# The MY NASA DATA Project:

# Mentoring and inquirY using NASA Data on Atmospheric and Earth Science for Teachers and Amateurs

#### WHAT IS MY NASA DATA?

Mentoring and inquirY using NASA Data on Atmospheric and Earth science for Teachers and Amateurs (MY NASA DATA) is a project to enable K-12 teachers and students, as well as citizen scientists, to explore the large volumes of data that NASA collects about the Earth from space. Students use scientific inquiry and math skills as they access and display microsets of the Earth System.

#### WHAT IS A MICROSET?

A main goal of the MY NASA DATA project is to remove the barriers (such as file size and format, and complicated computer tools) that prevent the use of authentic NASA Earth System Science data in the classroom or by the interested public. A microset is a small amount of data – perhaps a single parameter for the whole globe; or a time series for a single location – extracted from a much larger data file. It is in a simple format, such as plain text, or accessible through a user-friendly tool.

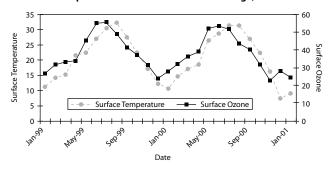
## WHAT KIND OF MICROSETS ARE AVAILABLE?

MY NASA DATA microsets are made from data holdings of the NASA Distributed Active Archive Centers. Information is available on the atmosphere, vegetation, snow and ice, the land surface, and the oceans. Most of the data are global at a typical resolution of one degree in latitude and longitude. Microsets are NOT high-resolution images.

#### SAMPLE LESSON PLAN DATA AND GRAPHS

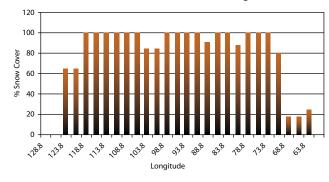
http://mynasadata.larc.nasa.gov/lessons.html

#### Temperature and Ozone over Chattanooga, TN



Linkages between Surface Temperature and Tropospheric Ozone. The line graph shows surface temperatures and surface ozone satellite measurements from over Chattanooga, TN from Jan 99 to Jan 01. The graph's purpose is to determine if the two datasets have similar patterns.

#### Snow Cover over North America at 45 degrees N



Snow Cover by Latitude. The bar graph shows satellite snow cover measurements from 45 degrees N over a range of longitudes. The graph's purpose is to show graphically how the snow cover amount changes across North America.

#### EDUCATIONAL RESOURCES AND STANDARDS

In addition to the microsets, the MY NASA DATA website offers a collection of lesson plans to help you get started with data exploration. Some were developed by the team, while others have been contributed by educators who have used the MY NASA DATA website. All lessons identify relevant national or state education standards. The MY NASA DATA team also has developed an Earth Science glossary to help explain many of the concepts and parameters used in the project.

#### **HOW CAN I GET HELP?**

A team of scientists and educators receives emails sent to the address on the back of this brochure. You can submit questions, whether scientific or pedagogical in nature. You can also review Frequently Asked Questions, browse an archive of Enotes, or explore tutorials on the site.

## WHAT IS REQUIRED?

A computer with a web browser and an Internet connection are the only things you will need to explore the MY NASA DATA website. Data exploration and visualization tools used by the project are web-based. Some lessons involve the use of spreadsheet software or graphing calculators.





NP-2009-08-165