



# Aviation Investigation Final Report

<b>Location:</b>	Haines, Alaska	<b>Accident Number:</b>	ANC09LA031
<b>Date &amp; Time:</b>	April 12, 2009, 18:00 Local	<b>Registration:</b>	N208CH
<b>Aircraft:</b>	Aerospatiale AS350 B2 E	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Controlled flight into terr/obj (CFIT)	<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Positioning		

## Analysis

The solo airline transport helicopter pilot reported that he was on a Title 14, CFR Part 91 positioning flight and was approaching an off-airport landing site on a snow-covered glacier to pick up skiers. He said as he neared the site, he inadvertently flew the helicopter into an unseen rise, resulting in substantial damage to the helicopter and serious injuries to himself. He said he had just flown from bright sunlight into shade, and due to the prevailing flat light, he was unable to discern his height above the glacier. The pilot noted that there were no preaccident mechanical problems with the helicopter.

## 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

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

## Factual Information

### History of Flight

<b>Approach</b>	Controlled flight into terr/obj (CFIT) (Defining event)
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On April 12, 2009, about 1800 Alaska daylight time, an Aerospatiale AS-350 B2 E helicopter, N208CH, operated by Coastal Helicopters, Juneau, Alaska as a Part 91 positioning flight to pick up skiers, sustained substantial damage when it collided with a snow-covered glacier, about 32 miles northwest of Haines, Alaska. The solo airline transport certificated pilot received serious injuries. The flight originated from Mile 33 of the Haines Highway about 1750, and was en route to the Little Jarvis Glacier to pick up skiers at the bottom of the glacier. Visual meteorological conditions prevailed, and a company flight plan was in effect.

In a telephone conversation with the NTSB investigator-in-charge (IIC) on April 16, the general manager of Coastal Helicopters said the pilot had been taking skiers to various locations in the general area of the accident to ski down the slopes, and would then pick them up at the bottom. The manager related that the flight to the Little Jarvis Glacier was not the pilot's first landing at this site the day of the accident, but he approached it from a slightly different direction and at a shallower angle than previously. During the accident flight's approach to the landing site, the manager indicated the pilot told him he flew into a small, unseen rise on the glacier, hit hard, bounced about 5 feet into the air, and spun about the vertical axis three times before descending onto the glacier near the initial impact point.

The general manager said the pilot reported no mechanical problems with the helicopter prior to the accident. He also noted the pilot told him he had just flown from bright sunshine into shadow, and due to the all white surface of the glacier and flat lighting conditions, he was unable to accurately gauge his height above the glacier.

A telephone interview on April 20 with the FAA inspector from the Juneau Flight Standards District Office who interviewed the pilot on April 17, disclosed the same information. The accident pilot also submitted a written statement to the NTSB dated April 14, which was consistent with the FAA inspector's and general manager's statements. The pilot noted that there were no preaccident mechanical problems with the helicopter.

## Pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	63, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Unknown
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Helicopter	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	May 28, 2008
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	February 12, 2009
<b>Flight Time:</b>	9960 hours (Total, all aircraft), 1935 hours (Total, this make and model), 140 hours (Last 90 days, all aircraft), 84 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Aerospatiale	<b>Registration:</b>	N208CH
<b>Model/Series:</b>	AS350 B2 E	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	2452
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	March 21, 2009 100 hour	<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>	7389 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Honeywell
<b>ELT:</b>	C91A installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	LTS101-700D2
<b>Registered Owner:</b>	COASTAL HELICOPTERS INC	<b>Rated Power:</b>	650 Horsepower
<b>Operator:</b>	Coastal Helicopters	<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>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	10000 ft AGL	<b>Visibility</b>	50 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	-9°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Haines, AK	<b>Type of Flight Plan Filed:</b>	Company VFR
<b>Destination:</b>	Haines, AK	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	17:50 Local	<b>Type of Airspace:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious	<b>Latitude, Longitude:</b>	59.40361,-136.419174

## Administrative Information

<b>Investigator In Charge (IIC):</b>	LaBelle, James
<b>Additional Participating Persons:</b>	Brad Sapp; FAA, Juneau FSDO; Juneau, AK
<b>Original Publish Date:</b>	September 30, 2009
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=73638">https://data.ntsb.gov/Docket?ProjectID=73638</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](#).