



# Climate Outlooks

## 6-10 Day, 8-14 Day, & Week 3-4

June 2019

The Climate Prediction Center (CPC) outlooks are “probabilistic forecasts” with the shaded region on the map showing the most likely outcome.

### HOW TO READ THE OUTLOOK MAPS: 6-10 DAY AND 8-14 DAY

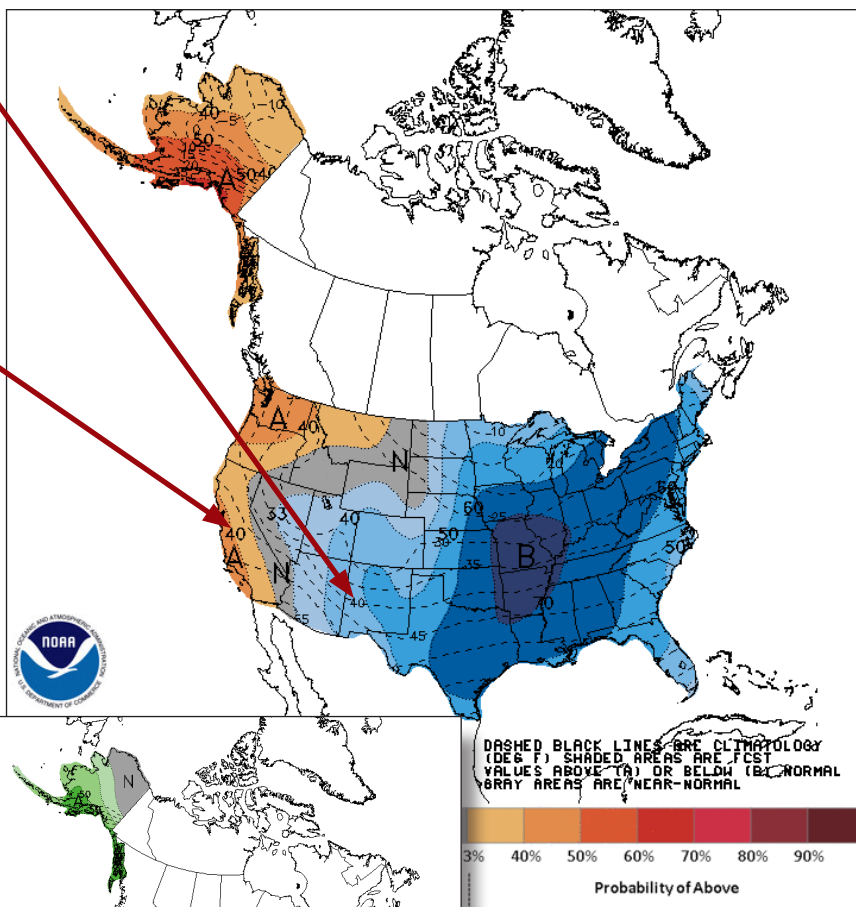
**Climatology:**  
dashed black lines with very small numbers identify the average for that time period

**Shift in Probability:**  
Dotted lines with slightly larger numbers around the borders of shaded areas identify the probability of the most likely category to occur

**A** means enhanced probabilities in the upper tercile

**B** means enhanced probabilities in the lower tercile

**N** means enhanced probabilities in the middle tercile (near the climatological average, or seasonable)



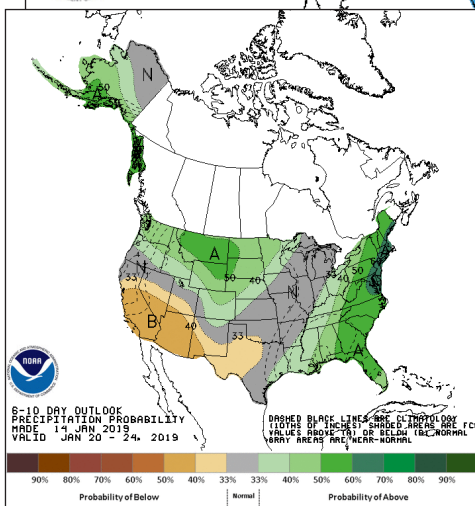
Shaded areas on map identify most likely category to occur

**Gray:** most likely to be near climatological averages for that area

**Temperature:**

**Light Blue to Dark Blue:** Most likely category would be for below average

**Light Orange to Red:** Most likely category would be for above average



**Precipitation:**

**Light Green to Dark Green:** Most likely category would be for above average

**Light Brown to Dark Brown:** Most likely category would be for below average

### How are the three categories (Below, Near-Average, and Above) determined?

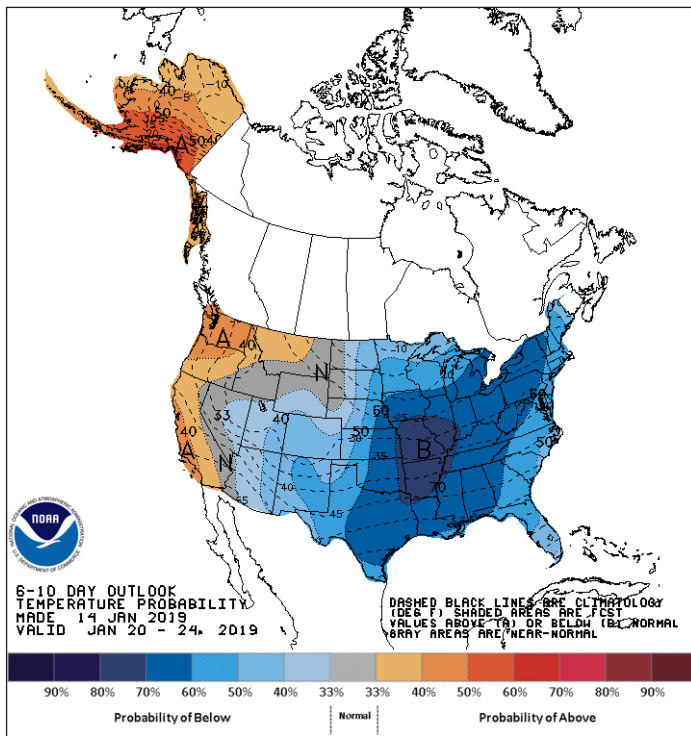
These categories are determined by taking data from a reference time period (1981-2010 is currently used), and separating this data into the lowest 1/3, the middle 1/3, and the highest 1/3. These data divisions, representing 33.3% of the data are called TERCILES.

Without a climate signal, each of these categories would have a probability of occurring 33.3% of the time in the future. If there is a signal, the classification on the outlook maps (colors and numbers) represents the shift in likelihood of occurrence into one of the three categories. There is still a likelihood that actual conditions will fall in one of the other two categories, but this is not as likely as the classification indicated.

# WHAT DOES THE SHIFT IN PROBABILITY FROM ONE CATEGORY TO ANOTHER MEAN?

The map shows the most likely category to occur. However, the other two categories also still have some likelihood of occurrence. Since the probability of all three categories occurring needs to add up to 100%, the probability that this classification exceeds the tercile threshold of 33.3% is subtracted from the opposite end category.

## 6-10 DAY OUTLOOK



Let us use South Florida as an example from this 6-10 day outlook map:

**What is the temperature outlook for South Florida on this 6-10 days outlook map?** The most likely category over South Florida is for below average (shown in blue), and the probability contour is somewhere between 40-50%.

For this example, let's say it's 45%. This represents an 11.7% shift above the base tercile threshold of 33.3%, therefore the opposite end category (unseasonably warm conditions) would have a 21.6% (33.3% minus 11.7%) likelihood of occurring. The middle category (seasonable) would remain at 33.3%.

Thus, the outlook for South Florida would call for:

- Around a 45% likelihood for unseasonably cold conditions to occur,
- 21.6% chance for unseasonably warm conditions, and
- 33.3% chance of seasonable (near average) conditions.

In the situation when a probability contour exceeds 63.3%, the likelihood of the opposite end category is held constant at 3.3% (there is always a slight chance of a rare event occurring), and the near average category would then decrease by the appropriate amount to keep the total probability at 100%.

**The interpretation for 8-14 day Outlooks is the same as the 6-10 day Outlooks.**

## WEEK 3-4 OUTLOOK

These are two category (above- or below-average) outlook maps. These outlooks differ from the three category outlooks currently used for the 6-10 day and 8-14 day outlooks and the long range outlooks (monthly and seasonal outlooks not explained here).

The shading on the **temperature** map depicts the favored category, either above-normal (A) or below-normal (B) for 2-week mean temperature with the solid contour lines giving the probability (>50%) of this more likely category (above or below).

The shading on the **precipitation** map depicts the most favored category, either above-median (A) or below-median (B) for 2-week total accumulated precipitation with the solid lines giving the probability (>50%) of this more likely category (above or below).

In areas where the likelihoods of 2-week mean temperature or 2-week total accumulated precipitation amounts are similar to climatological probabilities and a category cannot be favored, equal chances (EC; 50% probability for each category) is indicated.

Centers of maximum probability are labelled with the letters A or B to denote the most likely category.

