## NASA's Applied Remote Sensing Education and Training

ARSET - A project funded by NASA Applied Sciences

 Richard Kleidman
 Science Systems and Applications, Inc.
 Richard.Kleidman@nasa.gov

 Ana Prados
 JCET/UMBC
 APrados@umbc.edu

 Sundar Christopher
 University of Alabama in Huntsville
 sundar@nsstc.uah.edu



Making remote sensing products accessible to those interested in remote sensing and air quality, and those new to atmospheric remote sensing.

New aerosol and trace gas products and tools and becoming available at an accelerated rate. Existing products are constantly being modified. It can be a daunting task for those new to atmospheric remote sensing to learn how and where to obtain the products, how to interpret and use them correctly, how to evaluate the quality of the products and even which products exist. Even experienced scientists can find it difficult to keep up with new developments. It can take many months to learn the competencies needed to begin to use remote sensing products *properly*.

## We can significantly shorten this learning curve!















## $\diamond$ Workshops

Training workshops of 1 - 4 days stress hand-on activities

Topics covered may include:

- Aerosol products MODIS, MISR, OMI, POLDER, AERONET
- Trace gas products Ozone, NO<sub>2</sub>, SO<sub>2</sub>
- Proper understanding and use of products
- Where and how to obtain products
- Web based tools for analysis Giovanni, A-Train, Aeronet Synergy Tool, MPL Net
- Air Quality Models and Model Satellite Comparisons
- Air Quality Policy and Decision Support
- Theory and science of remote sensing
- Clouds and cloud masking
- ♦ Case Studies and Exercises

Our workshops feature air quality case studies in many formats. We create quarterly case study and exercise contests in Google Earth format.



♦ Website <u>http://arset.gsfc.nasa.gov</u>

We have a large archive of materials some of which have been translated into Spanish and Chinese

All materials developed for this project and others used at our workshops are freely available for download and use.

In addition our website includes

- Information on upcoming workshops
- Links to sign up for our listserv and other materials
- Aerosol case studies in Google Earth format including a step by step "how to create and analyze aerosol case studies".
- ♦ Planned Developments in 2011
  - Additional trace gas species and products
  - Self paced course
  - Data products from additional sensors
    - TES, GOME, SCIAMACHY, IASI
  - Advanced workshops focusing on themes such as aerosol transport and biomass burning

Find out about upcoming workshops and newly developed material from out listserv: https://lists.nasa.gov/mailman/listinfo/arset