SAS Programming
Practice 7

Use the Stillwater Mesonet data to answer the following questions.

1.   Construct a report for the average maximum temperature, average maximum humidity, and average wind speed for each month. Use the DEFINE statement to label the response variables.

2.   a.   Remember these data are entered in chronological order. Create a new variable DOY (day of the year) using the _N_ function. (See Data Step Information 2) DOY will have values 1 to 31 for January, 32 to 59 for February, and so on for each month of the year.

        b.   In the same DATA step that you create DOY, create another variable for wind direction, called WIND2. WIND2 will have values N, S, W, E where N is assigned to WIND2 if WINDDIR is N, NW, NNW, NE, or NNE. That is, the first character of WINDDIR will determine the WIND2 variable. Use IF-THEN statements to do this.

        Some of you with more programming experience may be aware of character string commands that can also accomplish this task. That is NOT how I wish for you to complete this task at this time. Use the functions and procedures we've covered (to date) in this course.

3.   Construct a report for the DOY and maximum temperature in descending order.

4.   Construct a report that lists WIND2 alphabetically within each month with the variable SPEEDAVG. That is,
        Month
                WIND2 (label using DEFINE) with SPEEDAVG in descending order within each Month/WIND2 combination. Months will be in alphabetical order. Do NOT try to put in chronological order.