

Collecting Wind Data on Mount Washington



Since 1932, scientists living at the top of Mt. Washington, New Hampshire have been collecting weather data used in forecasting and climate research. How do they do it?

In this program we will learn all about one of the most exciting and dangerous pieces of data they collect: **Wind!**

Wind speed and direction are vital pieces of information in a weather observation, but what is wind? For a simple explanation, visit the [UCAR Office of Programs website](#). Enter the description you see in the first sentence of the second paragraph.

Definition of Wind:

What is an instrument that measures wind speed called? What about wind direction?

Using the Beaufort Scale to describe wind speed. Sir Francis Beaufort, a sailor for the Royal Navy developed a scale to describe how windy conditions were while out at sea. Without instruments it was difficult to for one person to describe just how windy conditions were to another person if they weren't there. [Visit the Beaufort Scale Wikipedia page](#) and answering the following questions:

What is the name of the 12th category on the Beaufort Scale called? How strong do the winds have to be?

Look out the window- using the land conditions category, what number on the scale is the wind where you are? What clues do you have?

On Mt. Washington, we use a **Pitot Tube anemometer** to record wind speed- an instrument that airplanes use to measure their airspeed. Due to frequently violent wind speeds and intense icing from freezing fog, a heat pitot tube anemometer helps the crew at Mount Washington Observatory measure the winds reliable throughout the year. Wind data has been recorded since 1932 and is available at the bottom of our [Normals, Means and Extremes](#) page. Using this historic data, answer the following questions.

What is the annual average wind speed? What on average is the windiest month of the year? Least windy?

How many months out of the year has Mount Washington Observatory recorded a record peak wind gust above 100 MPH?

As you can see, Mount Washington is one windy place- in fact it's the windiest reporting weather station in North America. What are some of the other windiest places on Earth? To find out, visit <https://www.redbull.com/int-en/7-windiest-places-on-earth> and explore some other windy places.

What ocean-based sport benefits from consistently windy conditions?

Finally in celebration of the anniversary of the “Big Wind” gust of 231 MPH on Mount Washington on April 12th, 1934, [read this blog post from a scientist at Mount Washington Observatory](#) to learn more about this wild event. The blog is entitled “The 86th Anniversary of the ‘Big Wind’” and was posted on April 10, 2020.

What did you find interesting about this event? _____

What questions do you have after reading this blog? _____

If you want to have your questions answered by Weather Observers at Mount Washington Observatory, join us for our “Home of the World’s Worst Weather Live” programs on Mondays, Tuesdays and Thursdays at 11:15 AM Eastern on our Facebook page and submit a question during the program! Can’t make it live? We’ll have recorded versions of the programs available after they air on our webpage www.MountWashington.org/classroom and on Mount Washington Observatory’s YouTube page as well. If you’d like to send your question in ahead of time, email Education@mountwashington.org and we’ll try our best to answer your question live from the summit!