



# Aviation Investigation Final Report

<b>Location:</b>	GRAND JUNCTION, Colorado	<b>Accident Number:</b>	DEN86LA079
<b>Date &amp; Time:</b>	February 18, 1986, 09:20 Local	<b>Registration:</b>	N1424W
<b>Aircraft:</b>	BELL 47G3 B-2	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	3 Minor
<b>Flight Conducted Under:</b>	Part 135: Air taxi & commuter - Non-scheduled		

## Analysis

THE PLT STATED THAT WHILE TURNING TO THE INTENDED LANDING AREA, THE HELICOPTER HE WAS PILOTING ENCOUNTERED BOTH DOWNDRAFTS & TAILWIND. THE PLT INDICATED THE HELICOPTER SETTLED UNTIL GRND CONTACT.

## 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: MANEUVERING

#### Findings

1. (F) WEATHER CONDITION - DOWNDRAFT
  2. (C) IN-FLIGHT PLANNING/DECISION - POOR - PILOT IN COMMAND
  3. WEATHER CONDITION - TAILWIND
  4. (C) PLANNED APPROACH - IMPROPER - PILOT IN COMMAND
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. TERRAIN CONDITION - ROUGH/UNEVEN

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	41, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	October 23, 1985
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	5544 hours (Total, all aircraft), 641 hours (Total, this make and model), 5131 hours (Pilot In Command, all aircraft), 195 hours (Last 90 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	BELL	<b>Registration:</b>	N1424W
<b>Model/Series:</b>	47G3 B-2 47G3 B-2	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	6729
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	July 13, 1985 100 hour	<b>Certified Max Gross Wt.:</b>	2950 lbs
<b>Time Since Last Inspection:</b>	67 Hrs	<b>Engines:</b>	1 Turbo shaft
<b>Airframe Total Time:</b>	5904 Hrs	<b>Engine Manufacturer:</b>	ALLISON
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	250-C20B
<b>Registered Owner:</b>	THUNDERBIRD HELICOPTERS, INC	<b>Rated Power:</b>	317 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)
<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>	Unknown	<b>Visibility</b>	20 miles
<b>Lowest Ceiling:</b>	Broken / 1500 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	20 knots / 40 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	180°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	-1°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>	09:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	Dirt;Gravel
<b>Airport Elevation:</b>	0 ft msl	<b>Runway Surface Condition:</b>	Snow
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	0 ft / 0 ft	<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

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

## Administrative Information

**Investigator In Charge (IIC):** Mickle, Ronald

**Additional Participating Persons:**

**Original Publish Date:**

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=16921>

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