

TASK: Measuring Aerosols

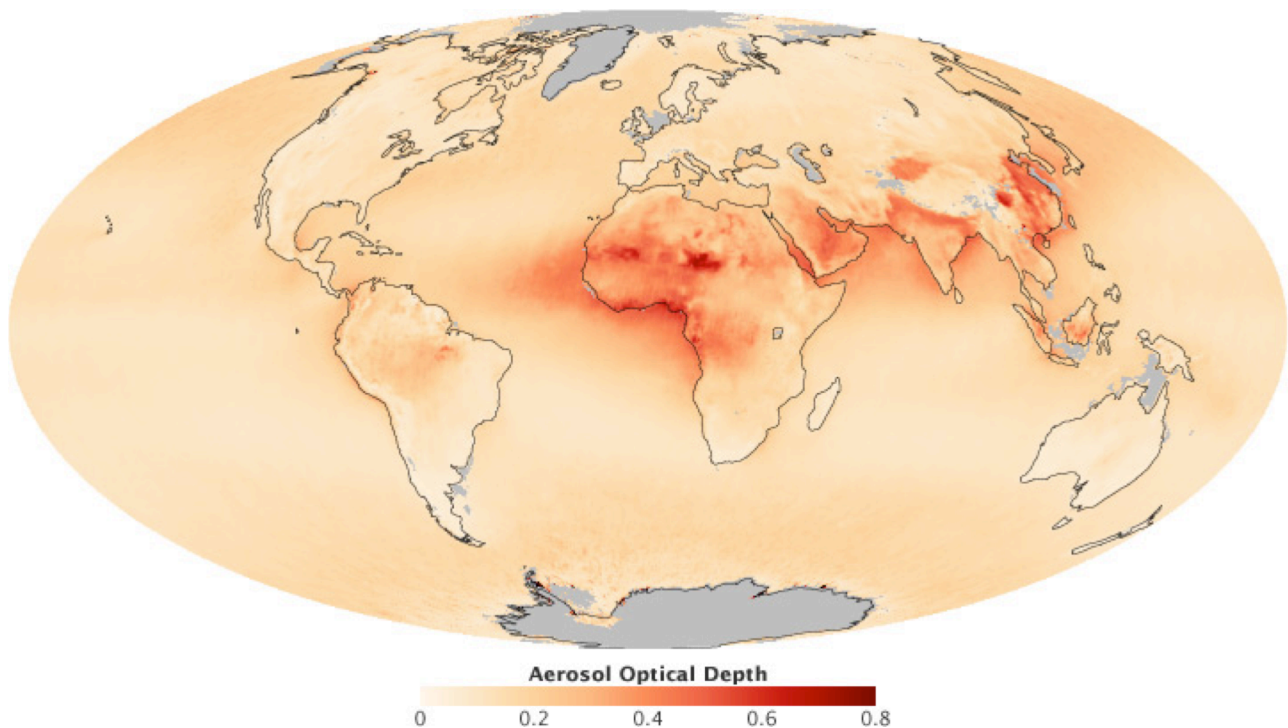


Image: NASA Earth Observatory Link:
<http://earthobservatory.nasa.gov/Features/Aerosols/page5.php>

Different types of instruments are used to measure and monitor the presence of aerosols throughout the troposphere. One of the most important measurement tools is called a radiometer. These instruments measure different properties of light that help convey very important information about these particles. Please use the link below to answer the questions.

Part I. Measuring Aerosols

Use the Earth Observatory NASA link provided below to learn about how scientists measure aerosols and why.

Link: <http://earthobservatory.nasa.gov/Features/Aerosols/page5.php>

1. What are the different types of tools scientists use to monitor aerosols?
2. What type of data does the Radiometer use and what does it measure?

3. What is AOD (Aerosol Optical Data)? Explain
4. What is the scale used to measure AOD? Explain values of scale.
5. Analyze the image, which is representing the AOD visually. Where are the highest concentrations of aerosols?
6. How do aerosols affect the water cycle?
7. Why are climatologists concerned about the circulation and prevalence of these tiny particles in the atmosphere?
8. What geographical locations around the globe have been most affected by aerosols?
9. What can the data tell us?