



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Elko, Nevada	Accident Number:	WPR23LA145
Date & Time:	April 1, 2023, 08:23 Local	Registration:	N462BA
Aircraft:	ROBINSON HELICOPTER COMPANY R44 II	Aircraft Damage:	Substantial
Defining Event:	Low altitude operation/event	Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Business		

Analysis

The purpose of the flight was aerial animal control. The pilot reported that while flying at about 30kts and 50 ft above the ground and during a sweeping turn to avoid the effects of an estimated 30 kt tailwind at low altitude, a strong wind gust occurred in the path of the tailwind, which led to an uncontrolled descent rate. Unable to arrest the descent rate, the pilot executed a run-on landing. Environmental conditions weakened the pilot's depth perception, which resulted in a tail strike that sheared off the tail boom. The main rotor blades contacted the ground and the helicopter rolled on its side, substantially damaging the fuselage and tail boom. The pilot reported that there were no mechanical failures or malfunctions with the helicopter that would have precluded normal operation.

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 sufficient altitude and airspeed in gusting tailwind conditions that resulted in an unrecoverable descent and impact with terrain.

Findings

Personnel issues	Knowledge of meteorologic cond - Pilot
Environmental issues	Tailwind - Effect on operation
Personnel issues	Aircraft control - Pilot
Aircraft	Altitude - Attain/maintain not possible
Personnel issues	Visual illusion/disorientation - Pilot

Factual Information

History of Flight

Maneuvering-low-alt flying	Other weather encounter
Maneuvering-low-alt flying	Low altitude operation/event (Defining event)

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	25
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	4-point
Instrument Rating(s):	Helicopter	Second Pilot Present:	
Instructor Rating(s):	Helicopter	Toxicology Performed:	
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	April 8, 2022
Occupational Pilot:		Last Flight Review or Equivalent:	May 17, 2022
Flight Time:			

Passenger Information

Certificate:		Age:	
Airplane Rating(s):		Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):		Second Pilot Present:	
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	ROBINSON HELICOPTER COMPANY	Registration:	N462BA
Model/Series:	R44 II	Aircraft Category:	Helicopter
Year of Manufacture:	2008	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	12265
Landing Gear Type:	Float; Skid	Seats:	4
Date/Type of Last Inspection:	March 4, 2023 100 hour	Certified Max Gross Wt.:	250 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4077 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C126 installed, not activated	Engine Model/Series:	IO-540-AE1A5
Registered Owner:	ELKHORN AVIATION INC	Rated Power:	245 Horsepower
Operator:	ELKHORN AVIATION INC	Operating Certificate(s) Held:	None
Operator Does Business As:	Baker Aircraft	Operator Designator Code:	K2ZA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KEKO, 5054 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	15:56 Local	Direction from Accident Site:	104°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 8500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	16 knots / 27 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.94 inches Hg	Temperature/Dew Point:	13°C / -5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Elko, NV	Type of Flight Plan Filed:	None
Destination:	Elko, NV (Priv)	Type of Clearance:	VFR; None
Departure Time:	07:53 Local	Type of Airspace:	Class G

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:	40.825,-115.79133(est)

Administrative Information

Investigator In Charge (IIC): Basti, Paymaun

Additional Participating Persons: Lana Boler; FAA; RENO, NV

Original Publish Date: October 20, 2023

Last Revision Date:

Investigation Class: [Class 4](#)

Note: The NTSB did not travel to the scene of this accident.

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=106998>

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](#).