

Washington's Highest Mountains

Steve Fry

Mount Rainier is without question the highest mountain in Washington. However, what is the second highest mountain? Is it Point Success, Liberty Cap, or Mount Adams?

The answer depends on how one defines a mountain.

Elevation, local relief, and prominence are the main parameters I use to establish what constitutes a mountain. Of these three components, only prominence is a determining factor for Washington's higher landforms.

The main question, therefore, is exactly how much prominence above ridge-level must a landform have before it should be considered a separate mountain?

After extensively studying the mountains of Washington and the world, I chose 250 feet of prominence above ridge-level as being the minimum requirement for an individual mountain. Because mountains protrude above ridge-level in varying degrees, I use the adjectives "minor," "submajor," and "major" to clearly distinguish the geographic significance of specific peaks.

TABLE I: Washington's 25 Highest Mountains
with ≥ 250 feet prominence above ridge-level

Rank	Name	Height (ft)	Land Management Region
1	Mount Rainier	14410	Mount Rainier National Park
2	Liberty Cap	14112	Mount Rainier National Park
3	Mount Adams	12276	Mount Adams Wilderness@
4	Little Tahoma Peak	11138	Mount Rainier National Park
5	Mount Baker	10778	Mount Baker Wilderness
6	Glacier Peak	10541	Glacier Peak Wilderness
7	Sherman Peak	10150# ³	Mount Baker Wilderness@
8	Bonanza Peak	9511	Glacier Peak Wilderness
9	Colfax Peak	9443	Mount Baker Wilderness
10	Mount Stuart	9415	Alpine Lakes Wilderness
11	Whitman Crest	9323	Mount Rainier National Park
12	Southwest Bonanza Peak*	9320	Glacier Peak Wilderness
13	Mount Fernow	9249	Glacier Peak Wilderness
14	Goode Mountain	9220#	North Cascades National Park
15	Mount Shuksan	9127	North Cascades National Park
16	Buckner Mountain	9115§	North Cascades National Park
17	Lincoln Peak	9096	Mount Baker Wilderness
18	Mount Logan	9087	North Cascades National Park
19	Mount Maude	9082	Glacier Peak Wilderness
20	Seven-fingered Jack	9077	Glacier Peak Wilderness
21	Jack Mountain	9066	Pasayten Wilderness
22	N. Seven-fingered Jack #2*	9050# ³	Glacier Peak Wilderness
23	Mount Spickard	8979	North Cascades National Park
24	Black Peak	8970	North Cascades National Park@
25	Copper Peak	8966	Glacier Peak Wilderness

Notes:

@ These mountains are located on the boundary of two land management regions, only one of the regions is listed.

* Unofficial name.

§ Field estimate. A higher point on the mountain in question was found, than that shown on current USGS topographic maps.

Height is a close estimate, ± 20 feet.

#³ Height is a close estimate, ± 50 feet.

A minor mountain has 250-599 feet of prominence above the lowest pass separating it from a higher mountain (*ie*, ridge-level). Submajor mountains have 600-999 feet of prominence above ridge-level, while major mountains equal or exceed 1000 feet of prominence above ridge-level.

I also draw geographic boundaries for individual mountains, to enable the precise determination of such mountain statistics as "rise above base" and "volume." But complete description of my mountain boundary methods and measurements is beyond the scope of this article. Suffice it to say that separate geographic boundaries are drawn for submajor and major mountains, but not for minor mountains.

To illustrate my mountain classification system, let's consider the Mount Rainier massif. Rainier's Point Success (14,158 feet) which stands about 138 feet above ridge-level, wouldn't qualify as an individual mountain, because it has insufficient prominence. The landform is aptly termed *Point Success*. Liberty Cap (14,112 feet) has a prominence value of approximately 500 feet; thus it is a minor mountain. But because it is a minor mountain, I still consider Liberty Cap to be within the geographic boundary of Rainier.

On the other hand, Little Tahoma (11,138 feet) rises an estimated 878 feet above the lowest pass between it and Rainier. Therefore, Little Tahoma is a submajor mountain, and also a separate entity from Rainier. 14,410-foot Mount Rainier is of course the major mountain of the local area. In fact, if I may introduce another adjective, Rainier is easily an "ultramajor" mountain—or a peak with at least 5000 feet of prominence.

A more complete description of my mountain definitions and measurements appears in "Defining and Sizing-Up Mountains," in *Summit* magazine, January/February 1987.

Tables I, II, and III provide increasingly more exhaustive lists of Washington's highest mountains. Prominence is the determining factor in deciding which mountains are included in the tables.

Table I lists the 25 highest mountains in Washington with at least 250 feet of prominence above ridge-level. This list contains mountains with a potpourri of protrusions. Some minor mountains in Table I barely have 250

TABLE II: Washington's 50 Highest Major Mountains
with ≥ 1000 feet prominence above ridge level.

Rank	Name	Height (ft)	Land Management Region
1	Mount Rainier	14410	Mount Rainier National Park
2	Mount Adams	12276	Mount Adams Wilderness@
3	Mount Baker	10778	Mount Baker Wilderness
4	Glacier Peak	10541	Glacier Peak Wilderness
5	Bonanza Peak	9511	Glacier Peak Wilderness
6	Mount Stuart	9415	Alpine Lakes Wilderness
7	Mount Fernow	9249	Glacier Peak Wilderness
8	Goode Mountain	9220#	North Cascades National Park
9	Mount Shuksan	9127	North Cascades National Park
10	Buckner Mountain	9115§	North Cascades National Park
11	Mount Logan	9087	North Cascades National Park
12	Jack Mountain	9066	Pasayten Wilderness
13	Mount Spickard	8979	North Cascades National Park
14	Black Peak	8970	North Cascades National Park@
15	Mount Redoubt	8956	North Cascades National Park
15	North Gardner Mountain	8956	Okanogan National Forest
17	Dome Peak	8940#	Glacier Peak Wilderness
18	Eldorado Peak	8880§	North Cascades National Park
19	Silver Star Mountain	8876	Okanogan National Forest
20	Dragontail Peak	8860#	Alpine Lakes Wilderness
21	Forbidden Peak	8815	North Cascades National Park
22	Mesahchie Peak	8795	North Cascades National Park
22	Oval Peak	8795	Lake Chelan Sawtooth Wilderness
24	Mount Lago	8745	Pasayten Wilderness
25	Robinson Mountain	8726	Pasayten Wilderness
26	Star Peak	8690	Lake Chelan Sawtooth Wilderness
27	Rommel Mountain	8685	Pasayten Wilderness
28	Fortress Mountain	8674	Glacier Peak Wilderness
29	Chilliwack Peak*	8630	North Cascades National Park
30	Kintah Peak	8620#	North Cascades National Park
31	Cardinal Peak	8595	Wenatchee National Forest
32	Monument Peak	8592	Pasayten Wilderness
33	Osceola Peak	8587	Pasayten Wilderness
34	Raven Ridge*	8580	Lake Chelan Sawtooth Wilderness
35	Clark Mountain	8576	Glacier Peak Wilderness
36	Buck Mountain	8575§	Glacier Peak Wilderness
37	Cashmere Mountain	8520§	Alpine Lakes Wilderness
38	Reynolds Peak	8512	Lake Chelan Sawtooth Wilderness@
39	Martin Peak	8511	Glacier Peak Wilderness
40	Big Craggy Peak	8475§	Okanogan National Forest
41	Lost Peak	8464	Pasayten Wilderness
42	Chiwawa Mountain	8459	Glacier Peak Wilderness
43	Tower Mountain	8444	Okanogan National Forest
44	Dumbell Mountain	8421	Glacier Peak Wilderness
45	Azurite Peak	8420#	Okanogan National Forest
46	Pinnacle Mountain	8402	Glacier Peak Wilderness
47	South Spectacle Butte	8392	Glacier Peak Wilderness
48	Devore Peak	8380#	Glacier Peak Wilderness
49	Golden Horn	8366	Okanogan National Forest
50	Mount Saint Helens	8365	Mt. St. Helens Ntl. Volcanic Monument

Notes:

@ These mountains are located on the boundary of two land management regions, only one of the regions is listed.

Height is a close estimate, ± 20 feet.

§ Field estimate. A higher point on the mountain in question was found, than that shown on current USGS topographic maps.

* Unofficial name.

feet of prominence, while others such as Rainier, Adams, and Baker easily protrude over 5000 feet above the surrounding terrain. One advantage of Table I is that no popularly termed "mountain" is omitted, within the range of elevations given.

Table II is a tabulation of Washington's 50 highest major mountains

(which I have mentioned in past Signpost issues). These mountains all have at least 1000 feet of prominence. By definition, major mountains are significant peaks, usually being the highest in their local area. Most of the mountains in Table II achieve 1000 feet of prominence along all of their ridges rather abruptly.



Karen Fry

Aerial view of the North Cascades: Buckner Mountain is in the foreground; Forbidden Peak and Eldorado Peak point toward Mount Baker (in far distance). Mount Shuksan, Tomyhoi Peak and American Border Peak are on the distant skyline, to the right of Baker.

TABLE III: Washington's 100 Highest Mountains
with ≥ 2000 feet prominence above ridge level.

Rank	Name	Height (ft)	Land Management Region
1	Mount Rainier	14410	Mount Rainier National Park
2	Mount Adams	12276	Mount Adams Wilderness@
3	Mount Baker	10778	Mount Baker Wilderness
4	Glacier Peak	10541	Glacier Peak Wilderness
5	Bonanza Peak	9511	Glacier Peak Wilderness
6	Mount Stuart	9415	Alpine Lakes Wilderness
7	Mount Fernow	9249	Glacier Peak Wilderness
8	Goode Mountain	9220#	North Cascades National Park
9	Mount Shuksan	9127	North Cascades National Park
10	Buckner Mountain	9115§	North Cascades National Park
11	Jack Mountain	9066	Pasayten Wilderness
12	Mount Spickard	8979	North Cascades National Park
13	Black Peak	8970	North Cascades National Park@
14	North Gardner Mountain	8956	Okanogan National Forest
15	Dome Peak	8940#	Glacier Peak Wilderness
16	Eldorado Peak	8880§	North Cascades National Park
17	Silver Star Mountain	8876	Okanogan National Forest
18	Mesahchie Peak	8795	North Cascades National Park
18	Oval Peak	8795	Lake Chelan Sawtooth Wilderness
20	Mount Lago	8745	Pasayten Wilderness
21	Rommel Mountain	8685	Pasayten Wilderness
22	Cardinal Peak	8595	Wenatchee National Forest
23	Buck Mountain	8575§	Glacier Peak Wilderness
24	Reynolds Peak	8512	Lake Chelan Sawtooth Wilderness@
25	Martin Peak	8511	Glacier Peak Wilderness
26	Big Craggy Peak	8475§	Okanogan National Forest
27	Tower Mountain	8444	Okanogan National Forest
28	Mount Saint Helens	8365	Mount St. Helens Ntl. Volcanic Monument
29	Snowfield Peak	8347	North Cascades National Park
30	Castle Peak	8306	Pasayten Wilderness
31	Mount Fury	8292	North Cascades National Park
32	Sheep Mountain	8274	Pasayten Wilderness
33	Tiffany Mountain	8242	Okanogan National Forest
34	Gilbert Peak - Goat Rocks	8184	Goat Rocks Wilderness@
35	Crater Mountain	8128	Pasayten Wilderness
36	McGregor Mountain	8122	Lake Chelan National Recreation Area

Some mountains narrowly missed being classified as major mountains. They include Mount Maude, Cathedral Peak and Mount Carru. Also, many other popular Washington mountains and landforms are absent from *Table II* due to lack of sufficient prominence and/or height. Of course, landforms don't have to be geographically major mountains to be popular with hikers and climbers—examples being Liberty Bell Mountain, Snow Creek Wall and Mount Si.

The final list, *Table III*, is a compilation of the 100 highest mountains in Washington with at least 2000 feet of prominence above ridge-level. A majority of these mountains are either outstanding peaks and/or the highest landforms in their local regions. Eighty of the mountains are located in the Cascades, 12 in northeastern Washington, 7 in the Olympics, and 1 (Oregon Butte) represents the Blue Mountains of southeastern Washington.

Using 2000 feet as the minimum prominence for an individual mountain is not without its problems. The main problems are: (a) numerous truly outstanding peaks are necessarily omitted from *Table III*; eg. Mount Logan, Mount Redoubt, Forbidden Peak, Mount Formidable, Mount Terror, Mount Constance, and Mount Triumph;

TABLE III (continued)

37	Big Chiwaukum Mountain*	8120# ²	Alpine Lakes Wilderness
38	Hozomeen Mountain	8066	Ross Lake National Recreation Area@
39	American Border Peak	8026	Mount Baker Wilderness
40	Mount Daniel	7980#	Alpine Lakes Wilderness
41	Mount Olympus	7965	Olympic National Park
42	Three Fools Peak	7940#	Pasayten Wilderness
43	Sloan Peak	7835	Henry M. Jackson Wilderness
44	Mount Deception	7788	Olympic National Park
45	Mount Aix	7766	William O. Douglas Wilderness
46	Elija Ridge Peak*	7739	North Cascades National Park
47	Chimney Rock	7690§	Alpine Lakes Wilderness
48	Mount Blum	7680	North Cascades National Park
49	Mount Prophet	7660#	North Cascades National Park
50	Cinnamon Creek Peak*	7514	Pasayten Wilderness
51	The Cradle	7467	Alpine Lakes Wilderness
52	Tomyhoi Peak	7451	Mount Baker Wilderness@
53	Indian Head Peak	7442	Glacier Peak Wilderness
54	Mount Buckindy	7435	Glacier Peak Wilderness
55	Mount David	7420	Glacier Peak Wilderness
56	Ruby Mountain	7408	Ross Lake National Recreation Area
57	Mount Anderson, West Peak	7365	Olympic National Park
58	Abercrombie Mountain	7308	Colville National Forest
59	Mount Bonaparte	7258	Okanogan National Forest
60	Mount Pugh	7201	Glacier Peak Wilderness@
61	Copper Butte	7140	Colville National Forest
62	Bacon Peak	7066	North Cascades National Park
63	Mount Howard	7063	Wenatchee National Forest
64	Crystal Mountain	6998	Crystal Mountain Ski Area@
65	Whitehuck Mountain	6989	Mount Baker-Snoqualmie National Forest
66	Twin Sisters Mountain	6932	Mount Baker Wilderness@
67	Unicorn Peak	6917	Mount Rainier National Park
68	Mission Peak	6876	Mission Ridge Ski Area@
69	Three Fingers	6860§	Boulder River Wilderness
70	Calispell Peak	6855	Kaniksu National Forest@
71	Whitehorse Mountain	6852	Boulder River Wilderness
72	The Brothers	6842	Olympic National Park@
73	Hogback Mountain	6789	Goat Rocks Wilderness
74	Molybdenite Mountain	6784	Colville National Forest
75	Mineral Mountain	6781	North Cascades National Park
76	Moses Mountain	6774	Colville Indian Reservation
77	Jim Hill Mountain	6765	Alpine Lakes Wilderness@
78	Mount Stone	6612	Mount Skokomish Wilderness
79	Del Campo Peak	6610	Wash. State Dept. of Natural Resources
80	Goat Mountain (Cle Elum R.)	6600# ²	Alpine Lakes Wilderness@
81	Mount Elk Lick	6517	Olympic National Park
82	Oregon Butte	6387	Wenaha-Tucannon Wilderness
83	Dirtyface Peak	6280# ²	Wenatchee National Forest
84	Mount Washington	6255	Olympic National Forest@
85	Gunn Peak	6240	Mount Baker-Snoqualmie National Forest
86	North Baldy	6173	Kaniksu National Forest
87	Baring Mountain	6125	Mount Baker-Snoqualmie National Forest
88	Desolation Peak	6102	Ross Lake National Recreation Area
89	Mount Wow	6060#	Mount Rainier National Park
90	Mount Annie	6054	Okanogan National Forest
90	Tunk Mountain	6054	Okanogan National Forest
92	Mount Forgotten	6005	Mount Baker-Snoqualmie National Forest
93	Mount Index	5979	Mount Baker-Snoqualmie National Forest
94	Illabot Peaks	5944	Mount Baker-Snoqualmie National Forest
95	Lemei Rock	5925	Indian Heaven Wilderness
96	Mount Spokane	5883	Mount Spokane Ski Area
97	Red Mountain (Cle Elum Lk.)	5880# ²	Wenatchee National Forest@
98	Huckleberry Mountain (NE WA)	5825	Wash. State Dept. of Natural Resources
99	Indian Rock	5823	Yakima Indian Reservation
100	Old Dominion Mountain	5773	Colville National Forest

Notes:

- @ These mountains are located on the boundary of more than one land management regions, only one of the regions is listed.
 # Height is a close estimate, \pm 20 feet.
 #² Height is a close estimate, \pm 40 feet.
 § Field estimate. A higher point on the mountain in question was found, than that shown on current USGS topographic maps.
 * Unofficial name.

Elevations and rankings for many of these mountains are subject to slight revision upon completion of the USGS 7.5-minute quadrangle mapping project.

The contents of these charts have been determined by Steve Fry, from current USGS topographic maps.

(b) many of the mountains do not achieve 2000 feet of prominence along all their radiating ridges within any discernible distance. In the worst case—Oregon Butte (6387 feet)—one must travel approximately 50 miles into Oregon, through a network of peaks and ridges, before the 2000-foot prominence requirement is satisfied;

and (c) a few of the landforms such as Desolation Peak (6102 feet) are just erosional “islands” which withstood the tremendous glacier forces of the past. In these cases, the mountain may be locally prominent, but its height is not regionally significant.

I should note that these mountain tables are provided for the intellectual enjoyment and education of the reader, and are not intended to evolve into a “must-do” list for climbers. Climbing all of these often crumbling mountains could be quite a hazardous undertaking. Certainly many of these mountains can be safely ascended by trails or standard climbing routes, but no peak should ever be underestimated.

As a final comment, Mount Saint Helens' fate should be noted. Prior to 1980, Saint Helens stood proudly over its domain with an elevation of 9677 feet. It was the fifth highest major mountain in Washington, in addition to being one of the few mountains in Washington with enough prominence to be considered ultramajor. Then the infamous May 18th, 1980, volcanic eruption sheared off 1312 feet of Saint Helens' top—dramatically changing its stature. Consequently, Saint Helens dropped from fifth to fiftieth place, in the rankings of Washington's highest major mountains.

All is not lost, though, because Saint Helens may regain its former prominence over time, if dome-building eruptions continue. In fact, some geologists' optimistic predictions suggest that Saint Helens' dome will poke its head above the crater rim in 25 years! If so, then future onlookers could watch Saint Helens move up, higher and higher, toward the top of the list of Washington's highest mountains.



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