



# Aviation Investigation Final Report

<b>Location:</b>	Denver, Colorado	<b>Accident Number:</b>	CEN20CA204
<b>Date &amp; Time:</b>	June 1, 2020, 10:20 Local	<b>Registration:</b>	N6518M
<b>Aircraft:</b>	Stinson 108	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control on ground	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot landed at the airport in a tail-wheel equipped airplane, when he lost directional control and the airplane ground looped. During the ground loop the wing contacted the ground and the airplane nosed over and came to rest inverted. The rudder and vertical stabilizer sustained substantial damage. Post-accident examination of the airplane did not reveal any flight control anomalies. Wind recorded at the time of the accident reported variable wind at speeds between 4 and 8 knots.

## 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 directional control while landing during variable wind conditions.

## Findings

<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Pilot

## Factual Information

### History of Flight

<b>Landing-landing roll</b>	Other weather encounter
<b>Landing-landing roll</b>	Loss of control on ground (Defining event)
<b>Landing-landing roll</b>	Runway excursion
<b>Landing-landing roll</b>	Nose over/nose down

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	58, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Unknown
<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>	July 15, 2020
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	March 11, 2020
<b>Flight Time:</b>	829 hours (Total, all aircraft), 25 hours (Total, this make and model), 3 hours (Last 90 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Stinson	<b>Registration:</b>	N6518M
<b>Model/Series:</b>	108 3	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1949	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	108-4518
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	2400 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Franklin
<b>ELT:</b>		<b>Engine Model/Series:</b>	6A4165 SERIES
<b>Registered Owner:</b>	Denver Rock Island Railroad	<b>Rated Power:</b>	165 Horsepower
<b>Operator:</b>	Private Individual	<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>	KDEN,5414 ft msl	<b>Distance from Accident Site:</b>	5 Nautical Miles
<b>Observation Time:</b>	10:53 Local	<b>Direction from Accident Site:</b>	295°
<b>Lowest Cloud Condition:</b>	Few / 10000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 22000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots / 8 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.11 inches Hg	<b>Temperature/Dew Point:</b>	32°C / 6°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Denver, CO (CFO )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Denver, CO (CFO )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	10:45 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	Colorado Air And Space Port CFO	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	5515 ft msl	<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	26	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	8002 ft / 100 ft	<b>VFR Approach/Landing:</b>	Unknown

## 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>	In-flight
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	39.794166,-104.55055(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Aguilera, Jason
<b>Additional Participating Persons:</b>	Justin Eddleman; FAA FSDO; Denver, CO
<b>Original Publish Date:</b>	August 24, 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=101357">https://data.nts.gov/Docket?ProjectID=101357</a>

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