



# Aviation Investigation Final Report

<b>Location:</b>	Caputa, South Dakota	<b>Accident Number:</b>	CEN14CA392
<b>Date &amp; Time:</b>	July 25, 2014, 20:00 Local	<b>Registration:</b>	N5530K
<b>Aircraft:</b>	Bellanca 7GCBC	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Low altitude operation/event	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

The flight instructor reported that the student pilot pushed the throttle about 3/4 of the way in during the takeoff roll, and did not add full power until about 1/2 way down the 1,500 foot grass airstrip. The airplane had not attained flying airspeed by the time it reached the end of the runway. The airplane became airborne, but it settled and impacted the terrain, which resulted in substantial damage to the fuselage and right wingtip. The flight instructor reported that there were no preaccident 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 student pilot's improper takeoff procedure and the flight instructor's failure to take control of the airplane and abort the takeoff.

## Findings

<b>Personnel issues</b>	Incorrect action performance - Student/instructed pilot
<b>Personnel issues</b>	Lack of action - Instructor/check pilot
<b>Aircraft</b>	Airspeed - Not attained/maintained

## Factual Information

### History of Flight

<b>Initial climb</b>	Low altitude operation/event (Defining event)
<b>Initial climb</b>	Collision with terr/obj (non-CFIT)

### Flight instructor Information

<b>Certificate:</b>	Airline transport; Commercial; Flight instructor	<b>Age:</b>	76
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	May 1, 2014
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	October 1, 2013
<b>Flight Time:</b>	15000 hours (Total, all aircraft), 500 hours (Total, this make and model), 100 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft)		

### Student pilot Information

<b>Certificate:</b>		<b>Age:</b>	
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	10 hours (Total, all aircraft), 10 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Bellanca	<b>Registration:</b>	N5530K
<b>Model/Series:</b>	7GCBC	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1978	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	1026-78
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	
<b>Date/Type of Last Inspection:</b>	Annual	<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2000 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed	<b>Engine Model/Series:</b>	O-320
<b>Registered Owner:</b>	WRIGHT THOMAS R	<b>Rated Power:</b>	150 Horsepower
<b>Operator:</b>	WRIGHT THOMAS R	<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>	RAP	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	13:52 Local	<b>Direction from Accident Site:</b>	
<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>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.94 inches Hg	<b>Temperature/Dew Point:</b>	26°C / 10°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Caputa, SD	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Caputa, SD	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	13:50 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Private Airstrip XXX	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	3200 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	18	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	1500 ft / 100 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 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>	2 None	<b>Latitude, Longitude:</b>	43.977222,-102.981666(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Silliman, James
<b>Additional Participating Persons:</b>	Dan McKinney; FAA Rapid City FSDO; Rapid City , SD
<b>Original Publish Date:</b>	September 24, 2014
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=89752">https://data.nts.gov/Docket?ProjectID=89752</a>

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