



# Aviation Investigation Final Report

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<b>Location:</b>	Silverton, Washington	<b>Accident Number:</b>	WPR23LA339
<b>Date &amp; Time:</b>	September 8, 2023, 20:28 Local	<b>Registration:</b>	N350WW
<b>Aircraft:</b>	EUROCOPTER FRANCE AS350B2	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of visual reference	<b>Injuries:</b>	5 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The pilot reported that he was landing the helicopter on the shoreline of a lake, during low light, dusk conditions. During the approach to the shoreline, he began maneuvering to slow the helicopter down and descend over the open water and that his attention was fully outside of the helicopter, when he saw a light from the intended landing zone get brighter, and the area around the helicopter suddenly got darker. The helicopter subsequently struck the surface of the lake, rolled inverted, and sank in about 80 ft. of water. The pilot and the passengers exited the helicopter and were rescued by a good Samaritan before it sank. The helicopter sustained substantial damage to the main rotor drive system and tail boom assembly.

The pilot reported that there are no mechanical malfunctions or failures that would have precluded normal operations.

## 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 visual reference and altitude while maneuvering over a lake during dusk conditions, which resulted in the helicopter impacting water.

## Findings

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<b>Environmental issues</b>	Low light - Contributed to outcome
<b>Aircraft</b>	Altitude - Not attained/maintained

## Factual Information

### History of Flight

<b>Maneuvering-low-alt flying</b>	Loss of visual reference (Defining event)
<b>Maneuvering</b>	Controlled flight into terr/obj (CFIT)

### Pilot Information

<b>Certificate:</b>	Commercial; Private	<b>Age:</b>	63, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	Helicopter	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	September 1, 2021
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	June 5, 2023
<b>Flight Time:</b>	3790 hours (Total, all aircraft), 3025 hours (Total, this make and model), 3523 hours (Pilot In Command, all aircraft), 65 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

### Passenger Information

<b>Certificate:</b>		<b>Age:</b>	Female
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Passenger Information

<b>Certificate:</b>	<b>Age:</b>	
<b>Airplane Rating(s):</b>	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>		

## Passenger Information

<b>Certificate:</b>	<b>Age:</b>	
<b>Airplane Rating(s):</b>	<b>Seat Occupied:</b>	Center
<b>Other Aircraft Rating(s):</b>	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>		

## Passenger Information

<b>Certificate:</b>	<b>Age:</b>	Male
<b>Airplane Rating(s):</b>	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	EUROCOPTER FRANCE	<b>Registration:</b>	N350WW
<b>Model/Series:</b>	AS350B2	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>	1989	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	2228
<b>Landing Gear Type:</b>	High skid	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	September 8, 2023 Unknown	<b>Certified Max Gross Wt.:</b>	4960 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Turbo shaft
<b>Airframe Total Time:</b>	11884.1 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Honeywell
<b>ELT:</b>	C126 installed, not activated	<b>Engine Model/Series:</b>	LTS101-700D-2
<b>Registered Owner:</b>	WORLDWIND HELICOPTERS INC	<b>Rated Power:</b>	742
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Dusk
<b>Observation Facility, Elevation:</b>	CWZA,62 ft msl	<b>Distance from Accident Site:</b>	23 Nautical Miles
<b>Observation Time:</b>	20:00 Local	<b>Direction from Accident Site:</b>	328°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	2 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	50°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	18°C / 13°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Arlington, WA (AWO)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Silverton, WA	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	20:08 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	4 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	5 None	<b>Latitude, Longitude:</b>	48.03041,-121.53615(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Salazar, Fabian
<b>Additional Participating Persons:</b>	Bruce Kitelinger; Federal Aviation Administration; Seattl, WA
<b>Original Publish Date:</b>	April 30, 2024
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=193047">https://data.nts.gov/Docket?ProjectID=193047</a>

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](#).