



National Transportation Safety Board Aviation Accident Data Summary

Location:	Blaine, WA	Accident Number:	WPR09TA001
Date & Time:	10/01/2008, 1840 PDT	Registration:	N172AE
Aircraft:	EUROCOPTER AS350B3	Injuries:	2 None
Flight Conducted Under:	Public Aircraft		

Analysis

During an annual helicopter proficiency evaluation flight, the flight instructor told the commercial pilot to conduct manual governor operations and the flight instructor then positioned the governor switch from "auto" to "man" while on the downwind leg to the runway. After performing a left 360-degree turn, the commercial pilot initiated a normal approach to the runway with the intention of performing a run-on landing. The commercial pilot stated that as the helicopter descended through 20 feet above ground level (agl), he attempted to increase throttle and collective to arrest the rate of descent when it "felt like the bottom fell out" and the helicopter landed hard on the asphalt runway surface in a slight nose high attitude. The flight instructor reported that he heard the aural low rotor RPM horn sound and noticed the rotor RPM was slowing through 350 rpm as the helicopter was descending through about 20 feet agl. The instructor stated that before he could react to correct the situation the helicopter struck the ground. Examination of the helicopter by a Federal Aviation Administration inspector revealed that the tail boom was partially bent and one of the main rotor blades was damaged. No preimpact mechanical anomalies with the helicopter were reported by either pilot.

Flight Events

Landing-flare/touchdown - Hard landing

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain main rotor rpm, which resulted in a hard landing. Contributing to the accident were the flight instructor's delayed remedial action and inadequate supervision of the flight.

Findings

Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Prop/rotor parameters-Not attained/maintained - C

Personnel issues-Action/decision-Action-Delayed action-Instructor/check pilot - F

Personnel issues-Psychological-Attention/monitoring-Monitoring other person-Instructor/check pilot - F

Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C

Flight Instructor Information

Certificate:	Airline Transport; Commercial	Age:	51
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane; Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	Helicopter
Flight Time:	8000 hours (Total, all aircraft), 1009 hours (Total, this make and model), 6050 hours (Pilot In Command, all aircraft), 57 hours (Last 90 days, all aircraft), 17 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Pilot Information

Certificate:	Commercial	Age:	48
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane; Helicopter
Other Aircraft Rating(s):	Helicopter	Instructor Rating(s):	None
Flight Time:	6300 hours (Total, all aircraft), 1100 hours (Total, this make and model), 3500 hours (Pilot In Command, all aircraft), 85 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	EUROCOPTER	Registration:	N172AE
Model/Series:	AS350B3	Engines:	1 Turbo Shaft
Operator:	United States Customs and Border Protection	Engine Manufacturer:	Turbomeca
Air Carrier Operating Certificate:	None	Engine Model/Series:	Arriel 2B
Flight Conducted Under:	Public Aircraft		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	BLI, 170 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Night/Dark	Wind Speed/Gusts, Direction:	3 knots, Variable
Temperature:	14°C / 12°C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bellingham, WA (BLI)	Destination:	

Airport Information

Airport:	Blaine Municipal Airport (4W6)	Runway Surface Type:	Asphalt
Runway Used:	32	Runway Surface Condition:	Dry
Runway Length/Width:	2539 ft / 40 ft		

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC): Joshua Cawthra

Adopted Date: 03/23/2009

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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