



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Valdez, Alaska	Accident Number:	ANC22LA023
Date & Time:	March 15, 2022, 15:00 Local	Registration:	N99676
Aircraft:	Eurocopter AS 350 BA	Aircraft Damage:	Substantial
Defining Event:	Collision during takeoff/land	Injuries:	1 Minor
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

The pilot reported that the helicopter was being used to transport skiers in support of a commercial Heli-ski operation when the helicopter inadvertently collided with terrain while maneuvering to land on the glacier.

The pilot stated that while on approach to an area to pick up a group of skiers, flat light conditions made it difficult to discern topographical features on the snow-covered, featureless, glacial terrain. The pilot said that during the approach, he inadvertently allowed the helicopter to descend below his intended approach path, and the helicopter touched down short of his intended landing site. The helicopter subsequently rolled to the left and the main rotor blades struck the snow-covered terrain. The helicopter sustained substantial damage to the main rotor blades, tail rotor blades, tail boom, and fuselage.

The pilot reported that there were no pre-accident mechanical malfunctions or failures 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 a proper approach path in flat light conditions, which resulted in landing short of the intended landing spot and impact with terrain.

Findings

Personnel issues	Visual illusion/disorientation - Pilot
Environmental issues	Flat light - Contributed to outcome

Factual Information

History of Flight

Approach	Collision during takeoff/land (Defining event)
Landing	Roll over

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	51,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	Helicopter	Restraint Used:	4-point
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Helicopter; Instrument helicopter	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	April 16, 2021
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	May 22, 2021
Flight Time:	9779 hours (Total, all aircraft), 9978 hours (Pilot In Command, all aircraft), 49 hours (Last 90 days, all aircraft), 34 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Eurocopter	Registration:	N99676
Model/Series:	AS 350 BA	Aircraft Category:	Helicopter
Year of Manufacture:	1982	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1542
Landing Gear Type:	Skid	Seats:	7
Date/Type of Last Inspection:	February 16, 2022 100 hour	Certified Max Gross Wt.:	4961 lbs
Time Since Last Inspection:	39.6 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	16258 Hrs as of last inspection	Engine Manufacturer:	HONEYWELL
ELT:	C126 installed, not activated	Engine Model/Series:	LTS101-600A3A
Registered Owner:	ALPINE AIR ALASKA LLC	Rated Power:	732 Horsepower
Operator:	ALPINE AIR ALASKA LLC	Operating Certificate(s) Held:	Rotorcraft external load (133), On-demand air taxi (135), Agricultural aircraft (137)
Operator Does Business As:		Operator Designator Code:	YDAA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PAVD, 60 ft msl	Distance from Accident Site:	13 Nautical Miles
Observation Time:	15:56 Local	Direction from Accident Site:	234°
Lowest Cloud Condition:	Few / 3400 ft AGL	Visibility	8 miles
Lowest Ceiling:	Broken / 4800 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.47 inches Hg	Temperature/Dew Point:	-2°C / -9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	16 Mile, AK	Type of Flight Plan Filed:	Company VFR
Destination:	Tsania Valley, AK	Type of Clearance:	None
Departure Time:	15:00 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	61.262204,-145.87494(est)

Administrative Information

Investigator In Charge (IIC):	Ward, Mark
Additional Participating Persons:	Brad Sapp; FAA- Juneau Flight Standards District Office; Juneau , AK
Original Publish Date:	July 5, 2022
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=104788

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](#).