

# Pilot Rock

BLM archives



Rising 570' to an elevation of 5,910' Pilot Rock is perhaps the most striking feature of Cascade-Siskiyou National Monument. Visible from much of the Shasta Valley in northern California and parts of Oregon's Rogue Valley, the Rock serves as a friendly beacon to some five million vehicles and their passengers that travel the I-5 corridor annually.

## Welcome

Pilot Rock is part of the Cascade Range, a mountain range notable for its string of volcanic peaks stretching from British Columbia to northern California's Lassen Peak. The monument's proclamation refers to Pilot Rock as "a volcanic plug," describing it as "a remnant of a feeder vent left after a volcano eroded away, leaving an outstanding example of the inside of a volcano." Pilot Rock is composed mostly of volcanic andesite and has sheer, vertical faces with classic columnar jointing created by the cooling of its andesite composition.

## Plug or a Neck or both?

Many geologists use the terms "neck" and "plug" interchangeably, while others believe the terms apply to different types of volcanic structures. Some geologists use the [different] definition[s] of lava and magma to make the distinction between a volcanic "neck" and a volcanic "plug." Magma is molten or partially molten rock beneath the earth's surface. Magma collects inside a volcano's magma chamber before it erupts. When magma breaches the earth's surface, the magma becomes lava and a volcano is formed.

Geologists who make the distinction between volcanic necks and plugs consider a volcanic "neck" indicative of an actual volcano – a column of igneous rock formed by congealing of lava in the conduit or vent of a volcano and later exposed by the erosion of surrounding rocks.

In contrast, these geologists consider a volcanic "plug" to be a structure formed by a body of magma that never reached the earth's surface. Over time, the softer exterior rocks eroded away, leaving behind the now-cooled magma. Put simply, a "plug" is an intrusive body formed by magma which cooled underground and was later exposed by erosion.

## Recent Research

Recent research regarding Pilot Rock suggests that 25 million years ago, magma oozed through a weak spot in the earth's crust, but did not reach the surface. As a result, some geologists refer to Pilot Rock as technically a "volcanic plug," but NOT as defined in the Monument's proclamation. (The proclamation evidently uses "plug" and "neck" interchangeably.) However "plugs" and "necks" are defined, what they both have in common is erosion. After the softer rock is eroded, the remaining harder volcanic structure stands up in bold relief to the surrounding landscape as the blockish, irregular, columnar structure you see today.

## Cousins

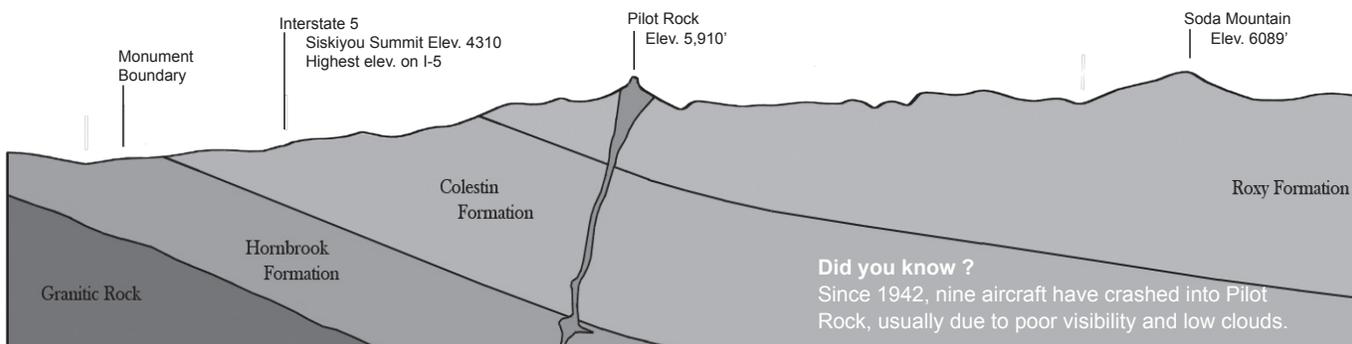
Ship Rock in New Mexico and Devil's Tower in Wyoming are considered to be volcanic necks or plugs, which were exposed after the surrounding sedimentary rocks eroded and fell away.

## Human History

The Takelma people called it Tan-ts'at-seniptha, "Stone Standing Up." In 1841, an enterprising U.S. Navy lieutenant scouting a route from the Columbia River to San Francisco Bay named it for himself: Emmons' Peak. We know it as Pilot Rock, a welcome landmark for weary migrants on the Applegate Trail in the 1850s and for travelers on I-5 today.

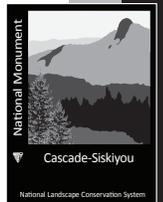
## Taking care of your Monument

Please follow these simple steps and help us preserve and protect this special place. Leave what you find, practice leave no trace principles and honor private property boundaries. Harassing wildlife and cross country travel by bicycle or vehicle are prohibited.



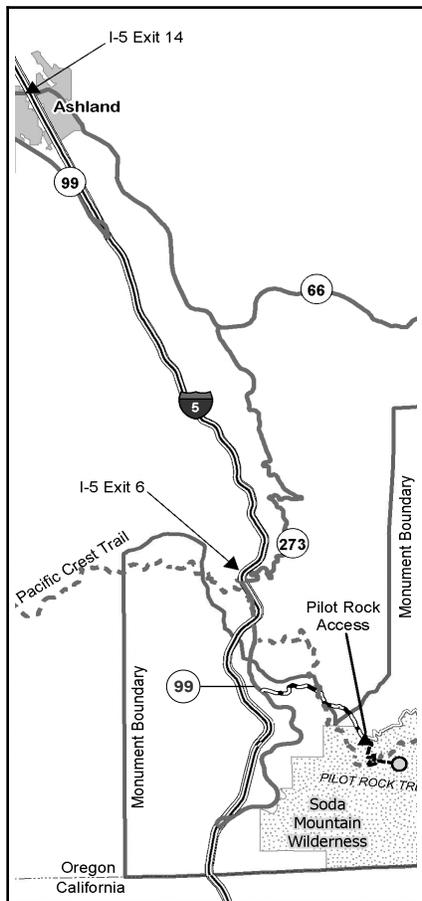
## Did you know ?

Since 1942, nine aircraft have crashed into Pilot Rock, usually due to poor visibility and low clouds.



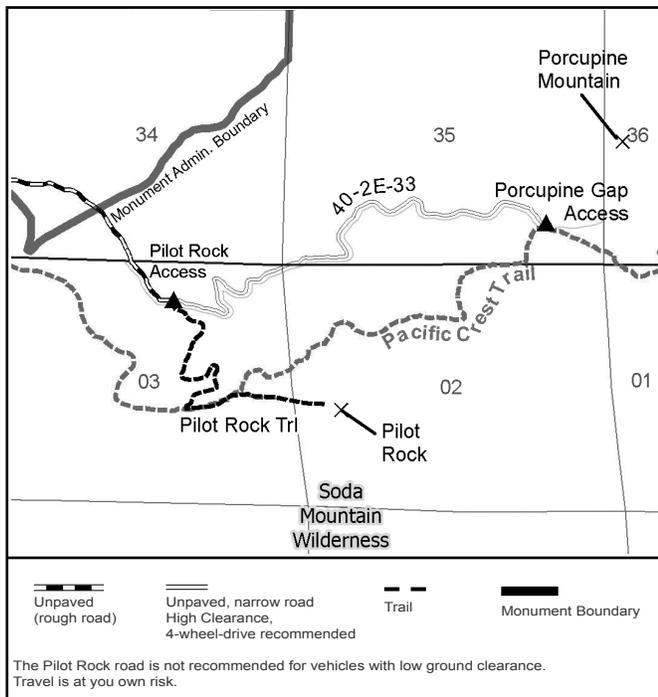
**Trail Head Directions**

From Medford-Ashland, take I-5 south to Exit 6 (Mt Ashland exit and Old Highway 99 junction.) Heading south, follow Old Highway 99 for 2 miles. Turn left onto Pilot Rock Road 40-2E-33. The trail head is located two miles east of Old Highway 99. Stay left. At mile one you will cross the PCT; at two miles you will see an old quarry to your right. The old quarry serves as trail head parking.



**Trail Information**

The trail begins on an old road located behind a boulder barrier. The trail intersects the Pacific Crest Trail (PCT) after about .8 miles. Follow the PCT for about 300 yards until you reach a well worn foot path on the right, heading up to the base of Pilot Rock. At the base there is a gully that can be scrambled to the summit. Warning, this climb is steep with loose rock. Scrambling, care and dexterity are required.



**Be Prepared!**

Don't overestimate your capabilities. Wear good hiking shoes. Always carry water and food and be sure to drink and eat. Hike with a buddy, tell a friend, or leave a note with your hiking plans. Always bring a lightweight flashlight to give yourself the option of hiking out after dark in the event that illness, injury, or enjoyment should slow you down. Check the local weather and trail conditions before your hike. In cold and/or wet weather, avoid hypothermia by wearing layered clothing and being prepared for bad weather.

**Drinking and Eating**

Drink a minimum of 1 or more gallons ( 4 to 8 liters) of water or sports drinks with electrolytes per person, per day. Do not wait until you are thirsty to start replacing fluids and electrolytes. By the time you feel thirsty, you are already dehydrated. Remember that it is important to eat as well as drink. Eat high-energy foods and salty snacks on the trail. Food is your most important defense against exhaustion and water intoxication (hyponatremia).

**Wait for the Shade**

Avoid hiking in direct sun. Temperatures in the sun may be 15 to 20 degrees higher than in the shade. Wear a hat and sunblock to protect yourself from sun exposure.

**Be Kind to Yourself**

Do not exceed your normal level of physical activity or training. Take breaks in the shade and avoid long hikes during the heat of the day. If you have asthma, diabetes, heart, knee, back or other medical problems, limit your exertion and exposure to heat. Altitude, strenuous climbing, dehydration and extreme temperatures can make medical problems worse.

**Heat Kills! Hike Smart!**

Don't be fooled by Oregon's stereotypical cool and cloudy weather. Summer time in the Rogue Valley sees little rain, with temperatures frequently reaching 100 degrees Fahrenheit. Heat exhaustion is the result of dehydration due to intense sweating. Drink water and electrolyte drinks and eat food before, during, and after your hike. If not treated, heat exhaustion can progress to heat stroke, a life-threatening emergency. Hyponatremia (water intoxication) is also a life-threatening emergency. To prevent: drink electrolyte drinks as well as water, and eat salty snacks during your hike.

Sources for this bulletin courtesy of the Medford Mail Tribune, Bureau of Land Management (BLM), United States Geological Survey (USGS), and the National Park Service (NPS). Released for distribution July 20, 2011

