



Aviation Investigation Final Report

Location:	Palmer, Alaska	Accident Number:	ANC24LA009
Date & Time:	December 26, 2023, 10:49 Local	Registration:	N21FY
Aircraft:	AIRBUS HELICOPTERS INC AS350B3	Aircraft Damage:	Substantial
Defining Event:	Dynamic rollover	Injuries:	3 Minor, 4 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled - Sightseeing		

Analysis

The pilot stated that while on approach to land at a remote, snow-covered glacial site, with flat light conditions present, he lost “positive” visual reference, but believed he was in a stable hover. Subsequently, the left landing gear skid contacted the snow-covered terrain, and the helicopter entered a dynamic rollover to the left, resulting in substantial damage to the fuselage, tail boom, and powertrain system. The pilot reported that there were no preaccident mechanical malfunctions or anomalies 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 clearance from snow-covered terrain during the landing approach in flat light conditions.

Findings

Aircraft	Altitude - Not attained/maintained
Environmental issues	Flat light - Contributed to outcome
Personnel issues	Identification/recognition - Pilot

Factual Information

History of Flight

Landing	Dynamic rollover (Defining event)
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Pilot Information

Certificate:	Commercial; Flight instructor	Age:	31, Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	4-point
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	May 11, 2023
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	February 13, 2023
Flight Time:	2785 hours (Total, all aircraft), 308 hours (Total, this make and model), 2699 hours (Pilot In Command, all aircraft), 74 hours (Last 90 days, all aircraft), 3 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:	4-point
Instrument Rating(s):		Second Pilot Present:	No
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:	No
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:	3-point
Instrument Rating(s):	Second Pilot Present:	No
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:	3-point
Instrument Rating(s):	Second Pilot Present:	No
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:	3-point
Instrument Rating(s):	Second Pilot Present:	No
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:	Left
Other Aircraft Rating(s):	Restraint Used:	3-point
Instrument Rating(s):	Second Pilot Present:	No
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:	AIRBUS HELICOPTERS INC	Registration:	N21FY
Model/Series:	AS350B3	Aircraft Category:	Helicopter
Year of Manufacture:	2022	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	9116
Landing Gear Type:	None; High skid	Seats:	7
Date/Type of Last Inspection:	December 21, 2023 Annual	Certified Max Gross Wt.:	5225 lbs
Time Since Last Inspection:		Engines:	1 Turbo shaft
Airframe Total Time:	1184.3 Hrs at time of accident	Engine Manufacturer:	SAFRAN
ELT:	C126 installed, not activated	Engine Model/Series:	ARRIEL 2D
Registered Owner:	H125 AVIATION LLC	Rated Power:	952 Horsepower
Operator:	Alpha Aviation LLC	Operating Certificate(s) Held:	Rotorcraft external load (133), On-demand air taxi (135), Agricultural aircraft (137)
Operator Does Business As:		Operator Designator Code:	4ZDA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dawn
Observation Facility, Elevation:	PAAQ,233 ft msl	Distance from Accident Site:	26 Nautical Miles
Observation Time:	10:53 Local	Direction from Accident Site:	322°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.53 inches Hg	Temperature/Dew Point:	-17°C / -21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Palmer, AK (O3AN)	Type of Flight Plan Filed:	Company VFR
Destination:	Palmer, AK (O3AN)	Type of Clearance:	None
Departure Time:	10:40 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	2 Minor, 4 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	3 Minor, 4 None	Latitude, Longitude:	61.252209,-148.53131

Administrative Information

Investigator In Charge (IIC):	Ward, Mark
Additional Participating Persons:	Scott Norman; FAA; AK
Original Publish Date:	August 30, 2024
Last Revision Date:	September 10, 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=193569

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](#).