



Aviation Investigation Final Report

Location:	BURLINGTON, Iowa	Accident Number:	MKC88LA084
Date & Time:	April 29, 1988, 16:15 Local	Registration:	N6436U
Aircraft:	RAVEN S-55	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation		

Analysis

WHILE ATTEMPTING TO LAND THE BALLOON DURING A COMMERCIAL OPERATION, A DUST DEVIL WAS ENCOUNTERED. THE BALLOON AND GONDOLA TWISTED AND PITCHED VIOLENTLY. DURING A HARD LANDING, THE PIC WAS THROWN FROM THE AIRCRAFT, AND THE AIRCRAFT CONTINUED TO BOUNCE ALONG THE TERRAIN, UNTIL IT COLLIDED WITH POWER LINES.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: LANDING

Findings

1. (C) WEATHER CONDITION - UNFAVORABLE WIND
 2. (C) WEATHER EVALUATION - MISJUDGED - PILOT IN COMMAND
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Occurrence #2: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. (F) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND

Occurrence #3: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

4. AIRCRAFT CONTROL - NOT POSSIBLE

Occurrence #4: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

5. (F) OBJECT - WIRE, TRANSMISSION

Factual Information

Pilot Information

Certificate:	Commercial	Age:	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:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	364 hours (Total, all aircraft), 364 hours (Total, this make and model), 350 hours (Pilot In Command, all aircraft), 2 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	RAVEN	Registration:	N6436U
Model/Series:	S-55 S-55	Aircraft Category:	Balloon
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	S55A 3013
Landing Gear Type:	Skid	Seats:	
Date/Type of Last Inspection:	September 1, 1987 Annual	Certified Max Gross Wt.:	1600 lbs
Time Since Last Inspection:	26 Hrs	Engines:	0 Unknown
Airframe Total Time:	80 Hrs	Engine Manufacturer:	UNKNOWN
ELT:	Not installed	Engine Model/Series:	UNKNOWN
Registered Owner:	FRANK UPTON	Rated Power:	
Operator:	BALLOONS OVER BURLINGTON	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	
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	BURLINGTON , IA (BRL)	Type of Flight Plan Filed:	None
Destination:	(BRL)	Type of Clearance:	None
Departure Time:	15:45 Local	Type of Airspace:	Class G

Airport Information

Airport:	BURLINGTON BRL	Runway Surface Type:	Grass/turf
Airport Elevation:		Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	2 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Serious, 1 Minor	Latitude, Longitude:	40.82024,-91.170135(est)

Administrative Information

Investigator In Charge (IIC):	Hruban, John
Additional Participating Persons:	CHUCK WINKENWERDER;
Original Publish Date:	July 26, 1989
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=34565

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](#).