



Aviation Investigation Final Report

Location:	ALBUQUERQUE, New Mexico	Accident Number:	DEN88LA010
Date & Time:	October 5, 1987, 08:00 Local	Registration:	N36988
Aircraft:	BALLOON WORKS FIREFLY 7	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

TWO BALLOONS, A RALLY AND A FIREFLY, COLLIDED IN FLIGHT DURING THE ALBUQUERQUE INTERNATIONAL BALLOON FIESTA. THE PILOT OF THE FIREFLY WAS CLIMBING AT APPROXIMATELY 300 FEET PER MINUTE WHEN HIS ENVELOPE CONTACTED THE BASKET OF THE RALLY. THE PILOT OF THE RALLY STATED HE OBSERVED THE FIREFLY CLIMBING AT A 'VERY FAST RATE' AND HE ACTIVATED HIS BURNER IN AN EFFORT TO AVOID THE COLLISION. BOTH AIRCRAFT LANDED WITHOUT FURTHER INCIDENT. THE FAA WAIVER FOR THE FIESTA STATED THAT CLIMBS WERE TO BE MADE AT A RATE NO GREATER THAN 200 FEET PER MINUTE.

Probable Cause and Findings

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

Findings

Occurrence #1: MIDAIR COLLISION
Phase of Operation: CLIMB

Findings

1. (C) VISUAL LOOKOUT - NOT MAINTAINED - PILOT OF OTHER AIRCRAFT

2. (C) PROPER CLIMB RATE - NOT MAINTAINED - PILOT IN COMMAND
3. (F) PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND

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):	None	Toxicology Performed:	No
Medical Certification:	None None	Last FAA Medical Exam:	
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	650 hours (Total, all aircraft), 650 hours (Total, this make and model), 650 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BALLOON WORKS	Registration:	N36988
Model/Series:	FIREFLY 7 FIREFLY 7	Aircraft Category:	Balloon
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	F7199
Landing Gear Type:		Seats:	
Date/Type of Last Inspection:	June 1, 1987 Annual	Certified Max Gross Wt.:	900 lbs
Time Since Last Inspection:	10 Hrs	Engines:	Unknown
Airframe Total Time:	65 Hrs	Engine Manufacturer:	UNKNOWN
ELT:	Not installed	Engine Model/Series:	UNKNOWN
Registered Owner:	FRANK W. HOOVER	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	25 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	30°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	07:30 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

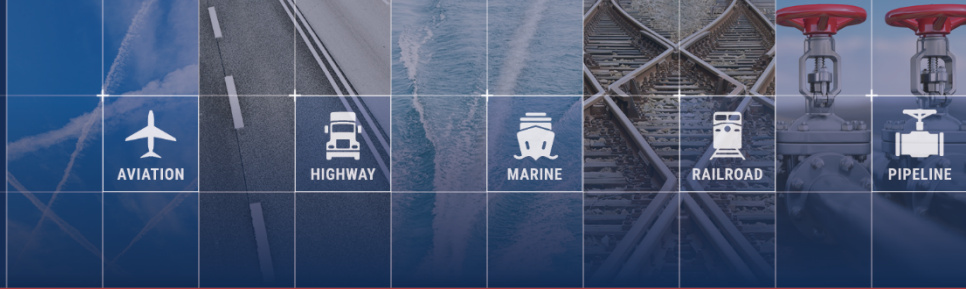
Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Johnson, Robert
Additional Participating Persons:	G NICKERSON; ALBUQUERQUE , NM
Original Publish Date:	April 24, 1989
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=17405

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](#).



Aviation Investigation Final Report

Location:	ALBUQUERQUE, New Mexico	Accident Number:	DEN88LA010
Date & Time:	October 5, 1987, 08:00 Local	Registration:	N6464N
Aircraft:	RAVEN RX-7	Aircraft Damage:	None
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

TWO BALLOONS, A RALLY AND A FIREFLY, COLLIDED IN FLIGHT DURING THE ALBUQUERQUE INTERNATIONAL BALLOON FIESTA. THE PILOT OF THE FIRELY WAS CLIMBING AT APPROXIMATELY 300 FEET PER MINUTE WHEN HIS ENVELOPE CONTACTED THE BASKET OF THE RALLY. THE PILOT OF THE RALLY STATED HE OBSERVED THE FIREFLY CLIMBING AT 'A VERY FAST RATE' AND HE ACTIVATED HIS BURNER IN AN EFFORT TO AVOID THE COLLISION. BOTH AIRCRAFT LANDED WITHOUT FURTHER INCIDENT. THE FAA WAIVER FOR THE FIESTA STATED THAT CLIMBS WERE TO BE MADE AT A RATE NO GREATER THAN 200 FEET PER MINUTE.

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Findings

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Phase of Operation: CLIMB

Findings

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2. (C) PROPER CLIMB RATE - NOT MAINTAINED - PILOT OF OTHER AIRCRAFT
3. (F) PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT OF OTHER AIRCRAFT

Factual Information

Pilot Information

Certificate:	Private	Age:	50, 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:	UNK	Last Flight Review or Equivalent:	
Flight Time:	50 hours (Total, all aircraft), 50 hours (Total, this make and model), 50 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	RAVEN	Registration:	N6464N
Model/Series:	RX-7 RX-7	Aircraft Category:	Balloon
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	RX7-3063
Landing Gear Type:		Seats:	
Date/Type of Last Inspection:	January 31, 1987 Annual	Certified Max Gross Wt.:	1430 lbs
Time Since Last Inspection:	41 Hrs	Engines:	Unknown
Airframe Total Time:	41 Hrs	Engine Manufacturer:	UNKNOWN
ELT:	Not installed	Engine Model/Series:	UNKNOWN
Registered Owner:	FRANCIS REYNOLDS	Rated Power:	
Operator:	REYNOLDS, FRANCIS G.	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	25 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
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Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
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Runway Length/Width:		VFR Approach/Landing:	None

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Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	

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