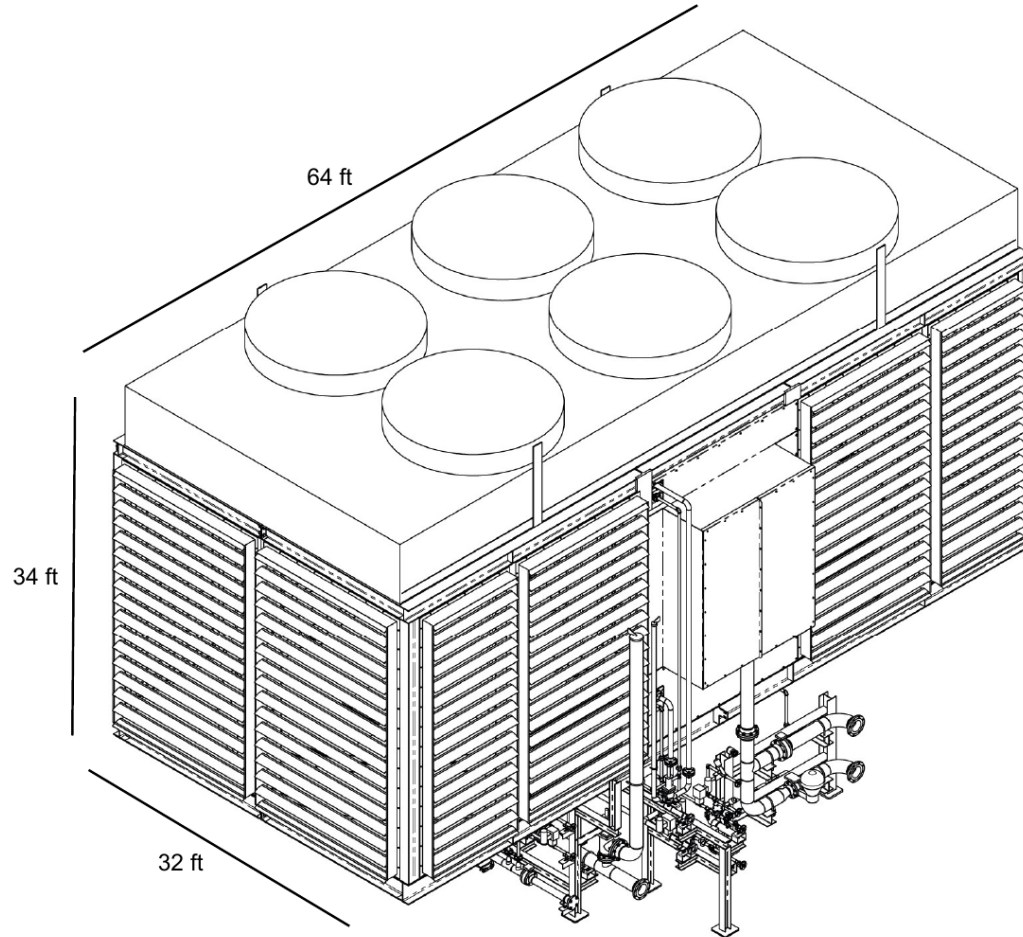
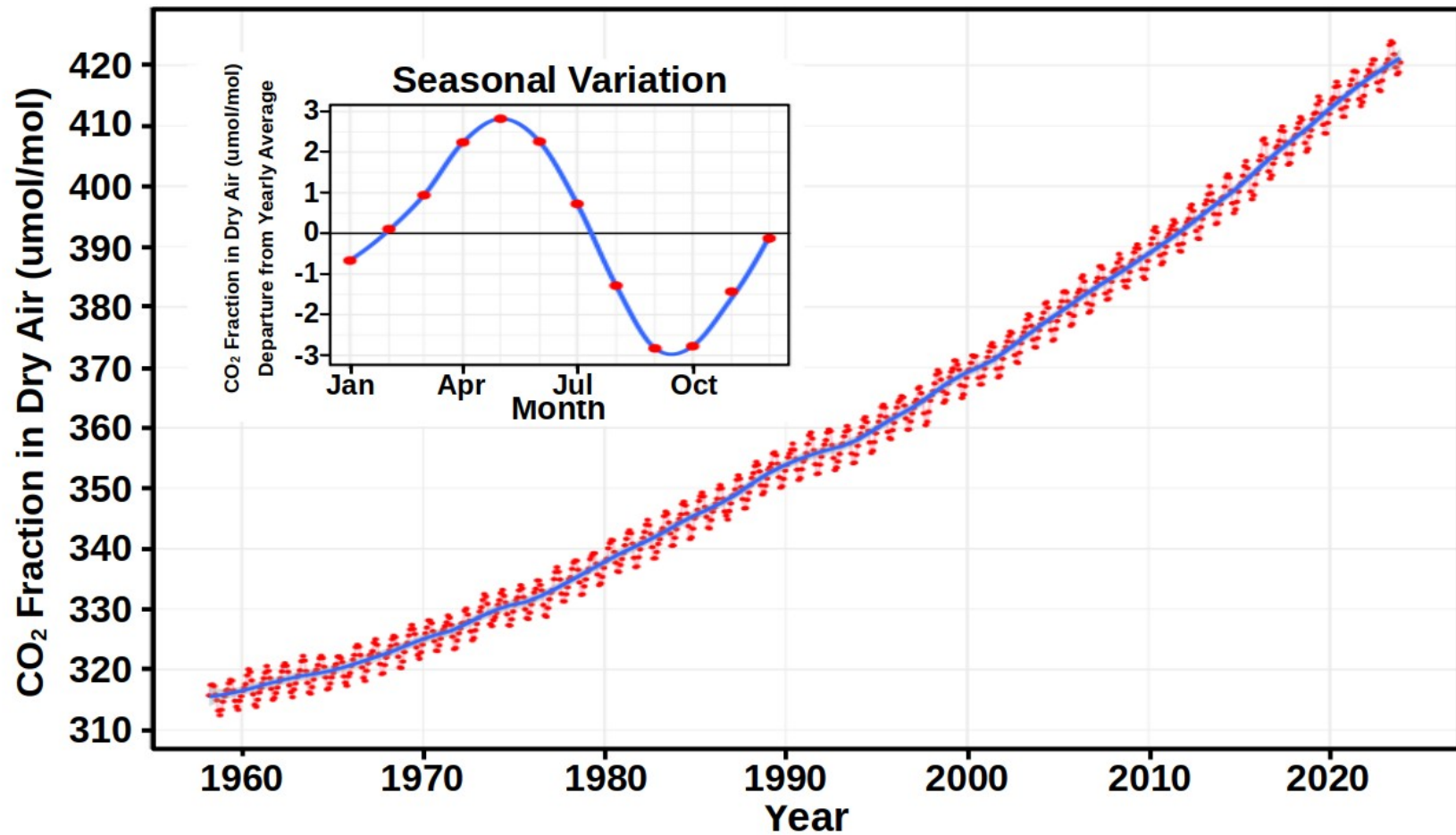


Direct Air Capture – Atmospheric CO₂

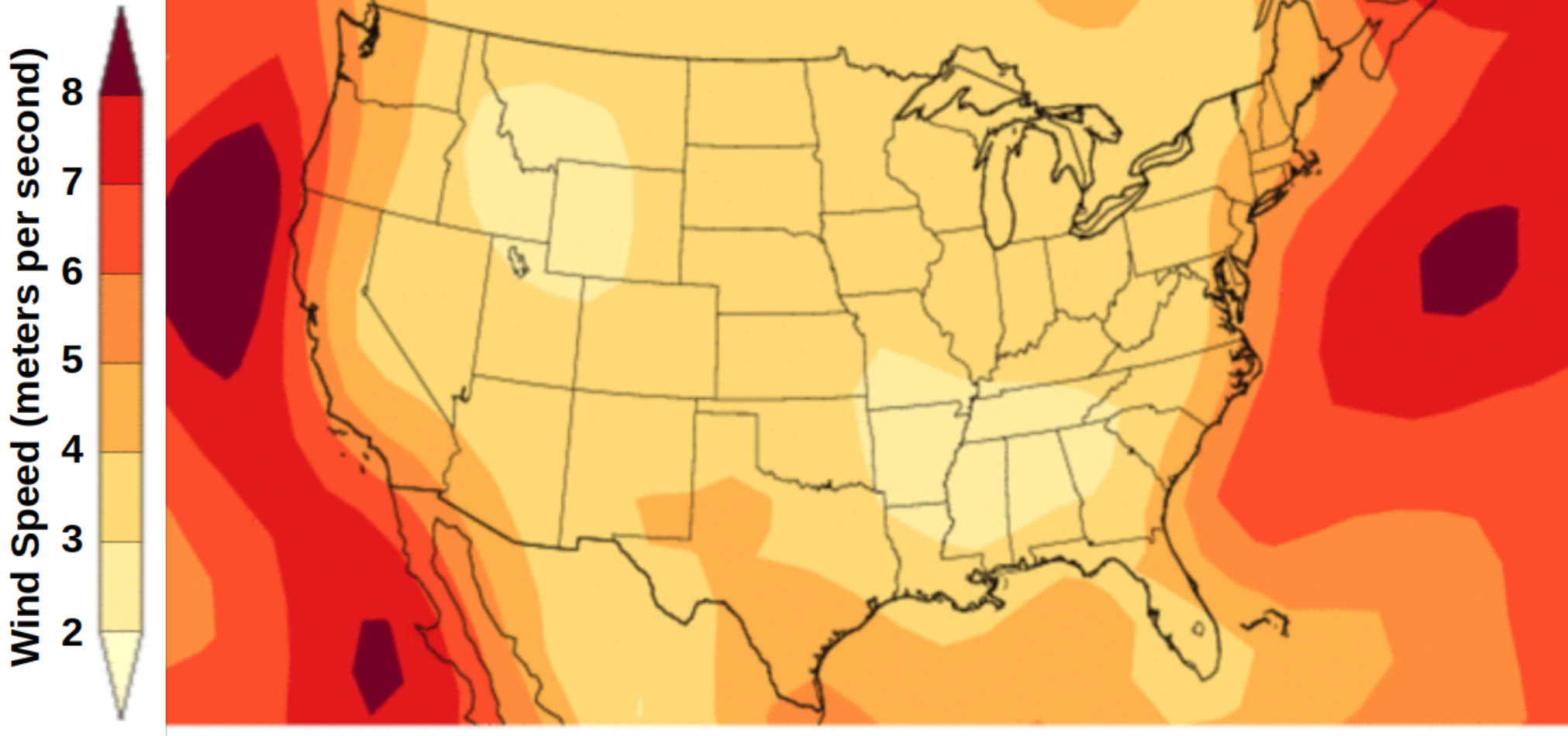
M JOSEPH DAC FACILITY – DAC EQUIPMENT DRAWING



[illegible]



Plot showing the atmospheric CO₂ concentration measured at Mauna Loa Observatory in Hawaii. Concentration has units of μmole per mole, or parts-per-million (ppm, 10⁻⁶). Data is from Dr. Pieter Tans, NOAA/ESRL (<https://gml.noaa.gov/ccgg/trends>) and Dr. Ralph Keeling, Scripps Institution of Oceanography (<https://scrippsco2.ucsd.edu/>), with the plot access on 2023-12-15, <https://w.wiki/4ZWn>, which is enhanced from the original version.



Plot showing the average 3 m wind speed for June 2023. Plot is produced by enhancing version obtained from the National Centers for Environmental Information, National Oceanic and Atmospheric Administration (NOAA), see plot available at <https://www.ncei.noaa.gov/access/monitoring/wind/maps/202306>.

White Paper Assignment

Review the White Paper entitled “Dispersion and Mixing of Low Carbon Dioxide (CO₂) Concentration Air from a Direct Air Capture (DAC) Module”. Do the following tasks:

- 1.) Follow the methodology described in the White Paper and try to reproduce the results. (30 points)**
- 2.) Provide a document (docx file would be great) with suggestions and edits to improve the White Paper. (30 Points)**
- 3.) Provide a list of all confusing or unclear items for reproducing the White Paper results. (10 Points)**
- 4.) Provide a list of assumption used in the White Paper, in order of importance. (10 Points)**
- 5.) Provide a methodology of how you would improve the confidence of the White Paper’s results. (20 Points)**