



National Transportation Safety Board Aviation Accident Final Report

Location:	Fort Smith, MT	Accident Number:	WPR13CA213
Date & Time:	07/02/2013, 1012 MDT	Registration:	N302MX
Aircraft:	AVIAT A-1B	Aircraft Damage:	Substantial
Defining Event:	Collision during takeoff/land	Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General Aviation - Aerial Observation		

Analysis

The pilot reported that he was conducting a wildlife survey flight and had been airborne about 2.5 hours, when the observer said that he would like to take a break. At that time, the flight was over a high mesa covered in short grass, which the pilot decided was a suitable landing area. The touchdown was smooth, but the airplane encountered undulating terrain during the rollout and began to bounce. The pilot added full power to abort the landing, and the airplane's speed began to increase; however, the pilot was unable to take off before impacting a bush. The airplane traveled several hundred feet down a ravine and came to an abrupt stop. The airplane's main landing gear collapsed, and both wings sustained substantial damage. The pilot estimated that the density altitude at the landing site was about 8,950 feet. He stated that the accident could have been avoided had he "made the decision not to land off-airport in that area at such density altitudes." 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 improper decision to land on rough terrain at a high density altitude.

Findings

Personnel issues	Decision making/judgment - Pilot (Cause)
Environmental issues	High density altitude - Effect on equipment Rough terrain - Awareness of condition

Factual Information

History of Flight

Landing-aborted after touchdown	Collision during takeoff/land (Defining event)
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Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	30, Male
Airplane Rating(s):	Single-engine Land; Single-engine Sea	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Without Waivers/Limitations	Last Medical Exam:	01/23/2013
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	01/02/2012
Flight Time:	2379 hours (Total, all aircraft), 160 hours (Total, this make and model), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	AVIAT	Registration:	N302MX
Model/Series:	A-1B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	2008
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	06/18/2013, 100 Hour	Certified Max Gross Wt.:	2000 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4386 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-360-A1P
Registered Owner:	Innes Ranch LLC	Rated Power:	180 hp
Operator:	Flightline, Inc	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:		Observation Time:	
Distance from Accident Site:		Condition of Light:	Day
Direction from Accident Site:		Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	26° C / 14° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	Calm	Visibility (RVR):	
Altimeter Setting:	30.17 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Laurel, MT (6S8)	Type of Flight Plan Filed:	Company VFR
Destination:	Laurel, MT (6S8)	Type of Clearance:	None
Departure Time:	0745 MDT	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor		

Administrative Information

Investigator In Charge (IIC):	James F Struhsaker	Adopted Date:	09/05/2013
Additional Participating Persons:	Thomas A Hillesland; FAA FSDO; Helena, MT		
Publish Date:	09/05/2013		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=86791		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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