Humidity

Humidity is the amount of water vapor in the air. Humidity is high when there is a lot of water vapor in the air. The higher the humidity, the wetter it feels outside.

The measure of Humidity is a percentage and is technically known as relative humidity. Relative humidity is the amount of water vapor in the air over the maximum amount of water vapor the air can hold at the same temperature. This ratio is expressed as a percentage.

Colder air can handle less water vapor than warmer air.

According to the Mayo Clinic, the ideal relative humidity for health and comfort is somewhere between 30-50% humidity.

Local Temperature

The metric shown herein is the measurement of temperature at the time of day queried from the weather site. Temperature in a locality varies during the day due to diurnal temperature variation. Temperature ranges are based on seasonality during the year. Ground-level temperature depends on various factors including:

* The average temperature
* The average humidity
* The average windspeed
* The proximity of dampening factors like large bodies of water.

How we feel in the extremes of temperature ranges depends on two main factors. In frigid temperatures, the windspeed could significantly impacts how humans perceive ground temperature. This phenomenon is called windchill factor. In hot temperatures, the humidity in the air significantly impacts our ability to cool ourselves through sweat evaporation. This phenomenon is called heat index.

Cloudiness

Cloudiness is the defined by the amount of sky covered by clouds. Cloud cover is measured in oktas, or eighths of the sky.

A laser cloud base recorder is used to estimate partial cloud amount. For each layer of cloud identified by the instrument a time weighted average is used to derive the average amount. Such measurements are by their nature only representative of the cloud that has passed directly above the instrument, not of the total sky that is on view from the station.

Total cloud amount is only reported from stations where the human observer is present.

Wind Speed

Wind is defined as the movement of air in any direction. The speed of wind varies from calm to very high speeds.

Wind is created when air moves from areas of high pressure toward areas where the air pressure is low. Seasonal temperature changes and the Earth’s rotation also affect wind speed and direction.

The Beaufort Scale is used to classify wind speeds from calm and light breezes to gale and hurricane level sustained winds.