



Aviation Investigation Final Report

Location:	Jackson, Wyoming	Accident Number:	WPR20CA262
Date & Time:	August 3, 2020, 08:10 Local	Registration:	N45303
Aircraft:	Head AX8 88	Aircraft Damage:	Minor
Defining Event:	Other weather encounter	Injuries:	1 Serious, 1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Business		

Analysis

The balloon pilot reported that after about 50 minutes of uneventful flying, the wind increased to about 11 miles per hour (mph) while traveling to the southwest. Immediately after, the wind abruptly shifted 180° and increased to about 20 miles per hour. The balloon descended and impacted terrain, slid about 30 yards, and came to rest on its side. The balloon sustained minor damaged, and a passenger sustained a serious broken ankle injury.

The weather study 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 balloon pilot's inability to maintain altitude during un-forecasted weather, which resulted in a hard landing.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Descent rate - Not attained/maintained
Aircraft	Altitude - Not attained/maintained
Environmental issues	Downdraft - Effect on operation

Factual Information

History of Flight

Enroute-change of cruise level	Other weather encounter (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Commercial; Private	Age:	76, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	None
Other Aircraft Rating(s):	Balloon	Restraint Used:	Unknown
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None	Last FAA Medical Exam:	
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	May 25, 2020
Flight Time:	(Estimated) 5195 hours (Total, all aircraft), 20 hours (Total, this make and model), 20 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Head	Registration:	N45303
Model/Series:	AX8 88 No Series	Aircraft Category:	Balloon
Year of Manufacture:	1988	Amateur Built:	
Airworthiness Certificate:	Balloon	Serial Number:	154
Landing Gear Type:	None	Seats:	4
Date/Type of Last Inspection:	May 20, 2020 Annual	Certified Max Gross Wt.:	1500 lbs
Time Since Last Inspection:		Engines:	2 Unknown
Airframe Total Time:	141 Hrs	Engine Manufacturer:	Cameron
ELT:	Not installed	Engine Model/Series:	Ultra Double
Registered Owner:	On file	Rated Power:	
Operator:	On file	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:	05:00 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:	300°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:		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:	07:10 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Minor
Passenger Injuries:	1 Serious, 1 Minor	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor, 1 None	Latitude, Longitude:	43.5875,-110.8279(est)

Administrative Information

Investigator In Charge (IIC):	Nepomuceno, Eleazar
Additional Participating Persons:	Bruce Hanson; FAA; Casper, WY
Original Publish Date:	August 24, 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=101772

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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](#).