



Weather Terms and Our Forecast Language

Action Flooding Stage: Water on streams, creeks and rivers runs higher than normal, though results in minimal to no flooding.

Black Ice: A thin layer of ice that forms as a result of:

1. Remaining wet areas freezing when surfaces drop below 32°
2. Freezing fog
3. Pavement frost

Clipper: A fast moving low-pressure system that originates from Canada (often Alberta or Saskatchewan). Typically occurs in the winter and results in minor accumulation from an event that generally lasts 4-12 hours.

Coating of Snow: Less than 0.1 inches of snow accumulation.

Derecho: A long-lived cluster of thunderstorms (often fast-moving) that results in widespread damaging winds impacting many locations.

Disturbance: Another way of describing an upper-level trough or shortwave, which leads to unsettled weather and is usually the trigger to developing precipitation.

Drizzle: Rain composed of tiny drops. This leads to small rain amounts (Trace to < 0.05") and the intensity is typically light.

Embedded: A localized phenomena occurring within a more widespread area of consistent weather

- Example: "Embedded areas of heavy rain within a general, widespread area of light rain"
- Example: "Embedded rumbles of thunder within a general, widespread area of rain"

First Inch: During larger storm situations, a time window (usually a 2 - 3 hour range) is given when the first inch of snow is expected to occur on the majority of paved surfaces.

- Note that when snowfall may not reach 1" (ex. A 0.5 - 1.5" forecast), this form field would read "may not occur"

Flash Freeze: A rapid drop in air temperature to below 32 degrees that results in a quick occurrence of residual water on pavements turning into ice.

Flurry: Small and very intermittent snowflakes. Flurries almost always lead to no accumulation.

Freeze-up: The freezing of slush and/or melted snow immediately following a wintry event. This may be referred to as a "hard

freeze up” when temperatures sharply drop below freezing.

Freezing Fog: Fog that forms when temperatures are below 32°. This can occasionally result in ice.

Freezing Rain: Plain rain that falls onto a surface at or below 32°, resulting in a layer of ice.

Heat Index: The “feels like” temperature that takes into account air temperature and relative humidity.

High Clouds: Generally referring to clouds above 20,000 feet. These typically look thin and wispy and often result in partial or “filtered” sunshine days.

Isolated or Slight Chance: Refers to a 15-30% chance in precipitation, and / or precipitation with very hit or miss coverage.

Lake Effect Snow: The process of creating snow when cold air moves over relatively warm water (barring other conditions). Consequently, this can happen not just over lakes, but also other bodies of water.

- Lake (ocean or bay) effect snow can produce narrow bands of snow that are isolated in coverage. Often, lake effect snow is locally heavy and can produce varying accumulations over small distances
- The resulting snow is often low-density (fluffy)

Leaning Early / Leaning Late: Used within Start/End Times for wintry precipitation. This indicates if the meteorologist is favoring a certain portion of the Start/End Time. Example: Forecast is for a start time of accumulating snow 11 AM - 2 PM, “Leaning Early ” means the meteorologist is favoring a start closer to 11 AM as opposed to 2 PM.

Likely: A greater than 50% chance that precipitation will occur.

Localized: This word is intended to mean limited or confined to a few areas. Typically used in the winter to depict a few locations may see more snow than the average (i.e. elevation), and in the summer to describe downpours or flooding.

Minor Flood Stage: In reference to streams, creeks and rivers. Prone areas (generally roads, not buildings) experience ponding

- For Coastal flooding, this is a fairly common occurrence, especially around the new / full moon.

Moderate Flood Stage: In reference to streams, creeks and rivers. More significant flooding begins to occur. Prone roads may be closed, and few buildings may become inundated.

- For Coastal flooding, this occurs generally 1 - 3 times per year

Major Flood Stage: In reference to streams, creeks and rivers. Significant flooding, including widespread road closures, building inundation, and a potentially life threatening situation.

- For Coastal flooding, this is very rare, usually a few times per decade

“Not Ruled Out” or “Likely Dry”: The meteorologist is not expecting precipitation to occur, but it is not with 100% confidence

Pavement Accumulation: The total amount of snow on untreated surfaces, accounting for all pavement types. Because this accounts for everything from a traveled highway to a shaded sidewalk, the low-end ranges may have larger spread than normal (ex. 0-1", 0-2", Coating - 2"). The precip type is consistent with the "Accumulation" section (i.e., the confidence box).

Pop-up: Describes the radar appearance in that precipitation generally does not move in from another location, but rather, small-scale showers or storms develop over the area. Coverage is often isolated.

Rain/Snowfall Rate: A measure of the intensity of rainfall/snowfall by determining the amount of rain/snow that *would fall* over a given interval of time *if* that rainfall intensity were constant over that period.

Refreeze: Snowpack that melts during the day and then the subsequent melt-water freezes on paved surfaces as temperatures get colder late-day or at night.

Rotation (in a thunderstorm): Thunderstorms can occasionally have an updraft that rotates and this is the first step for tornado formation. However, not all storms that exhibit rotation produce tornadoes.

- Rotation in a thunderstorm is also a sign of a mature and strong storm
- When rotation is present, severe hail, wind and/or torrential rainfall is more likely

Rumble: Refers to thunder. Often used to denote that just a couple cloud-to-cloud lightning strikes are possible (those are the ones usually associated with low rumbles as opposed to loud crashes from the more dangerous cloud-to-ground strikes)..

Scattered: Approximately a 30-50% chance for precipitation. Mainly used in association with showers or thunderstorms.

Scattered Coating of Snow: 25 - 75% aerial coverage of snow on the ground.

Shower: Areas of precipitation that do not last for an extended length of time and do not affect a large area geographically.

Sleet: Essentially an ice pellet (or a tiny ball of ice). Accumulating sleet is approximately 3 times more dense than snow.

Snow Squall: Similar to a snow shower, except briefly very heavy. Can also result in gusty winds and extremely low visibility. Squalls are often fast-moving.

Snowfall Confidence: Displays the probability of storm total accumulation. This most often is for snow and/or sleet, but occasionally can be used for ice from freezing rain. There are multiple ways of looking at the chart (see the example below):

- The range with the highest probability is the WeatherWorks forecast for the event. The higher the number, the higher the Confidence.
- Another way of looking at it is by adding the percentages. In the example below, there is an 85% chance to have more than 2"
- Finally, seeing where the percentages are weighted are notable if the forecasted storm total is not correct. In the example below, if we were to not get 2-4", there is a higher chance that we get more snow as opposed to less snow

1.0 - 2.0 inches: 15%

2.0 - 4.0 inches: 55%

4.0 - 7.0 inches: 30%

Spotty: Spotty is similar to isolated and is often used interchangeably.

Start Time / End Time: The timeframe (typically a 2 or 3 hour window) when the potential for snow, sleet or ice accumulating on any type of surface is expected to begin or end.

Threat Window: Used in wintry situations, when the arrival of snow is not uniform. Most often used in snow shower events to show the time period when an area has the chance to see a snow shower.

Thundershower: A shower that may include a rumble of thunder or two. This term may be used in place of “thunderstorm” when precipitation is expected to be rather brief and light-moderate

Time Periods: Below are common descriptors for certain periods of a day

- Afternoon: Generally 12 to 5 PM
- Day (ex. Monday): Generally sunrise to sunset
- Evening: Generally 6 PM to Midnight
- Morning: Generally sunrise to 12 PM
- Night (ex. Monday Night): Generally sunset to sunrise
- Overnight: Generally midnight to sunrise
- Pre-Dawn: Generally 3 or 4 AM to sunrise

Total Ice Accretion: The amount of ice buildup on an untreated, undisturbed surface. Potential, notable differences on paved surfaces are noted in a separate comment.

Total Snow/Sleet Accumulation: The accumulation of snow and/or sleet on an official measuring surface (ex. a snowboard). Potential, notable differences on paved surfaces are noted in a separate comment.

Trace: Rainfall accumulation less than 0.01 inches.

Virga: When rain or snow that falls from a cloud evaporates before hitting the ground.

Wind Chill: Uses the actual temperature and wind speed to produce a wind chill temperature. Similar to heat index in that it calculates a “feels like” temperature

Non-Winter Alert Descriptions

	Wind Damage	Hail	Tornado
Minimal	Not expected, but it can't be completely ruled out.	Not expected, but it can't be completely ruled out.	Not expected, but it can't be completely ruled out.
Isolated	Just a few instances of damage due to wind.	Only a few storms will have the capability of producing hail.	There is the slight chance a tornado or two could occur.
Scattered	An increased chance to have wind damage. Often used in "standard" severe storm threats.	There is a higher than normal potential that a storm will produce hail.	Conditions are more favorable for multiple tornadoes... Occurs once every few years.
Numerous	A more significant event is expected with wind damage somewhere in the region anticipated.	Many of the storms that occur will have hail. This is a very rare event.	A tornado outbreak is expected and precautions should be made to be prepared for the threat of a tornado... Extremely rare.
Widespread	Refers to either a severe weather outbreak or a very strong low pressure system with frequent gusts >60 mph.	N/A	N/A
Extreme	A historic event with major wind damage implications (ex. hurricane).	N/A	N/A

Types of Flooding

1. Poor Drainage / Road

a. Occurs when rainfall accumulates faster than roads/drainage systems can drain

2. Stream / Creek

a. Occurs when rainfall creates an excess amount of runoff that causes rapid rises of streams and creeks. This often also leads to more significant poor drainage / road flooding as well.

3. Major River

a. The flooding of large rivers (generally more than 15 feet wide)

b. Mainly occurs after long-duration rain events, or after multiple rain events

4. Coastal Flooding (where applicable)

a. The process where tidal-influenced bodies of water inundate normally dry locations

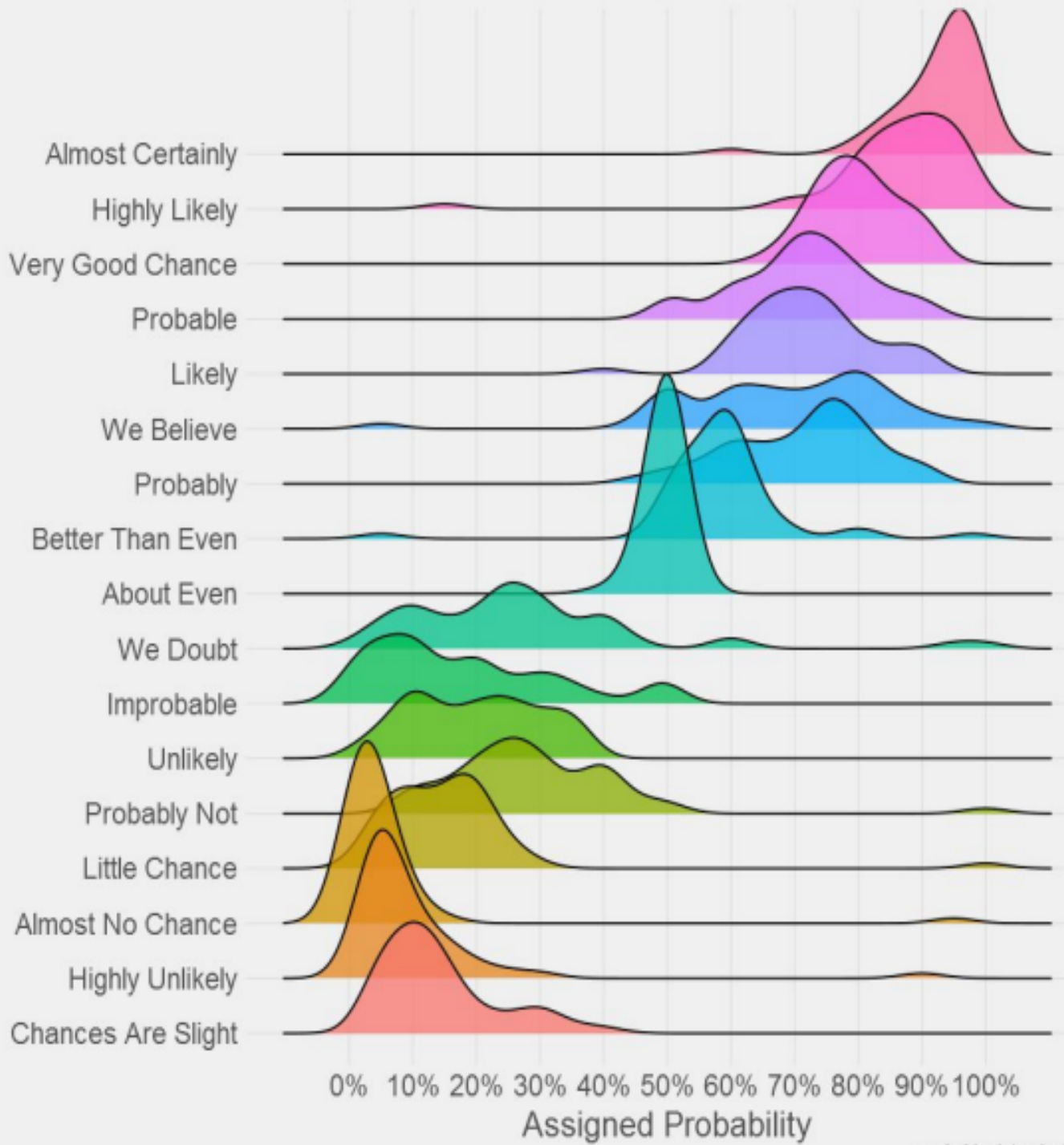
b. Can occur from an ocean, bay, sound or river

c. Takes place during times of High Tide and/or in Storm Surge situations

	Poor Drainage/Road	Stream/Creek	Major River	Coastal
Minimal	Minor ponding on roads. Problems unlikely	Minor stream/creek rises. Problems unlikely	Minor rises within rivers. Problems unlikely	Slightly higher than normal. Problems not expected
Isolated	Just a few instances of poor drainage / road flooding, typically areas prone to minor problems	Streams and creeks rise just enough to create a few areas of flooding.	Major rivers rise just enough to create a few areas of flooding.	A few minor issues possible in normally problematic locations ~ Action stage ~
Scattered	An increased chance to see poor drainage / road flooding. Often used in standard flooding threats.	An increased chance for some areas to see stream/creek flooding.	An increased chance for some areas to see river flooding.	Likely experiencing areas of flooding, mainly confined to prone areas... Fairly common occurrence, especially around new / full moon. ~ Minor Flood Stage ~

Numerous	Numerous locations experience poor drainage/road flooding. Flooding is moderate to significant.	Numerous locations experience stream/creek flooding. Flooding is moderate to significant.	Numerous locations experience river flooding. Flooding is moderate to significant.	Significant areas of flooding, including spots that seldom have problems... Typically occurs 1-3 times per year. ~ Moderate Flood Stage~
Widespread	Flooding is likely with a significant area experiencing poor drainage/road flooding. Road closures and water rescues possible.	Streams and creeks rise significantly, with many areas experiencing flooding. Road closures and water rescues possible.	Major rivers rise significantly, with many areas experiencing flooding. Multi-day road closures and water rescues possible.	Major flooding across many areas near the body of water... Only occurs a few times a decade. ~ Major Flood Stage ~
Extreme	Almost all areas will experience poor drainage/road flooding. Road closures and water rescues likely.	Almost all areas will experience stream/creek flooding. Road closures and water rescues likely. Flood levels break records.	Almost all areas will experience river flooding. Multi-day road closures and water rescues likely. Flood levels break records.	Record flooding. In addition, water and structural damage is likely in areas nearest to the body of water

Perceptions of Probability



created by /u/zonination