



Aviation Investigation Final Report

Location:	TELLURIDE, Colorado	Accident Number:	DEN89LA077
Date & Time:	February 14, 1989, 10:00 Local	Registration:	N7127J
Aircraft:	BALLOON WORKS 24	AX8-	Aircraft Damage: Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE COMMERCIAL PLT AND TWO FRIENDS WERE FLYING HIS BALLOON IN MOUNTAINOUS TERRAIN. DURING THE APPROACH TO LAND, THE PLT OPENED THE BURNER VALVE TO FLARE. THE VALVE STUCK OPEN AND THE PLT ATTEMPTED TO SHUT OFF FUEL AT THE PROPANE BOTTLE. THAT VALVE STUCK OPEN ALSO, AND THE BALLOON STARTED TO RISE. THE PLT REDUCED THE HEAT ENTERING THE ENVELOPE BY PULLING THE BURNER OUT OF THE THROAT AND POINTING IT OVERBOARD. THIS BALLOON WAS EQUIPPED WITH AN EMERGENCY 'BACK UP' BURNER SYSTEM. BY USING THE BACK UP BURNER, THE PLT MANEUVERED AND LANDED IN A WOODED AREA. THE PLT SAID THAT AFTER LANDING, HE WAS ABLE TO WORK THE STUCK VALVES UNTIL THEY CLOSED AND THE FUEL FLOW CEASED. A POST ACCIDENT INVESTIGATION REVEALED THAT CONDITIONS EXISTED CONDUCIVE TO ICE FORMING IN BOTH VALVES AND PREVENTING NORMAL OPERATION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: ICE FORMING IN THE FUEL TANK SHUT OFF VALVE, AND THE BURNER BLAST VALVE RESULTING IN A LOSS OF CONTROL DURING LANDING.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: LANDING

Findings

1. (C) BALLOON EQUIPMENT, BURNER SYSTEM - FAILURE, PARTIAL
2. (C) FUEL SYSTEM, FUEL SHUTOFF - FROZEN
3. THROTTLE/POWER CONTROL - NOT POSSIBLE

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: LANDING

Occurrence #3: HARD LANDING

Phase of Operation: LANDING

Findings

4. TERRAIN CONDITION - NONE SUITABLE

Factual Information

Pilot Information

Certificate:	Commercial	Age:	45, Male
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):	None	Toxicology Performed:	No
Medical Certification:	None None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	453 hours (Total, all aircraft), 14 hours (Total, this make and model), 441 hours (Pilot In Command, all aircraft), 14 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:	BALLOON WORKS	Registration:	N7127J
Model/Series:	AX8-24 AX8-24	Aircraft Category:	Balloon
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	F8-113
Landing Gear Type:	Hull	Seats:	
Date/Type of Last Inspection:	December 1, 1988 Annual	Certified Max Gross Wt.:	900 lbs
Time Since Last Inspection:	14 Hrs	Engines:	0 Unknown
Airframe Total Time:	14 Hrs	Engine Manufacturer:	UNKNOWN
ELT:	Not installed	Engine Model/Series:	UNKNOWN
Registered Owner:	GARY W. WOODS	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:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	50 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	09:30 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	VFR Approach/Landing:	Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	37.93914,-107.899833(est)

Administrative Information

Investigator In Charge (IIC): Collins, Robert

Additional Participating Persons: SAM SHAW; SALT LAKE CITY , UT

Original Publish Date: January 31, 1991

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=17673>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).