



# Aviation Investigation Final Report

<b>Location:</b>	Port Angeles, Washington	<b>Accident Number:</b>	GAA18CA248
<b>Date &amp; Time:</b>	May 2, 2018, 08:00 Local	<b>Registration:</b>	N734QQ
<b>Aircraft:</b>	Cessna 172	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Aerodynamic stall/spin	<b>Injuries:</b>	1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Positioning		

## Analysis

The pilot reported that, during a cross-country flight over mountainous terrain, he had a tailwind and allowed the airplane to get too close to terrain. He initiated a right turn to avoid rising terrain, but the terrain was "getting close very quickly." The pilot increased the bank angle, and the nose dropped. The pilot then applied forward pressure on the yoke, and full throttle had already been applied. The airplane stalled and then impacted terrain. Both wings and the fuselage sustained substantial damage.

In the recommendation section of the National Transportation Safety Board Pilot Aviation Accident Report, the pilot reported that his decision to delay the turn away from rising terrain was impulsive and the main reason for this accident.

The pilot reported that there were no mechanical malfunctions or failures with the airplane that would have precluded normal operation.

## Probable Cause and Findings

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

The pilot's exceedance of the airplane's critical angle of attack during a turn away from terrain, which resulted in an accelerated stall. Contributing to the accident was the pilot's decision to delay the turn to avoid terrain.

## Findings

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	Angle of attack - Capability exceeded
<b>Environmental issues</b>	Mountainous/hilly terrain - Effect on operation
<b>Aircraft</b>	Lateral/bank control - Not attained/maintained
<b>Personnel issues</b>	Decision making/judgment - Pilot
<b>Personnel issues</b>	Delayed action - Pilot

## Factual Information

### History of Flight

<b>Maneuvering-low-alt flying</b>	Aerodynamic stall/spin (Defining event)
<b>Maneuvering-low-alt flying</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	23,Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	April 5, 2018
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	April 14, 2018
<b>Flight Time:</b>	(Estimated) 1390 hours (Total, all aircraft), 1280 hours (Pilot In Command, all aircraft), 235 hours (Last 90 days, all aircraft), 87 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N734QQ
<b>Model/Series:</b>	172 N	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1977	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	17269034
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	April 24, 2018 Continuous airworthiness	<b>Certified Max Gross Wt.:</b>	2400 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	22574 Hrs as of last inspection	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	C126 installed, activated, aided in locating accident	<b>Engine Model/Series:</b>	O-320-D2G
<b>Registered Owner:</b>		<b>Rated Power:</b>	160 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KPWT, 444 ft msl	<b>Distance from Accident Site:</b>	22 Nautical Miles
<b>Observation Time:</b>	14:56 Local	<b>Direction from Accident Site:</b>	108°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	30.13 inches Hg	<b>Temperature/Dew Point:</b>	10°C / 7°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	PORT ANGELES, WA (CLM )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Shelton, WA (SHN )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	07:45 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor	<b>Latitude, Longitude:</b>	47.598056,-123.276107(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hicks, Michael
<b>Additional Participating Persons:</b>	John Osborne; FAA; Seattle, WA
<b>Original Publish Date:</b>	October 24, 2018
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=97164">https://data.nts.gov/Docket?ProjectID=97164</a>

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