

No telling how much more snow coming for Sierra Nevada

March 21 2023, by Scott Sonner



Working inside a nearly 18-foot-deep snow pit at the UC Berkeley Central Sierra Snow Lab, from left, Shaun Joseph, Claudia Norman, Helena Middleton take measurements of snow temperatures ahead of a weather storm on March 9, 2023, in Soda Springs, Calif. The more than 55 feet of snow that a dozen storms have dumped on the mountains along the Nevada-California line this season has etched its way into the history books as the second snowiest on record at the Central Sierra Snow Lab. Credit: Karl Mondon/Bay Area News Group via AP

No one really knows how much snow fell on the infamous Donner Party when the pioneers were trapped atop the Sierra Nevada for months and dozens died near Lake Tahoe in the winter of 1846-47.

But this season has now etched its way into the history books as the second snowiest in the 77 years of record-keeping at the Central Sierra Snow Lab—more than 56.4 feet (677 inches, 17.2 meters) with no end in sight.

And there's still a chance it could surpass the record of 67.7 feet (812 inches, 20.6 meters) set in 1951-52 when more than 200 passengers on a San Francisco-bound luxury train from Chicago were stranded for three days near Donner Pass west of Truckee, California.

Over the weekend, the "winter that just doesn't want to end" as the National Weather Service in Reno put it, topped the previous No. 2 record of 55.9 feet (671 inches, 17 meters) set in 1982-83. That was the second of back-to-back blizzard buster seasons remembered most for an avalanche that killed seven at a Tahoe ski resort on March 31, 1982.

Since December, a parade of atmospheric storms have dumped so much snow on the Sierra that Tahoe ski resorts have been forced to shut down multiple times.

The final day of the Nevada high school state skiing championships was canceled. Roofs collapsed under the weight of snow and schools shuttered for days. Interstate 80 closed several times between Reno and Sacramento.



A truck drives along snow berms in Running Springs, Calif., Tuesday, Feb. 28, 2023. Since December, 2022, a parade of a dozen atmospheric storms have dumped so much snow up and down the Sierra that several ski resorts around Lake Tahoe have had to shut down multiple times. The National Weather Service in Reno recently called it the "winter that just doesn't want to end." Credit: AP Photo/Jae C. Hong, File

"It started early and it seems to just keep going," said Eric Sage, 45, of Sparks, who shoveled his way through many big winters growing up in Truckee but doesn't remember one like this. "Stacked up, big storm after big storm after big storm—wham, wham, wham."

The official record book keeper is UC-Berkeley's Central Sierra Snow Lab, founded in 1946 in Soda Springs, California, northwest of Lake

Tahoe.

"We've seen bigger storms in other years and years with higher snow water equivalent totals ... but the relentlessness of this season is likely what makes it most unique," said Andrew Schwartz, the lab's manager and lead scientist.

More snow is forecast over the next 10 days, but nobody knows what the [spring will bring](#).

"Historically, some of our big seasons have continued to be active right on through the end of spring," said Tim Bardsley, the senior hydrologist for the National Weather Service in Reno.



In this frame grab from file video, scientists from NASA's Jet Propulsion Laboratory fly over the Tuolumne River Basin of California's Sierra Nevada mountain range in a de Havilland Twin Otter plane to measure the snowpack on

Sunday, March 23, 2014. The new Airborne Snow Observatory measures the snowpack's depth and water content with precision amid California's historical drought. Since December 2022, a parade of a dozen atmospheric storms have dumped so much snow up and down the Sierra that several ski resorts around Lake Tahoe have had to shut down multiple times. Credit: AP Photo/Haven Daley, File

The official winter season coincides with the water year, beginning Oct. 1 and ending the following Sept. 30. Sometimes snow continues falling in the Sierra well into June.

For this winter to overtake the record in 1951-52, another 135 inches (343 cm) would have to fall—unlikely, but not out of the question.

"There's basically nothing that would indicate just because we've been this active, we would then transition the other direction," Bardsley said. "I'd almost say the opposite is more likely to be true."

Several of the snowiest winters logged at least one-fourth of their season total after March 15. What's now the fourth-snowiest winter in 2010-11 received 225 inches (572 cm) of its 643 total inches (1,635 cm)—or 35%—post-March 15.

The snow lab has records dating to 1880 based on measurements taken by the Southern Pacific Railroad. Those unofficial measurements taken near where the train was stranded in 1952 suggest more snow could have fallen in 1938, and nearly that much in 1880 and 1890.



Kenny Rybak shovels snow around his car in Running Springs, Calif., Tuesday, Feb. 28, 2023. Since December, 2022, a parade of a dozen atmospheric storms have dumped so much snow up and down the Sierra that several ski resorts around Lake Tahoe have had to shut down multiple times. The National Weather Service in Reno recently called it the "winter that just doesn't want to end." Credit: AP Photo/Jae C. Hong, File

The lab doesn't formally recognize those numbers because they were from slightly different locations using a different methodology.

Mark McLaughlin, a Tahoe-area author of several books on Sierra history and weather, accepts the railroad numbers and believes snow that fell on the Donner Party in 1846-47 is similar to what fell in 1951-52.

Ten major storms dumped rain and snow on the mountains the first two weeks of November 1846. The monument at Donner Memorial State Park indicates the snow depth reached 22.5 feet (6.9 meters) before some of the stranded resorted to cannibalism.

The now-third-ranked 1982-83 winter came on the heels of the season when Tahoe's deadliest avalanche struck at Alpine Valley south of Truckee. Some 90 inches (228 centimeters) of snow fell in four days leading up to the disaster.



Visitors look at a monument depicting pioneers at Donner Memorial State Park, near Truckee, Calif., on Jan. 2, 2007. Covering 3,000 acres between Donner Lake and the town of Truckee, the park preserves the site where most of the covered-wagon immigrants dug in during the awful winter of 1846-47, clinging to life by eating boiled bones, bits of rawhide and, eventually, the flesh of the fallen. No one knows for sure how much snow fell on the infamous Donner Party when the pioneers were trapped atop the Sierra Nevada for months. Credit: John Flinn/The San Francisco Chronicle via AP, File

The 1960 Winter Olympics, the first televised, put Lake Tahoe on the map after the world got a look at the snow-covered mountains surrounding the alpine lake with the turquoise waters. But the winter itself got off to a slow start and Olympic officials were in a panic in the weeks leading up to the games.

"There was no real snow by New Year's Day and the Olympics were coming in the third week of February," McLaughlin said. "Then the storm door opened and it snowed and snowed and snowed. There was so much snow no one could practice ski runs on the mountain."

Author Peggy Townsend and her husband, parents of pro skier Cody Townsend, said they were overwhelmed by the piles of snow when they arrived at their Olympic Valley-area cabin near the base of a Tahoe ski resort last month. They had to park down the road and dig their way in through 10 feet (3 meters) of snow.



Rescue workers recover a body April 2, 1982, buried in the parking lot of the Alpine Meadows ski resort after an avalanche that killed seven people rolled through the area in the Sierra Nevada mountains near Palisades Tahoe, Calif. The Alpine avalanche on March 31, 1982, was the deadliest avalanche to sweep through a ski area. Since December 2022, a parade of a dozen atmospheric storms have dumped so much snow up and down the Sierra that several ski resorts around Lake Tahoe have had to shut down multiple times. The National Weather Service in Reno recently called it the "winter that just doesn't want to end." Credit: Dick Gilmore/Sacramento Bee via AP, File



Two members of the ski patrol investigate the top of the avalanche zone on the Subway run where one person was killed and another seriously injured Friday, Jan. 17, 2020, at Alpine Meadows Ski Resort near Lake Tahoe, Calif. Since December 2022, a parade of a dozen atmospheric storms have dumped so much snow up and down the Sierra that several ski resorts around Lake Tahoe have had to shut down multiple times. The National Weather Service in Reno recently called it the "winter that just doesn't want to end." Credit: Jason Pierce/The Sacramento Bee via AP, File



The Pioneer Memorial, dedicated to the Donner Party, is seen behind snow cleared from the parking lot at the Donner Memorial State Park at Truckee, Calif., on March 28, 2011. The snow depth reaches up to half the height of the 22-foot tall shaft the statues are placed on. A relentless 2022-23 winter at Lake Tahoe has now etched its way into the history books as the Sierra's second-snowiest on record. Credit: AP Photo/Rich Pedroncelli, File



In this photo provided by the Nevada Historical Society, Southern Pacific Railroad's City of San Francisco lies stranded in the Donner Summit area during heavy snows in the Sierra in January 1952. The more than 55 feet of snow that a dozen storms have dumped on the mountains along the Nevada-California line this 2023 season has etched its way into the history books as the second snowiest on record at the Central Sierra Snow Lab. And there's an outside chance, for better or worse, it could still surpass the all-time official record of nearly 68 feet in 1951-52. Credit: The Nevada Historical Society via The Reno Gazette-Journal via AP



This boulder, shown in this undated file photo, served as one wall for the Murphy cabin at Donner Lake near Truckee, Calif., when members of the Donner Party found themselves trapped in deep snow and forced to spend the season in the high Sierra Nevada in the winter of 1846-47. The more than 55 feet of snow that a dozen storms have dumped on the mountains along the Nevada-California line this season has etched its way into the history books as the second snowiest on record at the Central Sierra Snow Lab. Credit: Marilyn Newton/The Reno Gazette-Journal via AP, File

"We would have to dig out like three, or four times a day, just so we could get to the woodpile," Peggy Townsend said. After four days, they'd had enough.

"When there was a break in the snow," she recalled, "We just said 'we're

going to get the hell out of there."

Correction note: This story corrects an earlier version to show that another 135 inches of snow (343 cm) of snow would have to fall this winter to overtake the record set in 1951-52.

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