



# Aviation Investigation Final Report

<b>Location:</b>	LONGMONT, Colorado	<b>Accident Number:</b>	FTW98LA231
<b>Date &amp; Time:</b>	May 17, 1998, 08:30 Local	<b>Registration:</b>	N1527M
<b>Aircraft:</b>	Balloon Works B	FIREFLY 7-	<b>Aircraft Damage:</b> None
<b>Defining Event:</b>		<b>Injuries:</b>	1 Serious, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

During the landing approach, the winds were from the south at 5 to 7 knots. At 30 to 40 feet above the ground, the pilot encountered wind shear out of the east at 30 to 35 knots, and the intended landing was aborted. The pilot climbed to 150 agl and set up for a high wind landing. Upon touchdown, the pilot's foot was caught between the wicker siding and the solid floor of the basket, and the pilot's ankle was broken. According to the pilot, the accident would not have occurred had he not improperly placed his foot between the wicket basket and the floor plate of the balloon at the time the balloon impacted the ground.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to properly position his foot for a high wind landing. Factors were high winds and windshear.

### Findings

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

#### Findings

1. (F) WEATHER CONDITION - HIGH WIND
2. (F) WEATHER CONDITION - WINDSHEAR

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Occurrence #2: HARD LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. (C) PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND

## Factual Information

On May 17, 1998, approximately 0830 mountain daylight time, a Balloon Works Firefly 7-B balloon, N1527M, was not damaged during landing near Longmont, Colorado. The private pilot received serious injuries and his one passenger was uninjured. The balloon was owned and being operated by the pilot under Title 14 CFR Part 91. Visual meteorological conditions prevailed for the personal cross-country flight that originated from a private field near Twin Lakes, Colorado, approximately one hour before the accident, and no flight plan was filed.

According to the pilot, the winds were from the south at 5 to 7 knots during the landing approach. At 30 to 40 feet above the ground, the balloon "encountered severe wind shear out of the east at 30 to 35 knots." The intended landing was aborted, and he climbed to 150 feet agl to set up for a high wind landing. The second landing "was typical for high wind conditions," but when the balloon landed, the pilot's foot was caught between the wicker siding and the solid floor of the basket. The pilot's ankle was broken when the balloon impacted the ground. From the point of initial impact to the balloon's final resting was 16 feet.

The pilot stated in a telephone interview following the accident that the mishap would not have occurred had he not improperly placed his foot between the wicket basket and the floor plate of the balloon at the time the balloon impacted the ground.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	51, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Unknown
<b>Other Aircraft Rating(s):</b>	Balloon	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Unknown Unknown	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	61 hours (Total, all aircraft), 49 hours (Total, this make and model), 20 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Balloon Works	<b>Registration:</b>	N1527M
<b>Model/Series:</b>	FIREFLY 7-B FIREFLY 7-	<b>Aircraft Category:</b>	Balloon
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	10987
<b>Landing Gear Type:</b>		<b>Seats:</b>	0
<b>Date/Type of Last Inspection:</b>	July 31, 1997 Annual	<b>Certified Max Gross Wt.:</b>	1050 lbs
<b>Time Since Last Inspection:</b>	16 Hrs	<b>Engines:</b>	Unknown
<b>Airframe Total Time:</b>	223 Hrs	<b>Engine Manufacturer:</b>	
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	
<b>Registered Owner:</b>	KEITH R. HANSON	<b>Rated Power:</b>	
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	FNL ,5016 ft msl	<b>Distance from Accident Site:</b>	19 Nautical Miles
<b>Observation Time:</b>	14:34 Local	<b>Direction from Accident Site:</b>	22°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	190°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	14°C / 3°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	TWIN LAKES , CO (NONE)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(NONE)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	07:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	None
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious, 1 None	<b>Latitude, Longitude:</b>	40.169555,-105.109512(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Struhsaker, James
<b>Additional Participating Persons:</b>	DAVID F GONZALES; DENVER , CO
<b>Original Publish Date:</b>	December 1, 1999
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=20616">https://data.ntsb.gov/Docket?ProjectID=20616</a>

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