



# Aviation Investigation Final Report

<b>Location:</b>	SMITH COVE, Alaska	<b>Accident Number:</b>	ANC91LA059
<b>Date &amp; Time:</b>	May 22, 1991, 09:45 Local	<b>Registration:</b>	N87729
<b>Aircraft:</b>	BELL UH-1B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 133: Rotorcraft ext. load		

## Analysis

THE PILOT STATED THAT HE WAS MANEUVERING JUST ABOVE THE TREE LEVEL WHEN THE ENGINE QUIT. EXAMINATION OF THE ENGINE REVEALED THAT THE TURBINE WHEEL DISINTEGRATED IN FLIGHT CAUSING A TOTAL LOSS OF POWER.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A COMPLETE LOSE OF ENGINE POWER DUE TO A TOTAL DISINTEGRATION OF THE TURBINE WHEEL.

## Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF  
Phase of Operation: MANEUVERING

### Findings

1. (C) TURBINE ASSEMBLY, TURBINE WHEEL - FAILURE, TOTAL
2. TURBINE ASSEMBLY, TURBINE WHEEL - DISINTEGRATED

Occurrence #2: FORCED LANDING  
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: DESCENT - EMERGENCY

Findings

3. (F) TERRAIN CONDITION - NONE SUITABLE
4. OBJECT - TREE(S)

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	50, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	April 16, 1991
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	4950 hours (Total, all aircraft), 600 hours (Total, this make and model), 5145 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 100 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	BELL	<b>Registration:</b>	N87729
<b>Model/Series:</b>	UH-1B UH-1B	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	622034
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	May 21, 1991 100 hour	<b>Certified Max Gross Wt.:</b>	8500 lbs
<b>Time Since Last Inspection:</b>	2 Hrs	<b>Engines:</b>	1 Turbo shaft
<b>Airframe Total Time:</b>	5337 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	T55-L11D
<b>Registered Owner:</b>	NORTHWEST HELICOPTER, INC.	<b>Rated Power:</b>	1100 Horsepower
<b>Operator:</b>	NORTHWEST HELICOPTER, INC.	<b>Operating Certificate(s) Held:</b>	
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	WYFL

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 1200 ft AGL	<b>Visibility</b>	30 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	0°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	11°C / 4°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>		<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	09:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor	<b>Latitude, Longitude:</b>	55.610195,-131.580734(est)

## Administrative Information

**Investigator In Charge (IIC):** Michelangelo, James

**Additional Participating Persons:** NONE;

**Original Publish Date:** March 31, 1993

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=5544>

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