Cause and Findings

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

The pilot's loss of directional control during takeoff.

## Findings

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Personnel issues</b>	Total experience w/ equipment - Pilot



# Factual Information

## History of Flight

Takeoff	Runway excursion (Defining event)
Takeoff	Collision with terr/obj (non-CFIT)

On May 13, 2016, about 0830 central daylight time, a kit built Vans RV-6 airplane, N700MJ, departed the runway and impacted trees during an attempted takeoff from the Aero Country Airport (T31), McKinney, Texas. The private rated pilot was not injured and the airplane was substantially damaged. The airplane was registered to and operated a private individual, under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Day visual meteorological conditions prevailed at the time of the accident. The cross country flight was originating at the time of the accident with the intended destination of Sherman, Texas.

The pilot reported that he applied engine power for the takeoff, the airplane "snapped" left; he applied right rudder to counter the propeller torque. The airplane continued off the left side of the runway, so he reduced the throttle, and pulled the mixture control, but could not get the airplane stopped before the airplane impacted trees.

The pilot added that the direct link bar that connected to the tailwheel and the bolts that hold the tailwheel were broken post impact.

The pilot reported he had 358 total flight hours with 15.5 hours in make and model, with 4 hours as pilot-in-command.

The responding Federal Aviation Administration Inspector noted the airplane had sustained substantial damage to both wings and fuselage.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	53
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	5-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	January 1, 2015
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	358 hours (Total, all aircraft), 15.5 hours (Total, this make and model), 248 hours (Pilot In Command, all aircraft), 25.7 hours (Last 90 days, all aircraft), 13.5 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	JEWETT BRANDON	<b>Registration:</b>	N700MJ
<b>Model/Series:</b>	RV 6	<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>	22896
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	
<b>Date/Type of Last Inspection:</b>	February 14, 2016 100 hour	<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>	692 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-360
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>	On file	<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>	KTKI	<b>Distance from Accident Site:</b>	8 Nautical Miles
<b>Observation Time:</b>	08:53 Local	<b>Direction from Accident Site:</b>	90°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	130°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.21 inches Hg	<b>Temperature/Dew Point:</b>	19°C / 12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	McKinney, TX (T31 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Sherman, TX (KSWI)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Aero Country Airport T31	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	782 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	17	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4352 ft / 60 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	33.209445,-96.743614(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hatch, Craig
<b>Additional Participating Persons:</b>	Gregory Sheehan; FAA FSDO; Dallas, TX
<b>Original Publish Date:</b>	December 12, 2016
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=93181">https://data.nts.gov/Docket?ProjectID=93181</a>

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