



# Aviation Investigation Final Report

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<b>Location:</b>	Edgewood, New Mexico	<b>Accident Number:</b>	GAA17CA357
<b>Date &amp; Time:</b>	June 20, 2017, 17:00 Local	<b>Registration:</b>	N88237
<b>Aircraft:</b>	Bellanca 7GCBC	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Hard landing	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The pilot reported that, about 8 seconds into the takeoff roll in gusting wind conditions at high-density altitude, the airplane "suddenly and expectantly lifted off the runway in a steep angle of attack." He added that he immediately reduced power to idle to abort the initial climb, and the airplane "settled back onto the runway but landed hard." He further added that, during the landing roll, he lost directional control, and the airplane veered off the runway, coming to rest in the dirt alongside the runway.

The fuselage, left wing, and aileron sustained substantial damage.

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

An automated weather observation station, 10 nautical miles southeast of the accident airport, reported that, 5 minutes before the accident, the wind was from 150° at 16 knots, gusting to 25 knots. The pilot reported that he observed the wind from 300° at 8 knots, gusting to 15 knots. He reported that the takeoff was on runway 9. He further reported that the density altitude was 10,000 ft at the departure airport.

## Probable Cause and Findings

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

The pilot's decision to take off with a gusting tailwind, which resulted in a loss of pitch control during the initial climb and a subsequent hard landing and loss of directional control.

## Findings

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Personnel issues</b>	Decision making/judgment - Pilot
<b>Aircraft</b>	Pitch control - Not attained/maintained
<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Environmental issues</b>	Gusts - Decision related to condition
<b>Environmental issues</b>	Tailwind - Decision related to condition

## Factual Information

### History of Flight

<b>Takeoff</b>	Other weather encounter
<b>Takeoff-rejected takeoff</b>	Loss of control in flight
<b>Landing-flare/touchdown</b>	Hard landing (Defining event)
<b>Landing-landing roll</b>	Loss of control on ground
<b>Landing-landing roll</b>	Runway excursion
<b>Landing-landing roll</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	56, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<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>	Class 3 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	August 12, 2016
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	January 4, 2017
<b>Flight Time:</b>	(Estimated) 810 hours (Total, all aircraft), 150 hours (Total, this make and model), 780 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Bellanca	<b>Registration:</b>	N88237
<b>Model/Series:</b>	7GCBC NO SERIES	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1974	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Aerobatic	<b>Serial Number:</b>	744-74
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	December 21, 2016 Annual	<b>Certified Max Gross Wt.:</b>	1650 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1390 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C91 installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-320
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	150 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>	K0E0,6204 ft msl	<b>Distance from Accident Site:</b>	10 Nautical Miles
<b>Observation Time:</b>	23:55 Local	<b>Direction from Accident Site:</b>	140°
<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>	16 knots / 25 knots	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>	150°	<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	30.14 inches Hg	<b>Temperature/Dew Point:</b>	33°C / 7°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	EDGEWOOD, NM (1N1 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	EDGEWOOD, NM (1N1 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	17:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	SANDIA AIRPARK ESTATES EAST 1N1	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	6565 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	9	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4830 ft / 30 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>	35.094722,-106.164443(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Gerhardt, Adam
<b>Additional Participating Persons:</b>	Geary Monckton ; FAA/ FSDO; Albuquerque, NM
<b>Original Publish Date:</b>	September 22, 2017
<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=95419">https://data.nts.gov/Docket?ProjectID=95419</a>

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