



# Aviation Investigation Final Report

<b>Location:</b>	GRAND LAKE, Colorado	<b>Accident Number:</b>	DEN87LA065
<b>Date &amp; Time:</b>	March 7, 1987, 10:30 Local	<b>Registration:</b>	N2803L
<b>Aircraft:</b>	RAVEN S60A	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	3 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

THE BALLOON ENCOUNTERED TURBULENCE DURING NORMAL CRUISE AT 100 TO 150 FEET AGL, WHILE CROSSING A RIDGELINE. GUSTS EXTINGUISHED BOTH BURNER PLT LIGHTS AND PARTIALLY COLLAPSED THE ENVELOPE. THE BALLOON BEGAN AN UNCONTROLLED DESCENT. THE PLT RE-IGNITED BOTH BURNER PLT LIGHTS AND APPLIED FULL BURN TO SLOW THE RATE OF DESCENT. THE ENVELOPE WAS IMPALED ON TREES AND THE GONDOLA LANDED ON OPEN GROUND.

## 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: CRUISE - NORMAL

#### Findings

1. (F) ALTITUDE - INADEQUATE - PILOT IN COMMAND
  2. (F) WEATHER CONDITION - DOWNDRAFT
  3. (C) WEATHER EVALUATION - MISJUDGED - PILOT IN COMMAND
- 

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - UNCONTROLLED

Findings

4. (C) BALLOON EQUIPMENT, BURNER SYSTEM - DISABLED
5. (F) REMEDIAL ACTION - PERFORMED - PILOT IN COMMAND
6. (C) BALLOON EQUIPMENT, ENVELOPE - PRESSURE TOO LOW
7. (C) BALLOON EQUIPMENT, ENVELOPE - DISTORTED
8. EMERGENCY PROCEDURE - PERFORMED - PILOT IN COMMAND

-----

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: DESCENT - UNCONTROLLED

Findings

9. OBJECT - TREE(S)
10. TERRAIN CONDITION - NONE SUITABLE

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	26, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Unknown
<b>Other Aircraft Rating(s):</b>	Balloon	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	None Unknown	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	96 hours (Total, all aircraft), 96 hours (Total, this make and model), 87 hours (Pilot In Command, all aircraft), 3 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	RAVEN	<b>Registration:</b>	N2803L
<b>Model/Series:</b>	S60A S60A	<b>Aircraft Category:</b>	Balloon
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	S60A392
<b>Landing Gear Type:</b>		<b>Seats:</b>	
<b>Date/Type of Last Inspection:</b>	June 28, 1986 Annual	<b>Certified Max Gross Wt.:</b>	1600 lbs
<b>Time Since Last Inspection:</b>	20 Hrs	<b>Engines:</b>	Unknown
<b>Airframe Total Time:</b>	45 Hrs	<b>Engine Manufacturer:</b>	
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	
<b>Registered Owner:</b>	HENRY C. VAN SCHAACK IV	<b>Rated Power:</b>	
<b>Operator:</b>	HENRY C. VANSCHAACK	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	15 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	180°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	2°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>		<b>Type of Flight Plan Filed:</b>	Company VFR
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	08:40 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	2 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 None	<b>Latitude, Longitude:</b>	40.249385,-105.819442(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Collins, Robert
<b>Additional Participating Persons:</b>	FRED MAUPIN; AURORA , CO
<b>Original Publish Date:</b>	April 25, 1988
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=17174">https://data.nts.gov/Docket?ProjectID=17174</a>

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](#).