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:**	HIO-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