



Aviation Investigation Final Report

Location:	PRATT, Kansas	Accident Number:	CHI94LA042
Date & Time:	December 5, 1993, 10:00 Local	Registration:	N9079M
Aircraft:	BALLOON WORKS FIREFLY 7-15	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT STATED SHE WAS ATTEMPTING TO BREAK THE BALLOON FLIGHT DISTANCE RECORD ON THE DAY OF THE ACCIDENT. SHE SELECTED A DAY WITH HIGH WINDS IN ORDER TO ACCOMPLISH THAT GOAL, ANTICIPATING THE WINDS WOULD DIE DOWN BY THE TIME SHE LANDED IN THE EVENING. NINE PROPANE TANKS WERE ABOARD THE BALLOON, AND THE PILOT EXPECTED TO BE ALOFT APPROXIMATELY 8 HOURS. SHE INDICATED THE ACTUAL FUEL CONSUMPTION WAS TWICE WHAT SHE HAD ANTICIPATED. WHEN SHE SWITCHED TO THE 9TH AND FINAL PROPANE TANK, THE PILOT DECIDED TO MAKE A PRECAUTIONARY LANDING. THE PILOT STATED SHE TRIED TO LEVEL OFF AT 1000 FEET, BUT WAS UNABLE TO STOP THE DESCENT. THE BASKET TOUCHED DOWN IN A FLAT, OPEN FIELD, AND THE PILOT VENTED THE BALLOON'S ENVELOPE AND SHUT OFF THE PILOT LIGHT. STILL BEING BLOWN BY SURFACE WINDS, THE ENVELOPE HIT ELECTRICAL WIRES, BROKE THE POLE, AND CONTINUED ABOUT 60 FEET BEFORE IT DEFLATED. THE PILOT ESTIMATED THE SURFACE WINDS TO BE OUT OF 350 DEGREES AT 30 KNOTS.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT-IN-COMMAND'S FAILURE TO MAINTAIN CLEARANCE FROM OBSTACLES. FACTORS CONTRIBUTING TO THE ACCIDENT ARE THE PILOT'S MISJUDGED FUEL CONSUMPTION CALCULATIONS AND THE WEATHER (HIGH WINDS).

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: LANDING

Findings

1. (F) FUEL CONSUMPTION CALCULATIONS - MISJUDGED - PILOT IN COMMAND
2. (F) WEATHER CONDITION - HIGH WIND
3. PRECAUTIONARY LANDING - PERFORMED - PILOT IN COMMAND
4. OBJECT - WIRE, TRANSMISSION
5. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

On December 5, 1993, at 1000 hours central standard time, a Balloon Work Firefly 715, N9079M, piloted by the commercial pilot on a cross country pleasure flight, sustained substantial damage when it struck power lines during a descent to land in the vicinity of Pratt, Kansas. The commercial pilot, the sole occupant, reported no injuries. Visual meteorological conditions prevailed for the flight, no flight plan was filed. The flight operated under 14 CFR Part 91, and originated from Elizabeth, Colorado, at 0422 Mountain Standard Time.

The pilot stated the flight was intended as a record breaking (distance) flight. She indicated the weather forecast was ideal, with strong winds aloft, and surface winds expected to calm near sunset. The pilot reported she expected to remain airborne approximately 8 hours, touching down near sunset. The basket was loaded with nine(9) ten(10) gallon propane tanks prior to departure. The pilot stated the propane was consumed almost twice as fast as was calculated. The balloon was at 17,000 feet MSL when the pilot switched to the ninth and final tank, and initiated a descent for a precautionary landing.

The pilot stated she maintained a 500 foot per minute (FPM) descent until 4000 feet MSL, where she slowed her descent to 200 feet per minute. She reported she attempted to level off about 1000 feet, but it felt like the balloon was being "...forced down... ." When the balloon touched down in a flat, open field, the pilot vented the top of the envelope and shut off the pilot light to the fuel source. The envelope was still partially inflated, and the balloon was blown across the field and contacted some power lines. The basket continued to drag until the envelope deflated. The pilot estimated the surface winds were out of 350 degrees at 30 knots.

Pilot Information

Certificate:	Commercial	Age:	40, 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):		Toxicology Performed:	No
Medical Certification:	Unknown Unknown	Last FAA Medical Exam:	
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	317 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BALLOON WORKS	Registration:	N9079M
Model/Series:	FIREFLY 7-15 FIREFLY 7-	Aircraft Category:	Balloon
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	F7-743
Landing Gear Type:		Seats:	0
Date/Type of Last Inspection:	April 24, 1993 Annual	Certified Max Gross Wt.:	1750 lbs
Time Since Last Inspection:		Engines:	0 Unknown
Airframe Total Time:		Engine Manufacturer:	
ELT:	Not installed	Engine Model/Series:	
Registered Owner:	DAVID MILLER	Rated Power:	
Operator:	KAREN L. GOULD	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:	ICT ,1332 ft msl	Distance from Accident Site:	67 Nautical Miles
Observation Time:	10:56 Local	Direction from Accident Site:	82°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	21 knots / 26 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	10°C / -4°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ELIZABETH , CO	Type of Flight Plan Filed:	None
Destination:	KANSAS CITY , MO (MKC)	Type of Clearance:	None
Departure Time:	04:22 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:	Precautionary landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	37.639141,-98.730407(est)

Administrative Information

Investigator In Charge (IIC):	Reeves, Jodi
Additional Participating Persons:	ANDREW NELSON; WICHITA , KS
Original Publish Date:	September 26, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=9433

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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](#).