



# Aviation Investigation Final Report

---

<b>Location:</b>	Jackson, Wyoming	<b>Accident Number:</b>	WPR20CA267
<b>Date &amp; Time:</b>	August 3, 2020, 08:13 Local	<b>Registration:</b>	N12171
<b>Aircraft:</b>	Cameron A 315	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Hard landing	<b>Injuries:</b>	1 Serious, 8 Minor, 10 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Business		

---

## Analysis

The balloon pilot reported that while on final approach to land, about 20 ft above the ground, he saw two balloons he was following, both on their final approaches, suddenly reverse direction, by a strong wind from the southwest. Shortly after, the accident balloon lifted about 50 ft above the ground, followed by a downdraft. The pilot maneuvered the balloon to land and activated both burners to cushion the landing. When the descent rate was less than 500 ft per minute, he deactivated the burners and shouted to the passengers to “hold on” and pulled the quick vent deflate line before touchdown. The balloon landed hard, skidded on its side about 300 ft, and came to rest against an irrigation ditch embankment. The balloon sustained substantial damage to the envelope and a passenger sustained a serious injury.

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

A weather study revealed that the weather encountered by the balloon flight was not forecasted.

## Probable Cause and Findings

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

The balloon pilot’s inability to maintain the proper descent rate during the balloon’s approach to landing during un-forecasted weather, which resulted in a hard landing.

## Findings

<b>Aircraft</b>	Descent/approach/glide path - Attain/maintain not possible
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Environmental issues</b>	Downdraft - Effect on operation

## Factual Information

### History of Flight

<b>Approach</b>	Other weather encounter
<b>Landing</b>	Hard landing (Defining event)

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	68, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Center
<b>Other Aircraft Rating(s):</b>	Balloon; Glider	<b>Restraint Used:</b>	None
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	June 1, 2020
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	May 25, 2020
<b>Flight Time:</b>	(Estimated) 4500 hours (Total, all aircraft), 400 hours (Total, this make and model), 50 hours (Last 90 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cameron	<b>Registration:</b>	N12171
<b>Model/Series:</b>	A 315 No Series	<b>Aircraft Category:</b>	Balloon
<b>Year of Manufacture:</b>	2006	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Balloon	<b>Serial Number:</b>	6453
<b>Landing Gear Type:</b>	None	<b>Seats:</b>	17
<b>Date/Type of Last Inspection:</b>	October 1, 2019 Annual	<b>Certified Max Gross Wt.:</b>	6300 lbs
<b>Time Since Last Inspection:</b>	10 Hrs	<b>Engines:</b>	8 Liquid rocket
<b>Airframe Total Time:</b>	461.7 Hrs at time of accident	<b>Engine Manufacturer:</b>	Cameron
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	Sirocco
<b>Registered Owner:</b>	Wyoming Balloon Co	<b>Rated Power:</b>	
<b>Operator:</b>	Wyoming Balloon Co	<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>	Dawn
<b>Observation Facility, Elevation:</b>	KJAC,6451 ft msl	<b>Distance from Accident Site:</b>	6 Nautical Miles
<b>Observation Time:</b>	05:00 Local	<b>Direction from Accident Site:</b>	30°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Teton Village , WY	<b>Type of Flight Plan Filed:</b>	
<b>Destination:</b>	Teton Village , WY	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	07:07 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 Serious, 8 Minor, 9 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious, 8 Minor, 10 None	<b>Latitude, Longitude:</b>	43.587501,-110.82777(est)

## Administrative Information

**Investigator In Charge (IIC):** Nepomuceno, Eleazar

**Additional Participating Persons:**

**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=101783>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).