

Fuel planning calculations.

Each leg was calculated using direct course headings (figure 1). The pilot reported that he fueled the airplane with about 34-36 gallons and believed that he had about 3 hours of flight time, as the engine burned about 12 gallons of 100 LL per hour. The wind direction and speed were taken from the Temperature and Winds Aloft report based out of Seattle International Airport (SEA), Seattle, Washington. At the time of departure from AWO, the reported winds aloft at 3,000 ft msl were 270° at 8 knots. After the passenger was picked up, the same station reported winds at 9,000 ft msl were 240° at 7 knots. At the time of departure from R49, the winds aloft reported winds were 230° at 7 knots. The fuel calculations revealed that at the time of the engine power loss event, the airplane was flying for a total of about 2.8 hours and would have consumed about 42 gallons of fuel. The pilot was requested to provide his fuel calculations, but it was not provided to the investigator. The accident airplane was not refueled at R49.

Leg	Direct Course & TAS	Wind direction & Speed (knots)	Distance (nautical miles)	Flight time (minutes)	Fuel per hour (per pilot)	Approximate enroute required fuel (gallons)	Approximate Takeoff & landing fuel consumption(gallons)
AWO to W10	233° at 110 knots	0 at 0 knots	14	8	12	2	1.5 & 1.5
W10 to R49	73° at 110 knots	240° at 8 knots	157	80	12	16	1.5 & 1.5
R49 to Stampede Pass, WA (power loss event)	233° at 110 knots	230° at 7 knots	137	80	12	16	1.5 (takeoff only)
R49 to WA77	233° at 110 knots	230° at 7 knots	164	96	12	20	1.5 & 1.5
Total fuel consumption for AWO-R49-Stampede Pass							About 42 gallons total fuel consumption
Total fuel consumption for AWO-R49-WA77							About 47 gallons total fuel consumption