Aviation Investigation Final Report

Location:	JUNEAU, Alaska	**Accident Number:**	ANC99LA092
Date & Time:	July 15, 1999, 13:00 Local	**Registration:**	N8926F
Aircraft:	Hughes 269A	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 Minor
Flight Conducted Under:	Part 91: General aviation		

Analysis

The certificated commercial pilot said that he made a northerly approach to a 3,400 feet msl mountain top heliport. He said that as he approached his intended landing site, he increased collective pitch while slowing his approach airspeed, and the rotor rpm began to decay. The pilot stated that he was forced to hover over, and eventually touchdown on, an area of uneven terrain, about thirty feet short and downhill from his intended landing site. He said, in part: 'I was able to keep the toes of the skids on the uphill slope while trying to get my rpm back up. I rolled the throttle on and lowered the collective as much as I dared.' He said that in an attempt to reposition the helicopter, he increased collective pitch and applied left pedal input. The left skid impacted the ground, and the helicopter rolled over. The helicopter sustained substantial damage to the rotor system, fuselage, and tail boom. The pilot reported that weather conditions at the time of the accident consisted of clear skies, visibility unlimited, gusty winds from the southeast at 10 to 15 knots, and temperature about 70 degrees F.

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 rotor rpm, and an inadequately planned approach. A factor associated with the accident was a tailwind.

Findings

Occurrence #1: UNDERSHOOT
Phase of Operation: APPROACH

Findings
1. (C) ROTOR RPM - NOT MAINTAINED - PILOT IN COMMAND
2. (C) PLANNED APPROACH - INADEQUATE - PILOT IN COMMAND
3. (F) WEATHER CONDITION - TAILWIND

Occurrence #2: ABRUPT MANEUVER
Phase of Operation: HOVER - IN GROUND EFFECT

Occurrence #3: ROLL OVER
Phase of Operation: HOVER - IN GROUND EFFECT

Factual Information

On July 15, 1999, about 1300 Alaska daylight time, a skid equipped Hughes 269A helicopter, N8926F, sustained substantial damage during landing atop a 3,400 feet msl mountain, about 12 miles southwest of Juneau, Alaska. The helicopter was being operated as a visual flight rules (VFR) business flight under Title 14, CFR Part 91, when the accident occurred. The helicopter is owned and operated by Color-Vue Inc., Juneau, Alaska. The commercial pilot, and the one passenger aboard, received minor injuries. Visual meteorological conditions prevailed, and a VFR flight plan was in effect. The flight originated about 1245 from Juneau.

During a telephone conversation with the National Transportation Safety Board investigator-in-charge on July 16, the pilot reported that the accident helicopter was being utilized to transport a service technician to a remote radio repeater site. He said that he made a northerly approach to the mountain top. He said that as he approached his intended landing site, he increased collective pitch while slowing his approach airspeed, and the rotor rpm began to decay. The pilot stated that he was forced to hover over, and eventually touchdown on, an area of uneven terrain, about thirty feet short and downhill from his intended landing site. He said, in part: "I was able to keep the toes of the skids on the uphill slope while trying to get my rpm back up. I rolled the throttle on and lowered the collective as much as I dared." He said that in an attempt to reposition the helicopter, he increased collective pitch and applied left pedal input. The left skid impacted the ground, and the helicopter rolled over. The pilot noted that there were no preaccident mechanical anomalies with the helicopter.

The helicopter sustained substantial damage to the rotor system, fuselage, and tail boom.

The pilot reported that weather conditions at the time of the accident consisted of clear skies, visibility unlimited, gusty winds from the southeast at 10 to 15 knots, and temperature about 70 degrees F.

Pilot Information

Certificate:	Commercial	**Age:**	53,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	Right
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Helicopter	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	May 1, 1999
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	16000 hours (Total, all aircraft), 700 hours (Total, this make and model), 167 hours (Last 90 days, all aircraft), 46 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hughes	**Registration:**	N8926F
Model/Series:	269A 269A	**Aircraft Category:**	Helicopter
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	93-0293
Landing Gear Type:	Skid	**Seats:**	3
Date/Type of Last Inspection:	October 1, 1998 Annual	**Certified Max Gross Wt.:**	1575 lbs
Time Since Last Inspection:	54 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	4254 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed	**Engine Model/Series:**	HIO-360
Registered Owner:	COLOR-VUE, INC.	**Rated Power:**	180 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

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:	Clear	**Visibility**	100 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	10 knots / 15 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	120°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	, AK (JNU)	**Type of Flight Plan Filed:**	VFR
Destination:		**Type of Clearance:**	None
Departure Time:	13:00 Local	**Type of Airspace:**	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 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Minor	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Minor	**Latitude, Longitude:**	58.579811,-134.769973(est)

Administrative Information

Investigator In Charge (IIC):	Johnson, Clinton
Additional Participating Persons:	DOUGLAS C VAUBEL (FAA); JUNEAU , AK
Original Publish Date:	August 3, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=46865