



# Aviation Investigation Final Report

<b>Location:</b>	ELK GARDEN, Virginia	<b>Accident Number:</b>	NYC98LA085
<b>Date &amp; Time:</b>	March 27, 1998, 17:50 Local	<b>Registration:</b>	N31226
<b>Aircraft:</b>	Balloon Works 8B-15	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Serious, 1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that he received a weather briefing prior to departure. A tape of the weather briefing was not available, but a check of the weather available to the briefer revealed that high winds, and gusty conditions were forecast for the general area. The pilot reported that he encountered these conditions after departure, and during the landing, the basket was dragged for 438 feet. About 34 miles southwest at Bristol, TN, the wind was reported to be from 200 degrees at 10 gusting 18 knots.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's improper weather evaluation. The gusty wind condition was a related factor.

## Findings

Occurrence #1: HARD LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

### Findings

1. (F) WEATHER CONDITION - HIGH WIND
2. (F) WEATHER CONDITION - GUSTS
3. (C) WEATHER EVALUATION - IMPROPER - PILOT IN COMMAND



## Factual Information

On March 27, 1998, about 1750 eastern standard time, N31226, a Balloon Works, Firefly-8B-15, was substantially damaged during a landing in Elk Garden, Virginia. The certificated commercial pilot received minor injuries and the passenger received serious injuries. Visual meteorological conditions prevailed for the local flight, which departed from Abingdon, Virginia, about 1600. No flight plan had been filed for the flight which was conducted under 14 CFR Part 91.

In the NTSB Pilot/Operator Aircraft Accident Report, the pilot reported that he obtained a weather briefing from the Leesburg Automated Flight Service Station (AFSS). After takeoff, he encountered gusty wind conditions and attempted a landing in a field. Although he vented the envelope upon touchdown, the wind continued against the envelope and the basket tipped. While holding the vent line, the basket was dragged on its side, and the pilot was struck in the head by a rock and lost his grip on the vent line. The vent closed, and the pilot had to grab the vent line again, and the basket came to rest.

According to an inspector from the Federal Aviation Administration (FAA), the basket touched the ground in an upright position; however, the pilot was unable to deflate the envelope prior to being dragged across the field for 438 feet. The balloon and basket came to rest in trees and a barb wire fence.

The tape of the weather briefing was not available; however, the area forecast and weather forecasts for Bristol, Tennessee, and Bluefield, West Virginia, were reviewed. According to forecasts, moderate turbulence was expected below 9,000 feet due to a southwesterly low level flow across the area. The conditions were expected to continue beyond 2300.

Bluefield, West Virginia, was located 43 nautical miles from the accident site on a heading of 060 degrees. The terminal forecast for Bluefield called for winds from 250 degrees at 10 knots, with gusts to 18 knots.

Bristol, Tennessee, was located 34 nautical miles from the accident site on a head of 220 degrees. The terminal forecast for Bristol called for winds from 200 degrees at 10 knots, with gusts to 18 knots.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	47,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>	None Unknown	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	512 hours (Total, all aircraft), 103 hours (Total, this make and model), 499 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Balloon Works	<b>Registration:</b>	N31226
<b>Model/Series:</b>	FIREFLY 8B-15 FIREFLY 8B	<b>Aircraft Category:</b>	Balloon
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	F8B-S17
<b>Landing Gear Type:</b>		<b>Seats:</b>	0
<b>Date/Type of Last Inspection:</b>	October 1, 1997 Annual	<b>Certified Max Gross Wt.:</b>	926 lbs
<b>Time Since Last Inspection:</b>	20 Hrs	<b>Engines:</b>	Unknown
<b>Airframe Total Time:</b>	103 Hrs	<b>Engine Manufacturer:</b>	
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	
<b>Registered Owner:</b>	WILLIAM G. SCARBERRY	<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

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dusk
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Unknown	Visibility	
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	12 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	220°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ABINGDON (NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	16:00 Local	Type of Airspace:	Class G

## Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full stop

## Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	36.88964,-82.07048(est)

## Administrative Information

**Investigator In Charge (IIC):** Hancock, Robert

**Additional Participating Persons:** JAMES H POOL; CHARLESTON , WV

**Original Publish Date:** December 31, 1998

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=39548>

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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](#).