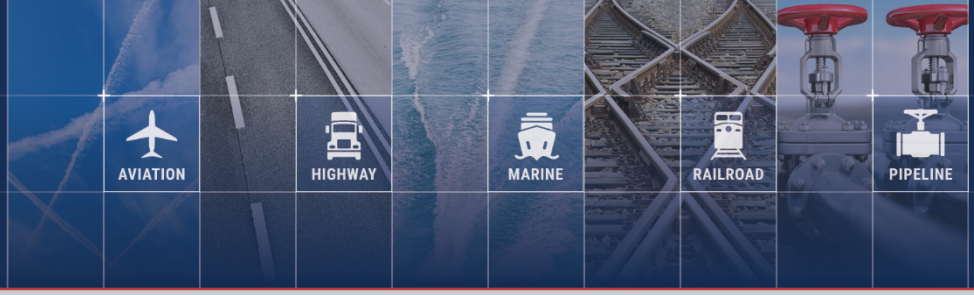

Aviation Investigation Final Report

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

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

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

Factual Information

History of Flight

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

Pilot Information

Certificate:	Commercial; Private	**Age:**	63,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	4-point
Instrument Rating(s):	Helicopter	**Second Pilot Present:**	
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	September 1, 2021
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	June 5, 2023
Flight Time:	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

Certificate:		**Age:**	Female
Airplane Rating(s):		**Seat Occupied:**	Left
Other Aircraft Rating(s):		**Restraint Used:**	4-point
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:			

Passenger Information

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

Passenger Information

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

Passenger Information

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

Aircraft and Owner/Operator Information

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

Meteorological Information and Flight Plan

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

Wreckage and Impact Information

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

Administrative Information

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