#### Anemometer Project - Complete Documentation

### **Step 1: Locate Anemometer Project Folder**

- Anemometer Drive Folder
  - https://drive.google.com/drive/u/0/folders/1fxtNNHfmy5UiM8v GFW-dBHcEiEP1eDlY

## **Step 2: Find Data Sources**

- WXT and Sonic Wind Data
  - https://drive.google.com/drive/u/0/folders/1OZAdSNOIA\_bq5sX 9kQDKf-lvjP7DH6jv
- Radiosonde Data
  - <a href="https://drive.google.com/drive/u/0/folders/1zjA5E668jB7q51XRB">https://drive.google.com/drive/u/0/folders/1zjA5E668jB7q51XRB</a>
    <a href="https://drive.google.com/drive/u/0/folders/1zjA5E668jB7q51XRB">https://drive.google.com/drive/u/0/folders/1zjA5E668jB7q51XRB</a>
    <a href="https://drive.google.com/drive/u/0/folders/1zjA5E668jB7q51XRB">https://drive.google.com/drive/u/0/folders/1zjA5E668jB7q51XRB</a>
    <a href="https://drive.google.com/drive/u/0/folders/1zjA5E668jB7q51XRB">https://drive.google.com/drive/u/0/folders/1zjA5E668jB7q51XRB</a>
  - How to Use Radiosonde Data, Explanation of Radionsode Files, and formatting can all be accessed here.
    - General Documentation
      - <a href="https://docs.google.com/document/d/1rH-1x4JA5ozk">https://docs.google.com/document/d/1rH-1x4JA5ozk</a> 7EU8SqXtNVU-a294S8kErc4OzkjtgEI/edit
    - Radiosonde Data Formatting Guide (If you want to check how each data file is char-separated)
      - If you want to see hand drawn examples of how to decode the Radiosonde Files, look here.
        - https://drive.google.com/drive/u/0/folders/1Cs
          YVb0hP4WDI8V7Hs7sx79 ZpuOb03Uu
      - Official Guide is here.
        - <a href="https://rda.ucar.edu/datasets/ds370.1/docs/uadb-format-ascii.pdf">https://rda.ucar.edu/datasets/ds370.1/docs/uadb-format-ascii.pdf</a>
    - Radiosonde Algorithms (How-To Compute)/Formulas
      - Click on Forecast technique.pdf

- https://drive.google.com/drive/u/0/folders/1yP URESkLnNDcyARewoGZOy9gV3Y qUld
- Currently working on gathering more Radiosonde Data. Here is a link to current resources as well as future resources for incoming Radiosonde Data.
  - <a href="https://docs.google.com/document/d/18BwXS2rvHnLRTLJk-XQVJbBk11Gi76Wtlx377InC8nA/edit">https://docs.google.com/document/d/18BwXS2rvHnLRTLJk-XQVJbBk11Gi76Wtlx377InC8nA/edit</a>

#### **Step 3: Main Code - Scripts and Processing (in Python)**

- WXT/Sonic Processing w/ Wind Roses and Graphs (Final Edition)
  - https://github.com/MuntahaPasha/ATOC-4900-Anemometer-Project/blob/main/Jupyter%20Notebooks/FinalWindData.ipynb
  - If you want to see any extra scripts, or all pre-processing work, be sure to check out this folder.
    - <a href="https://github.com/MuntahaPasha/ATOC-4900-Anemomete">https://github.com/MuntahaPasha/ATOC-4900-Anemomete</a> r-Project/tree/main/Jupyter%20Notebooks
- Radiosonde Processing
  - o TO BE ADDED

## **Step 4: Resources for Help**

- Christine Shields
  - Contact Information
    - Email: shields@ucar.edu
- NCAR/UCAR Zulip Group for Python
  - Anderson Banihirwe has been a particularly helpful resource on Zulip.
- Questions about any WXT/Sonic/Radiosonde Scripts? Feel free to leave an email here. I will do my best to get back to you!

# Contact Information

■ Name: Muntaha Pasha

■ Email: <u>mupa0444@colorado.edu</u>

■ Secondary Email: <u>muntaha.pasha@gmail.com</u>