



National Transportation Safety Board Aviation Accident Data Summary

Location:	Duchesne, UT	Accident Number:	DEN05LA131
Date & Time:	09/02/2005, 1240 MDT	Registration:	N220SH
Aircraft:	Aerospatiale SA315B	Injuries:	1 Minor
Flight Conducted Under:	Part 133: Rotorcraft Ext. Load		

Analysis

During a helicopter external load operation, the pilot was attempting to lift a 1,500 pound drill rig that was attached to the end of a 75-foot long line at a terrain elevation of approximately 7,000 feet msl. As the drill was being lifted off the ground, the helicopter "suddenly [and] violently accelerated (pitched) down [and] left." The pilot attempted to correct the uncommanded movement by applying right aft cyclic; however, the helicopter began a "rapid spin to the left." A ground witness observed the helicopter complete 3 or 4, 360-degree rotations. The pilot then closed the throttle to the flight idle position, and the left rotation stopped. The helicopter entered a descent toward the terrain with approximately 10 knots of forward airspeed. Approximately 30-40 feet above ground level (agl), the pilot pulled the "remaining" collective to slow the descent and rotor RPM. The helicopter's main rotor blades contacted trees, and subsequently the helicopter came to rest on its right side. During the accident sequence, the pilot did not jettison the external load. The pilot reported the wind conditions as "calm" and the temperature 71 degrees Fahrenheit at the time of the accident. Examination of the airframe, systems, and a functional test of the engine revealed no anomalies. The reason for the loss of control was not determined.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the loss of control during external load operations for undetermined reasons.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

2. REMEDIAL ACTION - ATTEMPTED - PILOT IN COMMAND
3. OBJECT - TREE(S)

Pilot Information

Certificate:	Airline Transport	Age:	59
Airplane Rating(s):	None	Instrument Rating(s):	Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:	14500 hours (Total, all aircraft), 1200 hours (Total, this make and model), 14300 hours (Pilot In Command, all aircraft), 230 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Aerospatiale	Registration:	N220SH
Model/Series:	SA315B	Engines:	1 Turbo Shaft
Operator:	Skydance Northwestern Inc.	Engine Manufacturer:	Turbomeca
Air Carrier Operating Certificate:		Engine Model/Series:	Artouste III
Flight Conducted Under:	Part 133: Rotorcraft Ext. Load		

Meteorological Information and Flight Plan

Observation Facility, Elevation:		Weather Information Source:	Pilot
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Day	Wind Speed/Gusts, Direction:	Calm, 140°
Temperature:	22° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Duschene, UT	Destination:	Duschene, UT

Airport Information

Airport:	Duchesne Muninipal Airport (U69)	Runway Surface Type:	
Runway Used:	NA	Runway Surface Condition:	
Runway Length/Width:			

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC): Aaron M Sauer

Adopted Date: 07/31/2006

Investigation Docket: NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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