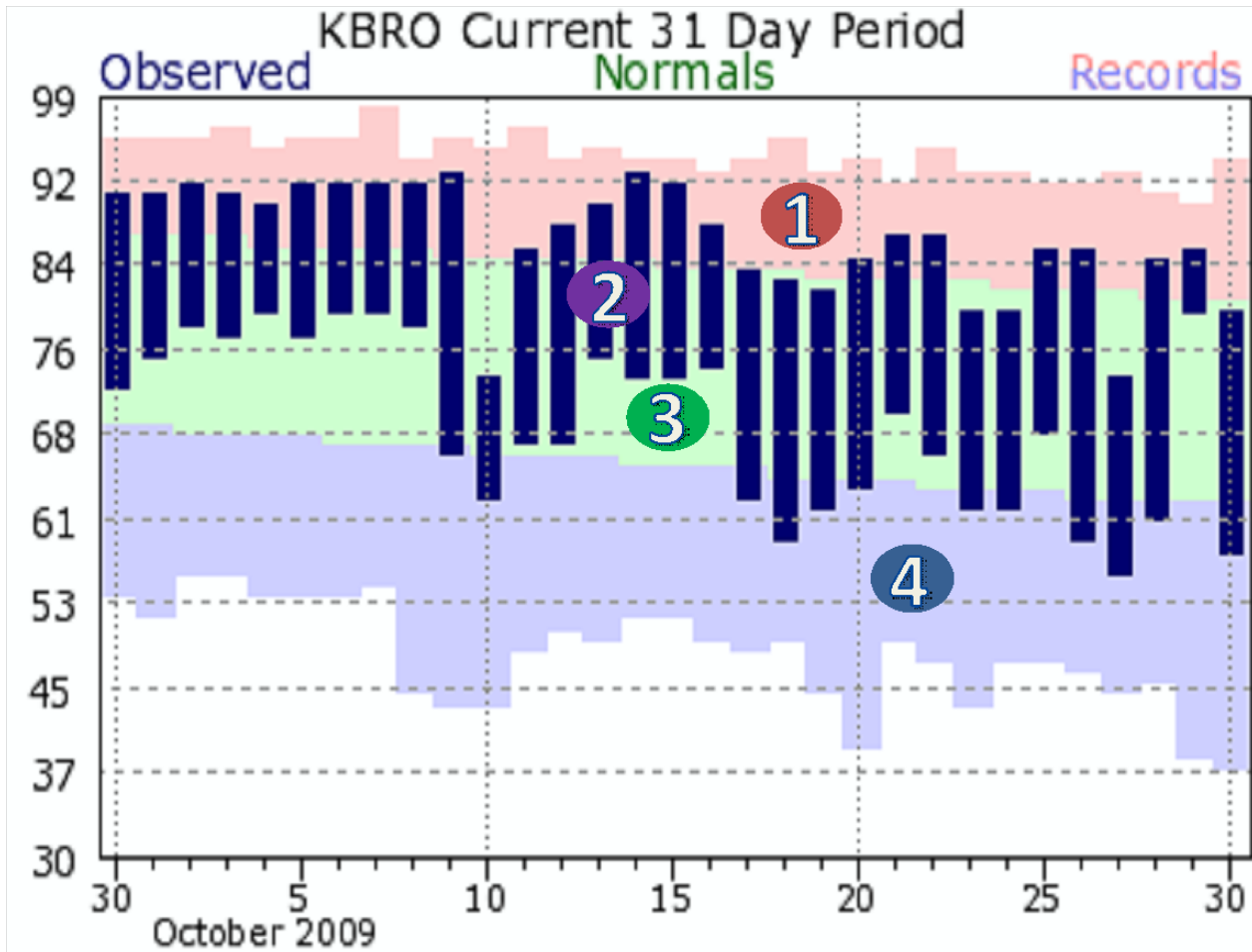# How to Read and Interpret Climate Charts

Current 31 Day Period (Temperature)

These are the graphics shown on our front page, with larger versions available soon. The light red color behind **filled circle 1** denotes the all time daily record high temperature for the particular day. Look at the top of each bar, move left to the scale going up the chart, and eyeball to each gray dot. The top and bottom dot are the highest and lowest temperatures listed on the scale; each dash, which extends across the page, is the value shown at each iteration between the highest and lowest values.

Each individual dark blue bar behind **filled circle 2** denotes the daily temperature range. High and low temperatures for a given day on the chart can be eyeballed in the same manner as discussed above.

The light green coloring behind **filled circle 3** shows the average temperature range for each day of the 31 day period. The light blue coloring behind **filled circle 4** shows the all time daily record low temperature; follow the instructions above for filled circle 1 to find the value.

The scale at the bottom of the page shows the calendar day of the month. This is a sliding scale that updates each morning. The name of the month listed is the current calendar month.

HARLINGEN, TX - 2009
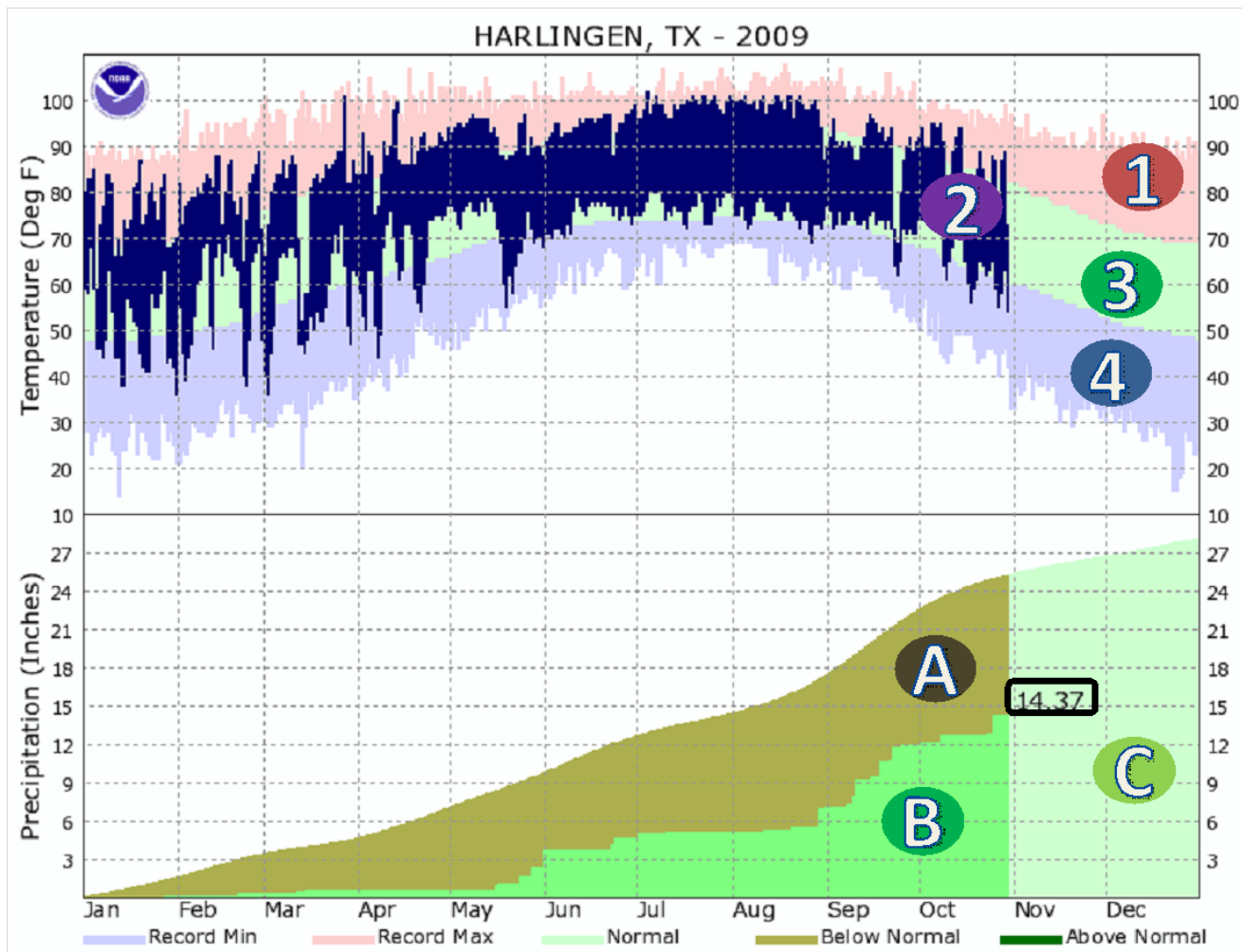
Year-to-Date Temperature and Precipitation

These are the graphics shown after you click on the 31 day current temperature bar chart on our front page. Unlike the 31 day chart, where viewers can eyeball specific values with a little care, the point of the year-to-date chart is to show annual trends and not to focus on individual days. Data are shown are a running scale from the start of the current calendar year to the current Julian Day, with normals and records continuing through the end of the year. With each passing day, live data, shown in the darker colors, fill in the gap from right to left.

Top: Temperature

The numbered filled circles denote the same information as described in the Current 31 Day Period described above. The only difference here is the data are extended through the current calendar year. Trends are fairly easy to pick out. For example, in this chart for calendar year 2009, one can clearly see high variation between February and April, with much lower variation in the summer.

Much above average temperatures in early May are dominated by the minimum temperature, where the base of the dark blue swatch is quite a bit higher than the base of the light green swatch (average) on which it is overlaid. The summer heat of July and August is also clearly shown by the dark blue swatch completely covering the top of the light green swatch, indicating

above average high and low temperatures. The reversion to near average temperatures in September and October is shown by the dark blue swatch extending above and below the light green background swatch – while periods of above and below average temperatures can still be picked out during the period.

Bottom: Precipitation

This chart shows the observed accumulated precipitation, and expected accumulated precipitation for year to date based on the 1971-2000 30 year average, and lists the current accumulated precipitation (in inches) at its location relative to the 30 year average. **Filled circle A**, overlaid on a tan background, denotes periods when the observed accumulated precipitation was above or below average. **Filled circle B**, overlaid on a kelly green background, denotes the measured accumulated year to date precipitation. **Filled circle C**, over a light green background, is for data yet to be observed until the end of the calendar year.

For this chart, the data show that rainfall through October 2009 has been below average for at Harlingen, even though measured precipitation has increased a bit since September. For a year with above average precipitation, such as 2008, the color under the accumulated precipitation "rough" curve (denoted by the individual bars for each day through the calendar year) would be a **dark green** background, as the rough curve would lie **above** the smooth curve that denotes average ("normal") precipitation.