



Aviation Investigation Final Report

Location:	Ketchikan, Alaska	Accident Number:	ANC05LA010
Date & Time:	October 12, 2004, 12:30 Local	Registration:	N166EH
Aircraft:	Eurocopter France AS-350B2	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

The airline transport certificated air taxi helicopter pilot was taking a passenger to a remote landing site. During the landing approach, the helicopter's main rotor blades inadvertently struck a tree. The helicopter landed without further mishap, but inspection of the main rotor blades disclosed that the blades were damaged beyond repair.

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 an object while landing, which resulted in the main rotor blades striking a tree.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: LANDING

Findings

1. OBJECT - TREE(S)
2. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

On October 12, 2004, about 1230 Alaska daylight time, a skid-equipped Eurocopter AS-350B2 helicopter, N166EH, operated by Era Aviation, Inc., as an on-demand Title 14, CFR Part 135 flight, sustained substantial damage when the main rotor blades collided with a tree while landing at a remote site, about 15 miles southeast of Ketchikan, Alaska. The airline transport certificated pilot and the one passenger were not injured. The local flight operated in visual meteorological conditions, and a company VFR flight plan was in effect. The flight departed Ketchikan about 0730.

The operator reported that the pilot had been ferrying passengers between remote sites in mountainous and thickly forested areas throughout the morning. On the last landing, the pilot reported he noticed damage to the main rotor blades. He said he was uncertain of when the damage occurred, but the operator noted it likely happened on his last landing, and it appears that the blades struck a tree, or a tree stump. The operator indicated there were no preimpact mechanical problems with the helicopter.

On November 16, it was determined by a repair station that all three main rotor blades were unairworthy, and could not be repaired.

Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	35, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	May 5, 2004
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	April 28, 2004
Flight Time:	3319 hours (Total, all aircraft), 1585 hours (Total, this make and model), 3140 hours (Pilot In Command, all aircraft), 240 hours (Last 90 days, all aircraft), 126 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Eurocopter France	Registration:	N166EH
Model/Series:	AS-350B2	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2194
Landing Gear Type:	High skid	Seats:	6
Date/Type of Last Inspection:	September 19, 2004 AAIP	Certified Max Gross Wt.:	4850 lbs
Time Since Last Inspection:	94 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	7334 Hrs as of last inspection	Engine Manufacturer:	Turbomeca
ELT:	Installed, not activated	Engine Model/Series:	1D1
Registered Owner:	Era Aviation, Inc.	Rated Power:	712 Horsepower
Operator:		Operating Certificate(s) Held:	Large helicopter (127), Commuter air carrier (135), On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	ERAA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 800 ft AGL	Visibility	3 miles
Lowest Ceiling:	Overcast / 2000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Ketchikan, AK	Type of Flight Plan Filed:	Company VFR
Destination:		Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	55.25,-131.300003

Administrative Information

Investigator In Charge (IIC):	LaBelle, James
Additional Participating Persons:	Terry Gordon; FAA, Juneau Flight Standards District Office; Juneau, AK
Original Publish Date:	June 8, 2005
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=60575

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