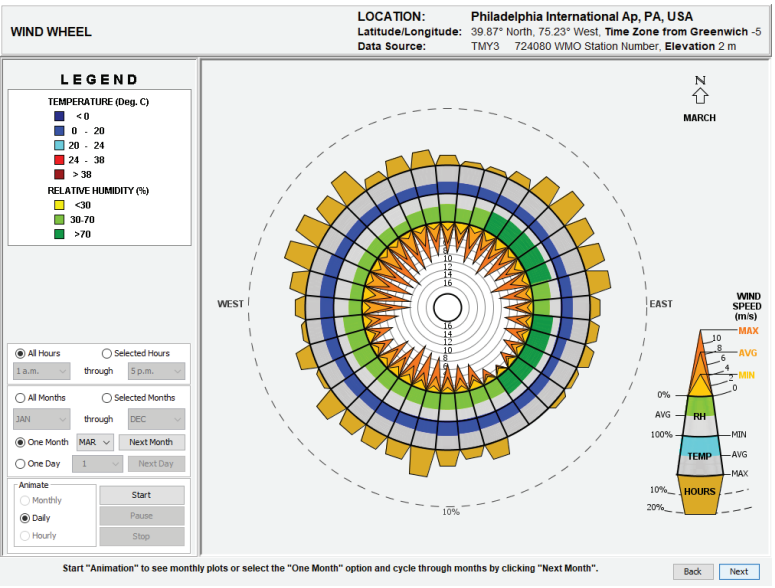
Weather-board

Wind Analysis

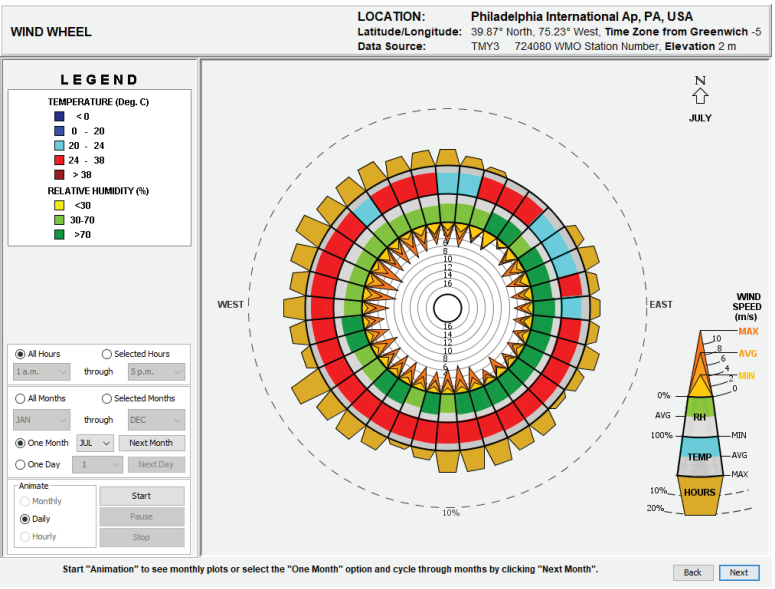


March

- Higher overall wind composition in comparison to other months with speeds ranging from 6-15m/s
- Lower Relative Humidity in comparison with the other months of the year ranging from 30 to more than 70%

-Low temperatures ranging between 0-20 degrees Celsius an average throughout the month

With some exceptions to a few days in which the temperature increases a few degrees and the humidity increases than 70; as well as the wind speed that ranges from 2-4m/s

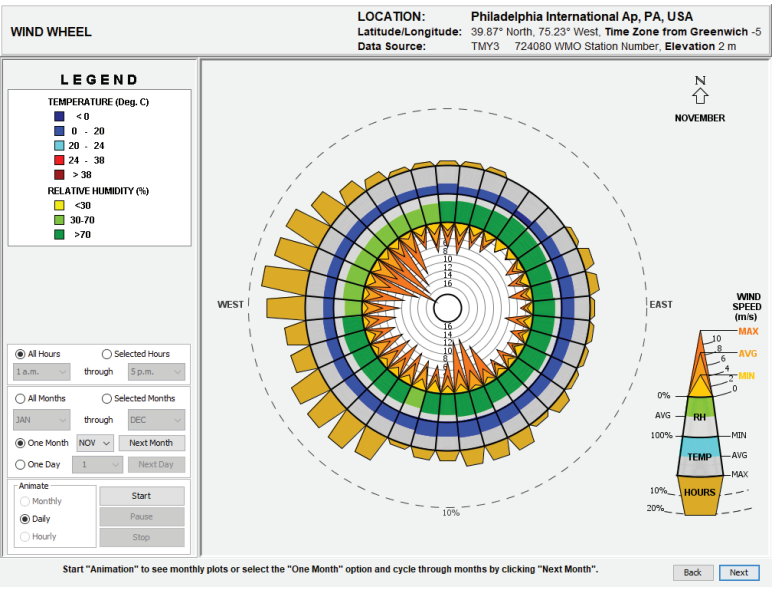


July

- Lower overall wind composition in comparison to other months with speeds ranging from 4-8m/s
- Higher Relative Humidity days in comparison with March and other months of the year ranging from 30 to more than 70%

-High temperatures ranging between 24-38 degrees Celsius an average throughout the month

With some exceptions to a few days in which the temperature decreases a few degrees and the humidity decreases than 70+; as well as the wind speed that reaches 8m/s



November

- Higher peaks of wind composition in comparison to other months with speeds ranging from 4-18m/s
- Higher Relative Humidity days in comparison with the rest of the months of the year approximately all above 70%

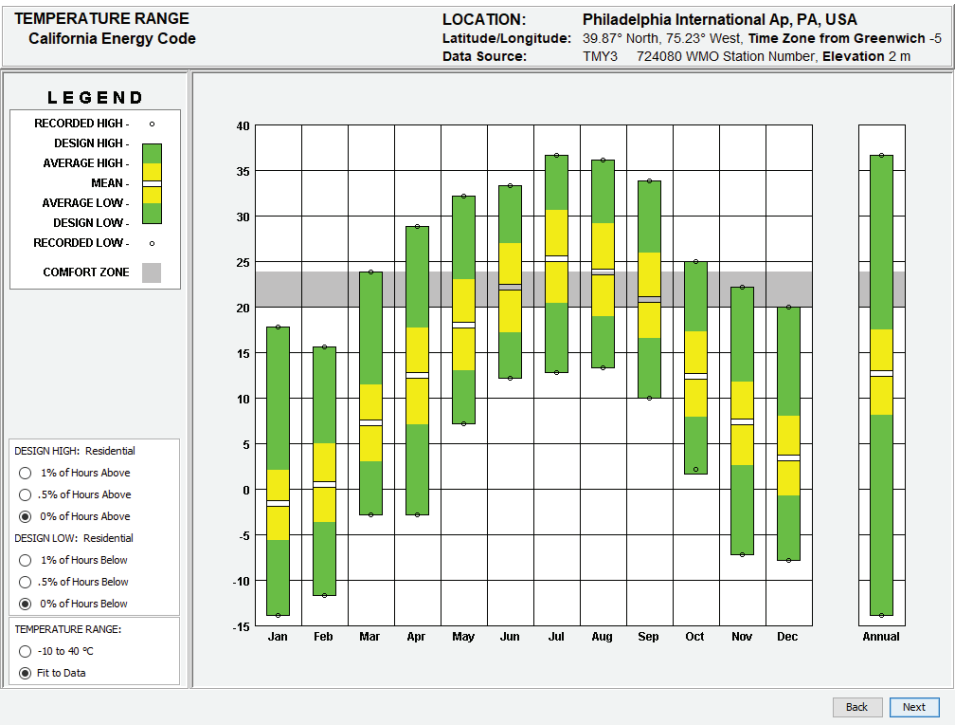
-Low temperatures ranging between 0-20 degrees Celsius an average throughout the month

With some exceptions to a few days in which the temperature decreases under 0 degrees and the humidity decreases than 70+; as well as the wind speed that reaches under 4m/s

Mohamed Ali

Weather-board

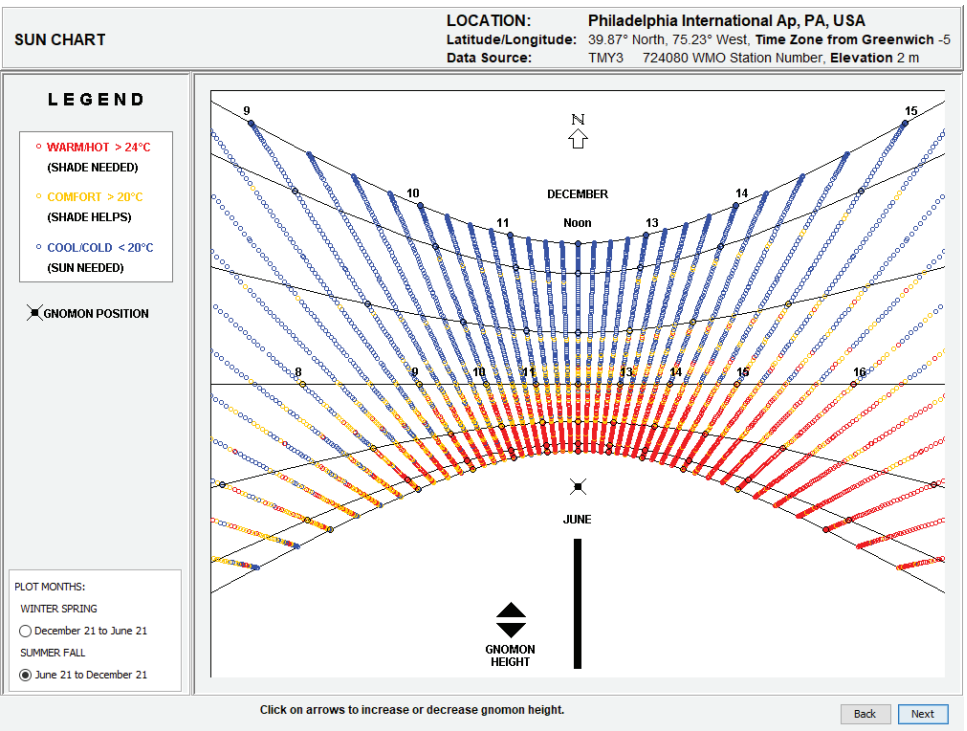
Temperature Analysis



During the year, the temperature seek different levels of change ranging from the extreme cold of -13 degrees Celsius to a high of 37 degrees Celsius.

The temperature throughout the year is directly proportional to the level of comfort that a person could feel throughout the day. However the mean value of the temperatures within their respective months indicate that 3 months have an actual mean of temperature that is within the comfort zone of a human being.

Sun Analysis



Representing a tough condition of weather through the South side at around noon, could need a mechanism that should create shade and prevent the sun rays from entering the building.

Although the North side is the opposite with more light and sun needed in order to heat up the space, since the weather has been under 20 degrees.

Design Strategies

1- Orientation of the building should be kept in mind for the wind as well as for the heat of the sun to be used during the winter through the South side.
2-Mechanic sunshades should be used during the summer to reduce the sun rays from heating the building.
3-Depending on the wind quality and the temperature, but cross ventilation could allow for a better conditioned house with reduced energy costs.

Mohamed Ali