

Should we be concerned about the loss of weather balloons?

Due to staff reductions, retirements, and a federal hiring freeze, the National Weather Service has announced a series of suspensions involving weather balloon launches in recent weeks. The question is, will this significantly degrade forecasts in the United States and around the world?

On February 27, it was announced that balloon launches would be suspended entirely at Kotzebue, Alaska, due to staffing shortages. In early March, Albany, N.Y., and Gray, Maine, announced periodic disruptions in launches. Since March 7, it appears that Gray has not missed any balloon launches through Saturday. Albany, however, has missed 14 of them, all during the morning launch cycle (12z).

The kicker came on Thursday afternoon when it was announced that all balloon launches would be suspended in Omaha, Neb., and Rapid City, S.D., due to staffing shortages. Additionally, the balloon launches in Aberdeen, S.D.; Grand Junction, Colo.; Green Bay, Wis.; Gaylord, Mich.; North Platte, Neb.; and Riverton, Wyo., would be reduced to once a day from twice a day.

What are weather balloons?

In a normal time, weather balloons would be launched across the country and world twice per day, right at about 8 am ET and 8 pm ET (one hour earlier in winter), or what we call 12z and 00z. That's Zulu time, or noon and midnight in Greenwich, England. Rather than explain the whole reasoning behind why we use Zulu time in meteorology, here's a primer on everything

you need to know. Weather balloons are launched around the world at the same time. It's a unique collaboration and example of global cooperation in the sciences, something that has endured for many years.

These weather balloons are loaded up with hydrogen or helium, soar into the sky, up to and beyond jet stream level, getting to a height of over 100,000 feet before they pop. Attached to the weather balloon is a tool known as a radiosonde, or "sonde" for short. This is basically a weather-sensing device that measures all sorts of weather variables like temperature, dewpoint, pressure, and more. Wind speed is usually derived from this based on GPS transmitting from the sonde.

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