



CommunitE-Letter | Volume 4, Number 10, March 2008

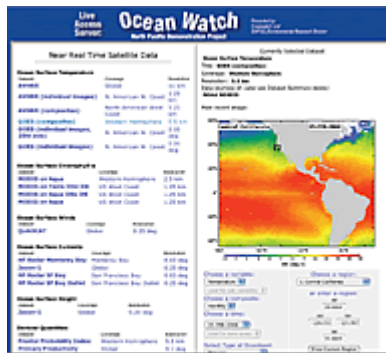
Site Highlight: NOAA's Environmental Research Division

The text of the following article was derived from an e-mail message from NOAA scientist Roy Mendelssohn, in response to a query about how he uses Unidata technology. He is a Supervisory Operations Research Analyst in the Environmental Research Division/Southwest Fisheries Science Center.

Unidata tools, technologies, and services play a vital role in data integration and access at the NOAA/NMFS/SWFSC's Environmental Research Division (ERD) in combination with the West Coast Node of Coastwatch. The combination of the netCDF data format and the THREDDS data server (TDS) is essential to our data services, and the GALEON project is helping us move to greater integration with the GIS community.

The [ERD THREDDS Data server](#) makes available 10TB of online data. Using the netCDF/TDS combination has:

1. Allowed us to provide data in a consistent, standards based (CF) format and metadata which makes client access easier.
2. Provided a browseable catalog of data that can also be used by clients for remote access to the data.
3. Improved our efficiency, most directly due to the ability of the TDS to aggregate data and add metadata. As we are adding data in near-real time, this has greatly simplified our processing as we just add a new netCDF file but to the user it looks like one large multi-dimensional dataset.
4. Allowed us to provide data using the Web Coverage Service, an Open Geospatial Consortium standard



more information about ERD's data services available by clicking the image

The Unidata staff has been receptive and responsive to suggested improvements and bug fixes. NetCDF-4 (now in [Beta release](#)) will improve our data services by providing a data format for "ragged arrays," profiles taken at varying numbers of depths for example. In addition it will improve our ability to structure how our data is included in files. For example, data can be grouped by geographical regions. The proposed Common Data Model has sharpened the discussion on how best to represent different types of observations so that they can be both stored and transported in a consistent fashion.

The "[Ocean Watch](#)" web site facilitates the application of oceanographic satellite data towards the stewardship of living marine resources. It is one of the applications that benefits from ERD's use of the THREDDS-netCDF combination.

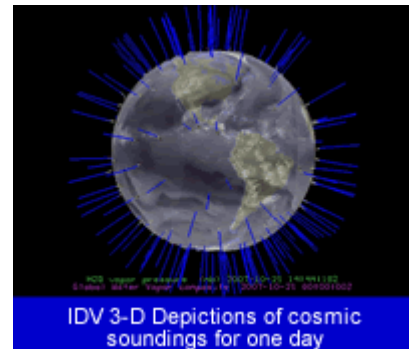
Finally, many of our customers use GIS software, making the need to better integrate our services with the GIS community important. The GALEON project has taken the lead in this effort and is an important effort into the future.

In short, our data services are built upon the formats and tools that have been and are being developed at Unidata.

COSMIC Data Available on the Unidata LDM

Linda Miller, Community Services

The Unidata Program Center is pleased to announce the availability of Radio Occultation Data, using LDM technology and made available through a collaborative arrangement with UCAR's Office of Program's COSMIC, and Taiwan's Formosa Satellite Mission. [The data](#) provides up to 2,500 radio occultation observations on vertical profiles of atmospheric air density, temperature, and water vapor as well as ionospheric electron density per day. The spatial/temporal coverage COSMIC offers provides unparalleled spatial and temporal resolution of sounding data.



COSMIC is a joint Taiwan-U.S. mission that provides a constellation of six identical micro-satellites with unprecedented opportunities for global observations of weather, climate, ionosphere/space weather, and geodetic research. Each microsatellite carries an advanced GPS receiver (GOX) for radio occultation and precision orbit studies, a tri-band beacon (TBB) transmitter, which transmits 150, 400, and 1067 MHz radio beacons to ground-based receivers for ionospheric tomography and radio wave scintillation studies, and a tiny ionosphere photometer (TIP) for ionospheric airglow observation in nadir direction (135.6 nm). For an excellent description of the COSMIC project and the

data see an article by Rick Anthes in the "[President's Corner](#)" of the [Spring 2006 UCAR Quarterly](#).

Securing access to the data for education and research purposes is easy. Working together with COSMIC we developed step-by-step directions for you to follow to receive the data for education and research purposes:

1. From the COSMIC [home page](#) select the "CDAAC Data Access (COSMIC) [Sign Up]" link from the left navigation bar.
2. Follow this link to the FORMOSAT-3/COSMIC Data Distribution Policy.
3. Select the "Data Use Agreement" button. Note the option for LDM delivery (3b). Select "Agree" if you accept the agreement, and then complete the form. Make sure to select the "LDM" check box.
4. You will be contacted to collect necessary information: your LDM client machine's IP address or host name and what file types are needed.
5. Your information will then be added to our LDM configuration files at which time data is available to be requested by your LDM.
6. Add a request for an EXP data feed from cosmic-io-cosmic.ucar.edu to your LDM configuration and restart your LDM.
7. Data may take up to ten minutes to arrive, so verify data reception with your LDM.

We look forward to receiving your comments about how the data influences your teaching and research. If you have questions on using the LDM to receive the data, please contact Unidata User Support using an appropriate [topic-specific support e-mail address](#)

Meet Director Emeritus Fulker

Former Unidata director, Dave Fulker, has been appointed Unidata Director Emeritus, with approval from the UCAR Board of Trustees. Emeritus status is bestowed on people who have provided sustained leadership and impact on the UCAR organization. It clearly fits Dave who has served in various capacities within UCAR for over 38 years, including 18 years as the founding director of Unidata. Dave retired in 2005 and has continued to offer his time unselfishly to UCAR.

The photograph at right was taken by NCAR photographer Carlye Calvin and shows Dave with his AMS Cleveland Abbe Award plaque, which he received earlier this year.



Photo by Carlye Calvin

News Briefs

Equipment Awards

Please be aware that the deadline for Unidata's Equipment Awards is coming up. That date is March 14. See the [Call for Proposals](#).

DeSouza Awards

Please be aware that the deadline for submitting nominations for the 2008 DeSouza award is fast approaching. March 10 is the date. Nominations should be sent to nominations@unidata.ucar.edu. Please provide a brief perspective/description of the nominee's contributions to the Unidata community. The awardee will be selected from the list of nominees by the Unidata Users Committee and will be invited to Boulder to receive the award at the spring Users Committee Meeting taking place on 10-11 April 2008. The recipient will be invited to give a presentation on use of Unidata data and tools, see: <http://www.unidata.ucar.edu/newsletter/2008jan/index.html#Article3>

Regional Workshop

We call your attention to the Regional Workshop at Plymouth State in mid-May 2008. This 2½ day workshop will allow for hands on instruction with Integrated Data Viewer (IDV) software. For more detail view [the news item](#) in the January 2008 Unidata CommunitE-letter.