Analysis and Conclusion

Our project was to identify long-term trends and patterns in hurricane severity. Our data consists the number of annual named storms, hurricanes, and major hurricanes produced in the Atlantic/Caribbean. We also pulled historical API data from openweathermap.org for 22.81 latitude 5.53 longitude as our mid-Atlantic data point and Tamanrasset, Algeria for central Saharan desert weather conditions. Weather conditions for each year are for the month of September, peak hurricane season, and include the average maximum and minimum temperature, wind speed and direction, and evapotranspiration. Examining the data, we can determine if there are any significant changes in storm intensity over the years. We can also plot several variables against each other to determine if any patterns or correlations emerge.

We asked:

1)   What is the overall trend in the number of hurricanes over time?

2)   Is there a correlation between the number of hurricanes vs high desert temperatures combined with lower ocean temperatures?

3)   Do higher desert temperatures produce more named storms, hurricanes, and major hurricanes?

4) How does wind and evapotranspiration contribute to storm creation and what correlations will we see?