



National Transportation Safety Board Aviation Accident Final Report

Location:	Indianola, IA	Accident Number:	CHI05CA209
Date & Time:	08/01/2005, 1909 CDT	Registration:	N3219T
Aircraft:	National Ballooning 751-12	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

A free balloon sustained substantial damage during a forced landing when it impacted power lines after an in-flight fire. The pilot reported that during the preflight checks of the balloon he connected the two liquid propane lines and the pilot light vapor line properly. The pilot reported the balloon lifted off the field and that the burner was functioning normally. When the balloon was about 700 feet above ground level (agl), the pilot observed flames "coming from both the pilot light hose and the tank hose (right side of aircraft and the side where two tanks are manifolded together)." He attempted to put out the fire with his gloved hand, but was unsuccessful. He then shut off the tanks at the tank valves on the right side of the balloon, but the fire continued. He reported that an emergency landing was imminent so he shut off the third tank on the left side of the balloon. Then he rechecked to make sure the manifold valves were shut off. The bottom of the balloon's basket hit the power lines. The balloon continued to descend until the basket impacted the ground. The basket tipped over when it hit the ground, and the pilot and passenger exited the basket. The pilot used the on-board fire extinguisher to put out the fire that was still burning at the hose-burner connection. The pilot reported that once the balloon was removed from the power lines, he retrieved the envelope and basket. He disconnected the fuel lines and the pilot light line while the ground crew put the envelope away. During the inspection of the balloon, the burner and basket were reassembled. The pilot reconnected the fuel lines and the pilot light line. During the burner operational check there were no propane leaks and the burner functioned. Pictures of the propane bottle provided by the fire department appeared to show frost on the pilot light valve.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The in-flight fire due to the loose fuel line connection as a result of the pilot's inadequate preflight. A factor was the power lines.

Findings

Occurrence #1: FIRE
Phase of Operation: CLIMB

Findings

1. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
2. (C) BALLOON EQUIPMENT, BURNER SYSTEM - LOOSE PART/BOLT/NUT/CLAMP/ETC

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

3. (F) OBJECT - WIRE, TRANSMISSION
4. ALTITUDE/CLEARANCE - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

5. TERRAIN CONDITION - GROUND

Factual Information

Pilot Information

Certificate:	Private	Age:	39, Male
Airplane Rating(s):	None	Seat Occupied:	
Other Aircraft Rating(s):	Balloon	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:	None	Last Medical Exam:	
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	72 hours (Total, all aircraft), 66 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	National Ballooning	Registration:	N3219T
Model/Series:	751-12	Aircraft Category:	Balloon
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	0124
Landing Gear Type:	None	Seats:	
Date/Type of Last Inspection:	03/01/2005, Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:	8 Hours	Engines:	0
Airframe Total Time:	293 Hours	Engine Manufacturer:	
ELT:	Not installed	Engine Model/Series:	
Registered Owner:	Kelly B. Shaw	Rated Power:	
Operator:	Kelly B. Shaw	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:		Observation Time:	
Distance from Accident Site:		Condition of Light:	Day
Direction from Accident Site:		Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:		Temperature/Dew Point:	
Lowest Ceiling:		Visibility	
Wind Speed/Gusts, Direction:		Visibility (RVR):	
Altimeter Setting:		Visibility (RVV):	
Precipitation and Obscuration:			
Departure Point:	Indianloa, IA	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	CST	Type of Airspace:	

Airport Information

Airport:	Runway Surface Type:
Airport Elevation:	Runway Surface Condition:
Runway Used:	IFR Approach:
Runway Length/Width:	VFR Approach/Landing:

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	
Total Injuries:	2 None		

Administrative Information

Investigator In Charge (IIC): Jim Silliman **Adopted Date:** 06/28/2006

Additional Participating Persons:

Publish Date:

Note: This accident report documents the factual circumstances of this accident as described to the NTSB.

Investigation Docket: NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.