



Aviation Investigation Final Report

Location:	Morgantown, West Virginia	Accident Number:	NYC02LA015
Date & Time:	October 20, 2001, 17:30 Local	Registration:	N991FA
Aircraft:	Cameron Balloons A-105	Aircraft Damage:	Minor
Defining Event:		Injuries:	1 Serious, 4 None
Flight Conducted Under:	Part 91: General aviation - Other work use		

Analysis

The balloon made a hard landing and came to rest on the ground. The pilot climbed out of the basket to vent the balloon and was soon followed by the passengers. As the last passenger exited the basket, the balloon began to rise back into the air with the pilot hanging onto the vent line. The pilot ascended into the air and rose as high as the tree line before the balloon began a descent back to the ground. After the pilot touched back down on the ground, the basket of the balloon landed on top of his ankle. The pilot included an Operator/Owner Safety Recommendation when he submitted the NTSB Form 6120.1/2, Pilot/Operator Aircraft Accident Report. It stated, "Re-Emphasize safety briefing just prior to landing to ensure all passengers remain within the basket until balloon has cooled (no lift present)." According to the Balloon Flying Handbook, "Some passengers, believing the flight is over as soon as the basket makes contact with the ground, will start to get out. Even a small amount of wind may cause the basket to bounce and slide after initial touchdown. If a 200-pound passenger decides to exit the basket at this point, the balloon will immediately begin to ascend." "Monitoring of passengers is important because, after the balloon first touches down, passengers may forget everything they have been told." "It is very important that the passenger briefing be given more than once."

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The passengers failure to remain in the balloon basket after landing which resulted in the inadvertent lift-off of the balloon and subsequent injury to the pilot. A factor related to the accident was the pilot's failure to perform a passenger briefing prior to landing.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING

Findings

1. LIFT-OFF - INADVERTENT
2. (C) PASSENGER BRIEFING - NOT FOLLOWED - PASSENGER
3. (F) PASSENGER BRIEFING - NOT PERFORMED - PILOT IN COMMAND

Factual Information

On October 20, 2001, about 1730 eastern daylight time, a Cameron Balloons, A-105 balloon, N991FA, landed near Morgantown, Pennsylvania. The balloon was not damaged; however, the commercial pilot was seriously injured while the four passengers were not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the 14 CFR Part 91 aerial sightseeing passenger flight.

According to the pilot, the balloon made a hard landing in an open field. Upon ground contact, the wind began to drag the basket along the ground. The basket then tipped over and came to rest on its side. The pilot climbed out of the basket to vent the balloon and was soon followed by the passengers. As the last passenger exited the basket, the balloon began to rise back into the air with the pilot hanging onto the vent line. The pilot ascended into the air and rose as high as the tree line, before the balloon began a descent back toward the ground. After the pilot touched back down on the ground, the basket of the balloon landed on top of his ankle.

The pilot added that he had briefed the passengers prior to the flight, to remain in the basket until told to disembark.

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According to the Balloon Flying Handbook, FAA-H-8083-11, "Prior to landing, you should explain correct posture and procedure to the passengers. Many balloon landings are gentle, stand-up landings. However, always prepare your passengers for the possibility of a hard impact. Instruct passengers to do the following.

Stand in the appropriate area of the basket.

Face the direction of travel.

Place feet and knees together, with knees bent.

Hold on tight in two places.

Stay in the basket."

The handbook also stated, "Some passengers, believing the flight is over as soon as the basket makes contact with the ground, will start to get out. Even a small amount of wind may cause the basket to bounce and slide after initial touchdown. If a 200-pound passenger decides to exit the basket at this point, the balloon will immediately begin to ascend. Everybody, including the pilot, should stay in the basket until it stops moving. Monitoring of passengers is important because, after the balloon first touches down, passengers may forget everything

they have been told. A typical response is for the passenger to place one foot in front of the other and lock the knee. This is a very bad position as the locked knee is unstable and subject to damage. Pilots should observe their passengers and order 'feet together,' 'front (back) of the basket,' 'knees bent,' 'hold on tight,' and 'do not get out until I tell you!' The pilot should be a good example to passengers by assuming the correct landing position. Otherwise, passengers may think, 'If the pilot does not do it, why should we.' It is very important that the passenger briefing be given more than once. Some balloon ride companies send an agreement to their passengers in advance, which includes the landing instructions. Passengers are asked to sign a statement that they have reviewed, read, and understand the landing procedure. Many pilots give passengers a briefing and landing stance demonstration on the ground before the flight. This briefing should be given again as soon as the pilot has decided to land. The pilot is very busy during the landing watching the passenger's actions and reactions, closing fuel valves, draining fuel lines, cooling the burners, and deflating the envelope. The better the passengers understand the importance of the landing procedure, the better the pilot will perform these duties and make a safe landing."

The recorded weather at a nearby airport, about the time of the accident, included winds from 220 degrees at 8 knots.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	56, Male
Airplane Rating(s):	None	Seat Occupied:	
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:	UNK	Last Flight Review or Equivalent:	May 20, 2001
Flight Time:	803 hours (Total, all aircraft), 185 hours (Total, this make and model), 688 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 14 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cameron Balloons	Registration:	N991FA
Model/Series:	A-105	Aircraft Category:	Balloon
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	5990
Landing Gear Type:		Seats:	0
Date/Type of Last Inspection:	April 1, 2001 Annual	Certified Max Gross Wt.:	1900 lbs
Time Since Last Inspection:	16 Hrs	Engines:	0
Airframe Total Time:	181 Hrs at time of accident	Engine Manufacturer:	
ELT:	Not installed	Engine Model/Series:	
Registered Owner:	Fun Aviation Inc.	Rated Power:	
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	MGW,1248 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	17:53 Local	Direction from Accident Site:	90°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 8500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.1 inches Hg	Temperature/Dew Point:	19°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Morgantown, WV (MGW)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	17:00 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Minor
Passenger Injuries:	4 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 4 None	Latitude, Longitude:	39.630977,-79.940162(est)

Administrative Information

Investigator In Charge (IIC):	Demko, Stephen
Additional Participating Persons:	Paul Reynolds; FAA; Charleston, WV
Original Publish Date:	June 18, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=53654

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