



Aviation Investigation Final Report

Location:	Darrington, Washington	Accident Number:	WPR14LA340
Date & Time:	August 11, 2014, 11:30 Local	Registration:	N7432F
Aircraft:	Hughes 269C	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (partial)	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The commercial pilot was conducting a local, personal flight in the rented helicopter. The pilot reported that, while descending the helicopter from 5,000 ft and approaching 4,000 ft, he increased the collective and noticed that the engine was slowing down; he was unable to recover the engine rpm to a normal range. The helicopter continued to descend until the pilot entered an autorotation. The helicopter then impacted a tree and came to rest in a small stream. The pilot stated that he did not believe that the engine ever quit but that it did not produce enough power to continue flight.

Postaccident examination of the helicopter revealed that the throttle mount bracket was hanging by the throttle cable linkage and was not secured to the servo mount studs, which would have led to the loss of throttle movement for acceleration. The operator stated that the engine had been installed in the helicopter 10 flight hours before the accident. It is likely that maintenance personnel did not properly secure the throttle mount bracket during the engine installation, which led to the loss of throttle movement and inability to control engine power.

Probable Cause and Findings

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

Maintenance personnel's failure to secure the throttle mount bracket during a recent engine installation, which resulted in the loss of throttle movement and an inability to control engine power.

Findings

Aircraft	Power lever - Incorrect service/maintenance
Personnel issues	Installation - Maintenance personnel
Environmental issues	Tree(s) - Contributed to outcome
Environmental issues	Water/moisture - Contributed to outcome

Factual Information

History of Flight

Enroute-descent	Loss of engine power (partial) (Defining event)
Autorotation	Off-field or emergency landing
Autorotation	Collision with terr/obj (non-CFIT)

On August 11, 2014, about 1130 Pacific daylight time (PDT), a Hughes 269C Helicopter, N7432F, impacted terrain following a partial loss of engine power near Darrington, Washington. The airline transport pilot was not injured; the helicopter sustained substantial damage. Snohomish Flying Service (SFS) was operating the helicopter under the provisions of 14 Code of Federal Regulations (CFR) Part 91. The local personal flight departed Snohomish, Washington, about 0815. Visual meteorological conditions prevailed, and no flight plan had been filed.

The pilot reported that during a flight in the rented helicopter he was descending out of 5,000 ft. As he approached 4,000 ft, he increased collective and noticed that the engine was slowing down; he was unable to recover the engine rpm to a normal range. The helicopter continued to descend until the pilot entered an autorotation. The helicopter impacted a tree about 30 ft high and then came to rest in a small stream.

The pilot stated he did not believe the engine ever quit, but the engine would not produce enough power to continue flight.

The helicopter was recovered on August 12, 2014, by SFS and examined by Federal Aviation Administration inspectors with assistance from SFS personnel. They found that the throttle mount bracket was hanging by the throttle cable linkage and was not secured to the servo mount studs as it should have been. This would prevent the loss of throttle movement for acceleration.

The operator stated that the engine had just been installed into the helicopter 10 flight hours prior to the accident.

Pilot Information

Certificate:	Airline transport; Commercial; Private	Age:	59, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	April 21, 2014
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	July 13, 2014
Flight Time:	18000 hours (Total, all aircraft), 80 hours (Total, this make and model), 10000 hours (Pilot In Command, all aircraft), 270 hours (Last 90 days, all aircraft), 90 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hughes	Registration:	N7432F
Model/Series:	269C	Aircraft Category:	Helicopter
Year of Manufacture:	1976	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	160458
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	August 9, 2014 100 hour	Certified Max Gross Wt.:	2050 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3015 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	H10-360-D1A
Registered Owner:	On file	Rated Power:	200 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	AWO,407 ft msl	Distance from Accident Site:	19 Nautical Miles
Observation Time:	10:35 Local	Direction from Accident Site:	330°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.93 inches Hg	Temperature/Dew Point:	25°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	SNOHOMISH, WA (S43)	Type of Flight Plan Filed:	None
Destination:	SNOHOMISH, WA (S43)	Type of Clearance:	None
Departure Time:	08:15 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	48.270832,-121.208885(est)

Administrative Information

Investigator In Charge (IIC):	Jones, Patrick
Additional Participating Persons:	Bill Reichart; Federal Aviation Administration; Renton, WA
Original Publish Date:	October 23, 2017
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=89852

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).