



# Aviation Investigation Final Report

<b>Location:</b>	MARTIN, South Dakota	<b>Accident Number:</b>	CHI93LA314
<b>Date &amp; Time:</b>	August 7, 1993, 17:00 Local	<b>Registration:</b>	N78516
<b>Aircraft:</b>	CESSNA 188	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Analysis

THE PILOT ATTEMPTED TO TAKEOFF ON AN EIGHTEEN FOOT WIDE GRAVEL ROADWAY. HE STATED '...AS SOON AS TAIL CAME UP, RIGHT WING DROPPED AND AIRCRAFT VEERED TO THE RIGHT. LEFT BRAKE APPLIED TO STOP AIRCRAFT FROM TURNING RIGHT...CAUSED AIRCRAFT TO VEER LEFT 180 DEGREES.' THE AIRPLANE SKIDDED INTO A DITCH ON THE LEFT SIDE OF THE ROAD, AND THE RIGHT MAIN LANDING GEAR COLLAPSED.

## 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 control of the airplane during the takeoff roll.

## Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: TAKEOFF - ROLL/RUN

### Findings

1. (F) TERRAIN CONDITION - HIGH VEGETATION
  2. DIRECTIONAL CONTROL - INADEQUATE - PILOT IN COMMAND
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Occurrence #2: GEAR COLLAPSED  
Phase of Operation: TAKEOFF - ABORTED



## Factual Information

On August 7, 1993, approximately 1700 hours mountain daylight time, a Cessna 188, N78516, sustained substantial damage when it veered off the road into a ditch during an attempted takeoff. The pilot, the sole occupant, reported no injuries. Visual meteorological conditions prevailed for the local aerial application flight, no flight plan was filed. The flight operated under 14 CFR Part 137, and the accident occurred during takeoff.

The pilot reported he pulled the airplane out of the hangar, refuelled, and performed a preflight inspection before he taxied to the 18 foot wide gravel road for takeoff. He stated everything seemed normal as he applied power for takeoff. The pilot stated "...Almost as soon as the tail came up, right wing dropped and aircraft veered to the right. Left brake applied to stop aircraft from turning right...caused aircraft to veer left 180 degrees, skid to right and slide into left ditch..." The pilot indicated periodic inspections of the roadway for foreign objects, tall weeds/grass, etc. might have prevented the accident. There was no evidence or claim of preimpact mechanical malfunction.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	64, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Center
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<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 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	June 30, 1993
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	28000 hours (Total, all aircraft), 2000 hours (Total, this make and model), 28000 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N78516
<b>Model/Series:</b>	188 188	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	18801953T
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	May 7, 1993 Annual	<b>Certified Max Gross Wt.:</b>	3300 lbs
<b>Time Since Last Inspection:</b>	115 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1832 Hrs	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>		<b>Engine Model/Series:</b>	IO-520
<b>Registered Owner:</b>	LAKOTA NATION AVIATION, INC.	<b>Rated Power:</b>	300 Horsepower
<b>Operator:</b>	LAKOTA NATION AVIATION, INC.	<b>Operating Certificate(s) Held:</b>	
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	LKTG

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	17:00 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	25 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	1 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	180°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	22°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>		<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	17:59 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>		<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>	43.170562,-101.719924(est)

## Administrative Information

**Investigator In Charge (IIC):** Reeves, Jodi

**Additional Participating Persons:**

**Original Publish Date:** July 25, 1994

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=9275>

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