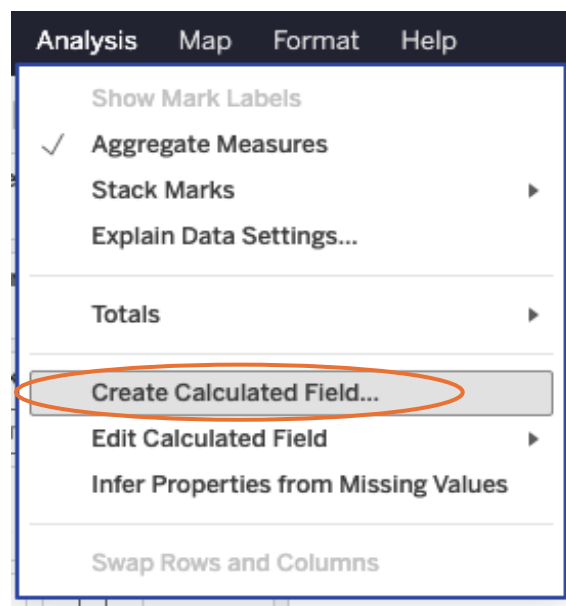


Link to dashboard:

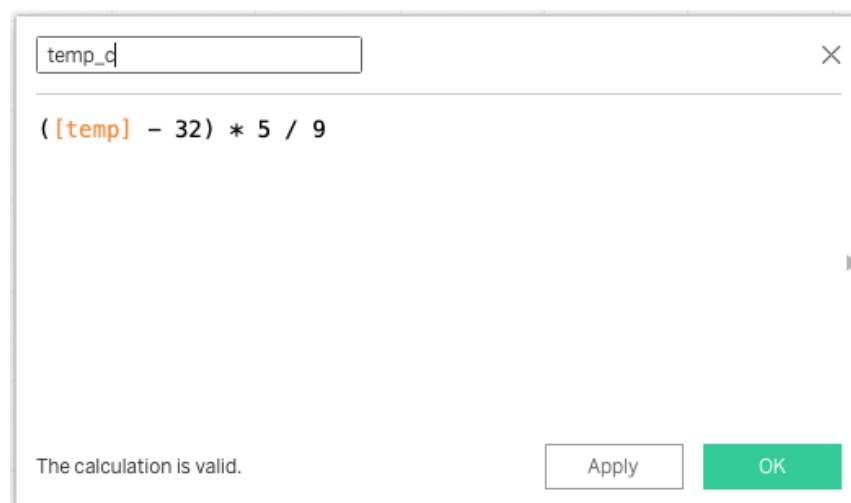
<https://public.tableau.com/app/profile/yew.qizhe/viz/Dailywinddatavisualisation/Dashboard1>

This dashboard presents the daily wind data for LGA in 2013 using Tableau Public. All unit conversions and calculations, including daily averages, were done within Tableau based on the original dataset.

1. Convert all columns so that they use metric (International System of Units, SI). This is done by creating calculated fields in the data plane:



Enter formula to convert into metric, example of converting temperature °F to °C:



2. Compute daily mean wind speeds for the LGA airport. Firstly we drag the 'origin' column into the Filters shelf and select only 'LGA':

Filter [origin]

General Wildcard Condition Top

☒ Select from list ☐ Custom value list ☐ Use all

Enter search text

☐ EWR

☐ JFK

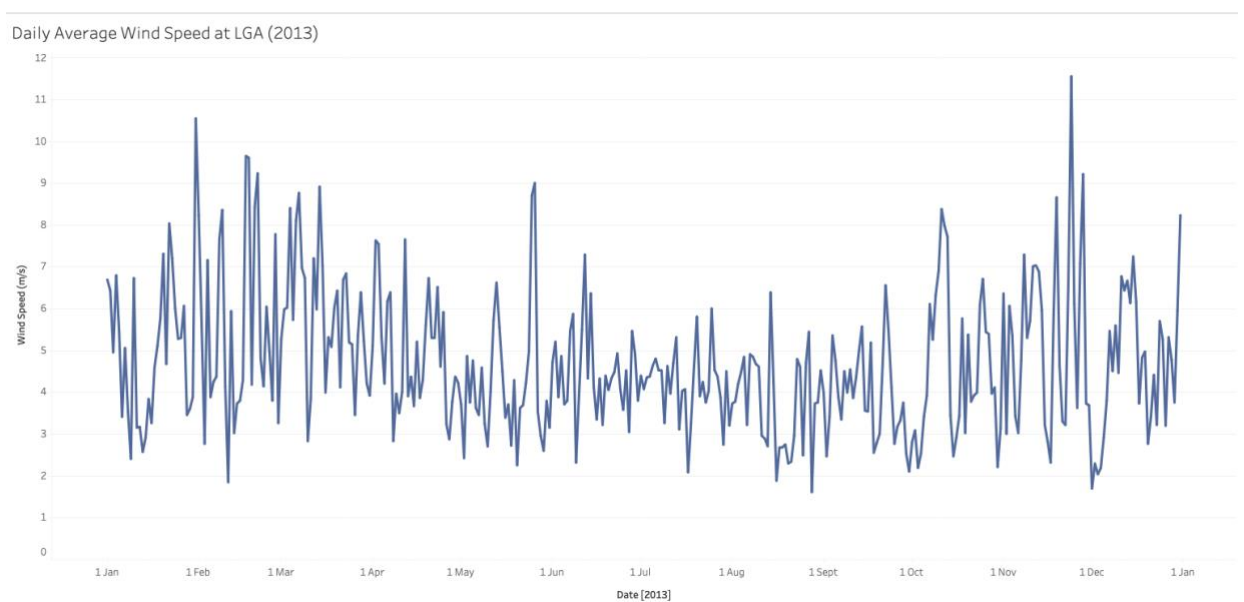
☒ LGA

Drag time_hour to columns and set to day. And drag wind_speed_mps to rows and change it to calculate average:

Columns DAY(time_hour)

Rows AVG(wind_speed_mps)

3. Presenting the daily mean wind speeds at LGA on a plot.



4. Identify the 10 windiest days at LGA. Present them in a table (dates and the corresponding total wind speeds). Firstly we filter for LGA. Then, we drag `wind_speed_mps` to columns and change it to calculate average. `time_hour` to rows and set to day and discrete:

The screenshot shows a data tool interface with three sections:

- Filters:** A dropdown arrow and the text "Filters" are at the top. Below it is a blue button labeled "origin: LGA".
- Columns:** A section with a "Columns" label and a green button labeled "AVG(wind_speed_mps)".
- Rows:** A section with a "Rows" label and a blue button labeled "DAY(time_hour)".

Set sort to descending, and by the field of `wind_speed_mps`. And filter top 10 days:

The screenshot shows a "Sort [Day of time_hour]" dialog box with the following settings:

- Sort By:** A dropdown menu showing "Field".
- Sort Order:** Two radio buttons: "Ascending" (unselected) and "Descending" (selected).
- Field Name:** A dropdown menu showing "wind_speed_mps".
- Aggregation:** A dropdown menu showing "Average".
- Clear:** A button with a circular arrow icon and the text "Clear".

Filter [Day of time_hour] ✕

> General

> Condition

✓ Top/Bottom

☐ None

☒ By field

Rank

Count

Top ▾

Enter a Value... ▾

10

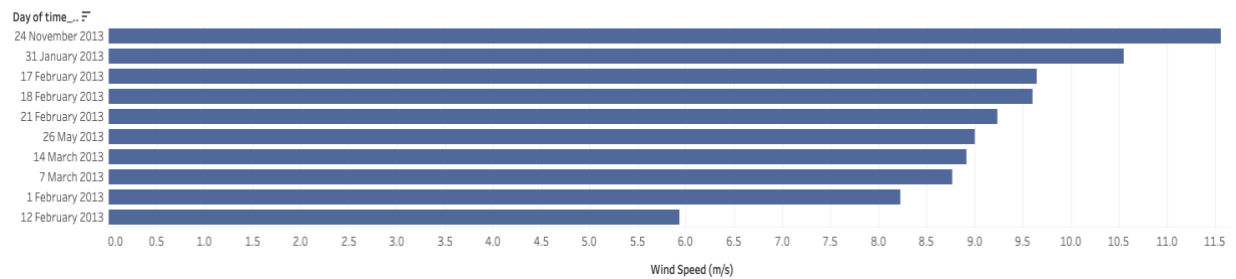
Field

Aggregation

wind_speed_mps ▾

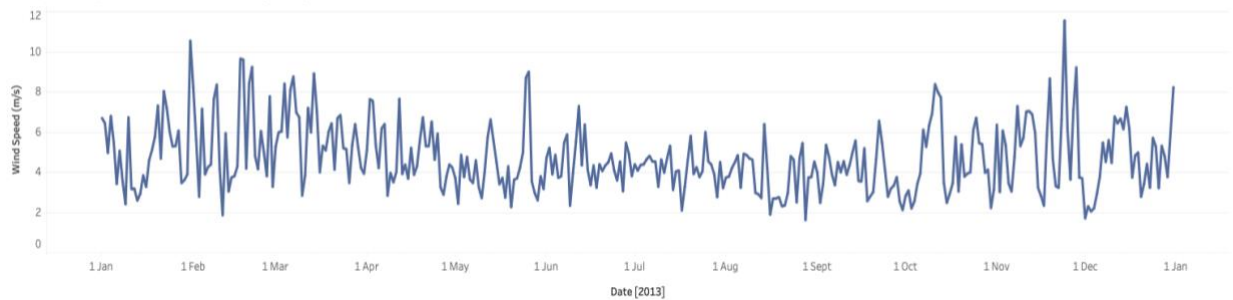
Average ▾

Top 10 windiest days at LGA (2013)

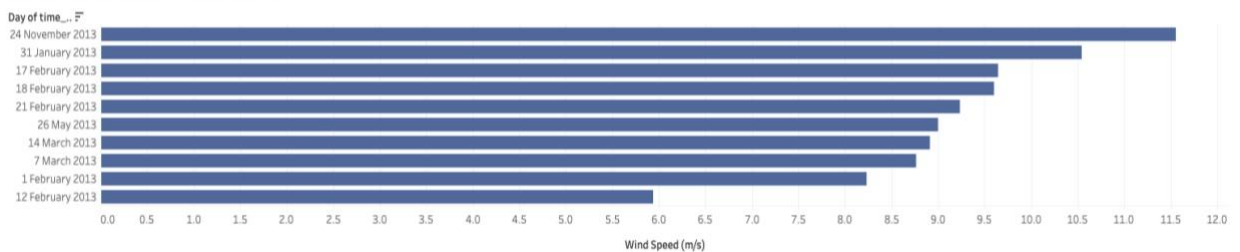


Final dashboard:

Daily Average Wind Speed at LGA (2013)



Top 10 Windiest Days at LGA (2013)



The dashboard shows daily wind trends and the top 10 windiest days at LGA , demonstrating simple and effective data analysis using Tableau.