



National Transportation Safety Board Aviation Accident Final Report

Location:	Girdwood, AK	Accident Number:	GAA18CA534
Date & Time:	08/29/2018, 1700 AKD	Registration:	N99645
Aircraft:	Robinson R44	Aircraft Damage:	Substantial
Defining Event:	Aircraft loading event	Injuries:	3 None
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

The pilot reported that, while "hot loading" the second set of fishermen onto the helicopter, a fishing rod struck a main rotor disc. The pilot added that he heard a "small tick," but that, as he hovered the helicopter, he felt no unusual indications through the flight controls.

During examination of the helicopter after shutdown, the pilot found damage to the main rotor blade, and based on the manufacturer's main rotor blade damage guidance, he determined that the main rotor blade was beyond repair limits.

The pilot reported that there were no preaccident mechanical failures or malfunctions 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 fisherman's fishing rod striking the helicopter's rotating main rotor disk during loading.

Findings

Environmental issues	Object/animal/substance - Not specified (Cause)
----------------------	---

Factual Information

History of Flight

Standing-engine(s) operating	Aircraft loading event (Defining event)
After landing	Aircraft inspection event

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	44, Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Without Waivers/Limitations	Last FAA Medical Exam:	01/28/2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	05/01/2018
Flight Time:	(Estimated) 2140 hours (Total, all aircraft), 1350 hours (Total, this make and model), 2070 hours (Pilot In Command, all aircraft), 245 hours (Last 90 days, all aircraft), 100 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Robinson	Registration:	N99645
Model/Series:	R44 II	Aircraft Category:	Helicopter
Year of Manufacture:	2013	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	13448
Landing Gear Type:	Skid;	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-540-AE1A5
Registered Owner:	Alpine Air Alaska Inc	Rated Power:	
Operator:	Alpine Air Alaska Inc	Operating Certificate(s) Held:	Rotorcraft External Load (133); On-demand Air Taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PALV, 60 ft msl	Distance from Accident Site:	32 Nautical Miles
Observation Time:	0053 UTC	Direction from Accident Site:	8°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.83 inches Hg	Temperature/Dew Point:	18° C / 7° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Drift River, AK	Type of Flight Plan Filed:	Company VFR
Destination:	Drift River, AK	Type of Clearance:	None
Departure Time:	1645 AKD	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:	60.284444, -152.453333 (est)

Administrative Information

Investigator In Charge (IIC):	Eleazar Nepomuceno	Report Date:	02/11/2020
Additional Participating Persons:	Marcus Roulet; FAA; Anchorage, AK		
Publish Date:	02/11/2020		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=98245		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).