



Aviation Investigation Final Report

Location:	Jackson, Wyoming	Accident Number:	WPR20CA263
Date & Time:	August 3, 2020, 08:13 Local	Registration:	N971LB
Aircraft:	Lindstrand 310A	Aircraft Damage:	None
Defining Event:	Hard landing	Injuries:	2 Serious, 22 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Business		

Analysis

The pilot reported that before the flight he checked the weather in the area for the balloon flight which indicated light and variable wind conditions about 4-5 knots and no forecasted weather that would adversely affect the flight. At the conclusion of the flight, and as the balloon approached the ground, the wind picked up causing the balloon to descend and the basket lightly touched the ground. After recovery from the unintended landing, the pilot maneuvered to land the balloon. The balloon picked up and gained altitude when there was a sudden 180° wind shift. The ground speed increased, and the balloon started a descent. The pilot used multiple burners but could not arrest the rate of descent. The pilot commanded the passengers to get down and the balloon touched down around 20 mph on an irrigation ditch which tilted the basket. The pilot was ejected from the basket and the balloon drifted back into the air. The pilot yelled to the passengers to pull the red Q-vent line for a fast deflation system to stop the balloon from climbing higher. The balloon started its descent back into the high ground wind, landed and was dragged into a cattle fence. The pilot was not injured. Two passengers were seriously injured, and 13 passengers received minor injuries. The balloon was not damaged.

The pilot reported that there were no mechanical malfunctions or failures with the balloon that would have precluded normal operation.

A weather study of the area revealed that the weather encountered was not forecasted.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's inability to arrest the descent rate when the balloon encountered unforecasted high ground wind that resulted in a hard landing.

Findings

Aircraft	Descent rate - Attain/maintain not possible
Personnel issues	Aircraft control - Pilot
Environmental issues	High wind - Effect on operation

Factual Information

History of Flight

Approach	Other weather encounter
Landing	Hard landing (Defining event)

Pilot Information

Certificate:	Airline transport; Commercial; Flight engineer	Age:	71, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	Balloon	Restraint Used:	None
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	October 8, 2019
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	June 9, 2020
Flight Time:	(Estimated) 20000 hours (Total, all aircraft), 100 hours (Total, this make and model), 18700 hours (Pilot In Command, all aircraft), 40 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Lindstrand	Registration:	N971LB
Model/Series:	310A No Series	Aircraft Category:	Balloon
Year of Manufacture:	2011	Amateur Built:	
Airworthiness Certificate:	Balloon	Serial Number:	5489
Landing Gear Type:	None	Seats:	
Date/Type of Last Inspection:	October 1, 2019 Annual	Certified Max Gross Wt.:	5940 lbs
Time Since Last Inspection:	349 Hrs	Engines:	8 Liquid rocket
Airframe Total Time:	349 Hrs at time of accident	Engine Manufacturer:	Lindstrand
ELT:	Not installed	Engine Model/Series:	BU 1367
Registered Owner:	Wyoming Balloon Co	Rated Power:	
Operator:	Wyoming Balloon Co	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KJAC,6419 ft msl	Distance from Accident Site:	4 Nautical Miles
Observation Time:	06:00 Local	Direction from Accident Site:	80°
Lowest Cloud Condition:	4000 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 14000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/ 20 knots	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.28 inches Hg	Temperature/Dew Point:	18°C / 6°C
Precipitation and Obscuration:			
Departure Point:	Jackson, WY	Type of Flight Plan Filed:	None
Destination:	Jackson, WY	Type of Clearance:	None
Departure Time:	07:30 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	None
Passenger Injuries:	2 Serious, 22 Minor	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 Serious, 22 Minor, 1 None	Latitude, Longitude:	43.587501,-110.8279(est)

Administrative Information

Investigator In Charge (IIC):	Nepomuceno, Eleazar
Additional Participating Persons:	Bruce Hansen; FAA; Casper, WY
Original Publish Date:	August 26, 2021
Last Revision Date:	
Investigation Class:	Class 4
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=101773

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