



Aviation Investigation Final Report

Location:	Yakutat, Alaska	Accident Number:	GAA18CA289
Date & Time:	May 18, 2018, 15:00 Local	Registration:	N288CH
Aircraft:	Aerospatiale AS350 B2 ECUREUIL	Aircraft Damage:	Substantial
Defining Event:	Miscellaneous/other	Injuries:	3 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

The helicopter pilot reported that, during startup on an off-airport landing pad, the helicopter was facing into the wind, and the airspeed indicator was showing gusting wind conditions. As the blades began to turn, he felt a strong wind gust and heard a loud bang almost simultaneously, and the helicopter "lurched" to the right about 5°. He immediately aborted the start procedure and applied the rotor brake.

Postaccident examination revealed that the helicopter's main rotor blade had struck the tail rotor driveshaft cover and damaged the tail rotor drive shaft and support assembly.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the helicopter that would have precluded normal operation.

The pilot reported that the weather at the accident site, about the time of the accident, was wind from 130° at 25 knots, gusting to 30 knots with light, terrain-induced turbulence.

The flight manual stated that the wind envelope for spinning and stopping the rotors has been substantiated for winds of 40 knots from any direction and for 50-knot headwinds.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The helicopter's movement during startup in gusting wind conditions, which resulted in the main rotor striking the tailboom.

Findings

Aircraft	(general) - Attain/maintain not possible
Environmental issues	Gusts - Effect on operation

Factual Information

History of Flight

Standing-engine(s) start-up	Miscellaneous/other (Defining event)
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Pilot Information

Certificate:	Commercial	Age:	45, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Glider; Helicopter	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	April 3, 2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	May 9, 2018
Flight Time:	(Estimated) 4648 hours (Total, all aircraft), 701 hours (Total, this make and model), 4500 hours (Pilot In Command, all aircraft), 55.7 hours (Last 90 days, all aircraft), 47.7 hours (Last 30 days, all aircraft), 2.7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Aerospatiale	Registration:	N288CH
Model/Series:	AS350 B2 ECUREUIL NO SERIES	Aircraft Category:	Helicopter
Year of Manufacture:	1990	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2383
Landing Gear Type:	Emergency float; High skid	Seats:	7
Date/Type of Last Inspection:	February 13, 2018 100 hour	Certified Max Gross Wt.:	4961 lbs
Time Since Last Inspection:		Engines:	1 Turbo shaft
Airframe Total Time:	9854.4 Hrs at time of accident	Engine Manufacturer:	TURBOMECA
ELT:	C126 installed, not activated	Engine Model/Series:	ARRIEL 1D1
Registered Owner:	COASTAL HELICOPTERS INC	Rated Power:	531 Horsepower
Operator:	COASTAL HELICOPTERS INC	Operating Certificate(s) Held:	Rotorcraft external load (133), On-demand air taxi (135), Commercial air tour (136), Agricultural aircraft (137)
Operator Does Business As:		Operator Designator Code:	XCHA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PAYA,31 ft msl	Distance from Accident Site:	52 Nautical Miles
Observation Time:	23:51 Local	Direction from Accident Site:	300°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 1000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	14 knots / 28 knots	Turbulence Type Forecast/Actual:	None / Terrain-Induced
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	N/A / Light
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	10°C / 7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Juneau, AK (JNU)	Type of Flight Plan Filed:	Company VFR
Destination:	Yakutat, AK	Type of Clearance:	VFR
Departure Time:		Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	59.083332,-138.200271(est)

Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Ty Bartausky; FAA; Juneau, AK
Original Publish Date:	October 24, 2018
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97290

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