



National Transportation Safety Board Aviation Accident Final Report

Location:	Darby, MT	Accident Number:	WPR15LA036
Date & Time:	11/07/2014, 0900 MST	Registration:	N84462
Aircraft:	CHAMPION 7AC	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	2 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The commercial pilot reported that he was attempting to land the light sport airplane on a private grass airstrip surrounded by mountainous terrain. While maneuvering for landing, the airplane suddenly entered into a steep, right-wing-low bank. The wings then leveled momentarily before the airplane impacted the ground. The passenger in the rear seat of the airplane stated that he felt a downdraft or windshear just prior to impact. A post-accident examination of the airplane found no anomalies that would have precluded normal operation.

The pilot reported the wind as light and variable with 5-10 knot gusts; however, he stated that during previous flights in the area, he experienced unexpected severe gusts and terrain-induced turbulence, followed by complete calm.

The airplane was not equipped with a stall warning system or flaps. Since the airplane was maneuvering for landing approach at low airspeed, a sudden gust of wind or shift in wind speed or direction could have resulted in a rapid loss of airspeed, followed by an aerodynamic stall as the airplane reached its critical angle-of-attack. Due to the airplane's low altitude, the pilot likely did not have sufficient time to recover from the stalled condition prior to impacting terrain.

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 airspeed while maneuvering in gusting wind conditions, which resulted in the airplane exceeding its critical angle of attack and experiencing an aerodynamic stall.

Findings

Aircraft	Airspeed - Not attained/maintained (Cause)
Personnel issues	Aircraft control - Pilot (Cause)
Environmental issues	Wind - Effect on operation (Cause)

Factual Information

On November 7, 2014, at 0900 mountain standard time, a Champion 7AC, N84462, impacted a farm field and wheeled sprinkler system, 10 miles south of Darby, Montana. The commercial pilot and single passenger were seriously injured, and the airplane was substantially damaged. The airplane was registered to the pilot and operated under the provisions of 14 Code of Federal Regulations, Part 91. Visual meteorological conditions prevailed for the personal flight, and no flight plan had been filed.

According to the pilot he was attempting to land on a private grass airstrip in a farm field surrounded by mountainous terrain when the accident occurred. Witnesses observed the airplane descending at an estimated 90 degree right-wing-low bank angle; the wings then leveled before impacting the ground.

The pilot stated that due to injuries he could not recall all the events leading up to the accident; however he recalled observing a TV interview of a witness after the accident, in which the witness stated that it was windy at the time of the accident. The nearest weather reporting station was 40 nautical miles north of the accident site and reported wind from 230 degrees at 4 knots. The pilot reported light and variable winds with 5-10 knot gusts at the time of the accident; however he stated that he has experienced unexpected severe gusts and terrain induced turbulence pass through the area momentarily followed by complete calm.

The pilot rated passenger in the rear seat recalled that he felt what he believed to be wind shear or a down draft before impact.

Post-accident examination of the airplane did not reveal any failures or malfunctions with the airplane that would have precluded normal operation. Further examination revealed that an undetermined amount of aviation fuel was recovered from the fuel system. It was also noted that the airplane was not equipped with flaps or a stall warning system.

History of Flight

Approach-VFR pattern final	Aerodynamic stall/spin Loss of control in flight (Defining event)
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Pilot Information

Certificate:	Commercial	Age:	60, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Sport Pilot None	Last Medical Exam:	11/01/2004
Occupational Pilot:	No	Last Flight Review or Equivalent:	03/21/2014
Flight Time:	1750 hours (Total, all aircraft), 372 hours (Total, this make and model), 1750 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CHAMPION	Registration:	N84462
Model/Series:	7AC	Aircraft Category:	Airplane
Year of Manufacture:	1946	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	7AC-3161
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	03/20/2014, Annual	Certified Max Gross Wt.:	1300 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	7565 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	C85
Registered Owner:	On file	Rated Power:	85 hp
Operator:	On file	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KMSO, 3026 ft msl	Observation Time:	0953 MST
Distance from Accident Site:	40 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	360°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Scattered / 4600 ft agl	Temperature/Dew Point:	8° C / 2° C
Lowest Ceiling:	Overcast / 8000 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	4 knots, 230°	Visibility (RVR):	
Altimeter Setting:	30.33 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	CONNER, MT (4U7)	Type of Flight Plan Filed:	None
Destination:	Conner, MT	Type of Clearance:	None
Departure Time:	0900 MST	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Serious		

Administrative Information

Investigator In Charge (IIC):	Van McKenny	Adopted Date:	12/12/2016
Additional Participating Persons:	Troy Meskimen; FAA; Helena, MT Kurt Gibson; CMI; Mobile, AL		
Publish Date:	12/12/2016		
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=90370		

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