

UNDERSTANDING NWS FORECAST TERMS

Forecasts for sky, wind, and temperature conditions are an important part of weather information disseminated on a routine basis. Listed below are descriptions of regularly used weather terms that should aid in a better understanding of their meaning.

SKY CONDITIONS

Used to describe the predominant/average sky condition covered by opaque (not transparent) clouds.

<u>Sky Condition Day / Night</u>	<u>Cloud Coverage</u>
Cloudy	88 to 100%
Mostly Cloudy	70 to 87%
Partly Sunny / Mostly Cloudy	51 to 69%
Mostly Sunny / Partly Cloudy	26 to 50%
Sunny / Mostly Clear	7% to 25%
Sunny / Clear	0% to 6%

WINDS

Used to describe the prevailing direction *from which* the wind is blowing, with speeds given in miles per hour. The numbers may vary in other parts of the country due to such variables as terrain and elevation.

<u>Sustained Wind Speed</u>	<u>Descriptive Term</u>
0 – 5 mph	Light, or light and variable wind
5 – 15 mph	None used
15 – 25 mph	Breezy (mild weather), Brisk or Blustery (cold weather)
20 – 30 mph	Windy
30 – 40 mph	Very Windy
40 – 73 mph	Strong, dangerous, damaging, High Winds
74 mph or greater	Hurricane Force

TEMPERATURES

Used to describe the forecast maximum and minimum temperatures, or in some cases, the temperature expected at a specific time.

<u>Description Examples</u>	<u>Range</u>
Near 40	Approaching 40 or a range from 38 to 42
Around 85	Range of temperatures from 83 to 87
Lower 50's	Temperatures of 50 through 53
Middle 70's	Temperatures of 74 through 76
Upper 30's	Temperatures of 37 through 39
60's	Temperatures of 60 through 69

PRECIPITATION PROBABILITIES

Following are precipitation probabilities used in National Weather Service forecasts and a brief explanation of each. Technically, the Probability of Precipitation (PoP) is defined as the likelihood of occurrence (expressed as a percent) of a measurable amount of liquid precipitation (or the water equivalent of frozen precipitation) falling during a specified period of time at any given point in the forecast area. Measurable precipitation is defined as equal to or greater than .01 inch or .2 mm. Normally, the period of time is 12 hours, unless specified otherwise. The forecast area, or zone, is generally considered to be an area of similar weather characteristics and/or climatology. In some geographically unique areas, like mountains, the forecast area/zone may consist of portions of a county or two counties. At times, some NWS forecasters will use “occasional” or “periods of” to describe a precipitation event that has a high probability of occurrence, i.e., they expect any given location in a forecast zone area to most likely have precipitation, but it will be of an “on and off” nature.

<u>PoP Percent</u>	<u>Expressions of Uncertainty</u>	<u>Equivalent Areal Qualifiers</u>
10 – 20 %	Chance	Isolated
30 – 40 – 50 %	Chance	Scattered
60 – 70 %	Likely	Likely
80 – 90 – 100 %	None used	None used (categorical)

NATIONAL WEATHER SERVICE OUTLOOKS

The NWS issues outlooks for weather that is to occur within the 3 – 7 day period. An outlook is issued for conditions or an event that could result in a hazard, but are still too far in the future for a watch, advisory, or warning to be issued. They are intended to initially raise public awareness of a potential hazard or explain a special weather phenomenon that could affect your life.

OUTLOOKS	EXAMPLES
HEAT OUTLOOK	Issued when heat stress conditions may occur.
HYDROLOGIC OUTLOOK - FLOOD POTENTIAL	Heavy precipitation and/or snow melt could produce flooding
HAZARDOUS WEATHER OUTLOOK	Daily product to highlight hazardous weather (if any) within the next seven days
NON-PRECIPIATION OUTLOOK	Some Examples: High Wind, Blowing Dust, Dense Fog, Heat, Cold, Volcanic Ash, Smoke
WINTER WEATHER OUTLOOK	Some Examples: Heavy Snow, Winter Storm, Freezing Rain

NATIONAL WEATHER SERVICE WATCHES

The NWS issues watches up to 48 hours in advance of potentially hazardous weather, giving you plenty of time to plan ahead and protect yourself and your family. A watch means conditions are favorable for the specific weather phenomenon to occur in a specified geographic area, but not yet certain. This is the time period to prepare for the potential event in advance and monitor the latest forecasts in case the event comes to fruition in the next few days.

WATCHES	CRITERIA
EXCESSIVE HEAT WATCH	Heat stress conditions are forecasted to occur.
FLASH FLOOD WATCH	Potential for short duration, intense flooding resulting from torrential rain, dam breaks or ice jams
FLOOD WATCH	Conditions are favorable for flooding, but the occurrence is not certain
HIGH WIND WATCH	Conditions are favorable for development for development of strong, damaging winds, but timing and location are not certain
SEVERE THUNDERSTORM WATCH	Conditions are favorable for the development of thunderstorm winds at least 58 mph and/or hail at or greater than ¾ inch
TORNADO WATCH	Conditions are favorable for tornadic development
WINTER STORM WATCH	Potential for a blizzard, heavy snowfall, ice storm and/or high winds

NATIONAL WEATHER SERVICE WARNINGS

When severe weather approaches your area, our forecasts become so short term that we are actually “warning” you that a potentially life threatening event is about to happen and to put your protection plan into action. When we issue a warning it means a certain weather phenomena is occurring or imminent. The following table details the types of warnings issued by the NWS Seattle.

WARNINGS	CRITERIA
BLIZZARD WARNING	Winds 35 mph AND falling and/or blowing snow reducing visibility to less than a quarter mile
EXCESSIVE HEAT WARNING	Dangerous heat stress conditions are forecast to occur.
FLASH FLOOD WARNING	Short duration (less than 6 hours), intense flooding resulting from torrential rain, dam breaks, or ice jams
FLOOD WARNING	Longer, more gradual flooding usually beginning after 6 hours of excessive rainfall (or during spring snow runoff in eastern Washington)
FREEZE WARNING	Only during growing season: temperatures well below freezing across several zones, preceded by a much warmer pattern of duration greater than 10 days
FREEZING RAIN OR ICE STORM WARNING	Freezing rain event resulting in significant, widespread and possibly damaging accumulations of ice
HEAVY SNOW WARNING Cascades and Olympics above 2000 feet	Snowfall 12 inches or more in 12 hours or 18 inches or more in 24 hours
HEAVY SNOW WARNING Western Washington lowlands	Snowfall 4 inches or more in 12 hours or 6 inches or more in 24 hours
HIGH WIND WARNING mountains	Sustained wind speeds of 50 mph Minimum gust speeds of 75 mph
HIGH WIND WARNING All other areas	Sustained wind speeds of 40 mph Minimum gust speeds of 58 mph
SEVERE THUNDERSTORM WARNING	Thunderstorm winds 58 mph and/or Hail ¾ inch are occurring or imminent
TORNADO WARNING	Tornado is occurring or imminent
WIND CHILL WARNING	Minus 20 degrees F or lower with a wind speed 10 mph or greater lasting for at least one hour
WINTER STORM WARNING	Winter weather event having more than one predominant hazard (e.g. heavy snow and wind)

NATIONAL WEATHER SERVICE ADVISORIES

The NWS issues weather advisories to inform you of events that are not necessarily life threatening, but can result in significant impact or inconvenience to you and your family. A list of these appears below:

ADVISORIES	CRITERIA
BLOWING/DRIFTING SNOW ADVISORY	Blowing and/or drifting snow which causes reduced visibilities of ¼ mile or less
DENSE FOG ADVISORY	Widespread visibilities reduced to less than ¼ mile because of fog
FREEZING RAIN/DRIZZLE ADVISORY	Freezing rain event resulting in light accumulations making sidewalks and roadways slippery
HEAT ADVISORY	Heat stress conditions are forecast to occur.
SMOKE ADVISORY	Visibility ¼ mile or less due to smoke
SNOW ADVISORY Cascades and Olympics	Snowfall 6 to 11 inches in 12 hours or 11 to 17 inches in 24 hours
SNOW ADVISORY Western Washington lowlands	Snowfall 1 to 3 inches in 12 hours or 3 to 5 inches in 24 hours
URBAN AND/OR SMALL STREAM FLOOD ADVISORY	Localized flooding resulting from heavy rain in city or rural areas, non-life threatening
VOLCANIC ASH ADVISORY	Whenever it occurs
WIND ADVISORY Western Washington lowlands excluding the coast	Sustained wind of 30 to 39 mph or gusts of 45 mph to 57 mph.
WINTER STORM ADVISORY	Winter weather situations less severe than warning criteria, but will cause inconvenience