



Aviation Investigation Final Report

Location:	MCALESTER, Oklahoma	Accident Number:	FTW00LA004
Date & Time:	October 4, 1999, 05:00 Local	Registration:	GBWOK
Aircraft:	Lindstrand LBL-105G	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation		

Analysis

The balloon was participating in a long distance race and had been airborne for approximately 31.5 hours. The pilot had been aware of thunderstorms in the balloon's flight path for about 6.5 hours and had been attempting to track away from the storms, but was unable to do so. According to the pilot, the balloon was in level flight at 7,000 feet, above a cloud layer, when he initiated a precautionary landing to avoid an encounter with the thunderstorms. The balloon broke out at 1,280 feet agl in dark night light conditions. The balloon landed hard and then became airborne again reaching a height of 80 feet. During the second ground contact, the pilot was ejected from the basket, and subsequently, the basket 'dragged' over the pilot and then came to a stop. The pilot reported that the winds were from 360 degrees at 20 knots gusting to 22 knots. The pilot stated that 'improved met[eorological] information would have allowed a night landing to be made at 3 knots earlier rather than at 20 knots.'

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's continued flight into known adverse weather, which resulted in a hard landing. Factors were the thunderstorms, dark night light conditions, and the high winds.

Findings

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

Findings

1. (F) WEATHER CONDITION - THUNDERSTORM
2. (C) FLIGHT INTO KNOWN ADVERSE WEATHER - CONTINUED - PILOT IN COMMAND
3. (F) LIGHT CONDITION - DARK NIGHT
4. (F) WEATHER CONDITION - HIGH WIND
5. PRECAUTIONARY LANDING - PERFORMED - PILOT IN COMMAND

Factual Information

On October 4, 1999, at 0500 central daylight time, a Linstrand LBL-105G gas balloon, British registration G-BWOK, landed hard during a precautionary landing near McAlester, Oklahoma. The balloon, which was registered to and operated by Linstrand Balloons Ltd., Shropshire, England, was not damaged. The pilot sustained serious injuries and the pilot-rated passenger received minor injuries. Dark night visual meteorological conditions prevailed for the 14 Code of Federal Regulations Part 91 competition flight and a flight plan was not filed. The balloon was participating in the "Gordon Bennet Gas Balloon Race" and departed from Albuquerque, New Mexico, on October 2, 1999, at 2130.

According to the pilot, on October 3, 2000, at 2230, the balloon was level at 11,000 feet, near Oklahoma City, Oklahoma, when he noticed lightening flashes to the east and to the south. He contacted Oklahoma City Approach Control and the Race Command Center, both of which reported no significant weather near the balloon's location. He then used his cell phone to contact his "own met forecaster" who confirmed a "significant storm" to the south and east of the balloon's position. The pilot initiated a descent to 7,000 feet and attempted to track away from the storms, but due to easterly winds was unable to do so.

Approximately 6.5 hours had passed when the pilot initiated a precautionary landing. The balloon descended through a cloud layer and broke out at 1,280 feet agl. The terrain was a "largely wooded area," near a major road and a railway. The pilot reported that at 50 feet agl, he "released the trail rope and pulled one of the pop-top activation lines. After heavy contact with the ground, the balloon took off again and rose to an estimated height of 80 ft." He then "pulled the other pop-top activation line," and as he was pulling the line, ground contact was made a second time. The basket "turned over," the pilot was ejected from the basket, and the basket "dragged" over the pilot and came to a stop. According to the pilot, he sustained a broken back as a result of being ejected from the basket. He added that the "corner of the basket was cracked." There was no other damage to the balloon.

At 0653, the MacAlester Flight Service Station (located 10 miles north of the accident site) reported that the winds were from 010 degrees at 14 knots gusting to 20 knots. The pilot reported that, at the time of the accident, the winds were from 360 degrees at 20 knots gusting to 22 knots.

In the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2), in the section titled Recommendation (How Could This Accident Have Been Prevented), the pilot stated that "improved met[eorological] information would have allowed a night landing to be made at 3 knots earlier rather than at 20 knots."

Pilot Information

Certificate:	Private	Age:	37, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Balloon	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Unknown Unknown	Last FAA Medical Exam:	May 19, 1999
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	54 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Lindstrand	Registration:	GBWOK
Model/Series:	LBL-105G LBL-105G	Aircraft Category:	Balloon
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	370
Landing Gear Type:		Seats:	2
Date/Type of Last Inspection:	August 2, 1999 Annual	Certified Max Gross Wt.:	1050 lbs
Time Since Last Inspection:		Engines:	Unknown
Airframe Total Time:	71 Hrs	Engine Manufacturer:	
ELT:		Engine Model/Series:	
Registered Owner:	LINSTRAND BALLOONS LTD.	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:	Night/dark
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	5 miles
Lowest Ceiling:	Overcast / 1300 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	20 knots / 22 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ALBUQUERQUE , NM (NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	
Departure Time:	00:00 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, 1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	34.920394,-95.760177(est)

Administrative Information

Investigator In Charge (IIC):	Snyder, Georgia
Additional Participating Persons:	BYRON R WALTON; OKLAHOMA , OK
Original Publish Date:	November 22, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=47516

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