Contents

- 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
List established July 2007
Communicate Unidata information to NASA stakeholders
Solicit input from NASA to Unidata
Modest membership so far (15 members)
Case Study: GES DISC OpenDAP Servers

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

2007 October 28
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

Case Study: GES DISC OpenDAP Servers
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)

Case Study: GES DISC OpenDAP Servers
Case Study: GES DISC OpenDAP Servers

TRMM - Tropical Rainfall Measuring Mission

- 3-hour 0.25x0.25deg rainfall
- Monthly 0.25x0.25deg rainfall
- Monthly surface (0.5x0.5deg) and oceanic (5x5deg) rainfall
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
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/