

# Forecasters on edge as storms hit Tahoe, Reno

By Kathryn Reed

RENO – Extra personnel have been called in to analyze the vast amount of data flowing into the multitude of computers at the National Weather Service office in Reno.

This storm that is upon Northern California and Nevada is expected to be a doozie, with drenching rains that could cause flooding in the Lake Tahoe Basin, Truckee, Reno-Sparks, and points south on Highway 395.

Of most concern to forecasters is how high the Truckee River will rise in Truckee and Sparks. Rivers are expected to crest on Sunday. All tributaries into Lake Tahoe are also being watched, with the Upper Truckee River being the largest one.

While it's quiet inside the confines of the weather bureau on Thursday morning, plenty of work is going on. Each workstation contains several computers. Most have lots of color on the screens – an indication something other than sunshine is on the horizon.

One screen breaks down the predicted snowfall for the Sierra for the next seven days in six-hour increments.

Jon Mittelstadt, meteorologist in charge, points to the satellite data showing the “atmospheric river from Hawaii” that will bring the heavy rain to the region this weekend. “The satellite has a sensor for water vapor,” he explains.

It's looking like after the brunt of the storm things will dry out for a few days before more moisture comes in late next week.

But the severity of this storm has Reno forecasters talking to

FEMA, emergency management crews in California and Nevada, departments of transportation, law enforcement as well as hydrological partners.

Four television screens provide "situational awareness" for the team to keep track of various locales from a loop of Caltrans cameras over Donner Summit to what is going on at Reno-Tahoe International Airport.

The Reno office, which is one of 124 throughout the United States, handles the forecasts along the crest of the Sierra, Tahoe, and all of Washoe County to the Oregon border, and then points south of Reno. Neighboring offices are in Sacramento, Medford, Ore., Hanford, Elko and Las Vegas.

The River Forecast Center in Sacramento handles all of the rivers.

### **Inexact science**

It's necessary to staff the weather office 24 hours a day, seven days a week because things are always changing. Predictions can be made based on what the data says, but Mother Nature has a mind of her own.

"If you get past five or six days, you can't have confidence in the forecast," Mittelstadt told *Lake Tahoe News*.

**A winter weather advisory is in effect above 7,500 feet for Friday from 4am to 4pm. Six to 12 inches could fall at that level. It's expected to be heavy, wet snow – making driving even more precarious. A flood watch remains in effect from Saturday afternoon through Sunday morning for the Lake Tahoe Basin, eastern Alpine County and the Reno-Carson City-Minden area. A period of heavy rain with high snow levels will occur Saturday evening through Sunday. Rainfall amounts Saturday through Sunday morning of 3 to 5 inches are possible in the Lake Tahoe Basin, with isolated amounts up to 7 inches along Highway 89. Areas at greatest risk for flooding are small creeks and streams along and west of Highway 395 from Lassen County, south through the Reno-Tahoe-Carson City area and into northern Mono County. Mud and rockslides are possible in areas of steep terrain and near recent wildfire burn areas. – National Weather**

Mittelstadt knows weather guys get a **Service, Reno** bad rap when they say one thing and another occurs.

One problem with being in the West is no one is in the Pacific Ocean feeding data to those on shore about what the storms are like. Satellites help, but they can only do so much. Ship reports come in, but they don't have data from the upper air.

Reno is all about seven-day forecasts. Of the 24 employees in that office, 15 are forecasters.

In his 20 years with the Weather Service, Mittelstadt has seen tremendous improvement with forecasts. Technology, including the Internet, has helped with that.

He said people are always working on ways to improve forecasting and improving computer models.

"Things happen in very small scales," Mittelstadt said. He pointed to how there may be a forecast for 6 to 12 inches of snow, but one area gets 2 feet. Being able to nail down more precise data to have predicted that 2 feet of snow is what weather gurus would like to be able to do.

### **More than the daily weather**

During the summer fire weather is the big deal. Wind, heat and humidity are the big factors forecasters study. They partner with the U.S. Forest Service and Bureau of Reclamation.



It's going to be a long

weekend for forecasters at the National Weather Service in Reno. Photos/Kathryn Reed

On big fires, a forecaster goes to the site.

Aviation forecasting – focusing on the ceiling and wind – is something pilots tap into. Forecasts are done for South Lake Tahoe, Truckee, Mammoth and Reno airports. In January, the Reno bureau will provide data for Carson City, too.

Throughout the world weather balloons are launched twice a day, at the same time. The hydrogen balloon starts off about the size of a mini van and then gets bigger as the atmospheric pressure decreases. Eventually it bursts. A parachute is deployed that gently guides the instrument to land.

The data being collected is transmitted to the nearest computer center.

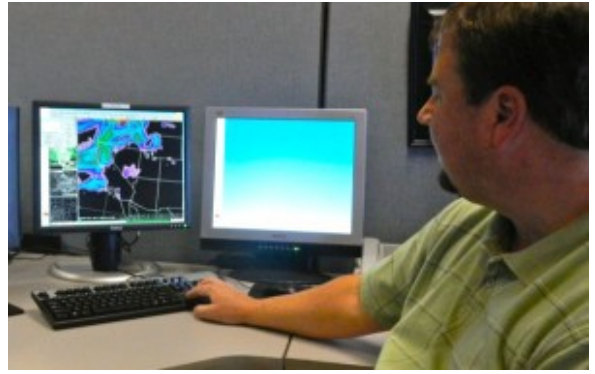
During Hurricane Sandy this fall every station in the United States launched the balloons four times a day to gather more timely information.

The National Oceanic and Atmospheric Administration in Washington deals more with climate concerns and long-term forecasting. Reno handles the weather and water – not the climate.

While the forecast from Washington is locally for a dry, warm winter, Mittelstadt said, “... it’s not a strong signal, so it could go either way.”

### **Storm precautions being taken**

Randy Kelly with Liberty Utilities, which services the California side of the basin-Truckee-Alpine County, said, “We are definitely paying close attention to this storm.”



Meteorologist Jon Mittelstadt looks at data Nov. 29 showing the approaching storms.

His crews have been talking with emergency personnel from NV Energy in Reno and plan to keep in touch today “to see how everyone is doing and who needs help.”

A tree branch falling onto a line Thursday caused about 150 customers near the Y in South Lake Tahoe to be without power.

South Lake Tahoe Police Chief Brian Uhler has reached out to officials in El Dorado County Emergency Management Office.

The city has 10 free sand bags per household available behind Fire Station 3 located at 2101 Lake Tahoe Blvd. (near the Y) and at Bijou Community Park near disc golf hole No. 1. Residents must fill the bags.

Sandbags are available at the Truckee Fire Protection District Station 92, 11479 Donner Pass Road.

In Placer County, sand bags are available at: North Tahoe Fire Station 52, 288 North Shore Blvd., Kings Beach; Placer County Department of Public Works Corporation Yard, 2501 North Lake Blvd., Tahoe City; Old Squaw Valley Fire Station, 1810 Squaw Valley Road, Olympic Valley; Northstar Community Services District Corporation Yard, 50 Trimont Lane; and North Tahoe Fire Station 53, 5425 West Lake Blvd., Homewood.

Washoe County School District has activated the district flood emergency plan.

Follow the Reno National Weather Service office online.

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This video from Kings Beach on Nov. 28 proves some people enjoy wild weather: