



Aviation Investigation Final Report

Location:	WOODY CREEK, Colorado	Accident Number:	DEN93FA101
Date & Time:	August 8, 1993, 08:01 Local	Registration:	N748TC
Aircraft:	Thunder and Colt 240A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	4 Serious, 7 Minor
Flight Conducted Under:	Part 91: General aviation		

Analysis

WHILE ON A LOCAL AREA PASSENGER SIGHT SEEING FLIGHT, THE BALLOON ENCOUNTERED HIGH WINDS. DURING THE ENSUING PRECAUTIONARY LANDING, THE BALLOON STRUCK A FENCE AND LANDED HARD THROWING THE PILOT FROM THE BASKET.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: AN INFLIGHT ENCOUNTER WITH HIGH WINDS WHICH REQUIRED A PRECAUTIONARY LANDING.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE

Findings

- 1. (C) WEATHER CONDITION - HIGH WIND

Occurrence #2: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: LANDING

Findings

- 2. OBJECT - FENCE

Occurrence #3: HARD LANDING
Phase of Operation: LANDING

Findings

3. TERRAIN CONDITION - OPEN FIELD

Factual Information

HISTORY OF FLIGHT

On August 8, 1993, at 0800 mountain daylight time, a Thunder & Colt 240A balloon, N748TC, sustained substantial damage during a hard landing in a field near Woody Creek, Colorado. The commercial pilot and three passengers received serious injuries, and seven passengers received minor injuries. The balloon was operating under 14 CFR Part 91, as a local sight seeing flight. Visual meteorological conditions prevailed and no flight plan was filed. The flight departed from Snowmass Village, Colorado, at approximately 0630.

The balloon, along with several other balloons, drifted in a westerly direction down the Aspen valley, to a point approximately five miles from the Aspen airport. According to the pilot, the wind changed rapidly in both direction and velocity to a westerly wind of about 30 knots, and the balloons drifted back towards the town of Aspen, Colorado, in an easterly direction. The pilot said that while attempting to land, the balloon struck a fence which caused her to be thrown from the basket. The deflation panel had been pulled and the balloon landed hard in an open field. Witnesses said the balloon skidded across the field after initial touch down and skid marks extended across the field for approximately 250 feet.

Witnesses and the passengers on the balloon reported that the wind shifted from an easterly wind to a wind from the west accompanied by a squall line. According to these persons, the wind speed appeared to be between 20 and 30 miles per hour (mph).

PERSONNEL INFORMATION

The pilot received her commercial balloon rating through Unicorn, the operator of the accident balloon, on May 9, 1988, after receiving 34 hours of dual training and 3.5 hours of solo training. FAA records show her having 34 balloon flights at the time she received her rating. Details of the pilot's flight experience are part of this document and may be found under PERSONNEL INFORMATION.

AIRCRAFT INFORMATION

According to information provided by the FAA, this balloon has no maximum capacity regarding numbers of people aboard, but is limited by gross weight. As depicted in this document, that weight was 3,427 pounds. The actual weight of the passengers is not known; however, using a weight of 180 pounds for males, 140 pounds for females, and 70 pounds for children under 10 years of age, the gross weight aboard at the time of the accident would have been 1,630 pounds. The attached weight and balance sheet provides information that the operating empty weight of the balloon was 1,355 pounds, resulting in a gross weight of 2,985

pounds.

METEOROLOGICAL INFORMATION

Recorded weather at the Aspen airport at 0745 local time was 6,000 feet scattered, 7,000 feet broken, 20 miles visibility, temperature 50 degrees fahrenheit, dew point 44 degrees fahrenheit, wind missing, and an altimeter setting of 30.00 Hg. Witnesses at the airport reported the wind to be calm during the time period of the recorded weather. They also stated that wind at the airport often does not accurately reflect the winds in the center of the valley due to the airport being shielded by a hill.

Weather given to the pilot during the weather brief by Grand Junction Flight Service, was reported on NTSB Form 6120.1/2 and is depicted in this document under METEOROLOGICAL INFORMATION.

Two video tapes were made during the event. One from the ground, and one from another balloon. These tapes provide a view of the changing weather conditions and provide a depiction of the wind in the area at the time of the accident. The tapes show the wind to be from the west with an increasing cloud cover. Witnesses on the ground estimated the wind speed to be approximately 30 miles per hour.

ADDITIONAL INFORMATION

The balloon was not retained. Wreckage was removed by the operator the day following the accident.

Pilot Information

Certificate:	Commercial	Age:	33,Female
Airplane Rating(s):	None	Seat Occupied:	Unknown
Other Aircraft Rating(s):	Balloon	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None None	Last FAA Medical Exam:	
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	1054 hours (Total, all aircraft), 56 hours (Total, this make and model), 1009 hours (Pilot In Command, all aircraft), 74 hours (Last 90 days, all aircraft), 33 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Thunder and Colt	Registration:	N748TC
Model/Series:	240A 240A	Aircraft Category:	Balloon
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2285
Landing Gear Type:		Seats:	0
Date/Type of Last Inspection:	May 27, 1993 100 hour	Certified Max Gross Wt.:	3527 lbs
Time Since Last Inspection:	47 Hrs	Engines:	0 Unknown
Airframe Total Time:	125 Hrs	Engine Manufacturer:	
ELT:	Not installed	Engine Model/Series:	
Registered Owner:	UNICORN BALLOON CO., INC.	Rated Power:	
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	GCT,4858 ft msl	Distance from Accident Site:	70 Nautical Miles
Observation Time:	06:45 Local	Direction from Accident Site:	280°
Lowest Cloud Condition:	Thin Overcast / 6000 ft AGL	Visibility	50 miles
Lowest Ceiling:	Broken / 8000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	SNOWMASS, CO (NONE)	Type of Flight Plan Filed:	None
Destination:	(NONE)	Type of Clearance:	None
Departure Time:	06:30 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	Precautionary landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	3 Serious, 7 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 Serious, 7 Minor	Latitude, Longitude:	39.280044,-106.899093(est)

Administrative Information

Investigator In Charge (IIC): Wiemeyer, Norman
Additional Participating Persons: RANDY M HOLDER; DENVER, CO

Original Publish Date: August 1, 1994

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=11086>

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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](#).