



# Aviation Investigation Final Report

<b>Location:</b>	LaGrange, Wyoming	<b>Accident Number:</b>	WPR14CA047
<b>Date &amp; Time:</b>	November 9, 2013, 07:30 Local	<b>Registration:</b>	N510MA
<b>Aircraft:</b>	AVIAT AIRCRAFT INC A 1B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Miscellaneous/other	<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that after touchdown on the grass/sod airstrip, the landing roll was normal for about 100 feet, but then the airplane came to an abrupt stop, like it had hit something. The airplane nosed over substantially damaging the rudder and wings.

The pilot and ranch personnel inspected the landing area and followed the airplane's tracks back toward the point of touchdown. They found a large hole, likely dug by an animal, approximately 24" deep, and in line with the airplane's right tire track. The pilot said he did not see the hole when flying downwind, nor on the base leg, or final approach.

The pilot reported no preimpact mechanical 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 pilot's decision to land on a rough surface with hidden obstructions (holes).

## Findings

<b>Personnel issues</b>	Decision making/judgment - Pilot
<b>Environmental issues</b>	Hidden/submerged object - Contributed to outcome
<b>Environmental issues</b>	(general) - Contributed to outcome

## Factual Information

### History of Flight

<b>Landing-landing roll</b>	Miscellaneous/other (Defining event)
<b>Landing-landing roll</b>	Nose over/nose down

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	66
<b>Airplane Rating(s):</b>	Single-engine land; Multi-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>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	April 20, 2012
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	April 30, 2013
<b>Flight Time:</b>	3100 hours (Total, all aircraft), 431 hours (Total, this make and model), 2997 hours (Pilot In Command, all aircraft), 28 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	AVIAT AIRCRAFT INC	<b>Registration:</b>	N510MA
<b>Model/Series:</b>	A 1B B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2005	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	2322
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	October 7, 2013 Annual	<b>Certified Max Gross Wt.:</b>	2000 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	517 Hrs at time of accident	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	C91A installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-360 SERIES
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	180 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>	KTOR	<b>Distance from Accident Site:</b>	20 Nautical Miles
<b>Observation Time:</b>	06:30 Local	<b>Direction from Accident Site:</b>	10°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	50 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>	30.14 inches Hg	<b>Temperature/Dew Point:</b>	7°C / -7°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	LONGMONT, CO (LMO )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	LaGrange, WY	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	06:30 Local	<b>Type of Airspace:</b>	Class E

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<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 Minor	<b>Latitude, Longitude:</b>	41.286109,-104.459724

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Lewis, Lawrence
<b>Additional Participating Persons:</b>	Brian C Neal; FAA FSDO ; Denver, CO
<b>Original Publish Date:</b>	February 4, 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=88408">https://data.nts.gov/Docket?ProjectID=88408</a>

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