NASA Report to Unidata Policy Committee 2007-10-28

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❑ **NASA Unidata mailing list**

❑ **Case study: GES-DISC OpenDAP & THREDDS services**
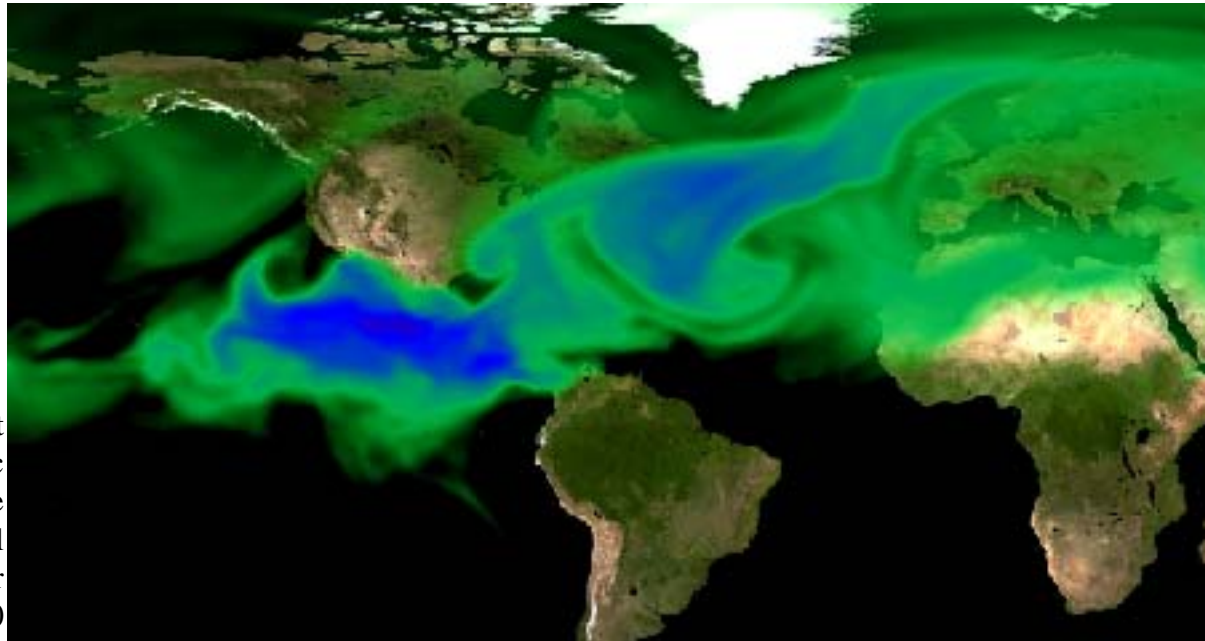
❑ **Funding opportunities**

Image: Forecast of anthropogenic carbon monoxide from Central America for 2007-10-25 00:30

2007 October 28

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NASA Unidata Mailing List

- ☐ **List established July 2007**
- ☐ **Communicate Unidata information to NASA stakeholders**
- ☐ **Solicit input from NASA to Unidata**
- ☐ **Modest membership so far (15 members)**

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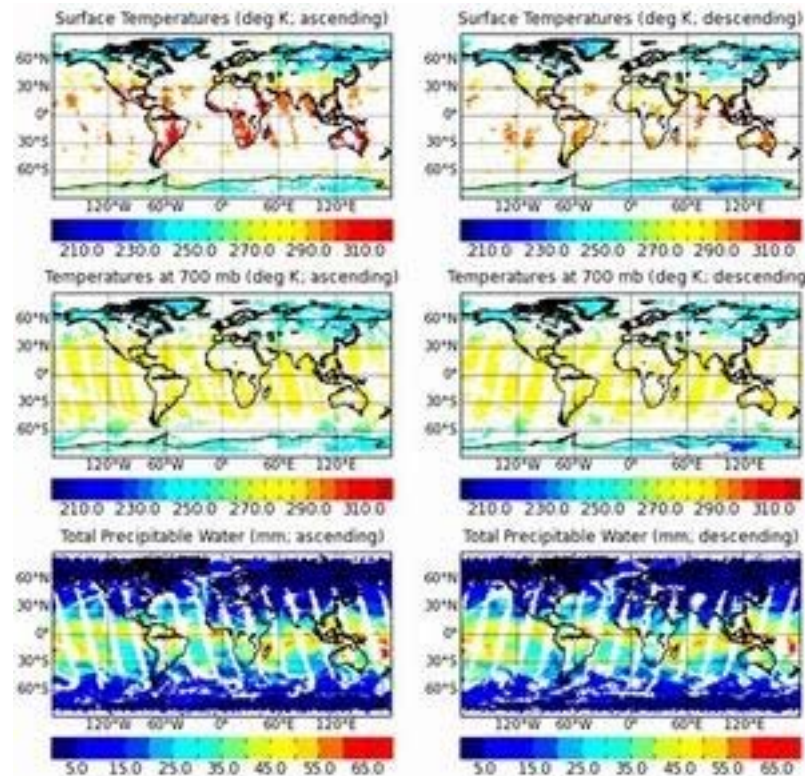
GES DISC OpenDAP Servers

- ☐ **NASA Goddard Earth Sciences (GES) Data and Information Services Center (DISC)**
  - Operates GES Distributed Active Archive Center (DAAC)
- ☐ **Specifically using OpenDAP 4 Data Server (Hyrax)**
- ☐ **OpenDAP usage roughly comparable to access via OGC Web Map Service (WMS) and Giovanni web-based tool**
- ☐ **Positive feedback:**
  - OpenDAP installation package very good
  - Direct access to HDF-EOS (HDF4) also good
- ☐ **Negative feedback:**
  - none
- ☐ **Desired feature:**
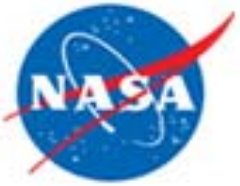 - server-side processing capability
- ☐ **4 Public OpenDAP servers**
- ☐ **THREDDS catalog**

GES DISC
Goddard Earth Sciences
Data and Information Services Center
Your source for earth science data and information

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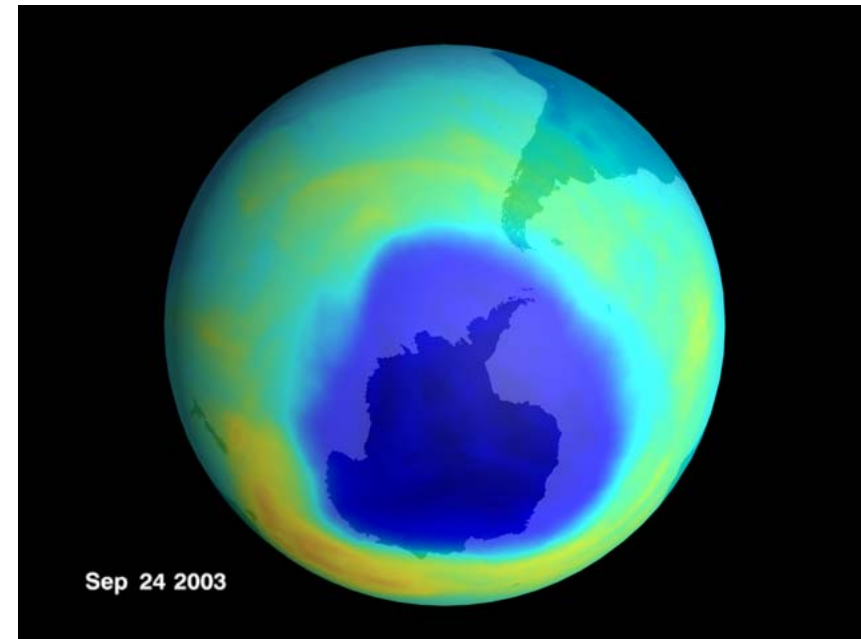# AIRS - Atmospheric Infrared Sounder

☐ **Daily, 8-day and monthly products**

☐ **Global coverage at 1x1 degree**

☐ **2002-present**

☐ **24 vertical pressure levels**

☐ **Geophysical parameters:**

- Air Temperature
- Skin Temperature
- Sea Surface Temperature
- Tropopause
- Precipitable Water, Water Vapor
- Cloud Amount/Frequency, Cloud Height, Cloud Vertical Distribution, Cloud Top Pressure, Cloud Top Temperature
- Reflectance, Emissivity
- Ozone
- Surface Pressure

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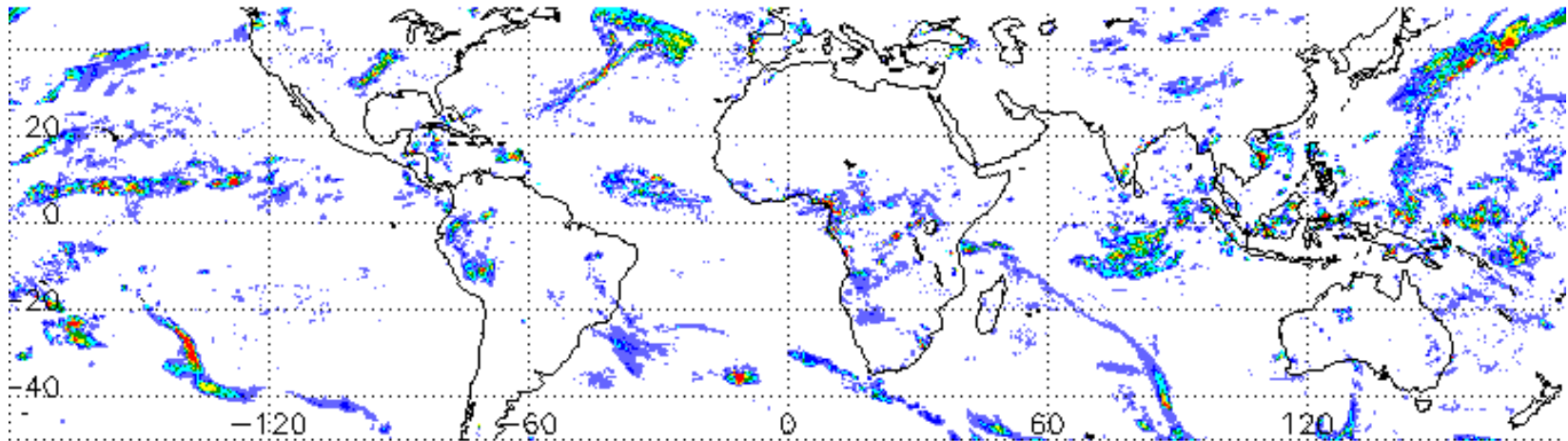# TOMS - Total Ozone Mapping Spectrometer

- ☐ **Daily total column ozone and reflectivity**
- ☐ **Global coverage at 1.25x1.0 degree**
- ☐ **1996-present (Earth Probe satellite), 1978-1993 (Nimbus 7 satellite)**

Sep 24 2003

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TRMM - Tropical Rainfall Measuring Mission

☐ **3-hour 0.25x0.25deg rainfall**

☐ **Monthly 0.25x025deg rainfall**

☐ **Monthly surface (0.5x0.5deg) and oceanic (5x5deg) rainfall**

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MSU - Microwave Sounding Unit

- ☐ **Daily products**
- ☐ **2.5x2.5 degree grid**
- ☐ **1979-1994**
- ☐ **Lower tropospheric temperature (global)**
- ☐ **Upper tropospheric temperature (latitudes 30N-30S)**
- ☐ **Lower stratospheric temperature (global)**
- ☐ **Oceanic precipitation (latitudes 60N-60S)**
- ☐ **Note: MSU, not more recent AMSU**

Education and Public Outreach Division Support Groups

☐ **Proposals to support the coordination and integration of NASA Education and Public Outreach (E/PO) activities**

☐ **Address teaching and learning:**

- Undergraduate
- Secondary
- Elementary
- Informal education
- Public understanding of science and technology

☐ **4 awards, 1 of which will be in Earth Science**

☐ **~$3.5M/yr divided among 4 awards**

☐ **Cooperative agreement (CAN)**

☐ **Proposals due 2007-12-07 (NOIs 2007-10-02)**

☐ **http://nspires.nasaprs.com/**

NASA ROSES 2007

☐ **ROSES - Research Opportunities in Space and Earth Science**

☐ **Open solicitations:**

- Ocean Surface Topography (2007-10-31)
  ~25 awards @ ~$4.5M/yr

- Earth Surface & Interior (2007-11-26)
  ~16 awards @ ~$3.5M/yr

- EarthScope InSAR & Geodetic Imaging Component (2007-11-26)
  ~9 awards @ ~$1.8M/yr

- Terrestrial Hydrology (2007-11-14/2008-01-15)
  ~5 awards @ ~$750k/yr

- Energy & Water Cycle (t.b.d.)

- Ocean Biology & Biogeochemistry (t.b.d)

☐ **Not solicited in 2007:**

- E.2. Applied Information Systems Research (deferred to ROSES-2008)
- A.24. Advanced Information Systems Technology
- A.23. Making Earth System Data Records for Use in Research Environments

☐ **http://nspires.nasaprs.com/**