



Aviation Investigation Final Report

Location:	South Kingstown, Rhode Island	Accident Number:	ERA24LA171
Date & Time:	April 9, 2024, 08:30 Local	Registration:	N331EL
Aircraft:	ROBINSON HELICOPTER COMPANY R44 II	Aircraft Damage:	Substantial
Defining Event:	Low altitude operation/event	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Other work use		

Analysis

The pilot was practicing various flight profiles over a pond in his helicopter. After completing the first profile, he began a profile that included a normal takeoff, a 10-ft hover, an acceleration to 40 kts, a climb to 50 ft above ground level, then a return to a 10-ft hover. On the pilot’s second attempt at this maneuver, when decelerating and descending back down to a 10 ft hover, the helicopter descended too low. The front skids caught the water and the helicopter descended into the pond, substantially damaging the tail rotor assembly and the main rotor blades. The pilot reported that there were no preimpact mechanical malfunctions or failures of the helicopter that would have precluded normal operation. He also described that the weather and water conditions at the time of the accident were “calm and clear with no wind ripples on the water surface,” and that this produced a “mirroring effect” that hindered his depth perception.

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 clearance from the water while maneuvering at low altitude.

Findings

Aircraft	Altitude - Not attained/maintained
Environmental issues	Water - Effect on personnel
Personnel issues	Visual illusion/disorientation - Pilot

Factual Information

History of Flight

Maneuvering-low-alt flying	Low altitude operation/event (Defining event)
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Pilot Information

Certificate:	Commercial	Age:	54, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	June 29, 2023
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	October 10, 2023
Flight Time:	12050 hours (Total, all aircraft), 7550 hours (Total, this make and model), 11850 hours (Pilot In Command, all aircraft), 39 hours (Last 90 days, all aircraft), 19 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Passenger Information

Certificate:		Age:	
Airplane Rating(s):		Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):		Second Pilot Present:	No
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:	N331EL
Model/Series:	R44 II	Aircraft Category:	Helicopter
Year of Manufacture:	2023	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	14667
Landing Gear Type:	Skid	Seats:	4
Date/Type of Last Inspection:	Continuous airworthiness	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:	50 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	50 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C126 installed, activated, aided in locating accident	Engine Model/Series:	IO-540-AE1A5
Registered Owner:	On file	Rated Power:	245
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	WST,65 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	08:53 Local	Direction from Accident Site:	244°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	340°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	16°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	North Kingstown, RI (OQU)	Type of Flight Plan Filed:	None
Destination:	North Kingstown, RI (OQU)	Type of Clearance:	None
Departure Time:	08:10 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	41.437414,-71.572543(est)

Administrative Information

Investigator In Charge (IIC):	Boggs, Daniel
Additional Participating Persons:	Philip Kingston; FAA/FSDO; Burlington, MA
Original Publish Date:	May 29, 2024
Last Revision Date:	June 25, 2024
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=194061

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](#).