Designed By Chrissy Chiddo; Edited by Lola Olsen

CEOS IDN Newsletter

ISSUE 21 AUGUST 2006

CEOS Committee On Earth Observation Satellites International Directory Network (IDN)

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CEOS WGISS 21 & WGCV 25 Plenary and Subgroup Meeting

By Viktor Pusztai, EOGEO Hungary Public Foundation

The Hungarian Team:
From left: Viktor Pusztai, Péter Bedecs, Gábor Wagner, Szilvia Budacsik

May 8-12th, 2006
Hotel Gellert, Budapest, Hungary

Many thanks to CEOS Working Group on Information Systems and Services and Working Group on Calibration and Validation Subgroups for choosing Budapest as the conference location in the spring of 2006.

Personally, I have learned and gained a lot of experience through my attendance at the WGISS conference and in activities that contribute and cooperate with the IDN.

I attended my first WGISS meeting in 2000 in Bangkok. At that time, I worked for GRID Budapest in the Ministry for Environment and Water as an Oracle Database and SUN Solaris System Administrator. I was just 20 years old with little experience in traveling, professional work, and communication. From year to year, I gained more experience and realized that WGISS members and the IDN is a big "family" with a professional background in IT / Applications and Remote Sensing.

I left the Ministry and GRID Budapest in late 2004, but I didn't want to lose the experience and connection with colleagues and friends in WGISS. Thanks to Allan Doyle (EOGEO) and Lorant Czaran (UN) who came up with the idea to set up a non-profit company in Europe with a similar vision to what EOGEO laid down in the US, the EOGEO Hungary Foundation was created in late 2004. The aim was to provide backing and technical support to Educational Institutions, Government Organizations, Non-Governmental Organizations (NGOs), International Institutions on IT systems and services developments, and access data connected to GIS technologies and Environmental Information Systems.

This meeting in Budapest gave us the opportunity to get the WGISS / WGCV members and representatives together from local institutions and have a chance to directly interact with each other.

From the Hungarian perspective, it was a milestone for all to exchange information and contribute ideas at a time when Hungary is also becoming more active in the Group on Earth Observations (GEO) and Global Earth Observation System of Systems (GEOSS) process.

Lorant Czaran from UN helped with communication and organizational issues. Gábor Remetey-Fülöpp from HUNAGI (Hungarian Association for GEO Information) helped in raising the profile of this event in Hungary by inviting local speakers. He also assisted in getting support from Ministry of Agriculture and Rural Development of Hungary for the Welcome Reception on Monday evening. Péter Bedecs is the co-founder and Vice President of EOGEO Hungary Foundation.

Thanks to my fiancé, Szilvia Budacsik, and friends who supported me the entire time and did a great job in logistics. They also helped to organize the boat trip for Wednesday evening, which was a memorable event on the Danube with a folklore show and nice dinner.

The meetings were opened on Monday morning, May 8th by Ivan Petiteville, the WGISS Chair from ESA. Dr. Norbert Berczi, Deputy State Secretary from Remote Sensing Center of Hungary, gave the welcome address from the Hungarian side. Discussions included the reports from the Plenary and the SIT meetings and introductory thoughts on GEO. Sessions for the WGISS Information Infrastructure, Technology and Services, Archive, and the Grid Task Teams followed. An evening "Welcome Reception" was sponsored by the Ministry of Agriculture and Rural Development for both WGISS / WGCV and participants.

The IDN opened the subgroup sessions on Tuesday, sparking discussion of extended uses of task team resources for upcoming global projects, such as GCOS and GEOSS. Task Team sessions for the Interoperable Catalogue System and Data Services followed.

On Wednesday, May 10th, Dr. Szabolcs Mihály from the Institute of Geodesy, Cartography and Remote Sensing (FÖMI) opened the workshop on "Hungarian Activities in Remote Sensing." The workshop was co-chaired by Dénes Szendrő (DLAG MoARD), Pál Bozó (Ministry of Environment and Water), and Brezsnyánszky Károly (Geological Institute of Hungary). Speakers included: George Büttner, Gábor Csornai (FÖMI), Gergely Sipos (MTA Sztaki), András Attila Takács – Tamás Lőrincz – András Révész (MoEW), Alexa Róbert (Kiskunság National Park)

By evening, both WGISS and WGCV group went on a joint boat trip on the Danube and enjoyed the folklore show and the dinner. It was amazing to see the Buda Castle, Hotel Gellért on the Buda side and the Parliament and National Theater on the Pest side. We were lucky with the weather so everyone could enjoy the sights from the terrace of the boat. Then the dinner and folklore show started, and we began to dance and enjoy the wonderful performance. After the tour we stopped at Heroes Square then returned to the hotel.

Both WGISS and WGCV groups convened for discussions of joint projects on Thursday, with Friday's focus on agency reports, future CEOS meetings, and discussions of GEO. We were all sad this great event had finished. I hope everyone enjoyed the wonderful city of Budapest, the meeting, and the atmosphere.

The Gellert Hotel on the Danube

Welcome by Dr. Norbert Berczi

Lorant Czaran during the "Hungarian Activities in Remote Sensing" Workshop

Ben Burford and Shinobu Kawahito (JAXA) being serenaded on the Danube

CEOS Responds to the GCOS Implementation Plan— With Assistance From the IDN

By Ken McDonald (Vice Chair of WGISS), and Ivan Petiteville (Chair of WGISS)

The CEOS Strategic Implementation Team, CEOS-SIT, has been tasked to respond to the Global Climate Observing System (GCOS) Implementation Plan. In an initial response by the SIT, the requirements for space-based observations were expanded in the form of a "Satellite Supplement" document that summarizes the detailed principles, cross-cutting actions, and specific actions for "Essential Climate Variables" (ECVs) identified for atmospheric, oceanic, and terrestrial data. The document matches instruments and satellite platforms of interest with each specified product, along with requirements associated with the reprocessing of past and current data sets to create "Fundamental Climate Data Records" (FCDRs). In addition, the calibration and validation of the products and the extension of these records with future missions will be recorded.

The CEOS SIT has, in turn, asked the CEOS Working Groups on Information Systems and Services (WGISS) and Calibration and Validation (WGCV) to assess these GCOS requirements in their respective areas of expertise. Ultimately, WGISS representatives were tasked with assessing the resource requirements that would be necessary to reprocess the data collections to produce FCDRs for each Essential Climate Variable (ECV). The assessment itself is a major undertaking. However, an important contribution that WGISS can offer in the near term is the use of the International Directory Network (IDN) to create a comprehensive overview of all satellite data products held by the world's space agencies that provide measurements of the ECVs. The IDN holds over 17,000 directory entries that describe various data collections and is a unique and invaluable resource that can be applied to this effort. It also provides additional information on period of record, spatial coverage, availability and archive location, processing status, and points of contact for each data collection. This information will be critical in the creation of FCDRs, which is the ultimate goal for GCOS.

As a first step in addressing the GCOS needs, the IDN team created several portals to provide access to products through a search on the associated Essential Climate Variables (ECVs). One of these portals provides a GCOS view of potential data sets identified through the "ocean" ECVs and can be viewed at http://gcmd.gsfc.nasa.gov/ceosgcostaskteam/

It should be noted that this action from CEOS SIT also addresses the GEO needs - as it corresponds exactly to the CEOS Contribution to the GEO "climate" task CL-06-02 (see both GEO 2006 and GEO 2007-2009 Work Plans). Potential uses of the IDN have been identified for a few other GEO tasks, demonstrating that the IDN could play an important role in the GEO System of Systems, (GEOSS).

Ivan Petiteville and Ken McDonald, "entranced" by IDN progress.

What is Interoperability

By Paul Kopp, CNES

Paul Kopp,
Technology and Services Chairperson,
on the Danube River

Although it does not yet exist in many dictionaries, "interoperability" has become a buzz word in the field of data management. It is often heard in many fora where experts discuss storing, discovering, retrieving and using data. There are only a few very technical definitions and fewer explanations of the "interoperability concept". This article will explore this topic as it relates to data management.

The Problem

Diversity, sometimes also called "heterogeneity", is the dominant feature of modern data repositories. Distinctions regarding (1) geographic, (2) thematic, and (3) technological diversity are considered here.

1. Geographic Diversity

Often, data pertaining to a single space program are not archived in a single place. This happens, for instance, when several cooperative agencies leading a space program decide to distribute data within a program over several repositories. Each repository may simply be a duplicate (a "mirror") of another or may be more specifically devoted to the data that have been processed at some level.

2. Thematic Diversity

Data rarely exist in isolation and are commonly thought of in relation to some theme. This theme has an effect on the way data are organized: astronomical data produced by the observation of discrete objects (like stars) are obviously not collected in the same way as data produced by observing geographic features, which are shaped by the spatial and/or temporal continuity of observations. Quite often, data with the same theme are archived in "thematic" repositories. For instance, data that deal with climate may be retrieved from a "climatic data center". Such a thematic center may have no other objective than to provide the same access procedures for their users, i.e., to make the data available according to the properties by which the users wish to explore their research question. This does not determine the type of technology that is implemented behind the "user interface": two very different thematic centers may be built upon the same technology, and conversely, thematically similar data centers may use different underlying technologies. The relation between data and a theme is seldom one–to–one. For instance, data that relate to "climate" likely also relate to "atmosphere" or to "ocean". This implies that the same data may be subsumed under several distinct thematic categories. Distinct thematic categories may be subsumed under broader ones, which implies or infers the existence of a thematic classification schema. Such a classification may be very complicated. The quality of a data center, as perceived by its users, is directly related to the relevance of the viewpoints it offers. Users are not abstract features but persons who join their cognitive resources.

These resources vary, depending on the users' profile and expectation: a layman does not use a data center in the same way as an expert, and equally skilled users may be interested in different pieces of information.

3. Technological Diversity

The way by which the different data elements are formatted to create the resulting dataset usually depends on rules enacted by the dataset designer or custodian. Formats may be totally arbitrary or shaped by specific constraints or needs. Satellite telemetry formats often belong to a single format specification. However, data formats are usually chosen among families of formats, each family being devoted to a particular type of data : text (e.g. ASCII, HTML, PostScript, PDF), images (e.g. PNG, TIFF, JPEG), numerical data (e.g. SFDU, CDF, HDF, FITS). These formats have become publicly available standards, although some are owned by private entities (e.g., the ADOBE company holds the PDF specification). The choice of the format often depends on the level of intervention the data designer or custodian wants to leave to the data user. While it is easy to change the spatial layout of a page given through the HTML format, this is very difficult with a page given in the PDF format. While the SFDU format gives access to each byte of information, the HDF format may hide the (possibly complex) lattice structure of the data to the ordinary user. Diversity also prevails in the domain of data access: Z39.50,

CORBA, HTTP, FTP, and web services are examples of data access protocols. They are all very common, but they are also all mutually incompatible.

A Possible Scenario

To illustrate how the design may work, consider the fictitious scenario of an Earth radiation budget expert willing to analyze the changes occurring in the radiances measured at top of the atmosphere, above some geographic area, and over some temporal period. Several space-based instruments have been measuring radiances at the top of the atmosphere (e.g., ERBE, ScaRaB, CERES). ERBE and CERES data are located at NASA's Langley Research Center in the United States and ScaRaB data are located at CNES in France. Data formats for ERBE and ScaRab are institutional formats. The data format for CERES is HDF. ERBE and CERES data are available on line and distributed with the software needed to read them. ScaRaB data are only available on CD-ROM without any software. The related documentation is available under various formats (HTML, PostScript, PDF, Microsoft Word). For all instruments, radiances are actually given as mean temporal and regional radiances; thus, each dataset is a spatial–temporal grid.

Let us assume now that our expert is interested in a particular area: for example, the South Atlantic Ocean. This area may be identified by the geographic coordinates of a bounding polygon, which will be used as a kind of filter applied to the grids that exist (and must be retrieved to be subsetted) for each of the instruments: ERBE and CERES at NASA and ScaRaB at CNES. This results in a single dataset containing all the radiances available from all the instruments for the period and area of interest. If our expert additionally wants to portray the radiances on a map, he will need to access a map server, retrieve the appropriate map and merge this map with the radiances into a single dataset. And finally, if he wants to document this resulting dataset, he will also need to collect information from existing ERBE, ScaRaB and CERES documents, select an appropriate document format, and make the document format conversions that may be required to move information from the existing documents to the newly created one.

What our expert has done, was to achieve interoperability between ERBE, ScaRaB and CERES data. This exercise is probably within the reach of a user accustomed to handle complex data but probably not of a less experienced user faced with a complex problem, such as the understanding of an ecosystem requiring cross–references of many very different pieces of information from various sources (temperatures, precipitation, wind speed, satellite images, etc.). A non-specialist user who has to deal with a large number of multiple and different data sources, may become bogged down with the number of data repositories increasing. The development of programs, such as through the Group on Earth Observations (GEO), fosters a global approach for the understanding of geophysical phenomena.

Conclusion

The challenge posed today to data repository custodians is to make their data available as building blocks for extended information, to a wide and varied population. All these data are geographically distributed and organized in many different ways from multiple sources that are continuously evolving. It is impossible for an ordinary user to approach this huge amount of data without the help of an appropriate mediating mechanism, which may be seen as a sort of bridge between the user and the data - the users being provided only with the information that is valuable from their perspectives and relieved of the burden to know the constraints. This mediating mechanism is the only way to make data (and the hosting data centers) interoperable. Making data interoperable requires technology. Fortunately, much of this technology is available. However, it also requires understanding the fundamental nature of the relation between data and user, i.e., between a human being in search of knowledge and the fields of data where this knowledge dwells. This is probably the most difficult part in the interoperability process.

As mentioned in the previous IDN newsletter, the Task Teams of the CEOS Technology and Services subgroup have been actively taking steps toward interoperability and have gained a lot of experience in this domain. The CEOS Technology and Services subgroup currently comprises five task teams: Archive Task Team (Kengo Aizawa, JAXA), the Grid Task Team (Li Guoquing, RSGS-China), the Interoperable Catalogue System Task Team (Jolyon Martin, ESA), the Data and Services Task Team (Shinobu Kawahito, JAXA), and the IDN Task Team (Lola Olsen, NASA). For more information about these task teams: http://wgiss.ceos.org/technology/index.html.

ecoMundus By Sean Khan, UNEP-GRID Nairobi

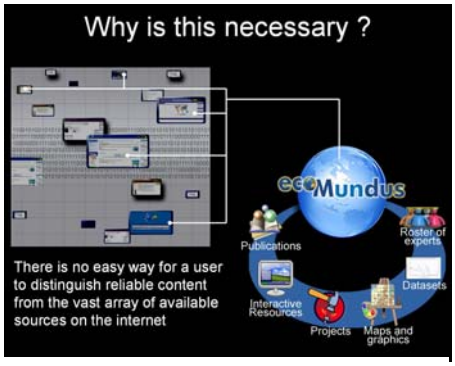


Figure 1 Vetting and organizing content

ecoMundus (meaning the world of the environment in Latin) is a distributed network that facilitates easy and open access to information and data about the environment. It is a collaborative initiative, catalyzed by the United Nations Environment Programme (UNEP) that aims to build a network of leading institutions to share and exchange environmental information and data they manage.

ecoMundus stems from the observation that although countless resources are available on the internet, no single coordinating mechanism that can provide access to reliable and authoritative information and data on the environment has been materialized.

ecoMundus is addressing this need by putting such a mechanism in place. The use of recognized standards for interoperability and the identification of trusted partners are key elements to its approach.

The heart of ecoMundus is built around the GeoNetwork Opensource software (http://geonetwork.sourceforge.net), a freely available standards based platform for managing metadata. GeoNetwork Opensource was developed by FAO and is now used, maintained, and enhanced by a growing community of institutions including FGDC, World Food Program, United Nations Office for the Coordination of Humanitarian Affairs, Consultative Group on International Agricultural Research, Ministry of Environment Brazil, and others. ecoMundus is focused on linking various metadata systems together into a coherent network of federated information systems. Implementation of this network is incremental and includes activities such as international and regional partnership workshops, capacity building and training programmes, research and referrals.

"Our goal is to catalyze the implementation of an integrated information management infrastructure among international, regional and national institutions"

Towards this goal, UNEP held its 1st international meeting in Rome on May 15-16 (conveniently following the CEOS meeting in Budapest the previous week), targeting international partners that included representation

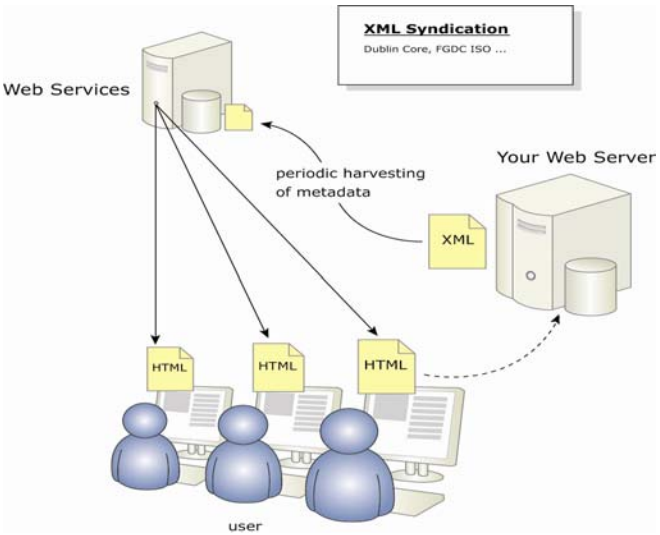


Figure 2 Harvesting metadata

from NASA, USGS, International Atomic Energy Agency, European Environmental Agency, World Conservation Union, International Fund for Agricultural Development and others.

A similar, but regional, workshop held in Brasilia (7-8 June 2006) that targeted Latin American partners resulted in interest from initiatives such as IABIN (the Inter American Biodiversity Information Network) and the IWRN (Inter American Water Resource Network). In particular, the Ministry of Environment of Brazil expressed interest in linking its information initiative called "Sinima" to ecoMundus. Sinima is a strategy under implementation to bring together data generated by federal and state agencies in Brazil through a common infrastructure. The model represents a national manifestation of ecoMundus that is driven by the country and addresses their needs while serving the broader purpose of ecoMundus.

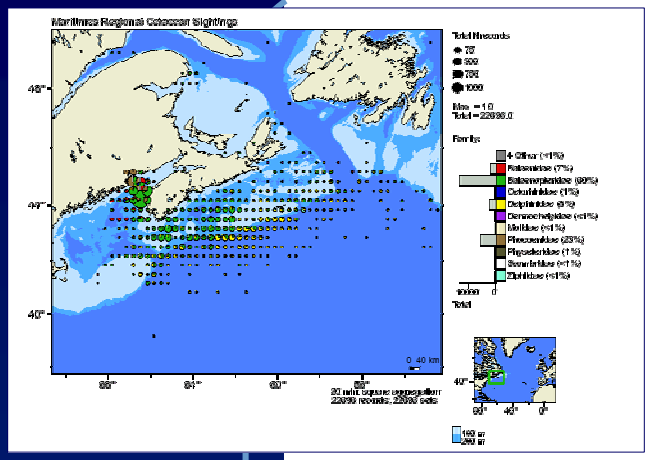
ecoMundus will be launched February 2007. More information about ecoMundus including meeting reports and background documents are posted on the ecoMundus working website (http://www.ecomundus.net). You may also contact Sean Khan the project manager at sean.khan@unep.org

"All work and no play makes ecoMundus a dull thing"
15th May, Rome

First row (to right): Sana Haider (DGF) and Gerard Cunningham (UNEP/DEWA)
Second row: Hugo Ahlenius (UNEP/GRID Arendel), Neno Kukuric (IGRAC), Sean Khan (UNEP/DEWA), Lola Olsen (NASA), and Carol Ngori (UNEP/DEWA)
Third row Jerome Simpson (REC), Andreas Brink (IEW/JRC), Melissa Krenke (Rainforest Alliance) (the triad behind Sean), and Larry Fitzwater (EPA) (sitting further to the right behind Carol)
Last row: Kevin Keck (Lawrence Berkely National Labs), Scott Fertig (IAEA), Ricardo Dimarchi (Development Gateway Foundation), Gabriele Giannini (FAO Consultant), Stefan Jensen (EEA).

Ocean Biogeographic Information System (OBIS) Canada's Three Oceans of Biodiversity

By Robert M. Branton and Gerald A. Black, Bedford Institute of Oceanography;
Lou Van Guelpen, Huntsman Marine Science Center



Dynamic multi-species ACON map showing Canada Maritimes Regional Cetacean Sightings.

A Workshop on Canadian Marine Biodiversity, co-sponsored by the Centre for Marine Biodiversity (CMB, http://www.marinebiodiversity.ca/) and the Census of Marine Life (CoML, http://www.coml.org/) was held at White Point, NS, Canada, in 2002. Participants called for the creation of an integrated metadata registry detailing the sources of information on marine biodiversity available for Canada's three oceans - Arctic, Atlantic and Pacific. Although Canadian scientists had been part of CoML since its inception, the workshop marked the time when Canadian marine biologists actively engaged the Canadian Geospatial Data Infrastructure (CGDI). After the workshop, staff representatives at the Bedford Institute of Oceanography (BIO), Canada's premier oceanographic institute at Dartmouth NS, Canada and the Huntsman Marine Science Centre (HMSC) [a unique independent not-for-profit scientific institute at St. Andrews] initiated the CMB Technical Committee (CMBTC). The CMBTC to date has fostered standards-based public access to ~700K records on ~9,000 marine species from 14 Canadian sources, primarily through the Ocean Biogeographic Information System (OBIS, http://www.iobis.org/), Geoconnections (http://geodiscover.cgdi.ca/), and Global Change Master Directory (GCMD). More additions are expected in the near future.

The underlying plan for the OBIS Canada node is simple. Data at Canadian institutions are transformed to the OBIS / Darwin Core II schema using Structured Query Language (SQL); transferred to a Distributed Generic Information Retrieval (DiGIR) provider at BIO; and forwarded to the OBIS Portal at Rutgers University in New Jersey, USA to become part of the ~10 million record OBIS global collection. Canadian metadata records are created on the Geoconnections portal and migrated to the IDN OBIS Canada portal (http://gcmd.nasa.gov/portals/caobis/) - one of 10 Regional OBIS Nodes (RONs) contributing metadata to the IDN portal.

CMBTC membership draws from a range of disciplines (e.g. biologists, taxonomists, data managers and geospatial analysts) and follows an uncompromising 'Data First!' agenda, primarily focused on ensuring authority, discovery, and access. Simply stated: authority means that the origin of the data is known and organism names are reliable; discovery means that end-users can learn about the data; access means that end-users can get the data. CMBTC recommends making maximum use of existing open systems such as the Integrated Taxonomic Information System (ITIS) for authority; Geoconnections and the GCMD/IDN for discovery; and OBIS for access. In addition to using these open systems, CMBTC has also provided its dynamic multi-species mapper called ACON for public use. OBIS data can be accessed through the "Related_URL: GET DATA" links on the IDN portal (Example: 'Canada Maritimes Regional Cetacean Sightings', http://gcmd.gsfc.nasa.gov/getdif.htm?OBIS.Marwhale).

As a result of these varied activities, CMBTC members have developed valuable expertise and are working to establish discovery metadata resources for the Gulf of Maine Ocean Data Partnership (GoMODP, http://www.gomodp.org/) and OBIS. Collections currently managed by GoMODP and/or OBIS can be discovered through the IDN portal. The GCMD discovery portal, the metadata authoring tool DocBuilder, and the Open API are being promoted as the services of choice for developing and maintaining discovery metadata resources for these partnerships. CMBTC has developed software using the IDN Open API to summarize XML metadata records by Project and/or IDN_Node. The software is written in the open source R programming language (http://www.r-project.org/) using the XML library, which can easily be installed on any Windows, UNIX or Mac computer. These programs are expected to provide the basis for facilitating quality control activities of OBIS and GoMODP editorial boards and committees.

"Wine-ing" About Climate

By Gene Major, GCMD

From Les Tres Riches Heures medieval book of hours (ca. 1408) calendar illustrations (September): The grapes are being harvested by the peasants and carried into the Chateau de Saumur. http://humanities.uchicago.edu/images/heures/heures.html

A news story recently circulated claiming that wine production in the United States could be drastically affected by global warming.

(http://news.nationalgeographic.com/news/2006/07/060711-wine.html)

Vineyard harvests might possibly be susceptible to temperature changes and therefore may be an indicator of past climate change. Detailed records of grape harvest dates were kept for hundreds of years in England and Europe.

A study of French grape-harvest records by Chuine, et. al., (2004) provides significant clues as to past climate conditions. Chuine and colleagues analyzed Pinot Noir grape harvest data from 1370 to 2003 in the Burgundy region of France for up to 18 cities and villages. They concluded that temperatures as high as those reached in the 1990's have occurred several times since 1370 and that the summer of 2003 appears to be the warmest since the beginning of the data record. Grape harvest dates and temperature reconstructions from this study can be found by linking to the IDN metadata record:

http://gcmd.nasa.gov/getdif.htm?NOAA_NCDC_PALEO_2005-007

Historical evidence of climate change can also be found in documents such as church records; ship logs; diaries; manuscripts; harbor, river, and lake ice data; and court records. Many records describing these data are found in the IDN, and many of these data sets are held at the NOAA Central Library in Silver Spring, MD and at the World Data Center for Paleoclimatology in Boulder, CO.

References:

Selley, Richard. The Winelands of Britain: Past, Present & Prospective. http://www.winelandsofbritain.co.uk/

Chuine, I., P. Yiou, N. Viovy, B. Seguin, V. Daux, and E. Le Roy Ladurie. 2004. Grape ripening as a past climate indicator. Nature, Vol. 432, 18 November 2004.

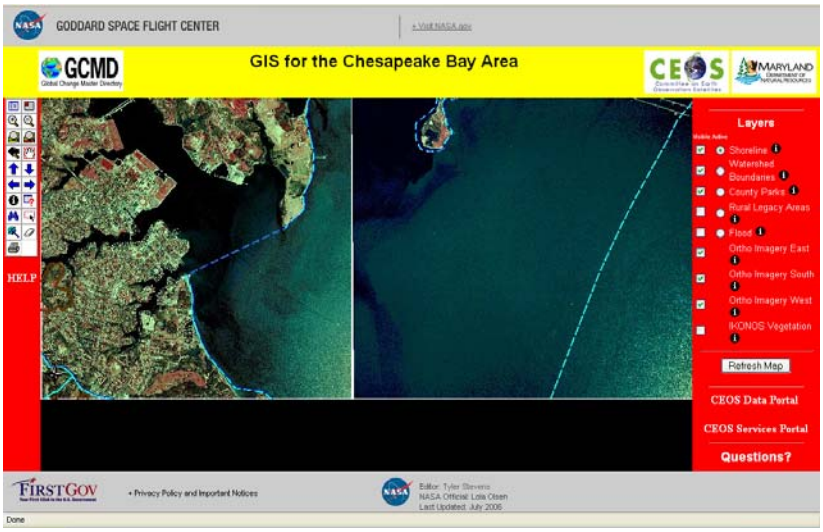
Analyzing Environmental Geospatial Data Sets for the Annapolis Area Using the IDN Prototype Mapserver

By Tyler Stevens, GIS/Services Coordinator

A new map service for the Annapolis area was recently created in preparation for the upcoming CEOS WGISS-22 meeting in September. This map service features several environmental data sets from the Maryland Department of Natural Resources. It includes IKONOS imagery and selected NASA data sets for the Annapolis area. The purpose of this map service is to showcase data contributions from local and federal government agencies that can be used to analyze the environmental characteristics of the entire Chesapeake Bay area.

Access the prototype map service at:

http://mapserver.gsfc.nasa.gov/website/CEOS_ANNAPOLIS/viewer.htm



JCADM

By Melanie Meaux, IDN, Ocean/Ice Science Coordinator

Victoria Dock, Hobart, Tasmania

The 10th meeting of the Joint Committee on Antarctic Data Management (JCADM) was held in Hobart, Tasmania in July of 2006, in conjunction with the Scientific Committee on Antarctic Research (SCAR) Open Science Conference (OSC) and with the SCAR Business meetings of the Standing Scientific Groups (SSGs). The main goal of the JCADM meeting was to establish liaisons with SCAR SSGs and Scientific Research Programmes (SRPs). The oral and poster sessions presented at the meetings allowed SCAR members to interact with JCADM members and the IDN to become better acquainted with the role of JCADM and the Antarctic Master Directory (AMD, http://gcmd.nasa.gov/portals/amd/). A small JCADM capacity-building workshop was held, where the new features of the AMD and the docBUILDER tool were demonstrated. Several useful recommendations were provided by JCADM and SCAR members to improve the tool. The availability of the new JCADM web site (http://www.jcadm.aad.gov.au/) was announced at the meeting. In support for the upcoming International Polar Year (IPY) 2007/2008, JCADM will continue to provide expertise on data management and will be actively involved in the IPY Data Policy. At the national level, JCADM members will establish partnerships with Arctic counterparts.

WGISS Action Items Status for the IDN By Lola M. Olsen, NASA

ACTION WGISS-20-11: Each Task Team to provide to Subgroup for validation and coordination two Frequently Asked Questions (FAQs) and answers.

FAQ: What is the difference between the Global Change Master Directory (GCMD) and the International Directory Network (IDN)?

The Global Change Master Directory (GCMD) is a metadata directory funded by NASA for the purpose of tracking, discovering, and accessing Earth science data and services.

The International Directory Network (IDN) serves as one of NASA's contributions to CEOS through the spin-off value of Global Change Master Directory. It is through the IDN that the feedback and participation by CEOS members serves to assist in prioritizing development and assessing external proposals for future development and change.

FAQ: What is the method of communication among the worldwide participants of the IDN and what is the purpose of that communication?

The IDN Newsletter is published twice a year in conjunction with the CEOS WGISS meetings. The Interoperability Forum provides a vehicle for communication regarding modifications and additions related to the Directory Interchange Format (DIF) and Services Entry Record Format (SERF) and for future development of the IDN.

As an example, the DIF has evolved through CEOS to be the most useable, readily adaptable, and heavily used de-facto standard available for the last decade. The DIF has evolved from and is maintained by an international group of scientists, data archivists, and IT specialists – rather than a standards bureaucracy. This is what makes the DIF the ideal format for the international scientific community that it serves. There are no other metadata formats or associated search engines nearly as usable or popular at the directory level for Earth science data.

FAQ: What is an IDN "Portal"?

The Wikipedia definition for a portal is expressed as: "web portals are sites on the web that typically provide personalized capabilities for their visitors."

The International Directory Network (IDN) offers "virtual subsets" of the full directory, along with associated customized views for participating and associated organizations to emphasize their contributions, track their data holdings, and offer their content as part of the larger collaborative effort.

ACTION WGISS-21-2: Task Team leaders to review WGISS WWW content to ensure their pages are up to date and to advise WGISS webmaster of any necessary revisions. Response: * This action has been completed.

ACTION WGISS-21-5: Task Team leaders to review GEO Work Plan and advise WGISS GEO Coordinator (WGISS Vice Chair) as to which activities their Task Team might potentially support and to nominate a suitable Point of Contact. Response: * An extensive investigation demonstrated many tasks for which the IDN could contribute. [Disclaimer: This investigation simply represents possibilities and does not represent specific actions on the part of the IDN.]

AG-06-04: Set up IDN portal for forest data. Additional keywords may be needed.

AR-06-01: Use tools already available for achieving interoperability, such as the IDN.

AR-06-04: Set up an IDN portal for in-situ networks, based on SERF services metadata. Contribution about such networks could come from DSTT.

CL-06-02: Set up IDN portal for climate records.

DA-06-07: Define a model web portal system for access to all Earth observation data, based on existing portals and systems, designed to increase use, quality, and accessibility of information, tools, and networks.

DI-06-01 and DI-06-04: Set up IDN portal for "tsunami" data

EC-06-06: Set up IDN portal for "ecosystems" data.

WA-06-04: Set up IDN portal for "catchments" data.

WA-06-05: Set up IDN portal for "global in-situ water observations data and other "in-situ networks" services.

WA-06-07: Set up IDN portal for "water management" in Latin America. Forward experience in the implementation of services.

ACTION WGISS-21-6: Lola Olsen to add the GCMD demonstration videos to the IDN portal. (July 2006) Response: * This action has been completed. Please see: http://idn.ceos.org/IDN/Meetings/2005_05_Hungary/view_tutorial

ACTION WGISS-21-7: DeWayne Cecil & Lola Olsen to investigate how the IDN might be applied in support of the CEOS Response to the GCOS IP May 2006. (May 2006) Response: * The use of IDN as a GEO portal and IDN's applicability to GEO Tasks AR-06-05, DA-06-07 was discussed. DeWayne Cecil suggested that the IDN team look in more detail at how the system could be used in support of the CEOS Response to the GCOS Implementation Plan. This investigation was completed through experimentation with several possible keyword interface portals. Flexibility in design was observed.

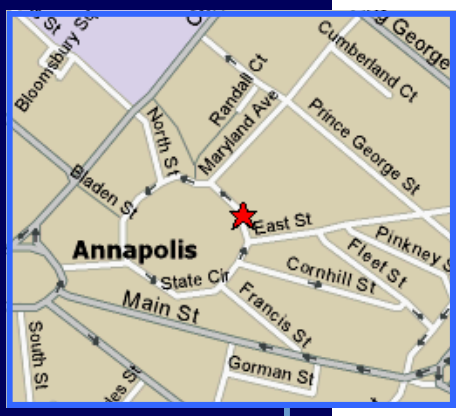
SUGGESTION from Wyn Cudlip: Perhaps an IDN profile for ISO 19115 should be submitted. Response: * Considering the steps to do this.

Preparing for Your Trip to Annapolis

By Chrissy Chiddo

The Annapolis City Harbor

A view of Main Street toward Church Circle and Saint Anne's Church in Downtown Annapolis



★ *58 State Circle The Historic Inns of Annapolis*

The Historic Inns of Annapolis, Maryland will serve as the location for the upcoming CEOS Working Group on Information Systems and Services (WGISS) on September 11-15th of 2006. The Inns include the Governor Calvert House, Maryland Inn, and Robert Johnson House, which are all in walking distance of each other.

Founded in 1649, Annapolis is the capital of Maryland and is located in Anne Arundel County. It is part of the Baltimore-Washington Metropolitan Area and is situated on the Severn River about two miles from its entrance into the Chesapeake Bay. The city is the home of the US Naval Academy. When in Annapolis, you are never too far from the water. The city is known as America's Sailing Capital, and the harbor hosts sailboat races as well as the nation's largest in-water boat shows.

The city is celebrated as a historical location because of the structures and institutions which provide direct links to the past. Some of the finest 17th and 18th Century buildings in the country are here, and the city takes great pride in having such a rich architectural past. Among several Georgian homes are many historic buildings such as the Maryland State House, the U.S. Naval Academy Chapel, and the Annapolis Maritime Museum.

While downtown offers colonial history lessons, other neighborhoods offer shops, restaurants, and attractions. Sightseeing cruises, boats, boarding tours, and fishing charters are the most popular forms of recreation by day. With a daily average temperature of 71°, Annapolis maintains a comfortable temperature in September for outdoor activities. By night, Annapolis offers many dining choices to suit your taste - from classic pubs to Soho-style bistros to formal dining rooms. Whether you are interested in the history, the water, or the hospitality, there is always something Annapolis has for you to enjoy.

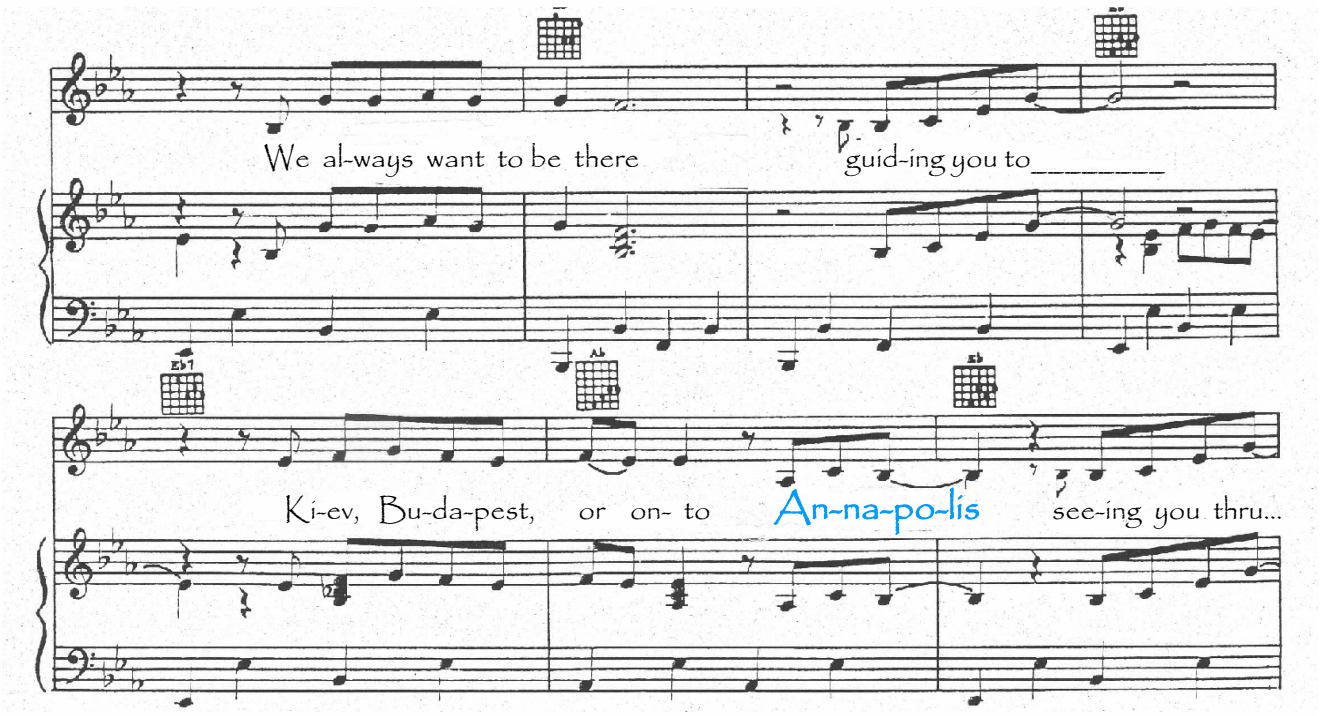
The "ultimate" calendar highlight for Annapolis in September will be the arrival of CEOS representatives from around the world. Welcome to all.

You must register by August 11, 2006. Go to the WGISS site at http://wgiss.ceos.org or go directly to http://www.infonetic.com/tis/ceos-wgiss/ to register.

IDN Task Team Meeting (Annapolis)

Schedule for Wednesday, September 13th
9:00-10:45 IDN

9:00 Introduction, Review of Minutes & Action Items from Budapest
9:15 IDN Newsletter
9:20 Usage Statistics, Keywords Status, Portals
9:35 Update on MD9.6 and 9.7 software
9:45 Node Presentations and Reports
10:10 Software Development (MD10) & Science Plans for the Future: Feedback
10:30 Chesapeake Bay Area Mapserver, Tyler Stevens
10:35 Discussion Topics

[IDN Services will be presented during Services Task Team session.]

Revised Segment of CEOS Song for WGISS 22