



# Aviation Investigation Final Report

<b>Location:</b>	GIRDWOOD, Alaska	<b>Accident Number:</b>	ANC99LA036
<b>Date &amp; Time:</b>	March 17, 1999, 10:50 Local	<b>Registration:</b>	N197EH
<b>Aircraft:</b>	Eurocopter AS-350-B2	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 135: Air taxi & commuter - Non-scheduled		

## Analysis

The commercial pilot reported that the accident helicopter was being utilized to transport skiers to a remote ski area. He added that the day before the accident, the area had received about 6 inches of very light, powder snow. He stated that just before the accident, he transported a group of photographers to the top of the mountain, and he was returning to the base of the mountain to pick up the next group of skiers. He said that as the helicopter hovered toward the landing area, he became disoriented in whiteout conditions, and lost all visual reference due to blowing snow. He said the helicopter drifted to the right, the right skid struck the snow, and the helicopter rolled onto its right side. The helicopter sustained substantial damage to the fuselage, tail boom, and drive train components.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's misjudged flare while landing. Factors associated with the accident were whiteout conditions, and snow-covered terrain.

## Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER  
Phase of Operation: LANDING

### Findings

1. (F) WEATHER CONDITION - WHITEOUT

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Occurrence #2: HARD LANDING

Phase of Operation: LANDING

Findings

2. (C) FLARE - MISJUDGED - PILOT IN COMMAND

3. (F) TERRAIN CONDITION - SNOW COVERED

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Occurrence #3: ROLL OVER

Phase of Operation: LANDING

## Factual Information

On March 17, 1999, about 1050 Alaska standard time, a high skid equipped Eurocopter AS-350-B2 helicopter, N197EH, sustained substantial damage during landing, about 12 miles south of Girdwood, Alaska. The helicopter was being operated as a visual flight rules (VFR) on-demand air taxi flight under Title 14, CFR Part 135, when the accident occurred. The helicopter is registered to, and operated by, ERA Aviation, Anchorage, Alaska. The certificated commercial pilot, the sole occupant aboard, was not injured. Visual meteorological conditions prevailed, and VFR company flight following procedures were in effect. The flight originated at the Girdwood Airport about 0810.

During an interview with the National Transportation Safety Board investigator-in-charge on March 17, the pilot reported that the accident helicopter was operating under contract to Chugach Powder Guides to transport skiers to a remote ski area. He added that the day before the accident, the area had received about 6 inches of very light, powder snow. He stated that just before the accident, he transported a group of photographers to the top of the mountain, and he was returning to the base of the mountain to pick up the next group of skiers. He said that as the helicopter hovered toward the landing area, he became disoriented in whiteout conditions, and lost all visual reference due to blowing snow. He said the helicopter drifted to the right, the right skid struck the snow, and the helicopter rolled onto its right side.

The helicopter sustained substantial damage to the fuselage, tail boom, and drive train components.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	51, 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>	
<b>Instrument Rating(s):</b>	Airplane; Helicopter	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim	<b>Last FAA Medical Exam:</b>	December 18, 1998
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	8520 hours (Total, all aircraft), 3340 hours (Total, this make and model), 8125 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Eurocopter	<b>Registration:</b>	N197EH
<b>Model/Series:</b>	AS-350-B2 AS-350-B2	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	2983
<b>Landing Gear Type:</b>	High skid	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	April 24, 1999 AAIP	<b>Certified Max Gross Wt.:</b>	4961 lbs
<b>Time Since Last Inspection:</b>	21 Hrs	<b>Engines:</b>	1 Turbo shaft
<b>Airframe Total Time:</b>	796 Hrs	<b>Engine Manufacturer:</b>	Turbomeca
<b>ELT:</b>		<b>Engine Model/Series:</b>	ARRIEL 1D1
<b>Registered Owner:</b>	ERA AVIATION, INC.	<b>Rated Power:</b>	732 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	ERAA

## 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>	Clear	<b>Visibility</b>	30 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>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	2°C
<b>Precipitation and Obscuration:</b>	N/A - Blowing - Snow		
<b>Departure Point:</b>	, AK (AQY )	<b>Type of Flight Plan Filed:</b>	Company VFR
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	08:10 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Full stop

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	60.899303,-148.909927(est)

## Administrative Information

Investigator In Charge (IIC):	Johnson, Clinton
Additional Participating Persons:	MAURICE D HENDRICKSON (FAA); ANCHORAGE , AK
Original Publish Date:	April 20, 2000
Last Revision Date:	
Investigation Class:	<a href="#">Class</a>
Note:	
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=45963">https://data.nts.gov/Docket?ProjectID=45963</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](#).