



Aviation Investigation Final Report

Location:	VACAVILLE, California	Accident Number:	LAX90LA340
Date & Time:	September 29, 1990, 09:00 Local	Registration:	N90902
Aircraft:	BALLOON WORKS FIREFLY 9	Aircraft Damage:	None
Defining Event:		Injuries:	1 Serious, 8 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

ACCORDING TO THE PILOT, THE TWO FLIGHTS CONDUCTED EARLIER IN THE MORNING WERE NORMAL WITH WINDS IN THE 4 MPH RANGE. ON THE ACCIDENT FLIGHT, THE WINDS SUDDENLY INCREASED FROM 4 TO 12 MPH. THE PILOT THEN SAID, 'INSTANTLY, WITHOUT INDICATION, A WHIRLWIND CAUGHT THE BALLOON AND SPUN IT 360 DEGREES; A DOWNDRAFT OCCURRED WITH A DESCENT RATE OF 500 FEET PER MINUTE.' THE PILOT FURTHER STATED THAT HE WAS UNABLE TO ARREST THE RATE OF DESCENT AND THE BALLOON COLLIDED WITH A SET OF POWER LINES, THEN THE GROUND.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE BALLOON'S ENCOUNTER WITH A SUDDEN INCREASE IN WIND SPEED ACCOMPANIED BY A STRONG DOWN DRAFT BEYOND THE COMPENSATION CAPABILITY OF THE BALLOON.

Findings

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

Findings

1. (F) WEATHER CONDITION - HIGH WIND
2. (F) WEATHER CONDITION - DOWNDRAFT
3. (C) AIRCRAFT PERFORMANCE, CLIMB CAPABILITY - EXCEEDED

4. (C) REMEDIAL ACTION - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. OBJECT - WIRE, TRANSMISSION

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Commercial	Age:	41, 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):		Toxicology Performed:	No
Medical Certification:	None None	Last FAA Medical Exam:	
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	3225 hours (Total, all aircraft), 450 hours (Total, this make and model), 218 hours (Last 90 days, all aircraft), 110 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BALLOON WORKS	Registration:	N90902
Model/Series:	FIREFLY 9 FIREFLY 9	Aircraft Category:	Balloon
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	F9-039
Landing Gear Type:	Skid	Seats:	
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	3285 lbs
Time Since Last Inspection:	0 Hrs	Engines:	Unknown
Airframe Total Time:		Engine Manufacturer:	
ELT:	Not installed	Engine Model/Series:	
Registered Owner:	ROBERT BARBARICK	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	30 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	18 knots / 22 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	340°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	26°C / -18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	07:50 Local	Type of Airspace:	

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:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious, 8 None	Aircraft Damage:	None
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 8 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Rich, Jeff
Additional Participating Persons:	PETER WEIL; SACRAMENTO , CA
Original Publish Date:	October 2, 1992
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=26935

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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](#).