



Aviation Investigation Final Report

Location:	Nome, Alaska	Accident Number:	ANC02LA078
Date & Time:	July 16, 2002, 13:00 Local	Registration:	N7183Z
Aircraft:	Robinson R-22	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Other work use		

Analysis

The pilot reported that the helicopter was being used in hilly terrain to herd reindeer. While maneuvering at 20-30 feet above ground level, the pilot turned downwind, and the helicopter started to settle toward the ground. The pilot applied full up collective, and full aft cyclic controls, but was unable to arrest the descent. The helicopter impacted laterally on the side of a hill. During the impact, the main rotor blades severed the tail boom, and the helicopter rolled downhill onto its side.

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 adequate altitude and clearance in hilly terrain. A factor contributing to the accident was the performance of a low altitude flight maneuver.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING

Findings

1. TERRAIN CONDITION - RISING
2. (F) LOW ALTITUDE FLIGHT/MANEUVER - PERFORMED - PILOT IN COMMAND
3. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

On July 16, 2002, about 1300 Alaska daylight time, a Robinson R-22 helicopter, N7183Z, sustained substantial damage during a collision with terrain while maneuvering about 23 miles north of Nome, Alaska. The helicopter was being operated by Bering Air Inc. of Nome, as a visual flight rules (VFR) flight under Title 14, CFR Part 91, when the accident occurred. The solo airline transport pilot was not injured. Visual meteorological conditions prevailed, and company flight following procedures were in effect. The flight originated at the Nome airport about 0900, and was conducting reindeer herding operations.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC), on July 16, the pilot said he was at a low altitude herding reindeer, and turned downwind. He said as he turned downwind the helicopter started to descend, and he attempted to stop the descent by adding power. He said the helicopter inadvertently landed hard, and during the hard landing the main rotor chopped off the tail boom. The helicopter then rocked forward and rolled downhill onto its left side.

The pilot said there were no known mechanical anomalies with the helicopter prior to the accident.

In a written report to the NTSB, the pilot reported that he was repositioning on the herd by maneuvering at 20-30 feet above ground level. He said he started a pedal turn to keep the tail of the helicopter away from ascending terrain, and the helicopter turned downwind. With the tailwind the helicopter started to settle toward the ground. He said he eventually applied full up collective, and full aft cyclic controls, but the helicopter continued to descend, and had a hard landing.

Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	34,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):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	January 3, 2002
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	May 28, 2002
Flight Time:	8700 hours (Total, all aircraft), 125 hours (Total, this make and model), 8650 hours (Pilot In Command, all aircraft), 180 hours (Last 90 days, all aircraft), 90 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Robinson	Registration:	N7183Z
Model/Series:	R-22	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	3016
Landing Gear Type:	Skid	Seats:	4
Date/Type of Last Inspection:	May 25, 2002 100 hour	Certified Max Gross Wt.:	1370 lbs
Time Since Last Inspection:	43 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	552.7 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	O-360-J2A
Registered Owner:	James D. Rowe	Rated Power:	145 Horsepower
Operator:	BERING AIR INC	Operating Certificate(s) Held:	Commuter air carrier (135), On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	FXTA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PAOM	Distance from Accident Site:	
Observation Time:	20:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Few / 2500 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 8000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	8 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	13°C / 10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Nome, AK (PAOM)	Type of Flight Plan Filed:	Company VFR
Destination:	Nome, AK	Type of Clearance:	None
Departure Time:	09:00 Local	Type of Airspace:	Class G

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:	64.796112,-165.01416

Administrative Information

Investigator In Charge (IIC):	Lewis, Lawrence
Additional Participating Persons:	Larry Gross; FAA Fairbanks FSDO-01; Fairbanks, AK
Original Publish Date:	April 29, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=55234

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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](#).