Stop 40. Mount Rainier

Arrival datetime:	Saturday, June 23, 6:00PM
Sites visited:	Mount St Helens National Monument, Mount Rainier National Park
Accommodations:	Paradise Inn
States traveled:	Oregon, Washington

There was a cloudy sky at the top of Mount Hood, but the valley below was hidden in thick fog. Green hilltops peaked out from an ocean of white mist. The restaurant at Timberline did not open until 8:00AM, so we were hoping that somewhere in that mist, there was breakfast. We lucked into a great diner among the dozen or more of inns and lodges in the town of Government Camp, at the base of the mountain.

Just before the forest dissolved into Bartlett pear trees, we pulled over into a Ranger Station parking lot for one more excellent view of Mount Hood. Just at that time, we started to see another mountain in the distance. We had no idea what it was, but pulled into a forest service advertised "Panorama Point" to find out. Unfortunately, the point had a sign only for Mount Hood. We drove in the shadow of the large mountain for quite some time, gradually reentering forestlands as we neared Washington State.

The border between Oregon and Washington is the Columbia River. It was set between 2-3000 foot cliffs and was so wide it looked like a bay or inlet. It had whitecaps rather than rapids. A few miles downstream, we saw dozens of colorful sails. When we got close enough to see, we found they were surfboards. Dozens and dozens of transparent sails with trims of a neon color like hot pink, cornflower blue, or sunny yellow. The wet-suited surfboarders climbed three and four foot whitecaps, often sailing on air for a few minutes before landing. Some steered through the waves, using the strength of their backs to keep the board balanced upright. Others used their legs to give an extra lift and circled in the air before landing. Many fell with every big wave, but determinedly climb back on their boards to again join the throng. Michael asked one of them if conditions were always like this. He said, "pretty much."

Daredevil windsurfers on the Columbia River

We drove through more National Forest lands planted by logging companies, arriving at Mount Saint Helens at about 11:30AM. We both have distinct memories of the Mount St. Helens explosion in 1980. Yet it was even more devastating than we remembered..

Mount Saint Helens (what's left).

At that time, there was a steadily growing lava cone that scientists knew would erupt at any time. Towns were evacuated. All seemed prepared except for a few holdouts that wanted to stay in their homes. However, when it did blow, scientists working on the site were the first to be known dead. One was taking some kind of measurements over five miles away, another was operating a radio, also several miles away. The force with which it blew sent over twenty square miles of the mountainside sliding into the lake below it, raising the lake surface, forming a natural dam, and changing the landscape forever. Hot molten liquids and gases flowed for five miles before cooling, lava flowed at 25 miles per hour. The lava flow raised the floor of the Columbia River from 44 feet to 14, stranding over 50 deep draft vessels. Trees seventeen miles away were blown to the ground by the blast. The ash was a foot or more deep in the region, and still a half-inch thick 300 miles away.

The roads along the ridges of the surrounding valleys were lined with lupine patches that looked like bouquets. These, other wildflowers and a few scattered small trees stood in sharp contrast to the signs of destruction. Yet the roads still showed visible signs of current harsh conditions. At one point, an entire lane had fallen off the cliff. Downed trees and fallen rocks were everywhere. Many dead trees and shattered rocks were precariously balanced just above our heads, threatening to collapse on the road.

The natural dam created by the 1980 eruption.

The roads dropped off into canyons that were thousands of feet deep. Were it not for the mountains dominating the landscape, these canyons would no doubt have been visited and their geology individually presented. As it was, the walls and floors of these canyons simply provided evidence of the destructive potential of the mountain. There were several lookout points where both Mount St. Helens and Mount Adams were visible in the distance.

At a gift shop on an overlook about 5 miles away from where the mountain was steadily forming a new lava cone, we bought a great salt and pepper shaker set shaped like the mountain before the blast. The top was the salt shaker. It lifted off, leaving the pepper shaker in the shape of the mountain after the blast. It claimed to be made "with" Mount St. Helens Ash. The wind at this overlook was 25-30 knots. We wondered how people could work there, to drive so close to the heart of a volcano every day. Though we appreciated the display of the great forces of nature, we were somewhat relieved to be on our way out.

Little did we realize that our next destination was even more of a threat. Mount Rainier is on a short list of volcanoes that an international team of scientists has labeled "decade" volcanoes. The obsequious intent of the label is to pick out volcanoes that scientists can pool resources to study, thus learning more about volcanoes all over the world. But we figured "decade" meant that the scientists thought that maybe one or more of these guys would blow within the next decade, so they had better study the potential impact. Our theory gained more credence when, at a Ranger talk, we learned that the decade project actually had mapped likely mudflows, and towns in those paths were required to produce and practice evacuation plans to be used in the event of a imminent eruption.

We arrived at the southeast entrance to Mount Rainier National Park at about 5:00PM. We skipped the Ohanapecosh Visitor Center by accident, must've missed the sign. Playing it by ear, we stopped at Box Canyon for a short hike around the white water rushing twenty feet below in a two to three foot gap in solid rock wall. We also stopped at

several overlooks in Stevens Canyon. Like St. Helens, the canyons between the mountains and their foothills were in themselves awesome. The steep walls were very close together. Snow trailing from shadowing crevasses in the peaks reached far down the mountains. Hundred of feet below, unnamed waterfalls showered melted snow from rock outcroppings. The water disappeared into tall trees a few hundred feet below that. The canyon floor was a rocky plain with a river running through it. Rocky deposits in alternate flow paths showed that the river had flowed in different patterns at some time past. A sharp switchback allowed us to see that our road had been cut into the side of one such canyon wall, just under the snow line.

We arrived at Paradise Visitor Center in time to see the movie and browse the gift shop. The movie was a bit sappy, with lots of testimony about how much people loved the mountain. Only a few minutes of an interview with a US Geological Survey scientist discussed the possibility of future eruptions. But we learned more about its dangers from the wall exhibits. The Visitor Center was nicely laid out for huge crowds. We figured because once people get there and find out how cold it is, they end up spending the day browsing exhibits instead of hiking.

We arrived at Paradise Inn in time to have dinner in the restaurant and still catch the 9:00PM Ranger program in the lobby. The topic was old growth forest. The Ranger introduced himself as Curt, saying that he used to work at UPS and enjoyed playing the zip code game. He ran through the numbers from zero to ten, reciting the region of the US whose zip code started with that number, and asking people to raise their hands if their zip code began with that number. He then ran

Approaching Mount Rainier.

through heights from one to six feet and asked people to stand it they were in that height range. He then asked people to raise their hands if they were in certain age groups. The point of this exercise, he said, was to impress upon people how diverse the trees were in an old growth forest. Where you have very old trees still standing, you have a lot of young ones and other plants that come from different places all taking root in the same forest. He said, "There are more interconnections in the old growth forest than there are in the entire NASA space program."

Ranger Curt talked about the way seedlings often take root on trunks of dying trees and derive nutrients from their still active root, or just from the dead wood's ability to retain moisture. He introduced us to the term "snag" which are dead trees that are still standing upright. They often provide safe haven for animals and retain moisture that allows for new growth. He talked about lichen and fungus, how they are better at collecting moisture and nutrients from the air than the trees they cling to, so that the tree benefits from the additional nutrient flow. He also described how fungi sometimes cover tree roots and form interconnected underground networks that trees can use to provide nutrients to other trees. He discussed how animals, insects and birds help spread seeds and keep the right balance of life so that all plants and animals support each other, to the extent of deliberately killing a bug that is not part of their natural habitat. He completely endeared himself to us by quoting John Muir. "When you try to change any single thing, you find it hitched to everything else in the universe."

At Yosemite, we often observed that no matter what the topic of a Ranger program, they have to first warn you about what to do about the bears. And there were signs everywhere about the bears. At Rainier the Ranger, as well as the signs, warned us about the hiking. It was not safe. This was the time of year when the snow was melting and could not be trusted. People often went hiking along paths before they were cleared for the season and by accident took the wrong route. Pretty soon, you had well worn tracks in the snow traveling not over the trail, but over streams or worse, canyons, where a cave in through the snow could be fatal.

Hence, we did not plan on snow hiking, but the next morning, we ended up on the snow anyway. We pulled off at the Nisqually waterfall overlook. A sign advertised a quarter mile walk to view it from the bottom. The top of the fall that we could see was deep, wide, clear, fast moving, and thundered in a splash of white over a steep cliff. Unable to resist a short hike to where we could see the bottom, we pulled on our layers, gloves, and the ski hats we had bought at Timberline. Of course, less than half way down, we found ourselves walking on snow. It seemed safe enough. There were tracks of others who had gone before. But believe it or not, we found that some of those tracks had holes in them revealing a stream running beneath the snow.

We tried to stick to where there were rocks or tree roots to help us stay of firm ground, but we had to trust the snow at

A stream running beneath the snow.

some point. The waterfall was thundering white water 40-50 feet high and twenty across. We thought the sight was well worth the trepidation.

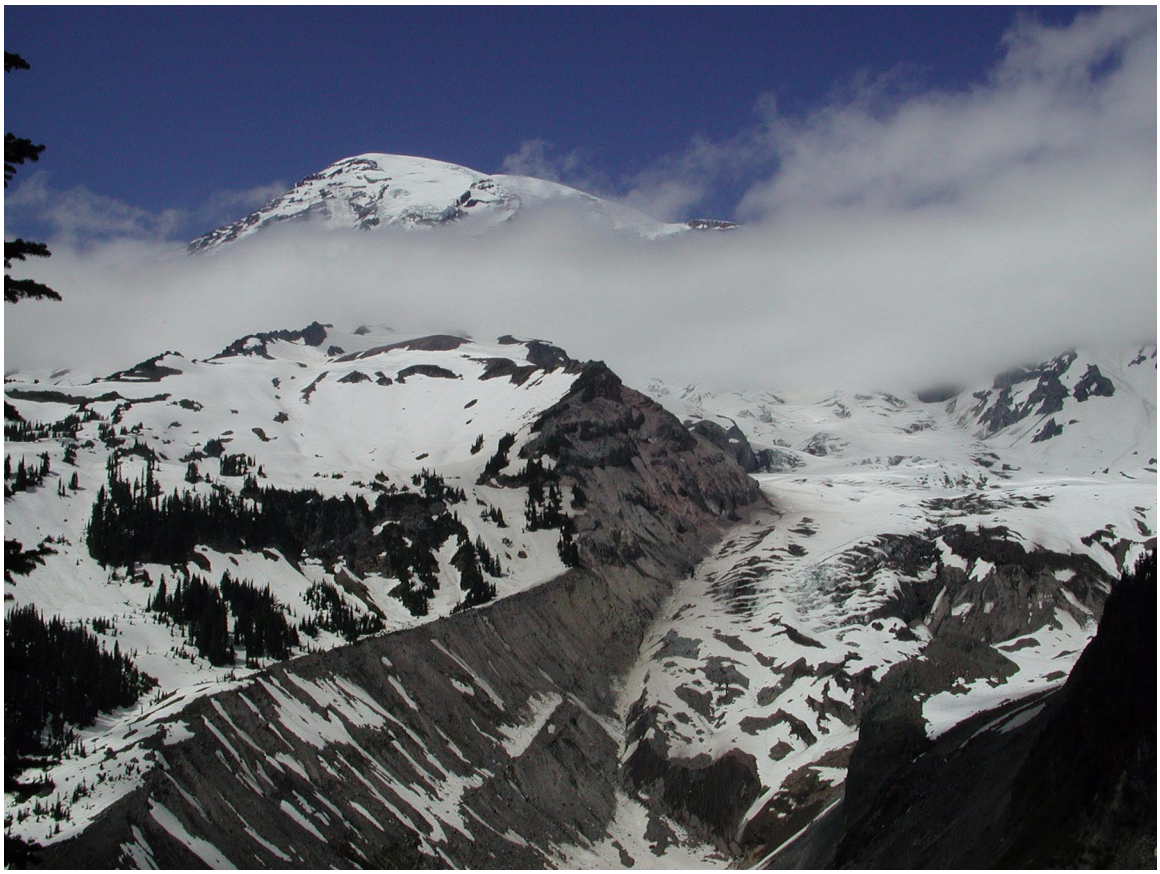
On the way back up the trail, nervously seeking high ground to avoid what seemed like thin spots, we spotted the real, paved trail at least twelve feet to our left. However, it was a waterfall itself, four to six inches of water flowing down it at a rate that would certainly have been unsafe to try to walk through. Besides getting our hiking boots soaked it did not seem like a good idea. We made it without incident, but warned the few hearty souls who came down after us.

We stopped briefly at Longmire to check out the small museum and meadow. The forest alongside the meadow had some great examples of the old growth forest talk from the night before, seedlings growing on dead trees, roots covered by fungus, and snags supporting animal habitats and new growth. The ground was covered with skunk cabbage and other low lying yet big-leafed plants and ferns. We saw several hot springs bubbling on the edges of the meadow. Longmire was named for a Mt. Rainier guide who built a hotel there to exploit the tourism value of the hot springs. He had built several stone tub-like structures, some in which hot springs still bubbled.

The Ranger in the museum gave us some information on the hike at Kautz Creek. In 1946, a heavy rain and fast melting glacier caused a huge lahar down Kautz Creek. Our Mount St Helens literature had informed us that a lahar was a debris flow where the debris was pushed along by something like lava or mud. The Kautz Trail ran through the forest parallel to Kautz Creek. Signs told us that the trees in this forest had been surrounded by 20 feet of mud and all had died. Still, the forest was heavily populated with just very young trees. Here and there a snag of several feet in diameter reminded us of the catastrophic event. Some snags were taller than many of the young trees.

We emerged from the forest into an area of rough rock and fallen trees. A tree trunk bridge laid over Kautz Creek, which rushed in white swirls around the layers of debris. We looked up the creek to where the mountain was supposed to be, but it was completely obscured in a white haze. We lingered awhile then headed back to Paradise.

Ranger Curt had announced a Ranger led walk from the Paradise Visitor Center at 2:00PM. After our experience at Nisqually Falls, we thought it a good idea to go hiking with a Ranger. We suited up again in our winter gear and met him in the lobby. Our outfits must have looked completely eclectic because, in his brief introductions, Ranger Curt guessed we might be from Europe. He led our group of eight up a ten-foot snow bank to the Nisqually Trail. He let us know that we would be walking on 8-10 feet of snow the whole time and must stay on the trail. He again stated the dangers of hiking on snow, and several times repositioned one of long striped poles that delineated the



The receding Nisqually Glacier on Mount Rainier.

trail. He often stopped to warn others who had strayed from the trail of the dangers, "You should realize that you are walking on top of a creek and that the snow under your feet could cave at any time." He seemed very world-weary, as if he had recently witnessed a fatal accident.

Our hike was a mile or so loop that included an overlook point of the Nisqually Glacier melting into the Nisqually River. Along the way, he showed us posters and other exhibits to illustrate his description of the mountain geology, how it was still building itself up, but that the same forces that create a volcano eventually sentence it to destroy itself with mudslides, glaciers, and other destructive geologic events. Ranger Curt ended his talk at the Nisqually Glacier overlook by again quoting John Muir. Something about great men always come to the mountains and take away ideas that change the world and he hoped we would do the same.

Then, surprisingly, he left us to complete the loop hike ourselves. Not surprisingly, we found ourselves off the path at least once, even though we were following well-worn footsteps. We hurried back because Michael had made a date to have dinner with his nephew Jonathan in Tacoma. He had tried to have him meet us when we were in Seattle, but Jonathan's schedule had not allowed it. So we drove over two hours

to meet Jonathan at Katie Downs on the Tacoma Harbor. We sat outside and watched the colors fade on the harbor, military aircraft flying low overhead. We joked that on the border of Mexico there were border patrol police everywhere while on the border of Canada, the same level of presence was had by the real military. Jonathan pointed out that this area was a cold war early warning zone and people were used to constant military activity. It made them feel safe. We headed back to the active volcano and got there just before midnight.

Miles traveled:	436
Departure datetime:	Monday, June 25, 9:40AM
Departure weather:	54° Foggy