

NWS

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River about the weather. The two major developments on that front in recent years are Geostationary Operational Environmental Satellites and dual-polarization radar.

The technology

The National Oceanic and Atmospheric Administration — the National Weather Service's parent federal agency — will spend \$10.8 billion to launch a quartet of GOES weather satellites into orbit about 22,300 miles above the Earth. Geostationary means the satellite remains in the same place in orbit in relation to a point on Earth, thus the satellites have a continual view of the Western Hemisphere. The first of the four launched in 2016. The third is scheduled to lift off in December 2021, and the final satellite in 2024.

The satellites can detect fog, tell the difference between hail storms and dust storms and reveal thunderstorms are developing, an advancement crucial for fire season. The GOES series, Austin said, provides more data and provides it more quickly, and when it comes to weather, more data is better.

"Just having that data update more frequently gives us more situational awareness," he said.

Some Weather Service officers are experimenting with using that satellite imagery to find hot spots on the ground. Austin said those offices can notify fire crews of potential places that could spark off

and start a wildfire. During a stint with the NWS in Oklahoma, he saw that tech in action.

"It was updating so quickly you could see the hot spots spread as the fire was spreading," he said.

The enormous soccer ball atop the red platform outside the Pendleton office houses the other major technology — dual-polarization radar.

The Weather Service in 2011 upgraded the Pendleton station's radar to dual-pol, which sends out signals horizontally and vertically to create a three-dimensional image of weather systems and can detect rain and snow and wind direction.

"Now it can actually pulse and listen at the same time," Austin said.

The Weather Service in July 2019 upgraded the radar equipment so it would endure another 10 years.

Computing and modeling

The National Weather Service has 122 forecast offices nationwide, with three in Oregon — Pendleton, Portland and Medford. Each office's area of responsibility is based in part on its Doppler radar coverage, which can be effective up to 300 miles on flat terrain. The Blue Mountains prevent the Pendleton system from reaching that far, so the Weather Service office in Boise covers Baker, Malheur and Harney counties in Oregon. Local offices also can use radar from surrounding stations to provide a more complete weather picture. Pendleton, for example, uses imagery from Portland and Boise.

In essence, Austin said, there is no reason to rely on only one radar read-

ing when you can tap into several.

The Pendleton office has a staff of 24, with 12 operational forecasters and three managers who also are forecasters, a hydrologist and a team for technical support. Brooks, decked out in blue jeans and T-shirt, used a mouse Monday to navigate between the four monitors at his station to display black-and-white radar images of the high-pressure system moving inland from the Pacific to computer-generated models that are an integral ingredient in concocting the forecasts the office issues daily.

To mesh all this data into coherency, the Weather Service uses the Advanced Weather Interactive Processing System — or AWIPS — which helps the meteorologists generate forecast. Austin said there are numerous agency products — information that can help someone make decisions about the weather — derived from compositing multiple radar sources.

"We're still getting used to using these in operations, but they are a powerful tool in terms of deciphering which storms are of most concern quickly," he said.

Making this happen takes enormous computing power evident in the three large overhead monitors dominating the Pendleton office and on the multiple computer displays on forecasters' desks. Jay Breidenbach, Austin's counterpart at the National Weather Service office in Boise, explained the weather models are one reason the Weather Service is a major user of some of the world's

most powerful supercomputers.

Those computers are at the National Oceanic and Atmospheric Administration headquarters in Silver Springs, Maryland. Only the fastest computers — ones that are to your laptop what a Saturn 5 rocket is to a family car — are capable of digesting the billions of pieces of data that at any instant make up the conditions in the atmosphere.

Think of it this way — to predict with anything resembling accuracy the weather conditions for a given point on the planet's surface tomorrow, much less a week from today, the models must take into account various conditions, such as temperature, humidity and wind, from the surface up to more than 50,000 feet altitude, and over areas measuring in the hundreds of thousands of square miles.

Some of these models predict conditions for a relatively small area out to 18 hours, while others attempt to forecast weather throughout the Western Hemisphere for the next week, or global conditions for the next two weeks, Breidenbach said.

The "latest and greatest" development in modeling is the "ensemble," he said.

Building confidence

The basic idea is to run a set of models as much as 100 times, each time starting with slightly different conditions or different versions of the models. This helps to account for the inherent instability in the atmosphere and gives forecasters a wider

range of potential future conditions to consider, Breidenbach said.

Austin equated it to a game of roulette. You can bet on a red 26, for example, and the odds of hitting are long. You can bet on red or black, and the odds of winning improve. Cover enough of the wheel and your odds improve again.

"The best part about the use of ensembles is it depicts a range of possible outcomes and allows us to better convey our uncertainty in a given situation," he said.

In some cases each model, including the ensembles, will depict a similar, or even basically identical, weather pattern.

"We tend to be more confident in the forecast if all the models show the same thing and they've been consistent over several days," Breidenbach said.

But at other times there can be significant differences among models, he said — occasionally even to the point that one model predicts fair weather while another portends foul.

The level of forecasters' confidence based on models doesn't show up in the public forecasts that Weather Service offices post on their websites, at least not explicitly.

Breidenbach chuckled as he admitted he reads the forecast discussion from the Boise office even when he's at home.

"We all kind of love the weather," he said.

— Baker City Herald Editor Jayson Jacoby contributed to this report.

FAIR

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Wallowa and Grant counties. But Hamilton said the count falls short.

"In January in Northeast Oregon, people are going to be doubling up and staying indoors to stay warm," Hamilton said. "Summertime we might see more people, but they will be camping in the mountains. I do not feel like the PIT count in January accurately reflects the number of homeless people."

The resource fair was created three years ago to assist with the count. Community Connection will be driving around to count people Wednesday afternoon

through Friday, but having a fair where people can come in and identify themselves helps.

"Lately it has been more difficult because it can be hard to determine," Hamilton said of identifying the homeless.

Hamilton said identifying a person as homeless can't be based on how he or she looks, as some homeless people can be very well groomed and someone who has poor hygiene may not be homeless. Thus, having an event where people can self-identify and connect with services makes it easier to get a more accurate count. Last year's CCNO Point-in-Time count totaled at 115 people, however the federal

government recognized only 43 of those people as homeless.

This year, 11 people came to the resource fair. However the number of homeless may be larger once the count is completed and processed mid-February.

The fair on Wednesday helped connect homeless people to services through the Center for Human Development, the Oregon Health Plan, the Oregon Department of Human Services, the Union County Warming Station and federal housing assistance. In addition to services, people attending the fair could put together a bag of food and pick up some winter clothing and blankets.

"We put on this event to help as many people as we can," said Jeff Hensley, assistant executive director of Community Connection.

Hamilton said putting people in touch with these services can help reduce the financial strain on other services. If people have access to housing, he explained, they are less likely to visit the doctor, or if a person has access to personal advancement programs, he or she can work toward getting a job and will be less dependent on housing assistance.

"It is why we like to have a large range of services," Hamilton said. "Everything leads into everything. Not to mention it is easier to access

services when you have a face to go with it."

One woman at the fair said she has been homeless since October. She would not provide her name but said she began living in a motel in February 2012 and eventually reported a cockroach infestation in the room.

"I (asked for) a year and a half to get rid of the roaches," she said. "I couldn't take out a slice of bread to toast without it being covered in roaches within seconds."

Two days later the health department came and the motel evicted her. She said she believes reporting the cockroaches led to the eviction.

She said she spent two weeks in her car until the Center for Human Development was able to get her into a new motel for the last three months.

In January 2019, Community Connection hosted a fair similar to the one Wednesday. At that resource fair, the homeless woman served sandwiches. This year she was using the very services she once helped out with.

While her situation sometimes makes her feel hopeless, she said it is a blessing to have these services and people to help her.

"This type of thing shows they care for the homeless," she said, "and if you need help, it is available."

STAFF

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years because of attrition.

"This will allow us to provide service in a more timely manner," Wondra said.

Wilson, who grew up on a family farm near Cove, is no stranger to Union County.

"I'm excited," Wilson said of her homecoming.

She said she joined the La Grande clinic because she wanted to be part of the VA. As a VA health care provider, she said she has

access to many more services for her patients than she did when she was in private practice.

"There are a lot more resources here," she said.

A graduate of Oregon Health & Science University, Wilson's is a state-licensed medical professional responsible for general patient care. A family nurse practitioner's duties encompasses those of a registered nurse and a family doctor. FNPs can diagnose, prescribe medication and take charge of their patients' care.

Wilson joins nurse practitioner Sarah Gregg at the La Grande

clinic. Wilson and Gregg know each other well because they worked together before in Pendleton. Gregg, then an RN, worked under Wilson while completing an internship for her nurse practitioner degree.

"We became friends," Wilson said.

Gregg thought so highly of Wilson she encouraged her to apply for the opening at the La Grande VA Clinic.

Gregg has worked at the La Grande clinic for 13 years, the last year as a nurse practitioner. She said she likes helping veterans.

"It is a great community. Every-

one there has a shared experience. It is so unique," said Gregg, whose father served in Vietnam and grandfather served in World War II.

Gregg and Wilson both said they want to continue raising veterans' awareness of the services the VA offers.

"A lot (of veterans) do not fully understand what is available to them," Gregg said.

Boggs joined the La Grande VA Clinic three weeks ago and is the first clinical social worker the clinic has had in three years. Boggs is focusing on helping veterans deal

with mental issues including post traumatic stress syndrome, anxiety, depression, pain management, grief and loss.

Boggs said she became interested in helping veterans while serving as a clinical social worker at a corrections facility in Boise. She said many members of its staff were veterans and she felt inspired to start working with veterans because she was so impressed with them.

The health professional has a master's degree in social work from the University of Alaska Anchorage.

STATION

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from now.

The shelter's suite also requires a sprinkler system for fire suppression. Vela said that installation may be one of the most time-consuming projects because it involves plumbing and electrical alarm work. The alarm will automatically notify emergency services when the sprinkler system activates.

The warming station's restroom also needs expanding to be wheelchair accessible.

Other additions, Vela said, include the installation of illuminated emergency exit signs, a video camera to record activity outside when the station is closed and better outdoor lighting to make it easier to see in a nearby alley at

night.

"We want to do whatever we can to help our neighbors feel safe," Vela said.

The lease agreement the Union County Warming Station has with the owner of the building allows for guests to bring in their pets, but the animals have to stay in portable kennels in a room away from where people will be sleeping. Vela said the station used the kennels in 2018-19 at the Willow Street site and had no problems from pets.

The city's planning commission approved a conditional-use permit in October, allowing the warming station to move into the Third Street building. However, the process was nearly derailed when La Grande developer Al Adelsberger, with the support of a number of downtown businesses, filed an appeal.

Adelsberger said he was not against the warming station but believes its location is not ideal because it is close to downtown.

In December, the city council denied the appeal, giving the warming shelter the green light to go ahead with the renovations.

Vela said the station will be open approximately from 7 p.m. to 7 a.m., but the number of volunteers the warming station has will influence the hours of operation.

"We will operate, weather dependent, as long as needed," Vela said.

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ATTENTION DEER HUNTERS

DUCKS UNLIMITED

Wallowa County Chapter of Ducks Unlimited has a *W. Blue Mountain* (#649B) LOP tag on Hancock lands. It will be auctioned off **Saturday, February 8th** at the annual banquet and auction in Enterprise. For complete bidding information, contact Gene at 541-828-7795 prior to the event OR plan to attend.

Register on-line at Ducks Unlimited Wallowa County for a three meat buffet including Stangel buffalo, plus raffles, games, auctions, decoy painting for the kids and more.



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