



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	Imperial, Nebraska	<b>Accident Number:</b>	CEN20CA307
<b>Date &amp; Time:</b>	July 25, 2020, 12:49 Local	<b>Registration:</b>	N327WB
<b>Aircraft:</b>	Vans VANS RV 6	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of lift	<b>Injuries:</b>	1 Serious, 1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot stated that this was his third passenger carrying flight of the day and he determined his takeoff weight was about 146 lbs below max gross weight. For the takeoff from the grass strip, he elected not to utilize flaps or the full length of the runway, leaving about 100-200 ft behind him. During the takeoff roll, the pilot had the sense that the roll was taking longer than normal, and he began to be concerned about powerlines at the end of the runway. When about 10-25 ft above the ground, he began a shallow bank turn to the right. Immediately after starting the turn, he flew over a corn field and experienced a loss of lift. The airplane then impacted the corn, resulting in substantial damage to the right wing and fuselage. The pilot reported no mechanical anomalies with the airplane that would have precluded normal operation.

The pilot noted that he listened to the density altitude reported on the Automated Weather Observing System for a nearby airport but did not process the effects it would have on the accident flight. The density altitude was about 6,184 ft.

## Probable Cause and Findings

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

The pilot's inadequate preflight performance planning and his decision not to utilize all available runway during high density altitude operations which led to an inflight loss of control and subsequent collision with terrain.

## Findings

Personnel issues	Performance calculations - Pilot
Personnel issues	Decision making/judgment - Pilot
Aircraft	Climb capability - Not specified

## Factual Information

### History of Flight

Initial climb	Loss of lift (Defining event)
Initial climb	Collision with terr/obj (non-CFIT)

### Pilot Information

Certificate:	Private	Age:	66,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
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:	August 20, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	December 22, 2019
Flight Time:	247 hours (Total, all aircraft), 58 hours (Total, this make and model), 247 hours (Pilot In Command, all aircraft), 8 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

Aircraft Make:	Vans	Registration:	N327WB
Model/Series:	VANS RV 6 Undesignat	Aircraft Category:	Airplane
Year of Manufacture:	1996	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	24169
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	January 7, 2020 Condition	Certified Max Gross Wt.:	1600 lbs
Time Since Last Inspection:	20 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	754 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-320-H2AD
Registered Owner:	On file	Rated Power:	160 Horsepower
Operator:	On file	Operating Certificate(s) Held:	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>	KIML, 3273 ft msl	<b>Distance from Accident Site:</b>	6 Nautical Miles
<b>Observation Time:</b>	10:53 Local	<b>Direction from Accident Site:</b>	359°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.97 inches Hg	<b>Temperature/Dew Point:</b>	30°C / 19°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Imperial, NE (PVT )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Imperial, NE (IML )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	11:45 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	PRIVATE PRIV	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	3460 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 Serious	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious, 1 Minor	<b>Latitude, Longitude:</b>	40.406944,-101.6175

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Williams, David
<b>Additional Participating Persons:</b>	Greg Young; FAA; Lincoln, NE
<b>Original Publish Date:</b>	February 2, 2021
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</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=101670">https://data.nts.gov/Docket?ProjectID=101670</a>

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