



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	CANON CITY, CO	<b>Accident Number:</b>	DEN90LA180
<b>Date &amp; Time:</b>	09/02/1990, 1235 MDT	<b>Registration:</b>	N73957
<b>Aircraft:</b>	BELL 47G-3B1	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor

**Flight Conducted Under:** Part 91: General Aviation - Personal

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## Analysis

THE HELICOPTER COLLIDED WITH POWER LINES WHILE ON A DOWNWIND TO THE HELIPAD. ACCORDING TO WITNESSES, THE HELICOPTER WAS TRAVELLING PERPENDICULAR TO AN ELECTRICAL TRANSMISSION LINE AT ABOUT 60 KNOTS WHEN IT COLLIDED WITH THE TOP OF A TWO WIRE SET AT ABOUT 30 FEET AGL. PAINT TRANSFER FROM THE T/R SKID WAS FOUND ON THE DAMAGED POWER LINE. AFTER STRIKING THE WIRE THE T/R SEPARATED AT THE GEAR BOX MOUNTING FLANGE; SMALL PIECES OF THE T/R BLADE WERE FOUND ON THE GROUND BELOW THE POINT OF INITIAL WIRE CONTACT. THE PILOT STATED THAT DURING THE DOWNWIND CLIMBING TURN AFTER TAKEOFF, AND WHILE PASSING OVER A GULLY NEAR A 6,200-FT RIDGE, HE HAD AN ENCOUNTER WITH WINDSHEAR AT 230 FEET AGL WHICH RESULTED IN LOSS OF 200 FEET AND THE SUBSEQUENT COLLISION. THE EXISTENCE OF THE REPORTED 'WINDSHEAR', OR POSSIBLE DOWNDRAFT COULD NOT BE VERIFIED.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S FAILURE TO MAINTAIN AN ADEQUATE PATTERN ALTITUDE AND THE POSSIBLE EXISTENCE OF ADVERSE WINDS DUE TO THE SURROUNDING TERRAIN.

## Findings

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Occurrence #1: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: APPROACH - VFR PATTERN - DOWNWIND

### Findings

1. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY
2. (F) TERRAIN CONDITION - HIGH OBSTRUCTION(S)
3. (C) WEATHER CONDITION
4. (C) ALTITUDE - INADEQUATE - PILOT IN COMMAND

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	28, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Unknown
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Helicopter	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	09/27/1990
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1800 hours (Total, all aircraft), 180 hours (Total, this make and model), 1550 hours (Pilot In Command, all aircraft), 322 hours (Last 90 days, all aircraft), 160 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	BELL	<b>Registration:</b>	N73957
<b>Model/Series:</b>	47G-3B1 47G-3B1	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>		<b>Serial Number:</b>	2827
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	2950 lbs
<b>Time Since Last Inspection:</b>	0 Hours	<b>Engines:</b>	1 Turbo Shaft
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	ALLISON
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	250C20B
<b>Registered Owner:</b>	TRACIE CROCKER	<b>Rated Power:</b>	
<b>Operator:</b>	TRACIE CROCKER	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	CHEROKEE HELICOPTER SERVICE	<b>Operator Designator Code:</b>	CXEG

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PUB, 4726 ft msl	Distance from Accident Site:	44 Nautical Miles
Observation Time:	1150 MDT	Direction from Accident Site:	120°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	10 knots / 6 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	60°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	30° C / 13° C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1215 MDT	Type of Airspace:	

## Airport Information

Airport:	BROWN'S FORT HELIPAD (NONE)	Runway Surface Type:	
Airport Elevation:	6250 ft	Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Traffic Pattern

## Wreckage and Impact Information

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

## Administrative Information

Investigator In Charge (IIC):	VERLIN B TRANTER	Report Date:	12/14/1992
Additional Participating Persons:			
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).