



MSU University News

Odd weather in the West draws scientists, managers

Climate in the western United States in the past year has been a study in contrasts.

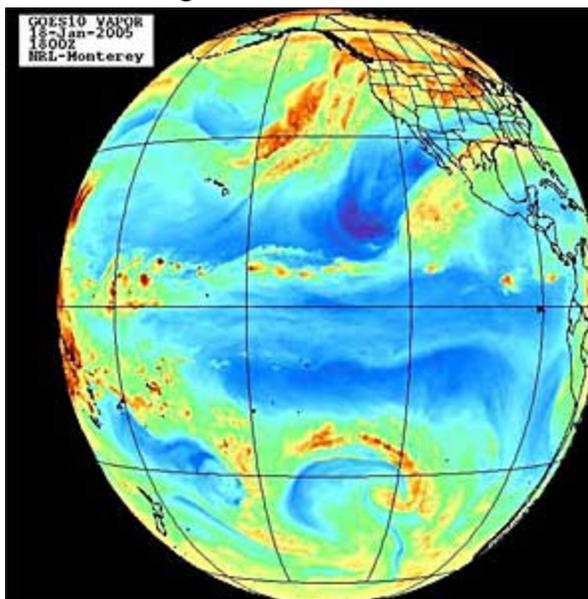
The moisture deficit in Billings and southwestern Montana is equivalent to missing over 1 1/2 years worth of precipitation in the past seven years. The drought in southwest Montana is more severe and prolonged than the drought that caused the dustbowl of the 1930s. Meanwhile, Las Vegas just had its wettest winter on record. Soggy southern California has now surpassed the precipitation levels of its most notorious winters.

What's going on here?

"It will be very interesting to see how this all pans out," Kelly Redmond said Tuesday evening as the opening speaker at a conference to explore the reasons behind the recent odd weather in the West.

The conference is being held through Friday at Chico Hot Springs and was organized largely by Montana State University's Big Sky Institute. Redmond is the western region climatologist with the Desert Research Institute in Reno, Nev. A Belgrade native, his father was a long-time weather observer at the Gallatin Field Airport. The conference for scientists and forest managers is sponsored by the Consortium for Integrated Climate Research in Western Mountains.

Describing the western mountain climate over the past year, Redmond used the term Jekyll and Hyde to describe the 40-degree temperature swing that Billings experienced in January. The way the drought has moved around the West for the last few years "kind of reminds me of Chevy Chase on one of his vacations."



Kelly Redmond, western region climatologist, showed this and other views of the globe during his talk on climate in the West. This is a view of water vapor around the globe in early 2005. (Graphic courtesy of Kelly Redmond).

Last March was the warmest and driest March in 110 years for the 11 contiguous western states, Redmond said. It guaranteed that the region would remain in another year of drought. October, on the other hand, was an all-time standout wet month in the southwest. It set the stage for a winter of exceptionally heavy precipitation.

The precipitation patterns on the ground look like classic El Nino conditions, but looks are deceiving, Redmond said.

"It looks like El Nino, but doesn't smell like El Nino," he said, explaining that, "The atmospheric circulation that has produced this precipitation looks almost nothing like an El Nino circulation pattern. This has been a major puzzle."

So what's ahead for the coming year?

Redmond predicted that Montana and the other northern Rocky Mountain states will continue to experience drought.

"This has significant implications for the upcoming fire season," Redmond said.

Montana, Idaho, Washington and Oregon will have below-average stream flow this summer, he added. The Yellowstone River is expected to be no more than 70 percent flow. The Missouri River is already low.

Reservoirs in the southwest United States have a long ways to go for recovery, but they should gain some ground, Redmond said. Los Angeles, he noted, received half the precipitation that Seattle received this winter.

The evening continued with a speech by Paul Schullery, affiliate professor at MSU who's with the National Park Service and the Yellowstone Center for Resources. Noting that he was speaking on the 133rd birthday of Yellowstone National Park, Schullery addressed "Yellowstone and the Two Cultures: Can Science and the Humanities Share a National Park?"

"Of course, they can," Schullery said. "They have to. ... The real question is, 'Can they get along?'"

Posted by Evelyn Boswell for 3/3/05