National Transportation Safety Board
Aviation Accident Final Report

Location:	Asotin, Washington	**Accident Number:**	WPR19LA249
Date & Time:	August 31, 2019, 22:17 Local	**Registration:**	N54528
Aircraft:	Hughes 369	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control in flight	**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the helicopter reported that he was departing over a river in dark night conditions when, shortly after takeoff, the helicopter yawed severely to the left. He applied full right anti-torque pedal and the helicopter subsequently impacted the water. The helicopter was not examined after the accident, and the reason for the loss of control could not be determined based on the available information.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

A loss of control for undetermined reasons.

Findings

Not determined	(general) - Unknown/Not determined

Factual Information

On August 31, 2019, about 2217 Pacific daylight time, a Hughes 369D helicopter, N54528, was substantially damaged when it was involved in an accident near Asotin, Washington. The pilot and passenger were not injured. The helicopter was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that he and his passenger departed from a private residence near the Snake River in dark night conditions. The pilot recalled that shortly after lifting off, the helicopter yawed severely to the left. He applied full right anti-torque pedal and the helicopter subsequently impacted the water. He and the passenger egressed the helicopter, which subsequently sank, and were rescued shortly thereafter. The pilot stated that the helicopter had experienced a loss of tail rotor effectiveness, and that the accident was not due to anything he did incorrectly.

The mechanic who was repairing the helicopter after the accident reported that the aft tail rotor aft drive flex coupling had sheared. He stated that none of the four tail rotor blades were damaged during the accident sequence.

No follow-up examination of the helicopter was performed, and the reason for the loss of control could not be determined.

History of Flight

Takeoff	Loss of control in flight (Defining event)

Pilot Information

Certificate:	Airline transport; Commercial	**Age:**	42,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Glider; Helicopter	**Restraint Used:**	4-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 1 Without waivers/limitations	**Last FAA Medical Exam:**	September 5, 2017
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	June 12, 2019
Flight Time:	(Estimated) 8000 hours (Total, all aircraft), 3000 hours (Total, this make and model), 4000 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hughes	**Registration:**	N54528
Model/Series:	369 D	**Aircraft Category:**	Helicopter
Year of Manufacture:	1978	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	390464D
Landing Gear Type:	High skid	**Seats:**	5
Date/Type of Last Inspection:	Unknown	**Certified Max Gross Wt.:**	3000 lbs
Time Since Last Inspection:		**Engines:**	1 Turbo shaft
Airframe Total Time:		**Engine Manufacturer:**	Allison
ELT:	Installed, not activated	**Engine Model/Series:**	C-20B
Registered Owner:		**Rated Power:**	420 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Night/dark
Observation Facility, Elevation:	KLWS,1436 ft msl	**Distance from Accident Site:**	8 Nautical Miles
Observation Time:		**Direction from Accident Site:**	345°
Lowest Cloud Condition:	Clear	**Visibility**	
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Asotin, WA	**Type of Flight Plan Filed:**	None
Destination:	Asotin, WA	**Type of Clearance:**	None
Departure Time:	22:17 Local	**Type of Airspace:**	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	46.251667,-116.968612(est)

Administrative Information

Investigator In Charge (IIC):	Vanover, Jackie		
Additional Participating Persons:	Douglas Belcher; Federal Aviation Administration; Spokane, WA		
Original Publish Date:	April 1, 2022	**Investigation Class:**	3
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=100191		