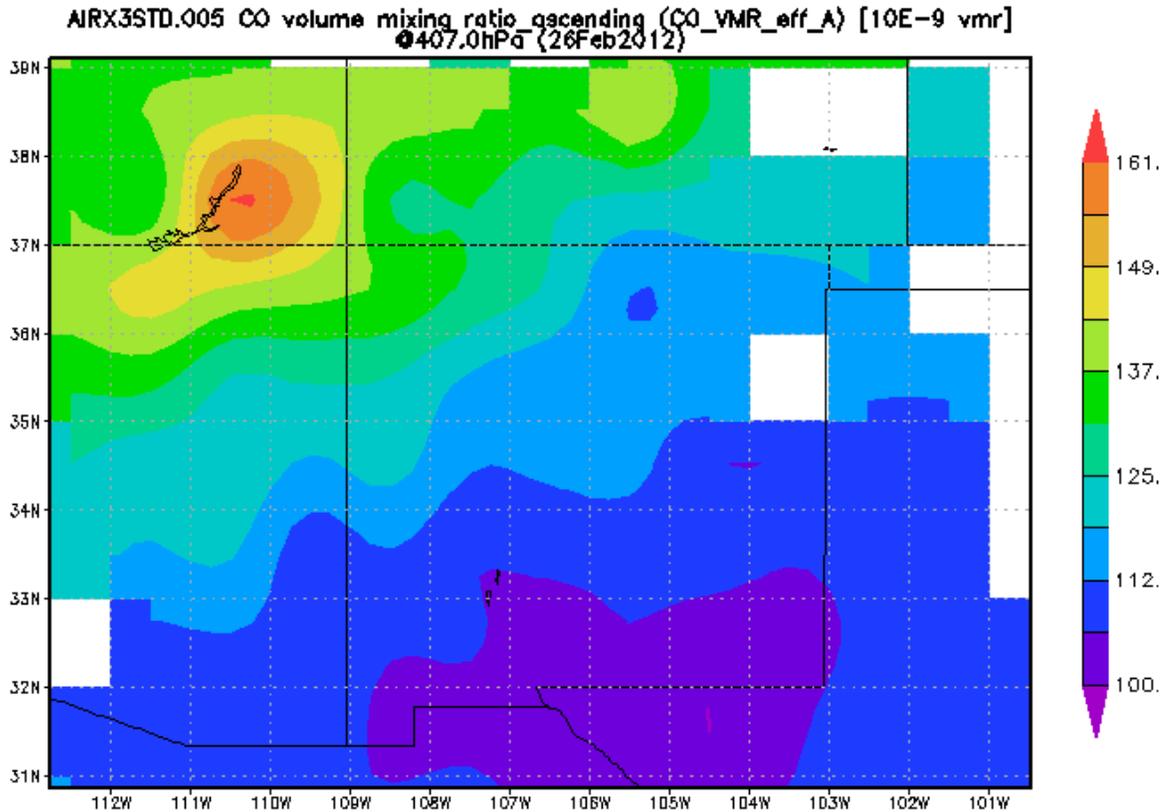# Accessing carbon monoxide and other gas concentrations using AIRS data from the Giovanni Web site.

1. Go to the Giovanni web site:

    http://gdata1.sci.gsfc.nasa.gov/daac-bin/G3/gui.cgi?instance_id=AIRS_Level3Daily

2. If the coordinates are known, users can define a search area by placing the cursor on the map and then drawing a rectangle. It may be helpful to enlarge the map using the – and + buttons on the left of the map, then selecting the hand to move to a desired location, such as Los Angeles Mexico City or Beijing. Click on the select tool (red rectangle in the lower left corner) then use it to define a search area.

3. In the parameters section, choose CO volume mixing ratio_ascending (CO_VMR_eff_A) (3D). This is daytime information. If desired, this can be compared with CO volume mixing ratio_descending (CO_VMR_eff_D) (3D) or nighttime data.

4. In the "Select Levels for '(3D)' Parameters section, set Upper Level and Lower level to 407. This is the millibar setting for the images produced by the visualization. Please note that the visualization will only display up to approximately 160 millibars, but the actual reading may be much higher.

5. Select the Begin and End Dates, then click on "Generate Visualization" in the lower left. The program will then display a graph that will look similar to this one:

AIRX3STD.005 CO volume mixing ratio ascending (CO_VMR_eff_A) [10E-9 vmr]
@407.0hPa (26Feb2012)

Accessing NASA AIRS data on the Eyes on Earth Web Site

1. Go to http://climate.nasa.gov/Eyes/eyes.html
2. Under Missions, choose AQUA
3. At the bottom select a speed of "U." This will keep the globe from spinning while you are working on it.
4. Using your cursor, rotate the earth until the continental U.S. or desired search area is visible.
5. On the left, click on the light bulb so that the U.S. is visible.
6. On the top left under the "AQUA" satellite, click the + sign to make the search area appear larger.
7. On the right, under SELECT A VIEW, choose global.
8. Under SHOW DATA MAP, choose the data you are interested in, e.g., carbon monoxide or other gases. The data will appear on the globe.

Or, you can select a range of dates:

On the left, click on "choose dates." (One can go back several years with the AIRS data.) Next choose a month and later date, such as August 1, 2009 and then August 6, 2009. Click on Submit. Note: choosing smaller intervals means a smaller file for download. Pressing the play button above will play a simulation, month by month through the time interval selected. Or, one can use the right arrow to advance manually month by month. Using print screen (on a Windows Platform) will allow you to save the images.

Accessing carbon monoxide and other gas concentrations using data from the My NASA Data Live Access Server.

1. Go to the Live Access Server:
   http://mynasadata.larc.nasa.gov/data.html
2. Click on Live Access Server (Advanced Edition).
3. Click on "Choose Dataset" button near the top left. Choose "Air Quality", then carbon monoxide.
4. Define the search area using the tools (round buttons) above the world map near the top left. One can use lat/longs or by selecting a rectangular area. Choose the date below.
5. When ready, click on the "Update Plot" button near the top left (under the MY NASA DATA Live Access Server – Advanced line).

Accessing Carbon Monoxide using NASA's NEO Site.

1. Go to the NASA Earth Observations site:
    http://neo.sci.gsfc.nasa.gov/Search.html?group=35
2. Select the search area using the buttons in the top left hand corner of the map. (Note: users may want to choose a visualization that clearly displays land features in order to select a search area, e.g., choose Atmosphere and then Aerosol Particle Radius.)
3. Click on the Atmosphere button, then choose carbon monoxide.
4. Users can now select various months of data by using the appropriate data below the Search Results box.
5. For a tutorial on how to get even more use from the NEO site, go to:
    http://serc.carleton.edu/eet/atmosphere/index.html

Accessing Carbon dioxide and other gas concentrations using NASA's Eyes on Earth Web site

Accessing NASA AIRS data on the Eyes on Earth Web Site

9. Go to http://climate.nasa.gov/Eyes/eyes.html
10. Under Missions, choose AQUA
11. At the bottom select a speed of "U." This will keep the globe from spinning while you are working on it.
12. Using your cursor, rotate the earth until the continental U.S. is visible.
13. On the left, click on the light bulb so that the U.S. is visible.
14. On the top left under the "AQUA" satellite, click the + sign to make the U.S. appear larger.
15. On the right, under SELECT A VIEW, choose global.
16. Under SHOW DATA MAP, choose the data you are interested in, e.g., carbon dioxide or carbon monoxide. The data will appear on the globe.

Or, you can select a range of dates:

17. On the left, click on "choose dates." One can go back several years with the AIRS data. Next choose a month and later date, such as August 1, 2009 and then August 6, 2009. Click on Submit. Note, choosing smaller intervals means a smaller file for download. Pressing the play button above will play a simulation, month by month through the time interval selected. Or, one can use the right arrow to advance manually month by month. Using print screen (on a Windows Platform) will allow you to save the images.