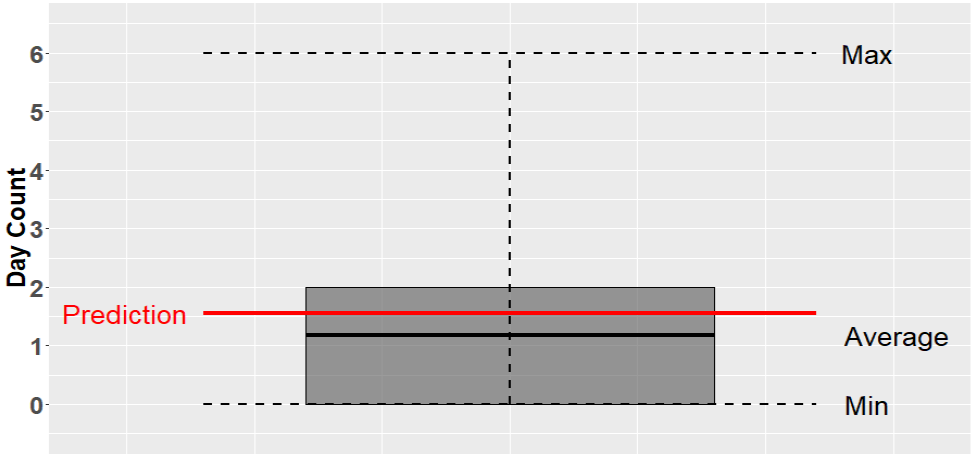
Santa Ana Wind Season Outlook

Issued: Friday, August 30, 2019

The following product from Atmospheric Data Solutions uses numbers of statistical methods to make long range predictions of the Santa Ana wind season in Southern California. This outlook uses 38 years of historical meteorological data in conjunction with a blend of three statistical models which forecast above/below normal numbers of Santa Ana wind days for a 1-month and a 3-month time period. While it is difficult to assign specific winds speeds, a Santa Ana wind day is determined to be distinctly different from the light offshore winds which normally occur during the overnight and early morning hours of the day. Santa Ana wind days were defined by correlating wind velocities with synoptic scale weather patterns that result in gusty, dry offshore winds across Southern California. The models used in this outlook are: Random Forest, ARIMA Time Series, and Analog. The Random Forest and Analog methods use various predictors such as the Pacific Decadal Oscillation (PDO), the Atlantic Multidecadal Oscillation (AMO), and the Niño3.4 index.

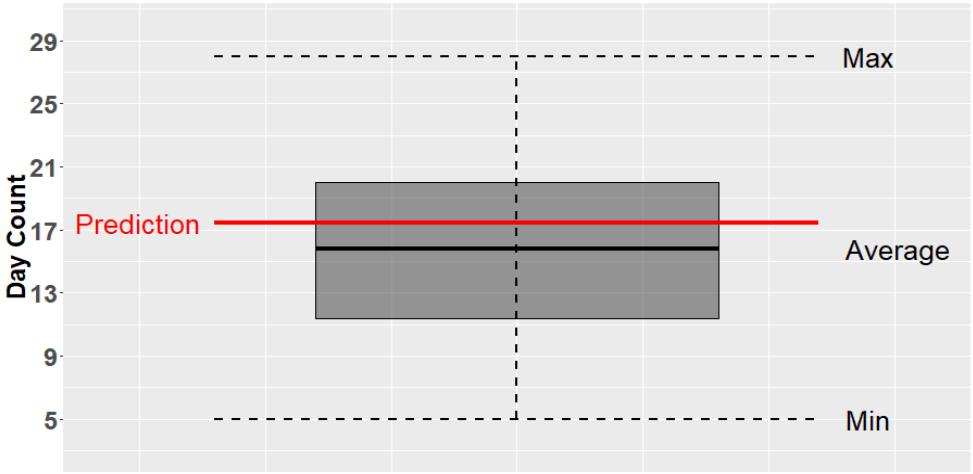
September:

The chart below shows the prediction of near normal number of Santa Ana wind days for the month of September. Normal is around 1 day and the prediction is close to 2 days.



September through November:

The chart below shows the prediction of near normal number of Santa Ana wind days for next three months sum. Normal is around 16 days and the prediction is for 17 days.



Summary:

Based on current and expected weather pattern, we are anticipating the number of Santa Ana wind days to be near normal for September and to be near normal for next three months sum.

* Data for this forecast provided by Atmospheric Data Solutions