

# GEOSCIENCE INFORMATION SOCIETY **INFORMATION**

### Number 221, August 2006

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#### PRESIDENT'S COLUMN, by Adonna Fleming

I have been editing the papers for the proceedings from the 2005 annual meeting. Still waiting for a couple of stragglers, and then off to the printer. Thanks to all involved.

In other news: Dr. Marcus E. Milling is stepping down as the Executive Director of the American Geological Institute effective July 31, 2006. He will remain on the AGI staff as Senior Advisor, serving at the pleasure of the Executive Committee. Dr. Milling's career spans 42 years, with 14 at AGI. Under his leadership, AGI has experienced unprecedented financial growth, and become an important supporter of public earth science education. Dr. Christopher M. Keane, will be Acting Executive Director, while a search gets underway for a new AGI Executive Director. The search committee will be composed of seven members, and the AGI Executive Committee seeks active participation of the Member Societies in the search for the new AGI Executive Director. The Committee requests that Member Societies nominate individuals for consideration to serve on the Search Committee by August 4, 2006. The full Search Committee will be constituted and approved by the Executive Committee by August 8, 2006, and the search will begin on August 18, 2006. Please send nominations, along with full contact information for the individual, to: Leigh Sutherland, American Geological Institute, 4220 King Street, Alexandria, VA 2232-1502, fax: 703-370-7563, email: ls@agiweb.org.

Reminders: Earth Science Week is October 8-14<sup>th</sup>. The theme is "Be a Citizen Scientist". For more information go to: http://www.earthsciweek.org/ GIS Day is November 15<sup>th</sup>. For more information go to: http://www.gisday.com/

#### VICE PRESIDENT'S COLUMN, by Patricia Yocum

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Philadelphia—here we come! The major aspects of the conference are now arranged. GSIS specifics appear in this issue of our newsletter. More details will continue to be forthcoming especially on GEONET-L with final details appearing in our October Newsletter. See also the GSA Conference Program and both the GSIS and GSA websites.

To help you plan here are some key points to note:

- GSIS conference dates: Saturday October 21 through Wednesday October 25
- GSA technical program: Sunday October 22 through Wednesday October 25
- Register online at http://www.geosociety.org/meetings/ 2006/index.htm
- Early bird Registration: September 18 is the deadline
- GSIS Awards luncheon: Tuesday October 24, order ticket with registration

This year GSIS celebrates its 40<sup>th</sup> anniversary with a full calendar of conference events. We start with the 2006 version of GeoScience 101, an informative day designed to recruit new geoscience librarians and to help others new to the geosciences accelerate the development of their expertise. "Old timers" can also benefit from attending! The event will again be catered (breakfast and refreshments) so pre-registration is required. Watch for details.

Note that the Executive Board will meet Saturday evening and the GSIS Business Meeting will be held Sunday morning. Times were chosen to get the maximum benefit from our stay in Philadelphia and avoid conflicts with program sessions as much as possible.

The Geoscience Information / Communication poster session is scheduled for Sunday from 1:30-5:30 p.m. This is a discipline-wide session with 11 posters and a broad span. The same afternoon will have our ever-lively and rich Collection Development Forum.

Monday highlights start with our E-Resources Forum in the morning. As with the CD Forum the choice of topics seems limitless, a reflection of the myriad developments in libraries, publishing, scholarhip and user services. The afternoon is filled with our topical session, *Geoscience Information: Keys to Discovery*, 1:30-5:30 p.m. We have 13 talks

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# GEOSCIENCE INFORMATION SOCIETY 2006 Officers

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GSIS members are encouraged to contribute materials for publication. Material for the October, 2006 issue should be received no later than September 22, 2006. Please send materials by e-mail to cjm@thurston.com

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scheduled for the afternoon. A new feature is a 15 minute segment at the end of the afternoon for *ad hoc* discussion.

This year's Preservation Forum will be held at the Conservation Center for Art and Historic Artifacts on 23<sup>rd</sup> St in Philadelphia Tuesday morning. Watch for further details. The awards luncheon follows. We hope you will join us as GSIS presents its five awards for Best Paper, Best Reference Work, Best Website, Best Fieldguide and Distinguished Service to GSIS. A forum on envisioning the future of geoscience librarianship follows in the afternoon. This new session is an opportunity to pause and consider the many changes with which we are dealing and the opportunities we have to affect the future. You won't want to miss this discussion or the evening reception and silent auction which follow. Our fieldtrip this year will be take place Wednesday with a memorable visit to ISI in Cherry Hill, N.J. Preregistration is required. See details elsewhere in this newsletter. The afternoon and the conference conclude with the GSIS Professional Issues Forum & Conference Wrap-Up from 3:00-5:00 p.m. We hope you will join us for this relaxing session.

Planning for our annual conference is an amazing process, especially as it needs to interface with GSA planning efforts. The aim is to provide five days of intense learning, sharing, networking and all around professional development. I hope you will find the 2006 version meets those goals. Looking forward to seeing you in Philadelphia!

# GEOSCIENCE INFORMATION SOCIETY 2006 Annual Meeting, Philadelphia, Pennsylvania October 21-26 Schedule–As of Aug. 2, 2006

Note: GSIS Committees Meet separately as arranged by committee chairs

Saturday, October 21	
9:30 a.m 4:00 p.m.	Geoscience Librarianship 101: Drexel University
6:00 p,m 9:00 p.m.	GSIS Executive Board Meeting: Marriott Room 401/402/403
Sunday, October 22	
9:30 a.m - 12:30 p.m.	GSIS Business Meeting: Marriott Independence Hall I & II
1:30 p.m 5:30 p.m.	GSIS/Communication Poster Session: Philadelphia Convention Center, Exhibit Hall C
2:00 p.m 5:00 p.m.	GSIS Collection Development Forum: Marriott Grand Ballroom Salon C
5:30 p.m 7:30 p.m.	Exhibits Opening & Welcome Reception: Philadelphia Convention Center
Monday, October 23	
9:00 a.m 12.00 noon	GSIS E-Resources Forum: Marriott Grand Ballroom Salon C
1:30 p.m - 5:30 p.m.	GSIS Topical Papers Session "Geoscience Info-Keys to Discovery": Philadelphia Convention Center, Room 112B
5:00 p.m 1:00 a.m.	Alumni Receptions: Hotel
Tuesday, October 24	
9:00 a.m 11:00 a.m.	GSIS Preservation Forum: Conservation Center for Art and Historic Artifacts, 264 South 23 <sup>rd</sup> St.
12:00 noon - 1:30 p.m.	GSIS Luncheon and Awards: Marriott Grand Ballroom Salon A
2:00 p.m 4:00 p.m.	GSIS Forum on Envisioning the Future of Geoscience Librarianship: Marriott Room 401/402/403
6:00 p.m 9:00 p.m.	GSIS Reception and Silent Auction: Marriott Grand Ballroom Salon C
Wednesday, October 25	
9:00 a.m 2:30 p.m.	GSIS fieldtrip: ISI Cherry Hill, N. J. (Departure site to be announced)
3:00 p.m 5:00 p.m.	GSIS Professional Issues Forum & Wrap-Up: Marriott Grand Ballroom Salon CD

# GSIS Executive Board Meeting: (To be announced)

# FIELDTRIP TO ISI

At our annual meeting this year in Philadelphia our GSIS fieldtrip will be to the Institute for Scientific Information (ISI) in Cherry Hill, New Jersey. ISI pioneered the use of citation databases such as those in the Web of Science, which are among the most heavily by scholars. The

6:00 p.m. - 8:00 p.m.

tour will depart Philadelphia at 9:00 a.m. and return no later than 2:30 p.m. and is limited to 30 people. <u>Advance</u> <u>registration is required</u>. A preliminary list is due to ISI by September 11, 2006. To register please send an email to: Suzanne Larsen at Suzanne.Larsen@colorado.edu

# Topical Session # T59 "GEOSCIENCE INFORMATION: KEYS TO DISCOVERY", Monday October 23, 2006, 1:30-5:30 p.m., Philadelphia Convention Center

## Patricia B. Yocum, Chair

Discovery in science depends heavily on information made publicly available. This session provides opportunity for the geoscience community to discuss scientific information—how it is created, distributed, organized, accessed and used.

1:30 p.m. Introductory Remarks

1:45 p.m. Abstract ID #113500

# NEW JOURNALS - NEW SOURCES OF RESEARCH DISCOVERIES IN GEOSCIENCE?

NOGA, Michael Mark, Science Library, Massachusetts Institute of Technology, 14S-134, 77 Massachusetts Ave, Cambridge, MA 02139-4307, <u>mnoga@mit.edu</u>

Journals proliferate. Publishers may want to expand their market into new research areas. Perhaps they want to focus their journals towards specific markets by making more specialized titles. Editors may be interested in establishing a new journal to publish papers that are under-represented in the literature. Perhaps there is a disagreement between editorial board members of a current journal and their publisher. There may be other reasons for starting a new journal. This study examines whether new journals indeed capture research areas that are under-represented in established journals. Geoscience journals that were started in the 1980s and early 1990s are compared to established geoscience journals. GeoRef and the Web of Science are used to identify the subject distribution of articles over time. Are there any signs that articles on specific topics moved to the new specialized journals? Citation data from articles in both the new journals and established journals are compared to examine the reach of the new titles. Do the new journals facilitate the discovery of new research and promote scientific communication?

#### 2:00 p.m. Abstract ID #108507

# COMPARISON OF RESEARCH AND PUBLICATION BEHAVIOR OF TWO GEOLOGY AND EARTH SCIENCE FACULTIES: PATTERNS BETWEEN TRADITIONAL AND NON-TRADITIONAL PROGRAMS

**LOVE, April M.**, Science & Engineering Division, J. Willard Marriott Library, University of Utah, 295 South 1500 East, Salt Lake City, UT 84112-0860, april.love@utah.edu

This paper will compare and contrast the publication patterns and the use of reference sources between the faculty researchers at the University of Utah Department of Geology & Geophysics and the University of California, Irvine Department of Earth System Science. Citation analysis will bring to light differences and commonalities held between two earth science departments with very different emphases and longevities. The University of Utah was founded in 1850 and presumably the geology department began sometime shortly thereafter. On the other hand, the University of California, Irvine's Earth System Science program began in 1989, with a less traditional emphasis in atmospheric chemistry and climate change. 2:15 p.m. Abstract ID #112898

# **DEEP INDEXING: CSA INNOVATIVE APPROACH TO THE SCHOLARLY LITERATURE HOFFMAN, Diane J.**, Senior Director of Life Sciences, CSA, 48 Governors lane, Princeton, NJ 08540,

dhoffman@csa.com

Tables and figures imbedded in journal articles can be made searchable electronically to promote the flow of information within the scholarly community. CSA's innovative approach to such indexing will change and advance the discovery process for the geosciences. This paper will discuss why this new approach was undertaken, some of the major challenges addressed, what researchers had to say about the new capabilities, and how their opinions affected the shape of this new product.

# 2:30 p.m. Abstract ID #106455 WHERE ARE GEOLOGIC FIELD TRIP GUIDE-BOOKS WHEN YOU NEED THEM?

**JOSEPH, Lura E.**, Geology Library, Univ of Illinois at Urbana-Champaign, 223 Natural History Building, MC102, 1301 West Green Street, Urbana, IL 61801, luraj@uiuc.edu

Have you ever had difficulty determining whether a field trip guidebook exists for a particular area? Have you ever had trouble getting your hands on a copy when you know a guidebook once existed? This whole body of important geologic knowledge is threatened. This presentation will provide some tips for finding and accessing guidebooks, however, the collective help of geologists and librarians is essential in order to save this information and make it accessible. Ways that you can help will be discussed. If you have any interest in field trips (as a leader or as a participant), or you have ever used the information in guidebooks or think that you might, this presentation will be of interest to you.

#### 2:45 p.m. Abstract ID #114792

# INSTITUTIONAL REPOSITORIES: PRESERVING AND ORGANIZING WHAT YOU CREATE TODAY FOR TOMORROW'S RESEARCHERS

**SCOTT, Mary Woods**, Geology Library, The Ohio State University, 180 Orton Hall, 155 S. Oval Dr, Columbus, OH 43210, scott.36@osu.edu

What are you creating, sticking on a shelf, in a storage room, filing in a black hole, or on your computer and then losing? Where are your slides, digital images, posters session posters, field note books, and data from last year, 5 years ago? What about senior theses, student research projects, specimen collection inventories or finding guides? The DSpace institutional repository system developed by the Massachusetts Institute of Technology (MIT) Libraries with the Hewlett Packard Corporation, is open source software being used by over 100 research institutions around the world to preserve, organize, and provide access in digital form to the knowledge being created at their institution. The number of institutional repositories is increasing but they need content, particularly geoscience content. The Ohio State University Libraries, in partnership with the Office of the CIO, has developed the OSU Knowledge Bank. 31 communities have established collections in the Knowledge Bank so far including the Department of Geological Sciences and the Byrd Polar Research Center. This paper describes the philosophy behind institutional repositories, their potential value, and the role of the subject librarian in identifying collections.

# 3:00 p.m. Abstract ID #108671 **PROSPECTING FOR MEANING: INQUIRY AND LIBRARY INSTRUCTION IN THE GEOSCIENCES CLOUTIER, Claudette**, Gallagher Library of Geology and Geophysics, University of Calgary, 2500 University Drive N.W, Calgary, AB T2N 1N4 Canada, ccloutie@ucalgary.ca

Information is constantly changing as are the ways to access it. Learners need to develop their own frame of reference for interacting with the information they seek out. Adapting library instruction to meet inquiry based curriculums can be a challenge. It requires geosciences librarians to rethink and retool their library instruction sessions, and to foster an environment of discovery for learners which will lead to a greater understanding of information and research in the geosciences. The framework set out by the ACRL (Association of College and Research Libraries) Information Literacy Standards for Higher Education along with an examination of learner outcomes and the development of new technologies can assist librarians in creating stimulating and experiential library instruction. The University of Calgary Library has been working to incorporate information literacy into an inquiry based curriculum for the last few years. The librarians have developed some innovative models which can be easily adapted for the geosciences. By working with the ACRL standards and collaborating with faculty, librarians can create meaningful library instruction sessions that compliment inquiry based curricula in the geosciences.

## 3:15 p.m. Abstract ID #112222 JANE COLLABORATIVE: BRINGING SCIENTIFIC DEBATE TO RURAL AMERICA

**CARLSON, Elizabeth C.** and THEISSEN, Mark, Education, Burpee Museum of Natural History, 737 North Main Street, Rockford, IL 61103, betsy.carlson@burpee.org

One fifth of the American population is rural. Newspaper readership has decreased to 54% of Americans reading a newspaper daily (62% on Sunday). The number of newspapers has also declined about 1% a year for the last 20 years to 1,457 dailies in 2002. One study found 70% of the papers publish science articles with 10% or fewer articles including actual terms and /or quasi-scientific explanations. With such conditions, Burpee Museum of Natural History of Rockford, Illinois completed a two year Institute for Museum and Library Services grant, the Jane Collaborative, which served 64 libraries in Northern Illinois and Southern Wisconsin. The Jane Collaborative created a learning community and serves as a model for small, rural libraries/ museum partnerships, utilizing a high impact specimen to create awareness of both library and museum resources and a means for introducing science into communities. Prior to the Jane Collaborative 45% of the libraries had sponsored scientific or technology programming in the past year, mostly computer classes and 50% of participating library staff read a daily newspaper. Burpee provided two training programs at the museum for library staff and a series of four outreach paleontology programs centered on Jane, their juvenile T rex. Libraries also received \$400 of paleontology materials and a bus trip to the museum. After participating in the Jane Collaborative, library staff increased their comfort level in assisting patrons with science questions in general from an average of 6.3 to 7.0 (on a scale of 0 no comfort to 10 very comfortable) and dinosaurs particularly from 5.7 to 7.6 and their perceived knowledge of dinosaurs from 4.6 to 6.1. Two thirds of the participants believed their experiences in the collaborative will help them develop future programs. They rated their publics' reaction to Burpee's outreach programs a 9 on a 0 not at all interested-10 very interested scale. Here we present the results of this model collaborative between a museum and libraries for organizing and distributing scientific information to small, rural communities

3:30 p.m. Break

#### 3:45 p.m. Abstract ID #108580

# **RE-DISCOVERING THE PAST: LOCATING PROXY RECORDS FOR PALEOCLIMATE RECONSTRUCTIONS**

MAJOR, Gene R., Sci Systems and Applications, Inc, 10210 Greenbelt Rd, Suite 500, Lanham, MD 20706, major@gcmd.nasa.gov and OLSEN, Lola M., NASA Goddard, Code 610.2, Greenbelt, MD 20177

"The present is key to the past" is an oft-quoted phrase within the geosciences. However, paleoclimate research illustrates that "the past may be the key to our future". One key to predicting future climate change is to understand past climate conditions on Earth and the mechanisms influencing climate variability. NASA's Global Change Master Directory (http://gcmd.nasa.gov) contains over 16,000 records describing data sets pertinent to climate change research. Approximately, 800 of these hold paleoclimate data descriptions that are based on natural proxy records, such as treerings, ice core isotopes, cave deposits, tephra, microfossils and sediments. Farming records, ship logs, and personal observations over the past 1000 years, along with past climate reconstructions, are also described in the database. GCMD's unique hierarchical keyword and full-text search system helps researchers discover and access important paleoclimate data sets that may provide vital clues in understanding the magnitude of present and future global changes.

# 4:00 p.m. Abstract ID #112964 HISTORICAL IMAGERY COLLECTIONS IN SPATIAL LIBRARY: KEY TO DISCOVERY OF PAST LANDSCAPES

**DIXON, Janet B.**<sup>1</sup>, COTHREN, Jackson D.<sup>2</sup>, DIXON, John C.<sup>2</sup>, and CALHOUN, Charles A.<sup>2</sup>, (1) University Libraries, University of Arkansas, 365 North McIlory Ave, Fayetteville, AR 72701-4002, jbdixon@uark.edu, (2) Geosciences, University of Arkansas, Fayetteville, AR 72701

A digital library collection of historic imagery offers views of landforms and landscapes of the past. The University of Arkansas (UA) Libraries, Center for Advanced Spatial Technologies (CAST), and Geosciences Department are collaboratively building a digital library collection of historically significant remotely-sensed imagery. UA Emeritus Professor Harold MacDonald of the Geology Department donated the imagery film of SEASAT, aircraft radar, Skylab, aerial photography and SIR-A, from the 1960s to 1980s, to the UA Libraries' Special Collections Department. The funding for this collaborative project, now in its second year, is provided by the Arkansas Center for Space and Planetary Sciences/NASA.

In the first year of the imagery project, digitization and web access were developed, including methods of scientific scanning and metadata organization for the five "series" of imagery. A Web page was created for the project. In the second year, the imagery is being developed as a geospatial digital library collection, with more flexible geographic query capability. The historic imagery collection will be part of the new UA Spatial Library (UASL), being constructed by CAST. The UASL will serve as the browser-based interface to search and access the catalog of metadata and to view/download the imagery. The Web page for the historic imagery project serves as a portal to the UASL's digital library collection, and links from the UA Libraries Special Collections as a user finding aid and from the UA Libraries Geographic Information Systems (GIS) and Maps webbased Program as historic geospatial data. Users can discover landscapes of the past, important in the analysis of geologic and geographic features and in the detection of land cover changes.

#### 4:15 p.m. Abstract ID #112595

# A REVIEW OF STATEMAP-FUNDED STATE GEOLOGICAL SURVEY MAPS ADDED TO THE NATIONAL GEOLOGIC MAP DATABASE'S MAP CATALOG, 2000-2005

MANSON, Connie J., Connie J. Manson & Associates, 2525 Sleater Kinney Road N.E, Olympia, WA 98506, cjm@thurston.com

State geological surveys are primary producers of geologic maps, but those maps are costly and labor-intensive for the state surveys to produce. In order to support those efforts, in 1992 the Congress passed the National Geologic Mapping Act to provide matching funds to the state surveys, under the STATEMAP component of the National Cooperative Geologic Mapping Program.

The National Geologic Map Database (NGMDB) was established in 1996. The Map Catalog component of the NGMDB provides a bibliographic listing or index that intends to include all the geoscience mapping of the Nation, from all producers. The state survey maps funded under the STATEMAP program are an important component of that database.

So, how well are the states doing? Not just in producing the maps, but also in submitting them for inclusion in the NGMDB? In order to assess that, a review was conducted of the STATEMAP products in the NGMDB from 44 state surveys, 2000 through 2005. The results will be presented.

#### 4:30 p.m. Abstract ID #114557

## ACCESSING THE DISCOVERIES OF THE PAST – THE SECOND GEOLOGICAL SURVEY OF PENN-SYLVANIA PROJECT

MUSSER, Linda R., Fletcher L. Byrom Earth & Mineral Sciences Library, Pennsylvania State Univ, 105 Deike Building, University Park, PA 16802, Lrm4@psu.edu

The Second Geological Survey of Pennsylvania (1874-1889) produced an unprecedented volume and quality of geologic reports, described in 1924 as "the most remarkable series of reports ever issued by any survey". The output of the Survey resulted in over 80 texts, nearly 600 accompanying maps and illustrations, a hand atlas, a six-volume grand atlas, and miscellaneous other publications. A treasure trove of geologic, economic and historic information, these publications were not well indexed and present a challenge for users and librarians alike. Additionally, Survey publications were printed on acidic paper which is now brittle and subject to extreme browning.

The purpose of the 2nd PaGS Project was two-fold: to preserve the publications of the Survey and to digitize and index their content. The project involved creating a comprehensive listing of all publications of the survey, obtaining preservation and digital copies of microfilmed texts, scanning color plates and illustrations, preserving oversized plates, designing a scheme for recording preservation information, editing and organizing the scanned images for presentation on the Internet, assigning a metadata scheme, and creating an interface for users to search, browse and access the content. Some of the challenges that were overcome include designing a way to safely and rapidly flatten maps that had been stored folded for over 100 years, determining ways to utilize MARC fields to record preservation information, and establishing standards for recording preservation actions on original pieces.

Researchers of the future now have access to the discoveries of the past in a way the original authors could hardly have dreamed. The digital 2nd PaGS collection provides unprecedented access to the work of early geologists and to information about the geologic and mining history of the Commonwealth.

## 4:45 p.m. Abstract ID #108994 THE US GEOLOGICAL SURVEY LIBRARY: PAST, PRESENT AND POSSIBLE FUTURES

**DUNN, Lisa G.**, Arthur Lakes Library, Colorado School of Mines, 1400 Illinois St, Golden, CO 80401, ldunn@mines. edu

The United States Geological Survey Library supports the information needs of USGS staff and the external community of geoscience information users-geologists, engineers, land use planners, public policy experts, environmental scientists, the general public, etc. As the largest geoscience library system in the US, the USGS Library provides access to unique collections of materials and international publications and plays a vital role in the informal network of geoscience libraries in the nation. Like many science/technology libraries in both the public and private sectors, the USGS Library has faced a number of challenges over its history. These include an evolving role within the parent organization, changing user needs, reductions in budget, rising costs of publications, and new technological applications to information management. Recent challenges have been significant for the Library's continued operation. There are a variety of possible responses open to libraries faced with change; some of these are described here. Whatever course the USGS Library takes in response to change, it seems clear that the Library will be a very different organization in the near future. The Library's transformation will have a significant impact on access to geoscience information for both the USGS and the public.

## 5:00 p.mAbstract ID #114329 PLANNING FOR A NEW DATA PRESERVATION SYSTEM FOR THE NATION

**STEINMETZ, John C.**, Indiana Geol Survey, Indiana University, 611 N. Walnut Grove, Bloomington, IN 47405, jsteinm@indiana.edu, GUNDERSEN, Linda C., US Geological Survey, 911 National Ctr, Reston, VA 20192-0001, and DICKINSON, Tamara L., US Geological Survey, Reston, VA 20192

The National Geological and Geophysical Data Preservation Program Act of 2005 was signed into law as part of the Energy Policy Act of 2005. The new law arrived at a propitious time. Many federal and state geological repositories are at capacity. A poll of state geological surveys revealed that two-thirds of them have less than 10% space remaining. Many state repositories are gaining additional, but temporary and substandard space, using ocean-going containers or offsite warehouses, where access is limited and conditions are poor. Nearly half the repositories refuse to accept samples, while others are selective with the samples that they do accept. The Act authorizes a federallysupported, distributed repository system to contain "geologic, geophysical, and engineering data, maps, well logs, and samples" accessed through a national, web-based catalog. Administration of the system will be through the U.S. Geological Survey, advised by a Federal Advisory Committee (FAC), and in association with the state geological surveys. The Act authorizes \$30 million for each of five years. In January 2006, the FAC established a data preservation working group to draft an implementation plan that was submitted to Congress in August of 2006. Included in the plan is creation of a National Digital Catalog, which will serve as a one-stop portal for geoscience materials and related data (cores, sample collections, geophysical logs, etc.) and a competitive, federal-assistance program for states and federal agencies to preserve their collections. Included will be support for data rescues (materials in imminent danger of loss), infrastructure (buildings, shelving, equipment), staffing, and for digital scanning, conversion, and archiving. The program includes support for outreach, public awareness and workshops. Finally, accountability measures will ensure performance is demonstrated before a state or federal agency can compete for additional funds. Implementation of the plan awaits federal appropriations.

5:15 p.mDiscussion

#### GEOSCIENCE INFORMATION/COMMUNICATION (POSTERS) Sunday, 22 October 2006: 1:30 PM-5:30 PM, Pennsylvania Convention Center Exhibit Hall C

## 1. DIS 116377: OUTCROPS.ORG: AN EXAMPLE OF COMAPPING -- COOPERATIVE, COMMUNAL, WEB-BASED MAPPING WITH FULL CONTENT MANAGEMENT

**HOWELL, Paul D.**, Dept. of Earth and Environmental Sciences, Univ of Kentucky, 101 Slone Bldg, Lexington, KY 40506-0053, phowell@uky.edu

Comapping is the development and presentation of rich digital content with spatial context by cooperative groups or communities, in an interactive and realtime digital environment. Comapping stands for community, cooperative or collaborative mapping. Making digital maps of content in pre-existing databases, no matter how it was collected is not comapping... members of a community should be actively engaged in the mapping effort and capable of editing their contributions in realtime. A comapping suite or stack is a collection of software that works together to offer a comapping solution, and typically includes (1) a content management system (CMS) to handle rich digital content, (2) GIS software to handle mapping and spatial context for the CMS, and (3) network aware applications to provide a secure, interactive, digital environment. Commercial GIS packages typically lack robust handling of customizable content types and consideration for collaborative workgroups. CMS packages merge community-oriented features (members, permissions, workflows) with rich digital content development and indexing tools, but they lack spatial content handling. Comapping combines these capabilities to give mapping power to online communities.Outcrops.org is a website established to showcase good outcrops and geologic features around the world, and as an example to demonstrate comapping in action. Outcrops.org uses open source CMS software (Plone) with the Google Maps API serving as a simple GIS component. Outcrops.org is designed to allow volunteer users (anyone can join) to use a simple web form to enter information about an interesting outcrop, and upload photos. When the form is completed, the user can submit the outcrop for review by the website content reviewers. When accepted the new outcrop will have an icon appear on the master map of the world. All text information entered about each outcrop is indexed for searching, allowing visitors to search for any terms (e.g., sandstone) and have a map appear with only those outcrops shown. The current website for Outcrops.org is alpha quality, working but with prototype content handling. The beta version should be operational by the time of this presentation.

## 2. DIS 114640: VIRTUAL FIELDTRIPS – BUILDING A DATABASE TO ENHANCE GEOLOGY DEPART-MENTS' RESOURCES

**BURNS, Diane M.**, Geology, St. Lawrence University, 23 Romoda Drive, Canton, NY 13617, dburns@stlawu.edu

Geology is a very visual discipline, with most concepts and processes being most fully realized when viewing examples in the field. As such, field trips are often the backbone of most geology departments. Unfortunately, many geology departments suffer from lack of funding to support trips, shortage of nearby geological features or limits on time because of geographical location and the rigors of academic schedules.

One solution for these types of departments is through the use of virtual fieldtrips. Recently, one student from St. Lawrence University undertook a roadtrip from Buffalo, NY to Phoenix, AR. Along the way, he recorded data, took hand samples and photographed outcrops as part of a larger fieldtrip database project. Upon return, this information was loaded into a GIS system to make a virtual fieldtrip, complete with maps of the route, outcrop photos, digital 360° images of the hand samples, and background information on the geological formations at each stop. Once constructed, this field trip is loaded onto a website that is accessible for anyone. As more transects are made, additional fieldtrips will be added to the website, eventually providing coverage for a large majority of the United States. Having this type of database available via the Internet may help enhance many departments' resources by providing a means by which their students can "get out more" and see the geology they might otherwise miss.

# 3. DIS 108491: COMMUNICATING ABOUT THE GEOSCIENCES: SELF-PUBLISHING AND

#### **DISTRIBUTING BOOKS**

**ROMEY, William D.**, PO Box 294, East Orleans, MA 02643-0294, wromey@capecod.net and MCBIRNEY, Alexander R., University of Oregon, Eugene, OR 97403-1272

After years of publishing work in peer-reviewed journals, technical memoirs, and textbooks, many geoscientists aspire to write stories that are unsuitable for the usual professional publications and are of little interest to commercial publishers. Many retirees want to share stories, anecdotes, and experiences from long careers in the field and laboratory. Modern computer techniques have made writing and printing such books very easy. The real problem is in promoting and distributing a book once it is printed. The floors of many attics are sagging under a load of unsold books. We have assembled a group of these self-publishing geoscientists in order to make our books known and readily available through the internet (www.libri-terrarum.com). Though we have only started, our group offers a variety of works: guidebooks to field areas; books on volcanology and paleontology; biographies; histories; books on geological education; and even novels and a book of geological poems. We encourage other self-publishing authors to join us and enjoy the satisfaction that comes with sharing thoughts and experiences with our colleagues and disseminating material

# 4. DIS 115975: A SNAPSHOT OF THE BODY OF KARST LITERATURE

<u>FRATESI, Sarah E.</u><sup>1</sup>, FLOREA, Lee<sup>1</sup>, CHAVEZ, Todd<sup>2</sup>, and VACHER, H. Leonard<sup>1</sup>, (1) Department of Geology, University of South Florida, 4202 E. Fowler, SCA 528, Tampa, FL 33620, sfratesi@mail.usf.edu, (2) Tampa Library, University of South Florida, 4202 E. Fowler, LIB 122, Tampa, FL 33620

The pace of research in cave and karst science is increasing. The inherent multidisciplinary nature of the field exacerbates the need for globalized communication. The field, however, is served by a literature that is dispersed across far-flung topical journals, government publications, and club newsletters. As part of an inter-institutional project to globalize karst information (KIP, the Karst Information Portal), the USF Library undertook a structured battery of literature searches to map the domain of karst literature. The administrators of the KIP will use these data to design strategies to aggregate and evaluate the representation of information within the KIP.

The study used 4300 individual searches and four literature databases: GeoRef, BIOSIS, Anthropology Plus, and GPO Access. The searches were based on a list of 321 karstrelated keywords culled from three leading encyclopedias and glossaries of cave and karst science, plus lists of major geographical categories (including countries), subdisciplines within the field, geomorphic and climatic settings, and the names of several major cave systems. In addition, the study included searches of all cave- and karst-related publications from 1960 to 2005.

For the last 45 years, the number of cave and karst publications has increased steadily in all databases, and in Geo-Ref by ~30 articles/year. The number of GSA abstracts has increased from a handful in 1970 to 2.6% of all abstracts in 2005. Of the scientific subfields, geomorphology and geology have the most citations. Of 24 climates and locations, the top three are related to marine environments. Two of the top five keywords are biology related, whereas only one ("water") is geological. Publications about karst in Europe are by far the most numerous (by a factor of at least two), reflecting the European origins of the discipline. When broken down by country, however, there are more articles about karst in the United States (by a factor of at least three). France has the most citations of European countries. Searches by individual cave names yield cooparatively few results, with Mammoth Cave garnering the most hits.

# 5. DIS 108412: USAGE OF COLOR IN DISSERTA-TIONS AND THESES

**ROBERTS, Beth A.** and MUSSER, Linda, The Fletcher L. Byrom Earth and Mineral Sciences Library, Pennsylvania State University, 105 Deike Building, University Park, PA 16802, ear16@psulias.psu.edu

The use of color images in dissertations and theses has grown in recent years with the advent of less expensive color printing and high quality image creation and modification programs. Unfortunately, when theses are submitted in paper format to UMI and are microfilmed then subsequently scanned for Digital Dissertations, the color is lost and with it, many times, the purpose and meaning of the image. When the purpose and meaning of an image is lost, portions of the thesis or dissertation may not make sense. In meteorology, for example, images of temperature or wind speed variations are often shown using elaborate color graphs. Without color these graphs become meaningless. This example is just one of many that demonstrate that there is a critical loss of data in UMI's microfilming and scanning process that librarians, administrators and thesis and dissertation advisors need to address. The fact that color images are presented as black and white images is likely unbeknownst to most students since many universities do not specifically state in the official guidelines anything about use of color. Some universities have noticed the problem and are warning students to use only black and white images. Other universities are going to Electronic Theses and Dissertations only (ETD's) because it eliminates this and other related problems with various multi-media. We undertook a thorough study of the extent of the problem, making note of patterns and the significance of the data loss. We examined the change in the number of theses and dissertations over time using color. We found that the use of color in these and dissertations increased by approximately 300% from 1995 to 2004, so in many cases critical information contained in those theses and dissertations is lost. Librarians should identify items with color and develop plans to preserve essential color illustrations.

6. DIS 113046: MANAGING YOUR CAREER: NEW "ON THE CUTTING EDGE" ONLINE RESOURCES FOR GRADUATE STUDENTS, POST-DOCTORAL FELLOWS, AND EARLY CAREER FACULTY ORMAND, Carol, Science Education Resource Center, Carleton College, 1 N. College Street, Northfield, MN 55057, cormand@geology.wisc.edu, MACDONALD, Heather, Department of Geology, College of William and Mary, PO Box 8795, Williamsburg, VA 23187, and MANDUCA, Cathryn, Science Education Resource Center, Carleton College, 1 North College St, Northfield, MN 55057

New online resources for geoscience graduate students, post-doctoral fellows, and early career faculty are available on the Cutting Edge website. These resources ease the transition from graduate student to faculty member.

The "Preparing for an Academic Career in the Geosciences" webpages (http://serc.carleton.edu/ NAGTWorkshops/ careerprep/index.html) focus on the job search process, making the transition from teaching assistant to professor, and moving research forward into a new academic setting. The job search module provides guidance for every step of the job search process: learning about the variety of jobs available; assembling application materials, including teaching statements; interviewing; and negotiating a contract. It includes case studies of successful dual career couples, documenting their job search strategies. The teaching module addresses getting teaching experience, designing a course, planning an individual class session, and documenting one's teaching. The research module focuses on getting published and moving beyond one's doctoral research.

The "Early Career Geoscience Faculty" webpages (http://serc.carleton.edu/NAGTWorkshops/earlycareer/index .html) address the tenure process, effective teaching, managing a research program, and balancing the demands of a career in academia with a healthy personal life. The tenure module suggests ways new faculty members can find out what the expectations are for tenure at their institutions. The teaching module provides resources for course design, teaching efficiently, research on learning styles, effective teaching techniques, teaching large classes, assessment, and building one's teaching case for tenure. The research module focuses on planning a research program, funding it, working with undergraduate and graduate research students, and making time for research. It features an online collection of successful grant proposals and several case studies of successful researchers and their collaborations with students. The balance module presents case studies of faculty members at a variety of academic institutions, as well as resources on task (time) management and balancing career and family. These pages also include tips from alumni of the "On the Cutting Edge" Early Career Geoscience Faculty Workshops.

### 7. DIS 112593: THE GEMOLOGICAL INSTITUTE OF AMERICA'S KEYS TO DISCOVERY: PUBLIC OUT-REACH PROGRAMS

**DIRLAM, Dona M.**, JONATHAN, Cathleen A., MISIO-ROWSKI, Elise B., OTTAWAY, Terri L., SYVRUD, Patricia F., TSIAMIS, Peggy, VAGNER, Kimberly M., and WILSON, Yvette, Gemological Institute of America, The Robert Mouawad Campus, 5345 Armada Drive, Carlsbad, CA 92008, ddirlam@gia.edu

The Gemological Institute of America's (GIA) nonprofit mission to ensure the public trust in gems and jewelry is exemplified through core programs of education, research and laboratory services. During our 75 year history, GIA has delivered gemological expertise from our research efforts and world-class repository of gemological information. GIA has developed complementary programs in our library, museum, and guest services expanding our public outreach in support of our mission. These programs demonstrate our commitment to discovery learning and make valuable resources available to the public, the jewelry industry, and the staff and students of GIA.

As the largest gemological library and reference center in the world with over 38,000 titles, the Richard T. Liddicoat Gemological Library and Information Center is the heart of GIA. Our expert library staff is accessible by phone, e-mail, or in person to answer questions, and the library is open to the public and the jewelry industry for on-site research. GIA's Digital Asset Management System, online Web OPAC, and the addition of new titles to our collection, emphasize how the library is growing and evolving.

The GIA Museum is committed to advancing the world's understanding of gemstones, gemology and jewelry. Through the development of the permanent display collection, and collaboration between our Museum, Research department, and our peer-reviewed journal, Gems & Gemology, along with other institutions, the GIA Museum has proven itself to be a strong and viable presence. Exhibits are rotated through our fourteen campuses internationally to benefit GIA's many visitors and students. Through our Muse-um lecture series, renowned speakers impart their insight and knowledge to the public.

## 8. DIS 112745: UNLOCKING RESEARCH COLLEC-TIONS: THE UI PALEONTOLOGY REPOSITORY COMPUTERIZATION PROJECT

ADRAIN, Tiffany, BUDD, Ann, ADRAIN, Jonathan, BROCHU, Christopher, and SIMS, Hallie, Department of Geoscience, University of Iowa, 121 Trowbridge Hall, Iowa City, IA 52242, tiffany-adrain@uiowa.edu

The University of Iowa Paleontology Repository holds over one million specimens including more than 25,000 type and referred specimens, yet approximately 90% of the collection is uncatalogued, impeding research access. As part of an NSF-funded collection reorganization project (completed 2005), a collection survey identified and prioritized parts of the collection for computerization. A new 3-year NSFfunded computerization project began in April 2006. This new project will involve: 1) computerization of priority collections using SPECIFY to preserve data and make them accessible to researchers and the public; 2) development of partnerships with database projects including the Paleontology Portal, Global Biodiversity Information Facility (GBIF), Neogene Marine Biota of Tropical America (NMITA), and FAUNMAP, to increase visibility of the Paleontology Repository and improve data access; and 3) a Digital Image Project in which existing and new images of type material will be digitized and made available on-line.

Priority collections include the Amoco conodont collection, Amoco South Florida collection, midwest echinoderms, Quaternary micromammals, the Paleozoic coral collection, and a stratigraphic collection from now inaccessible localities. An on-line educational resource will be developed using the Amoco South Florida collection. In addition, a pilot study will involve hosting SPECIFY databases for the University of Missouri conodont collection and new collections at the Universidad Autónoma de Santo Domingo (UASD), Dominican Republic.

The computerization project will provide employment, training, and collections experience for graduate student research assistants, geoscience undergraduate students and museum studies program interns. Wider dissemination of collections data will increase use of the collection and emphasize the continuing commitment of The University of Iowa to support the stewardship of the collection. Computerization of the Paleontology Repository's major holdings and development of web resources and partnerships with other projects and institutions will greatly increase our research, education and outreach abilities.

# 9. DIS 110874: EARTHCHEM & GEOFRAME: SUPPORTING NEW SCIENCE WITH ADVANCED ACCESS TO PETROLOGICAL DATA OF THE DEEP LITHOSPHERE

**BLOCK, Karin A.**<sup>1</sup>, LEHNERT, Kerstin A.<sup>1</sup>, JOHANSSON, Annika<sup>1</sup>, DRYMALA, Susan<sup>2</sup>, FISHMAN, Artem<sup>3</sup>, MCDONOUGH, William F.<sup>2</sup>, LEE, Cin-Ty A.<sup>4</sup>, DUCEA, Mihai<sup>5</sup>, RUDNICK, Roberta L.<sup>2</sup>, and WALKER, J. Douglas<sup>6</sup>, (1) Lamont-Doherty Earth Observatory, Columbia University, 61 Route 9W, Palisades, NY 10964, kblock@ldeo.columbia.edu, (2) Department of Geology, University of Maryland, College Park, MD 20742, (3) Center for International Earth Science Information Network, Columbia University, 61 Route 9W, Palisades, NY 10964, (4) Department of Earth Science, Rice University, 6100 Main St, Houston, TX 77005, (5) Geosciences, Univ of Arizona, Tucson, AZ 85721, (6) Department of Geology, Univ of Kansas, Lawrence, KS 66045

Investigation of fundamental problems regarding the nature and evolution of the earth's systems often involves a multidisciplinary approach and requires global geochemical data. EarthChem (www.earthchem.org) is an ongoing NSFfunded project that will dramatically advance access to geochemical data by establishing a data portal to a federation of interoperable databases, such as PetDB, NAVDAT, GEOROC, SedDB, PaleoStrat, and USGS geochemical datasets, incorporating data compilations into a format that follows standard protocols for data and metadata. The continued development of the EarthChem data holdings is guided by an ongoing dialogue with the community to assess the needs of researchers and educators and to complement the goals of other large scale projects. Discussions with members of the GeoFrame initiative have led to the development of a new EarthChem dataset of deep lithosphere geochemical data. GeoFrame's goal is to systematically integrate geologic knowledge with the unprecedented Earth imaging to be collected under the USArray program of EarthScope. EarthChem's new Deep Lithosphere dataset contains published and unpublished xenolith data compiled from discrete databases provided by contributors, and was created in response to the community's need for a comprehensive collection of data from samples of the Earth's mantle. Inclusion of analytical data from ultramafic suites and granulite terranes is underway. The database links geochemical data for bulk rocks, minerals, and melts inclusions with a wide array of information about the samples and analytical procedures. The data model and the interactive, web-based user interface have been adopted from the PetDB database (www.petdb. org). The interface allows users to search data by a number of parameters, including sample name, location, rock type, and author, in addition to major element, trace element, and isotopic composition. EarthChem will demonstrate the new dataset at its booth in the 2006 GSA Annual Meeting Exhibit and at the EarthChem workshop that will be held in conjunction with the meeting, sponsored by GSA's Geoscience Education Division to help students and interested facu-lty develop knowledge and expertise in the use of geochemical databases, and geoinformatics, relational databases, and data reporting in general.

# 10. DIS 110875: ONLINE CREATION OF TERNARY DIAGRAMS USING THE JAVA<sup>™</sup> PROGRAMMING LANGUAGE

**IONESCU**, Carmen Alexandra and **MIRANTE**, **Drew C.**, Geology, Bryn Mawr College, 101 N. Merion Ave, Bryn Mawr, PA 19010, dmirante@brynmawr.edu

Ternary diagrams are used for a wide variety of applications in the Geosciences and provide a powerful way to visualize and convey information. Some of these applications include illustrating rock classification schemes as well as discrimination and phase diagrams. We present an opensource Applet writing in the Java programming language that allows users to plot their geological data on a ternary diagram via a web page. While commercial petrologic software usually contains the capability to create ternary diagrams, we believe our product to be the first freely available application of its kind. The work was done as part of a summer undergraduate project at Bryn Mawr College as part of the GEOscience Network (GEON) research initiative.

The Applet consists of two parts: the graph and a data entry field. Once data are entered, they are renormalized if necessary and then plotted on the graph. Up to 10 datasets with any number of records may be plotted. Once plotted, the results can be exported as a text file to any other application. As this work continues, we plan to add features to the Applet to increase its functionality. As an example, dealing with more complicated phase diagrams such as AFM, ACF, and AKF by doing 'on-the-fly' calculations within the Ap-plet. Additionally, we are working with our GEON partners at San Diego Supercomputing Center (SDSC) to integrate and render data directly from GEON databases into the Applet. The Applet may be accessed at: http://www.brynmawr.edu/geology/MLC/GeonPages/ TriangularDiagram/TriangleCoords4.html

# 11. DIS 113801: GEOLOGISTS OF THE WORLD, UNITE!

**SCOTESE, Christopher**, REESE, Trent, THOMPSON, Ryan, SUTTON, Corey, BAMMEL, Brandon, and WARD, Dustin, Earth and Environmental Science, University of Texas at Arlington, Box 19049, 500 Yates St, Arlington, TX 76019, chris@scotese.com

A global geology website has been built that is both an archive of stratigraphic information and a portal to the geology of the world. Like a cross between Google Maps and Wikipedia, globalgeology.com, uses a geological map of the world (1:10,000,000) as an interface to help users locate and enter geological information. This information includes not only stratigraphic descriptions, but also digital images of outcrops and stratigraphic sections, and links to supporting earth science websites. The information stored at global geology.com comes in small part from legacy databases such as the Paleogeographic Atlas Project Lithologic database, the Paleobiology database, and the PALEOMAP Project Lithologic Indicators of Climate database (over 250,000 combined entries). The bulk of the information, however, comes from the worldwide community of geologists, and like Wikipedia, the global geology website is an editable, community effort.

The concept is simple and is based on the premise that every geologist has a favorite outcrop or intimately knows the geology of a few special places. After selecting the appropriate time interval from an international stratigraphic time chart, a geologist can enter information about this patch of geology using an interface made up of check-boxes, dropdown menus and text-boxes. This information is stored in an SQL database and the geological map of the world and the stratigraphic time chart are updated indicating that new data has been archived. If another visitor to the global geology website selects the same time-patch, he can review the geological information on-line, download the information, or enter an updated record. As the number registered users increases and as more geological information is entered, the individual patches of geological information will merge to form a nearly complete four-dimensional map and database describing the geology of the world through time. The global geology website can be accessed at www.globalgeology. com, or through the PALEOMAP Project portal at www.scotese.com

#### **COMMITTEE AND REPRESENTATIVE REPORTS**

#### Nominating: GSIS 2006 election results

The results of the 2006 election of officers are as follows: Vice President for 2007 - Suzanne Larsen; Secretary for 2006 (Nov.) to 2008 - Andrea Twiss-Brooks. On behalf of the Nominating Committee, we thank all the candidates for their participation in the election.

Respectfully submitted:

Linda Musser (chair), Clara McLeod, Richard Keen

#### Exhibits:

As we reported earlier, this year's theme for the GSIS exhibit booth will again be "Open Access." The exhibits committee is working on updating our displays which will feature examples of "Open Access" in the geosciences. We will appreciate any input, and if there are specific websites or examples that you would like to see featured, please email them to us at : darinburi@mail.und.nodak.edu. We will also be displaying the GSIS Best Paper, Best Guidebook, Best Website and Mary B. Ansari Best Reference Book award. The Committee members will set up the booth on Saturday October 21 and there will be a sign-up sheet available for members to help staff the booth, which is # 312. We are looking forward to seeing all of you in Philadelphia!

Respectfully Submitted, Darin Buri

### NEMO Annual Meeting, June 8-9, 2006

The annual meeting of the Northeast Map Organization (NEMO) was held at the University of New Hampshire, Durham, NH on Thursday and Friday, June 8-9, 2006. Approximately 30 people attended a map cataloging workshop on Thursday afternoon, followed by a dinner and a talk by Dr. Larry Mayer, Director, Center for Coastal and Ocean Mapping, Co-Director Joint Hydrographic Center at UNH, on Thursday night. On Friday, events included a breakfast/ business meeting, followed by a Session on Digitized Historic Topographic Maps and a field trip to the Center for Coastal and Ocean Mapping and Joint Hydrographic Center at UNH.

The Map Cataloging Workshop was presented by Paige Andrew, Penn State University, University Park, PA, David J. Bertuca, University at Buffalo, Buffalo, NY, and Nancy Kandoian, New York Public Library, NY. An outline of the materials covered and many useful links can be found at: http://ublib.buffalo.edu/libraries/asl/maps/cat/nemomapcat2006.html

Dr. Mayer's post dinner Ocean Mapping talk on the activities of the Center for Coastal and Ocean Mapping and Joint Hydrographic Center was extremely engaging. The following is a description of the Centers from the home page of the Centers. "The Center for Coastal and Ocean Mapping (CCOM)/ Joint Hydrographic Center (JHC) is a recently established University of New Hampshire program aimed at creating a national center for expertise in ocean mapping and hydrographic sciences. Guided by a Memorandum of Understanding with the National Oceanic and Atmospheric Administration (NOAA), the JHC operates in partnership with NOAA's National Ocean Service. The CCOM is a University center that expands the scope of interaction and cooperation with the private sector, other government agencies and universities. In addition to NOAA support, CCOM currently has projects underway funded by the U.S. Geological Survey, the Office of Naval Research, the Naval Research Lab, DARPA, NSF and several private sector partners. The centers focus their activities on two major tasks,

an educational task, aimed at creating a learning center that will promote and foster the education of a new generation of hydrographers and ocean mapping scientists, and a research task aimed at developing and evaluating a wide range of state-of-the-art hydrographic and ocean mapping technologies and applications." Many of the fascinating visualizations Dr. Mayer showed can be viewed at: http://www. ccom- jhc.unh.edu/

At the Business Meeting Paige Gibbs lead a discussion of future meeting time and place, structure, content and membership. The group will be lead in 2006 - 2007 by Cynthia Dietz, Head, Map Collection Stony Brook University (Captain Elect), Heather Hoffman, (Treasurer), and Thelma Thompson (Secretary). The CUAC representatives for NEMO are Thelma Thompson, Map and Government Documents Librarian at the University of New Hampshire and Anne Graham, Civil and Environmental Engineering Librarian and GIS Services Coordinator, Engineering and Science Libraries, Massachusetts Institute of Technology.

The session on Digitized Historical Topographic Maps included four speakers who are working on projects to digitize historical topographic maps to provide data to online users.

The speakers shared the details of their projects so that the community could benefit from their experience in digitizing maps, and learn about which maps they are providing. Information about these projects will be shared with the ALA-MAGERT project to create a clearinghouse of cooperative digitization projects.

In order of appearance, the speakers were: – Greg Allord, Head of the National Science Publishing Program at the U.S. Geological Survey, who spoke about the project he supervises at the USGS. Greg is leading the USGS toward its goal of developing a digital archive of USGS topographic maps. He described the pilot project he and Jaime Martindale, of Robinson Map Library (http:// www.geography.wisc.edu/maplib/) at the University of Wisconsin-Madison, completed last year, and showed the progress he has made since. Wisconsin topographic maps at 1:24,000, 1:62,500, 1:100,000, and 1:250,000 scales were among the first scanned. Because of Hurricane Katrina, the Robinson Library's maps of the Gulf Coast areas were also scanned. Scanning of historical topographic maps at these scales from many mid-western states is now completed. Greg is interested in talking to university librarians from every state in an effort to gain access to the collections they may have received through the Federal Depository Library Program. Greg is also working with the Library of Congress on metadata standards.

- Sarah Mindel, Map & Geospatial Data Librarian at the Map and Geographic Information Center (MAGIC) at the University of Connecticut, described the history and progress of scanning projects at MAGIC (http://magic.lib. uconn.edu). Labor costs for most projects were funded as normal work. The project, "Building a Globally Distributed Model for Sharing a Significant Sheet Map Collection," was funded through an Institute for Museum and Library Services (IMLS) Grant. The image management software currently being used is ER Mapper. By fall 2006, ArcIMS will also be used.

- Whitley Frost, Library Assistant at the Harvard Map Collection (http://hcl.harvard.edu/libraries/#hmc), illustrated the process of making digitized maps available to the Harvard community and the public via the on-line library catalog (HOLLIS) and a web-based repository (the Harvard Geospatial Library), which was created for access to viewing and downloading georeferenced map images and vector data. Whitley also stressed the importance of georeferencing for facilitating access to, and overlaying of maps with different information about the same place.

- Thelma Thompson, Map and Government Documents Librarian at the University of New Hampshire, profiled the evolution of the UNH Library collection of digitized USGS historical topographic maps of New England (http://docs. unh.edu/nhtopos/nhtopos.htm). The collection's 15-minute New Hampshire topographic quadrangles are being scanned at higher resolution and georeferenced through a collaboration with the New Hampshire Geospatial Data Repository, GRANIT (http://www.granit.sr.unh.edu/). Images and metadata will be available from both the Library and GRANIT. The scanned images will also be offered to the USGS project Greg Allord is leading.

The field trip to the Center for Coastal and Ocean Mapping and Joint Hydrographic Center at UNH was well attended and as engaging at the post dinner talk by Dr. Larry Mayer. The NEMO group viewed the control station for the Lost City hydrothermal vent field expedition located in the middle of the Atlantic Ocean. The expedition was led by Dr. Robert Ballard of the University of Rhode Island (and famous for finding the Titanic in 1987) and Dr. Deborah Kelley of the University of Washington (who discovered the vent field in 2000). More about this can be viewed at: http://www.ccom-jhc.unh.edu/index.php?p= 4|36|39|40|45|48|51|52|61|221|223|47|48&page=outreach/pro jects/lost\_city.php

Respectfully submitted, Anne Graham, GSIS representative

### **Cartographic Users Advisory Council (CUAC)** 2006 Annual Agencies Meeting, May 4<sup>th</sup>-5th, 2006, Beltsville, Maryland

#### **CUAC Members:**

Joe Aufmuth, University of Florida, MAGERT Michael Fry, University of Maryland, WAML Katie Lage, University of Colorado at Boulder, WAML Mary McInroy, University of Iowa, GODORT Clara P. McLeod, Washington University, GSIS Bruce Obenhaus, Virginia Tech, SLA Social Science Division, G&M Anita Oser, SLA, Social Science Division, G&M

Daniel T. Seldin, Indiana University, NACIS

Joy Suh, George Mason University, GODORT

Thelma Thompson, University of New Hampshire, NEMO

Linda Zellmer, Indiana University, GSIS

#### **Agency Presenters:**

Christine Clarke, introductory remarks George Rohaley, National Remote Sensing Leader, USDA-NRCS

Susan J. DeLost, Program Manager, Geospatial Services, USDA Forest Service

- Dr. Brett L. Abrams, Electronic Records Archivist (NARA) and Chair of the Historical Data Working Group/FGDC
- Bob Bewley, Senior Geographer, Bureau of Land Management
- Carol Brandt, Geospatial Information Program Manager, Bureau of Transportation Statistics/DOT
- Gregory J Allord, Science Information and Education Office, Geological Survey
- Michael P. McDermott, National Coordinator, Natural Science Network, Geological Survey
- William R. "Bill" Effland, Soil Scientist, USDA/NRCS Soil Survey Division
- Tim Trainor, Assistant Division Chief for Geographic Areas and Cartographic Data Products, Geography Division
- Robin L. Haun-Mohamed, Director, Collection Mgmt & Preservation, GPO
- Ted Preibe, Director, Library Planning & Development, GPO
- Dr. John R. Hébert, Chief, Geography and Map Division, Library of Congress

Submitted Written Agency Report:Department of Energy

#### Federal Agency Presentations Schedule:

Thursday PM, 4 May, beginning 1:15 PM 1:15-Welcome, introductions, (remarks by Christine Clarke, NCRS) 1:30-- Remote sensing/NRCS, George Rohaley 2:00--USFS, Susan DeLost 2:30--NARA, Brett Abrams 3:00--BLM, Bob Bewley 3:30, closing remarks and thank yous to agencies Friday, May 5, 2006, beginning 9AM 9:00-- Welcome, introductions, last-minute preparations 9:15-- BTS, Carol Brandt 9:45-USGS, Greg Allord and Mike McDermott 10:30-10:45--break 10:45--Soil Survey/NRCS, Bill Effland 11:30--CENSUS, Tim Trainor LUNCH-USDA cafeteria 1:00--GPO, Robin L. Haun-Mohamed and Ted Priebe

1:45--LC/G&M, John Hébert

2:30, closing remarks and thank yous to agencies

## Introductory Session Remarks: Christine Clarke, NCRS.

Chris begins by explaining that she is with the Natural Resources Conservation Service (NRCS), one of roughly 27 organizational units in the USDA. USDA has over 100,000 staff and NRCS, Farm and Service Agency and Rural Development are considered the 3 field based agencies, meaning that they have staff in almost every county in the nation. NRCS changed its name from the Soil Conservation Service in 1994, and before that they were the Soil Erosion Service (1935) under the DOI. Their purpose at that time was to mediate and minimize the negative impacts of the dust bowl and wind erosion. Today, the agency focuses on land management, conservation, and working with farmers, ranchers, and land owners at the local field level. They have approximately 150 GIS specialists in the field. Some staff are district conservationists who are using a Customer Service Tool kit (CST), which is an application built on top of ESRI products like ArcMap. This is a user friendly interface that can be used in all fifty states to develop farm plans, view DOQs, or aerial photos. Other GIS users work more with raw data and support CST users. The agency is also involved in the Federal Geographic Data Committee (FGDC) Geo-spatial One Stop, and the Geo-spatial Line of Business (GeoLOB).

#### Brief Q&A period:

*Question:* Do you think that the government will go to a more centralized funding system?

Answer: That's a possibility, but it's a challenge to compare GIS activities across disciplines. Christine welcomes help in building a foundation for GIS use with standard data sets and infrastructure. *Question:* Has the USDA Geospatial Data Gateway limited access to data to non .gov users?

Answer: Yes, The Gateway was developed to deliver authoritative data to USDA agency field staff. Due to the convenience of the data access via the Gateway, non federal use increased substantially over time. To ensure non-federal users acquired the most up to date data from the appropriate sources, outside users are now redirected to the authoritative data source. In doing so, USDA does not incur distribution responsibilities for data of which we are not the authoritative source and users are ensured the most current information. They only turned off those layers for which they were not the authoritative source for the data sets (for example, data kept by USGS).

*Question:* Is there state-wide aerial photography available on the USDA site?

Answer: The most current aerial photography available from USDA can be found at http://www.apfo.usda.gov/ - (submitted by Clara McLeod)

#### George Rohaley, NRCS-Remote Sensing Leader

George Rohaley's talk, "Use of Remote Sensing in USDA and NRCS," included a brief overview of the use of remote sensing in NRCS, imagery sources, applications of imagery, USDA image archive and distribution, and USDA NAIP (National Agricultural Imagery Program), which is one of the biggest imagery programs in USDA. He also discussed smaller projects that are specific for NRCS and showed more than 100 slides in the presentation.

The mission of National Resource Conservation Service (NRCS) is to help people conserve, maintain, and improve our natural resources and environment. In short, the NRCS mission is "helping people help the land."

Most of NRCS's acquired imagery comes from three sources: Satellites, High and Low Altitude Airborne cameras and digital sensors. NRCS acquires imagery for its people who work on the ground at the USDA county service centers (about 3000 offices). The Service Centers have converted from using analog data to mostly using digital data today. The centers have ArcGIS and use agency business-oriented tools called "Customer Service Toolkit." Orthoimagery is used as a base map for all GIS data layers at the Service Centers.

Most of the imagery NCRS uses comes from airborne system (film or digital). Typically the Service Centers prefer airborne images with natural color because it is visually more relatable to actual ground situations. Recently, however, USDA contractors are flying more imagery with digital sensors. We have been told that digital imagery cannot be used in court, attorneys account for a small demand for film images.

Along with Foreign Agricultural Service (FAS), Farm Service Agency (FSA), and Forest Service (FS), NCRS is one of top four imagery users in USDA. (Others include National Agricultural Statistical Service (NASS), Risk Management Agency (RMA), Agricultural Research Service (ARS), and Animal and Plant Health Inspection Service (APHIS).)

Applications of imagery within USDA include agricultural competitiveness, agro-terrorism, base map, carbon synthesis, compliance, base area, crop monitoring, crop condition assessment, soil survey, disaster monitoring, drought monitoring, earning warning, environmental monitoring, fire suppression, homeland security, resource inventory, invasive species, land use conversion, and yield monitoring. NRCS focuses on soil survey, crop monitoring, environmental monitoring, and resource inventory.

Satellite images that NRCS uses primarily come by FAS. FAS has contracted with companies such as Digital Globe, Earthsat, Eurimage, GeoEye, Space Imaging, and SPOT to get world wide images. NRCS can gain access to FAS images (Rohaley showed several slides for 03, 04, 05 LANDSAT acquisitions showing good coverage of US area and 06 AWIFs acquisition). The FAS Web site, Crop Explorer (http://www.pedcad.fas.usda.gov/cropexplorer), provides image and data services for weather, soil moisture, crop, and vegetation conditions. One can pick up a region, browse, and download MODIS images. These satellite images (250-m) are in JPEG 2000 and GeoTiff formats and can be imported into GIS. 2006 acquisition will include commercial satellite imagery for Pacific region (Hawaii) and Alaska. These satellite images will be accessible to the public at a degraded resolution.

USDA Image Archive and Distribution: All aerial photographs and digital imagery acquired by NRCS must be contracted by the USDA Aerial Photography Field Office (APFO). Located in Salt Lake City, Utah, APFO provides contracting support for the department's aerial photography needs. It has one of the largest collections of historical aerial photos dating back to the mid 1950's. It provides a centralized photo and imagery archive library (55,000 rolls of film and 84,000 photo indices). The system has been automated, cataloged, and is easily retrievable. Custom scanning of historical images are available. Films, photos, CDs, and DVDs are stored in controlled environments.

USDA Aerial Contract Awards: Most of these image acquisitions are done based on contract awards. FY2005 contract awards are over 30 million (\$ 33,455,497). The contract awards have substantially increased in the last three years. Most of the funding (71 %) goes to USDA NAIP. See the Aerial Photography Field Office (APFO) Web site (http://www.apfo.usda.gov) for image status, contracting services, and any other information.

USDA Small Area Photography Contracting: NRCS has been involved with a small area photography and aerial photographic contracting project. This project is a five-year contract to acquire very high resolution imagery (1:4000 to 1:15,840 scale) under a indefinite delivery-indefinite quantity contract and for specific task orders in smaller areas such as National Resource Inventory (NRI) sites, which acquires imagery resolution that results in a ground resolving distance of 2.5 inches. Why is such high resolution required? Each year, NRI acquires approximately 70,000 sites a quarter acre in size to do as inventory. In the past, inventory was site specific, but now it is done primarily by photographic interpretation techniques. NRCS has specific photoraphic periods, mostly in growing seasons. The NRCS contractors update their projects status every two or three days through the web. Data collection will be done using remote sensing techniques at three remote sensing laboratories: Greensboro, NC, Fort Worth, TX, and Portland OR. During FY 05, six vendors were awarded to cover small areas such as NRI photo stations (9"x 9" photos). There are 71,514 NRI photo locations in FY 06.

National Agricultural Imagery Program (NAIP): This program is USDA's largest imagery program, acquiring 1 and 2 meter natural color digital ortho imagery during the agricultural growing season (summer). NAIP updates 1 meter resolution images on a 5 year cycle. Digital Compressed County Mosaic (CCM) has improved image quality due to a 15:1 compression ratio instead of the 50:1 ratio that was available in 2004/2005. It is available 30 days after acquisition via USDA Geospatial Data Gateway (http://gdw. apfo.usda.gov/naip/viewer). The program has over 23 million (\$23,795,354) in 2005 in terms of funding. The program has been additionally successful because of federal and state cooperative partnerships. Each year NAIP has a set of states for contracting. Why do we acquire so much ortho imagery now? Technology and contracting have made the process price less expensive--the average cost for 1 meter ortho rectified (\$ 171.85 per DOQQ) and 2 meter rectified (\$158.82 per DOQQ). Costs are more affordable because vendors are allowed to resell "derived" or value added material after contract products. NAIP contract awards have been increased from 9 million to 30 million from 2003 to 2006. There are many more subcontractors willing to do this work for NAIP. In 2005, most of the country was covered (in comparison to a mere about 5 states in the past). There are states that are covered by 1 or 2 meter resolution. FSA acquires 2 meter digital ortho images for an entire county and delivery is required within 30 days. NRCS primarily focuses on acquiring images in 1 meter states through partnerships. Those states that have old images are given priority for updating by NRCS. Trend is changing from film to digital sensors (it is believed 50 % are covered by digital in 2006 and 60 % will be in 2008). Rohaley showed some of NAIP mosaic imagery to show the improved accuracy by changed resolution (1 or 2 meter) and compression ratio from 2004 to 2005. Compressed mosaics are available to the public through USDA Data Gateway, but higher resolution digital data is only available by order.

Distribution links for future information and data include: USDA Aerial Photography Field Office (http:// gdw.apfo.usda.gov/naip/viewer) for NAIP and USDA Aerial Imagery; USDA Data Gateway (http://datagateway.nrcs. usda.gov) for data products packaged by county. – Foreign Agricultural Crop Explorer (http://www.pecad. fas. usda.gov/cropexplorer) for global image, weather, etc.

Digital Elevation Model (DEM): NRCS has contracted to acquire DEM data. Most DEM data is in the public domain. Digital elevation is used for land use planning and soil surveys. When combined with digital ortho imagery, digital elevation allows updating soil survey mapping on laptops rather than from the ground (soil survey and DEM will be covered in detail at tomorrow's presentation).

Imagery for the Nation Proposal: Everyone wants imagery: local, regional, state, tribal, and federal governments, as well as the private sector. There is a proposal for three distinct programs under imagery for the nation: one meter, one foot, and six-inch acquisition program--a sort of infrastructure. The one meter program, which will be managed by USDA, would enhance the existing NAIP with the cover of the lower 48 states annually (Hawaii every 3 years; Alaska over 5 years) with natural color. The one foot program will be managed by USGS, covering everything east of the Mississippi River and counties west of the Mississippi River with populations more than 25 people/square miles, every 3 years with natural color. The six-inch program, which will be managed by USGS, will cover all urbanized areas per U.S. Census Bureau definitions (more than 50,000 populations with more than 1,000 people per square mile) every 3 years with natural color. Annual total estimated budget for production, quality control, and archive and distribution, is \$114 million. Expected taxpayer savings by replacing the existing local, state, tribal and federal programs with one consistent national program is \$159 million.

#### Questions/discussion:

*Question*: What happened to National High Altitude Photography (NHAP) program, DOQs, and its creation with one meter accuracy?

Answer: The NHAP program was replaced by National Aerial Photography Program (NAPP), which was administrated by USGS. NAPP is now gone. NAPP produced the original source of ortho images based on 1:40K scale and mostly black & white. However, NRCS and most of USDA do not need NAPP product. NRCS, USDA, and Farm Service Agency also need natural color images. Therefore, NAPP went to NAIP. The soil survey program still needs leaf-off images such as black and white, but can get them from archives at the USDA Aerial Field Office.

Question: Is there any back up system for the CD-Rom product in case there is damage the CDs stored at the USDA Aerial Field Office in Salt Lake City? Answer: CDs and fire wire drives are used to deliver NAIP items. Now they are on a server. The products come in multiple copies, and states which use the images have backup copies. Film life span is 75 years old. – Submitted by Joy Suh

# Susan J. DeLost, Program Manager, Geospatial Services, USDA Forest Service

Susan DeLost, Geospatial Services Program Manager, spoke about "USDA Forest Service Maps and Other Related Products" on Thursday May 4, 2006. She began by giving an overview of the land managed by the USFS and the mission of the USFS. Maps and geospatial data support the activities of the USFS in a number of areas, including: forest planning, forest health protection, watershed restoration, fire prevention & management, and recreation. The USFS participates in interagency coordination with the FGDC and partners with the USGS, the BLM, and other organizations (federal, tribal, state, local) to increase efficiency and provide additional services and products to its customers.

Maps have been an integral part of the USFS activities since the agency's establishment in 1905 and are a vital part of managing the national forests and grasslands. Maps were initially produced at the local unit level, with little standardization or consistency. Since the mid-1970's, with the establishment of the USFS' Geospatial Service and Technology Center (GSTC), the emphasis on standardization has increased, while still allowing flexibility for local needs. The GSTC works closely with the agency's national forest units and Regional Offices to produce map products, geospatial data and related applications. The GSTC and the Remote Sensing Applications Center (RSAC) units of the USFS, colocated in Salt Lake City, Utah, are leaders in providing geospatial information products, training, and technical support to the agency and its many partners. Susan distributed a CD entitled "A Legacy of Forest Service Mapping" to all CUAC members, which gives more information about this history.

Susan showed the traditional mapping products produced by the USFS: general maps, forest visitor maps, topographic maps, and specialty maps and brochures (http:// www.fs.fed. us/maps/). She brought samples of some of these maps to share with the group. They have just finished updating the map for the brochure, "A Guide to Your National Forests and Grasslands", which was last updated in 2000. Another agency map product is the Forest/Grassland Visitor Map, which has traditionally been produced at a scale of  $\frac{1}{2}$ " = 1 mile. Some forests are now producing these at the 1" = 1 mile scale.

In 1992, the USFS entered into an agreement with the USGS to produce a single-edition 1:24,000 (1:63,360 in Alaska) topographic map product covering national forest lands. This product replaces the two similar topographic quad products that each agency had previously produced over the same areas. The USGS and USFS jointly developed a standard for this series, which incorporates the traditional USGS 1:24,000 topographic quad standards and USFS-specific information. They are updated every 7-10 years. Under the agreement, the USGS has the responsibility for printing and distributing these maps. As a result of this agreement, the federal government has realized savings as one map per area is produced, instead of two, as had been the case prior to the establishment of the single-edition agreement.

The USFS is a voting member on the Board on Geographic Names (BGN). Betsy Kanalley is the USFS/USDA representative to the BGN and is the current chair of the BGN's Domestic Names Committee. The USFS participates in updating and maintaining the Geographic Names Information System (GNIS).

Susan discussed and showed the FS Geodata Clearinghouse (http://fsgeodata.sc.egov.usda.gov/), which provides access to metadata and downloadable data created by the USFS. She also showed a web-GIS service for active fire mapping, linked from the FS Geodata Clearinghouse.

Susan also demonstrated a new USFS Geoportal intranet site, which provides one-stop shopping for geospatial information for agency employees.

The USFS is working on a number of new geospatial tools and products: the Geospatial Interface, Carto Tools, MPS Atlas, Print-on-Demand, and additional web-based data and services. The Geospatial Interface is essentially an ESRI- ArcMap<sup>™</sup> extension that allows users to easily retrieve, view and use spatial and tabular data related to their subject area, which are stored in a number of databases across the agency.

Carto Tools provides map templates for various USFS map products that are included in documents (e.g., Forest Plan Revisions and others) and publications to increase the standardization of these products.

MPS Atlas is a project that the USFS is working on with ESRI that will incorporate the Carto Tools templates into ArcGIS in order to simplify map production for both standard and unique products.

The Print-on-Demand initiative's goal is to design and implement a print on demand web solution for Single Edition Quadrangles. It will first be implemented internally, with public access planned for the future. The USFS is exploring opportunities to partner with other service providers, both public and private. This interface will provide access to standard quadrangles and user-selected areas, but will not include the vegetation tint. One goal is to provide more up-to-date data for displaying and printing maps via a web-based service than is currently possible with the printed map product. The USFS has not yet developed an archiving process for this product. Susan suggested that CUAC send a letter to the FGDC and her about the need to archive this data as it is updated.

- Submitted by Katie Lage

### Dr. Brett L. Abrams, Electronic Records Archivist (NARA) and Chair of the Historical Data Working Group/FGDC

Brett focused his presentation on the activities of the Historical Data Working Group (HDWP) established by the Federal Geographic Data Committee (FGDC) to promote "the awareness of the historical dimension to geospatial data which have been financed in whole or part by Federal funds" and to facilitate "maintaining historically valuable geospatial data and making it available to future generations." Current membership includes personnel from USGS' Eros Data Center, the FSA Aerial Photography Field Office, DOJ, EPA, San Diego Supercomputing Center, CIESIN (Columbia University), NC State University Library, University of Connecticut Library (MAGIC), Boze Allen Hamilton, ESRI, FGDC, and OGC (Open Geospatial Consortium). The group is chaired by Brett Abrams, NARA.

The function of NARA is to assist all federal agencies in managing their records, including geospatial records, throughout their lifecycle and to preserve those records of "enduring" value in the National Archives. The NARA Appraisal Policy 1441 states that NARA is not only responsible for transferring and storing records under optimal conditions but also that they can be retrieved and their value retained during their assigned retention periods. Geospatial records that are scheduled as permanent include the Fish and Wildlife's Wetlands Inventory and Wildlife Refuges Files, The Forest Service's Fire Management Maps, and the Bureau of the Census 1990 and 1992 version of TIGER/Line files and the 1980 GBF/DIME File.

The current standards for the transfer of GIS records consist of the FGDC Content Standards for Digital Geospatial Metadata, the Spatial Data Transfer Standard (SDTS), GML v.3.1.1 and Simple Features Profile. The SDTS is not ideal in that it is cumbersome and USGS is not completing scheduled maintenance. GML v.3.1.1 and Simple Features Profiles are also problematic in that there is significant complexity and variability in some of its elements. In addition, the schemas are not saved as a part of the "archival bundle," but are instead url addresses to websites that will probably become outdated. Thus both SDTS and GML v.3.1.1 have questionable value for archival purposes.

Currently the HDWG is pursuing building a community among individuals and organizations interested in the historical dimension to geographical data, including maintaining a website with a library of information and a discussion component available to members. Future initiatives for the working group include creating a Geospatial One Stop Portal Community for historical collections such as those at NARA and the Library of Congress; developing application schema and archival profile using GML and simple features profile; and increasing the scanning of historical maps.

The following two links provide additional information about the Historical Data Working Group: The link to the main page:http://www.fgdc.gov/participation/ workinggroups-subcommittees/hdwg/index\_html; The link to the library page is http://www.fgdc.gov/participation/workinggroups-subcommittees/hdwg/folder\_contents - (Submitted by Anita K. Oser

## Bob Bewley, Senior Geographer, Bureau of Land Management

Bob Bewley, Senior Geographer at the Bureau of Land Management, presented to CUAC on Thursday May 4, 2006. He spoke about the BLM's enterprise GIS, the National Integrated Lands System, national data sets, data sharing, and showed some examples of BLM maps.

The BLM is the largest land management agency, managing 262 million acres. In 1948 the General Land Office merged with the agency in charge of grazing on public lands to for the Bureau of Land Management. The BLM's mandate comes from the 1976 Federal Lands Policy Act. The BLM is in the process of creating an enterprise GIS. An enterprise GIS is defined as, "... a business-wide GIS that is characterized by standard data, in a transactional format that allows update, maintenance and use by all levels of the organization." The BLM's enterprise GIS will support standardized data and serve out core datasets across all levels of the agency in support of the BLM's goals. Bob explained that the creation of an enterprise GIS needs: data standards, software and hardware, telecom support, the personnel to create and support it, and business/management support.

The BLM is exploring two models of an enterprise GIS: a state model and a national model. The state model will serve out resource data, standardized by state. This data will include such data as wildlife habitats, range improvements, etc. The national model is the National Integrated Land System (NILS) at www.geocommunicator.gov. NILS serves out land records, base maps, and some resource data. The majority of the resource data is collected at 1:24,000. The land records parcel data is generated from legal land descriptions and the Geographic Coordinate Data Base (GCDB). GCDB is cadastral ground survey data, decoded from old survey maps and survey data entered from recent cadastral projects. NILS includes feature-level metadata. The BLM plans on working with other agencies to add data for non-public lands to NILS.

Bob showed CUAC examples of the Land and Mineral Use Records Viewer in NILS. The national data sets included in NILS are: range allotments, areas of critical environmental concern, land use planning boundaries, BLM administrative units, national lands conservation system, surface management agency, oil and gas leases, mining claims, and geothermal leases.

NILS also includes some USFS data, as the BLM partners with USFS to serve it out. For example, the Land and Mineral Use Records Viewer displays data about the recent USFS Rural Schools Conveyance proposal. The BLM's policy is to share data between federal agencies and local and state governments. Bob's presentation included a list of BLM data administrators by state, included at the end of these minutes.

Bob then discussed BLM standard maps. The BLM creates 1:100,000 Surface Management Status maps digitally and prints paper maps. 1:500,000 Surface Management Status maps are created for all western states. Both of these series are updated approximately every 7 years. There was a question from CUAC members about the 1:500,000 maps not coming through the FDLP. Bob suggested we talk with Bill Jackson. He understood that they should be coming through the FDLP. Katie (Lage) said she would contact Bill Jackson. Bob showed examples of both of these standard map series.

The BLM also creates specialized maps such as mining maps, potash area maps, and oil and gas reserve maps. These specialized maps use the standard BLM line styles and colors but regional cartographers have more freedom with these types of maps than with the standard 1:100,000 and 1:500,000 maps. Bob showed many examples of the variety of specialized maps produced by the BLM.

CUAC members had a question about NILS data being sent out through the FDLP. Bob said that some of the data sets are proprietary. For the non-proprietary data, this might be a possibility. He would talk with GPO about this. CUAC members also inquired if the NILS data is being archived as it is updated and changed. The NILS data is "versioned" and archived on a quarterly basis.

BLM Data Administrators

- ALASKA Linda Ricketts,271-4645907-
- ARIZONA Rick Selbach, 602-417-9386
- CALIFORNIA Rob Cervantes 978 454
- COLORADO Adrian Caufield, 303-239-3941
- EASTERN STATES John Douglas, CIO 202-452-1638
- IDAHO Dave Burley, 208-373-4075
- MONTANA Norma Smith 406-896-5270
- NEVADA Marguerite McKee 775-861-6519
- NEW MEXICO Rene Berkhoudt, 505-438-7620
- OREGON Stan Frazier, 503-808-6009
- UTAH Walt Phelps, 801-539-4125
- WYOMING Renee Duval, 307-775-6244

- WASHINGTON OFFICE - Melanie Rhinehart, Data Manager 303-236-9940

- WASHINGTON OFFICE - IRM POLICY GROUP Jim Horan, 202-452-5023

- (Submitted by Katie Lage

### Carol Brandt, Geospatial Information Program Manager, Bureau of Transportation Statistics/DOT

Carol spoke on the status of the Geospatial Information Program at BTS. As a result of a February 2005 reorganization, BTS became part of the new Research & Innovative Technology Administration (RITA) within the US Department of Transportation (DOT). The BTS Geospatial Information Program (BTS/GEO) lost funding this past fiscal year and was forced to discontinue the Internet Mapping Center on their website, thus losing all their online mapping capabilities. BTS/GEO can no longer support the viewing and downloading of transportation data sets through the web or share mapping applications previously developed. Currently, BTS/GEO is trying to get the databases back on the web and available for downloading, so patrons will not have to order a data CD.

BTS/GEO will continue to: produce the annual National Transportation Atlas Databases (NTAD, a Congressional mandate); provide mapping support to the Crisis Management Center; and work on the National Spatial Data Infrastructure, GeoSpatial One-Stop, and FGDC. In their roll on the National Spatial Data Infrastructure, BTS/GEO is charged with coordinating the DOT presence and the transportation layer. The RITA administrator has recently been named to the FGDC steering committee, so this may bring more attention and time involvement to working with that group. Recently proposed Data Exchange Standards for Geospatial One-Stop were approved by an ANSI subcommittee and have been passed on to ANSI for adoption. Since their web site with interactive mapping has been taken down, BTD/GEO no longer plays a day-to-day role in Geospatial One-Stop.

The 2006 NTAD, due out this summer, will include the usual transportation datasets, as well as the following new information: Highway Performance Monitoring System (HPMS); Automatic Traffic Recorder Stations (ATR); Weigh In Motion Stations (WIM); and Hazardous Materials (HAZMAT) Routes. Also included in NTAD are the following geographic reference datasets obtained from other agencies: national populated places, urbanized area boundaries, 109<sup>th</sup> congressional district boundaries, county and state boundaries, hydrographic features, metropolitan statistical area boundaries (all from Bureau of the Census), national park boundaries (National Park Service), Metropolitan Planning Organization Boundaries (DOT), non-attainment areas (EPA/DOT), and military bases (Military Surface Deployment and Distribution Command, SDDC). These geographic datasets area way to make the NTAD product a transportation "map in a box," so users can add GIS capability to the geographic and numeric data included and create their own maps.

BTS/GEO provides mapping and analysis support to the Crisis Management Center, including assistance on Hurricanes Katrina and Rita and other emergency situations, as well as handling special mapping/spatial analysis requests from Congress and the DOT Secretary, e.g., air traffic hub mapping and "Annual Rural Airport Analysis" information. Much of this spatial analysis and information is available internally and on not the web due to the sensitive nature of the data, e.g., pipeline locations.

BTS/GEO is currently involved with the Geospatial Line of Business (LoB) federal government initiative. Geospatial LoB is a new plan for agencies to work together to: identify opportunities to share common geospatial processes and functions across government; result in a more coordinated approach to producing, maintaining, and using geospatial data; ensure sustainable participation from Federal partners to establish a collaborative model for geospatial-related activities and investments; and influence the FY08 budget cycle. Since the GLoB scheme was sent to the agencies in March, much of Brandt's time has been spent on determining how best to work with other agencies to set up and conduct the Geospatial LoB.

Until a few years ago, a number of BTS geospatial information products were disseminated through the federal depository program, but this is no longer the case. Brant and GPO representative Robin Haun-Mohamed plan to discuss this situation soon.

New activities for BTS/GEO include working with National Highway Traffic Safety Administration (NHTSA) on the next generation of E-911 to integrate geospatial information (the current system does not handle text messaging and imagery used by some phones); and working with the Federal Highway Administration (FHWA) on Highway Performance Monitoring System data collection, as well as promoting the 50<sup>th</sup> anniversary of the Eisenhower Interstate Highway System (see the site at http://www.fhwa.dot. gov/ interstate/homepage.cfm for more information, including lists of both road songs and road movies). BTS/GEO continues to participate in the geospatial aspects of other DOT programs: freight analysis framework, scenic byways, and road closures (with FHWA); real time airport status, aeronautical charting, and temporary flight restrictions (with the FAA); Fatality Analysis Reporting System (with NHTSA); maintenance of the geospatial data distributed through NTAD (with FRA, the Federal Railroad Administration); programs to encourage greater transit ridership (with FTA, the Federal Transit Administration); and hazardous materials programs (with FMCSA, the Federal Motor Carrier Safety Administration).

The National Transportation Library, located within the BTS and billed as "... a virtual library for the transportation community," was also affected by the budget cuts. Current plans call for maintaining the digital portion of the Library's mission, but eliminating collection development, cataloging, and library reference services. The Library will continue its partnership with the Transportation Research Board (TRB) to produce Transportation Research Information Services (TRIS) Online. The TRIS Database is the world's largest and most comprehensive bibliographic resource on transportation information. TRIS contain over 600,000 records of published and ongoing research covering all modes and disciplines of transportation. In addition, the National Transportation Library plans to coordinate with transportation libraries around the country to leverage past work on a union catalog, a "system of libraries." This work was spearheaded by the current head of the library, who will leave that position in a few weeks, so the future of this initiative is unclear. It is possible that the Library could move up into RITA, resulting in the receipt of more funding.

Contact information: Carol Brandt (carol.brandt@dot. gov)

Web Sites for Further Information:

- Research & Innovative Technology Administration (RITA): http://www.rita.dot.gov/

- BTS/GEO:

http://www.bts.gov/programs/geographic\_information\_servi ces/

- National Transportation Library, http://ntl.bts.gov/

- Submitted by Mary McInroy

## Gregory J Allord, Science Information and Education Office, and Michael P. McDermott, National Coordinator, Natural Science Network, Geological Survey

The USGS has been transitioning for a while. It is now divided into disciplines such as geology, geography, water, etc. The Geospatial Information Office (GIO), oversees information activities including the library, publishing and information dissemination activities. For the first time in the history of the USGS, these activities have been centralized in the same group. Within the Science Information and Education office of the GIO is the Natural Science Network, Publishing, E-Web (the USGS' enterprise web activities) and education. These groups are working on combining their activities. The Library is now part of the Natural Science Network.

The vision of the Natural Science Network (NSN) is to be a nationally linked network of USGS data, information, and knowledge available to anyone, anywhere, anytime. The NSN has several components, including the knowledge management, information delivery and Science Information and Library Services. The Knowledge Network is where information is created. The concept of the knowledge network is that everything the USGS does is part of the Knowledge Network. The knowledge is owned by the Science Programs (Biology, Geology, GIO, Water, Geography & Science Support). The work of the Natural Science Network is to bring the information together through network activities and make it accessible to the public. The USGS does this through their information services activities, which brings together the Library, information services and distribution. The Network is made up of the people and the tools to get the information out to the public. The USGS is interested in comments on their services and information.

SILS, Science Information and Library Services, includes Library Services, Information Services (which are the old Earth Science Information Centers (ESICs)) and the call center. The idea for this structure originated in a 2002 directive from the former USGS director Chip Groat. It combines two different cultures, libraries and information services. USGS is still working to combine these two cultures. The information service group has existed for nearly 50 years, and includes entities that existed before ESICs. Information services is the organized effort to handle inquiries (USGS receives about 400,000 inquiries a year), from telephone, email and visitors. Responding to these inquiries will continue, but it will not be a function of the library. The reference librarian's activities overlap the information service. USGS is looking for models of how to implement the combined Library and Information Service.

Knowledge Management is the place where tools that allow people to access USGS information are created. This includes the FAQ web site, which allows people to get more information on the web. The USGS wants to develop more of these tools, and is just starting on this effort.

Information Delivery consists of the work that USGS has done all along, such as distributing publications and maps. The USGS is moving towards a print on demand system for maps and publications. This is a complicated task with which the USGS is struggling, because it is difficult to convert the contents of a 5-acre warehouse to an on-demand system. The USGS is still in the process of trying to figure out how to do this. The change will not happen instantly, instead it will be a gradual transition. For the near future, the USGS will continue to produce paper maps and make them available as they make the transition. USGS does intend to deliver as much information as possible via the web, but will keep a limited amount of paper stock available for the near future. One of the primary reasons for this is emergencies. In the event of an emergency, the responders want a paper map. For example, after Hurricane Rita, there was a lot of GPS work done to identify flooded areas, but the emergency responders still wanted printed maps. This has identified another issue: in the event of an emergency, if everything is digital, how do you go from digital to print? Plotting is another issue that needs to be addressed. The USGS is working through all of these issues.

Under former USGS Director Chip Groat, the USGS moved towards a matrix management structure, which means that people report to two managers. A new USGS director has just been named. Until he is confirmed, the USGS will continue to operate based on these plans. How-ever, things could change with the new USGS director. In the case of the USGS, people report to their regional manager as well as a manager or coordinator who oversees a particular functional or program area. As Coordinator of the Natural Science Network, Mike McDermott coordinates the information activities of the 3 USGS regions, including the Libraries, although his office has very little staff. All of the work is done in the regions, and people in those offices, including the libraries, report to their regional managers. However, the Coordinator's office controls the money and allocates funds to various programs. The key coordinator of the libraries, the National Library Coordinator, will lead the activities of the USGS Libraries. As coordinator for the Natural Science Network, Mike is working to fill the position of National Library Coordinator; this person will oversee the World's largest Earth Science Library and will develop the vision to establish a national digital earth science library. While they still want to retain the analog, they need to balance the book collection and at the same time develop a digital library.

Depository Library activities are in flux. There is a Congressional mandate and OMB Directive to make information available over the Web. GPO is also trying to identify the legacy publications, roles and responsibilities. The USGS is trying to comply with those mandates, but is also still trying to determine how to go about complying with these mandates with cartographic materials.

Greg Allord is the National Manager of the USGS Publishing Program, which was a loose confederation of units within the various disciplines. Instead of doing a competitive outsourcing process, the USGS has been allowed to create a high-performing organization. They have mandates and metrics that they have to meet, but are allowed to do the work in the transition period and retain the management autonomy. They do not have a contractual obligation to meet the terms of competitive sourcing. USGS had about 250 publishing professionals two years ago, including editors, illustrators and cartographers but that number is now down to approximately 190. They report to their regional structure, including 3 regional publishing managers. Greg oversees policy and funding, including allocating money to the various regions to prepare materials for dissemination.

There are certain elements within the National Publishing program that need to be consistent. In the past the various disciplines have set their own process. Now there will be national consistency within all disciplines, and within the 3 regional operations. They have been working to develop the USGS Publications Warehouse, populate it with verified citations, and provide digital content. Over half of the publications in the Publications Warehouse are now available digitally. They are working to convert the paper to digital at the rate of about 1000 titles a month. Their goal is to convert all paper publications to digital over the next few years. They will also be working to create permanent URLs (PURLs) for the digital items in the Warehouse.

A number of cartographic issues were raised last year at the Map and Geographic Information in Transition conference. The USGS National Program is working to follow up on these issues. They are starting to move on these issues, and the USGS recognizes that they do have a responsibility to continue to provide the traditional products such as the Professional Papers, Scientific Investigations and topographic maps. However, they are still trying to develop an answer for some of the issues. Greg went on to discuss a project that is being done to scan and preserve older topographic maps. The goal is to convert all of the paper to digital and do so in a way that the maps are touched only one more time. They want scans of maps that will be acceptable to the National Archives and Records Administration to archive, and use to produce derivative products. The final product will be a publicly accessible Web-based collection of current and historical USGS quadrangles.

The USGS is working on this project through partners, and providing the framework for the scanned images. They have an internal, unverified database that was developed to manage the printing and production of maps. This is the USGS starting point for the project. They have developed and tested the process, which includes scanning and metadata. They will be working on geoprocessing the images at a later time. There are several critical partners in the project, including the USGS Libraries in Reston and Denver, the Robinson Map Library in Madison, WI, and the Library of Congress, which is serving as a reference collection, providing map metadata standards and recommendations for the delivery of the map images. The Robinson Map Library is the primary site that is providing some of the initial content for the project. With Student Assistants, they are able to scan and verify about 100 maps a day. They are creating records for each topographic map based on a Qualified Dublin Core metadata standard, which can be cross-walked to MARC at a later date. They are also including some optional elements, which include publisher, contributor (partners), source, and required elements unique to each map including identifier, original date and area of coverage.

The work is being done at a resolution of 400 dpi or greater, 24 bit color. They will be doing the 1:24,000 topographic maps for each state first, then the other scales for that state. The maps are being scanned and saved as an uncompressed TIFF images; USGS is using that scanned image as the starting point. They are using an Access database that gives historical information on publishing history for each quadrangle that is being used as a reference tool to provide some of the basic metadata elements. They started with Wisconsin in June and finished scanning all dates and scales by September. The work includes every edition, including updates and photorevisions. They then worked on scanning the areas that had been impacted by Hurricane Katrina. They are now focusing on Minnesota, Illinois, Nebraska, and Kansas. Some are done and some are in progress. They are going to swap some of the USGS data for scans of topographic maps for Indiana that are being produced by a man who does title searches. Once a state is complete, the Access database of maps for each state will be compared against the holdings of the USGS Library, which, they believe, is the authoritative site with a copy of every topographic map produced by USGS. The USGS Library will validate and fill in gaps. The USGS is interested in collaboration, and will have to deal with accessibility. The USGS has a count of the number of maps they have in their unverified database. When all topographic maps, each edition, at all scales are considered, there are about 300,000 maps for the entire United States. They are interested in information from organizations that have done or are doing similar projects, including the name of the organization that scanned the map, a description of the scan, the date map was scanned (MM-DD-YYYY), the image format, resolution (dpi), color depth (bit), and compression (NONE, LZW, etc). They are interested in hearing from organizations that have scans of at least 100 maps or more. Additional information on the project will be available at: http://pubs.usgs. gov/historicquads (this site will be active in the future).

For more information, contact Gregory Allord, Cartographer, U.S. Geological Survey, Science Information and Education Office, Publishing Program, Madison, WI, gjallord@usgs.gov. More information on the project is at: http://infotrek.er.usgs.gov/pls/htmldb/f?p=182:1:342119841 3713854611

Contact for Mike McDermott: Mike McDermott, National Coordinator of the Natural Science Network, 703-648-5771, mmcdermo@usgs.gov. – Submitted by Linda Zellmer

# William R. Effland, Ph.D., U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey Division (USDA-NRCS)

"Technology for Soil Survey: Digital Orthophotography and Digital Elevation Models." During the presentation Dr. Effland covered the National Digital Orthophoto Program (NDOP), Digital Elevation Model (DEM) data collection, creation, sources and applications. Additionally, he demonstrated the NRCS's National Cooperative Soil Survey (NCSS) web site, Web Soil Survey located at http:// websoilsurvey.nrcs.usda.gov/app/.

In his presentation Dr. Effland discussed the NDOP Interagency Steering Committee's purpose to create an orthophoto base that is part of the NSDI and he explained the Committee's general operating principles. He then demonstrated the NDOP site located at http://www.ndop.gov/. The site has links to imagery sources and also data http://www. ndop.gov/data.html. There was a discussion about the difference between the need for NRCS imagery to be leaf-off for soils information gathering versus other agency needs which require leaf-on for agricultural and environmental applications.

During the DEM presentation, Dr. Effland discussed the National Digital Elevation Program (http://www.ndep.gov/) and the advances in using Light Detecting and Ranging (LiDAR) and Interferometric Synthetic Aperture Radar (IfSAR) in creating digital surface models (DSM), Digital Terrain Models (DTM) and Orthorectified Radar Imagery (ORI). He commented that the data is acquired under a licensing agreement, but derived products will be public domain. Lastly Dr. Effland discussed the products created from digital elevation models (DEM) and DEM applications that produce derived data for Topographic Wetness Indices, Stream Power Indices, Revised USLE "LS" Factor, Solar Radiation Indices, and Temperature Indices. He also discussed drainage basin analysis products derived from DEMs.

- submitted by Joe Aufmuth)

## Tim Trainor, Assistant Division Chief for Geographic Areas and Cartographic Data Products, Geography Division, Census Bureau

There are many things going on at the Census Bureau this spring and summer. Moving to a new building in August 2006 involves scanning many items rather than transporting volumes of paper. The Geography Division will relocate from its current off-site facilities to the new building in August 2006.

TIGER files are undergoing a major overhaul using existing GIS files from state and various other levels of government when available. The remaining geographic area information will be updated through other acquired sources. When complete in Spring 2008, TIGER street centerline data will have 7.6 meter or better accuracy. Status maps show the project progress on the Census website every two weeks.

The Census Bureau is working in partnership with tribal, state and local governments and plans to provide them with a software tool to assist in updating their TIGER data if they do not have their own GIS. The Census Bureau requires constantly updated street and address information. In addition, an annual Boundary and Annexation Survey (BAS) is conducted for most legal entities and will include the full complement of legal areas beginning with the 2008 BAS. The Bureau will need to continue this full boundary survey each year to support the annual American Community Survey (ACS).

In late summer or early fall 2006 there will be a notice in the *Federal Register* requesting comment on proposed changes to statistical areas supporting the 2010 Census. The criteria for census tracts are not expected to change. To support the ACS in offering detailed data for small area geography, larger block groups will improve data availability while maintaining the Census Bureau's requirement of confidentiality of data. The review will include all statistical areas for which data is reported from the decennial census.

The 2010 Census will be the first to include tabulations by school district. School district boundaries have been collected and are maintained every two years in the TIGER database.

The Census Bureau ultimately plans to make a transition from FIPS codes to ANSI format place designations. FIPS-55 place and county subdivision codes currently are not being maintained, but there are some concerns with use of GNIS in their place. The USGS/GNIS view of a "place" is not necessarily tied to a legal governmental unit in the same way that the Census Bureau requires (for instance, places at the boundary of two states sharing the same place name may be treated as a single place by GNIS). In addition, GNIS identification numbers are assigned sequentially with no hierarchical relation to the geography and hence cannot be sorted alphabetically.

The Census Bureau website continues to maintain geographic and cartographic products in a prominent location on the home page. In response to Hurricane Katrina the Bureau has created special census tract PDF reference maps for the Gulf States using a less cluttered means of displaying tract information.

The American Community Survey of a sample of approximately 250,000 households per month began in 2005. The first data from the Survey will be released later this summer. It will only be available for areas of > 65,000 due to confidentiality constraints. Every three years floating averages will be published for populations between 20,000 and 65,000, and at five year intervals to smaller areas going down to the block group level.

Testing for the 2010 Census, which will not include a long form (since ACS will provide this data), is well underway. Some of the field tests have used hand held devices to collect data. Using GPS they intend to capture the location of every house (except in Alaska) to an accuracy of 3 meters. Matching these precise locations with updated address information should reduce the very expensive need for multiple follow up visits to non-respondent households.

The Census Bureau would like feedback from CUAC and/or its member organizations as to what formats to provide for geographic information:

- How should spatial data traditionally provided via TIGER/ Line files be made available?

- While shapefiles meet the needs of many users, they lack topology. Is this a concern?

- Geographic mark up language (GML) is rich but complex. The Census Bureau has been developing capabilities to consider GML as a dissemination format. The Bureau plans to finalize decisions on use of TIGER/GML by 2008.

- PDF format for cartography continues to work well for the Census Bureau, but they will provide web mapping options as well. Are paper maps still needed?

Discussion after the presentation centered on the county subdivision geographic units, Minor Civil Divisions and

Census County Divisions, and how these units will be reported in 2010 and the ACS.

Participants were also concerned about availability of historic Census boundaries and efforts such as the Minnesota Historical Boundary Project to provide this information. – submitted by Thelma Thompson

# Robin L. Haun-Mohamed, Director, Collection Mgmt & Preservation, GPO

GPO Reorganization: reorganized into business units: Library Services and Content Management (formerly Information Dissemination and Superintendent of Documents) is under Ric Davis. Sections of Library Services and Content Management include: Library Technical Information Services (cataloging); Laurie Beyer Hall, Jennifer Davis, Linda Resler, Library Planning and Development (policy and planning); Ted Priebe, Karen Sieger, Lisa Russell, Janet Scheitle Collection Management and Preservation. Robin Haun-Mohamed, James Mauldin, Lance Cummins, and Janet McCaskill handle acquisitions/distribution, education, outreach and conferences. See the organization chart in file Library Services and Content Management.pdf. (Updated from handout distributed at the Depository Library Council Meeting, April 2-5, 2006). Publication and Information Sales is under Kevin O'Toole.

Judy Russell, Superintendent of Documents, will focus on expanding the development of a new model for the FDLP with Congress and GPO's Library partners

Public Printer of the United States, Bruce James has announced his retirement. He intends to stay until his replacement is in place.

Upcoming Events:

Interagency Depository Seminar: July 31- August 4, 2006.
Not planned over a weekend this year. GPO is also hoping for better hotel rates at the end of the summer.
Fall Depository Library Conference and Council Meeting:

October 22-25, 2006, hotel not yet announced – Comments on 2006 Recommended Specifications for Public Access Workstations in Federal Depository Libraries, comments to Cindy Etkin (etkin@gpo.gov) by June 1, 2006. Will be published in the June or July Administrative Notes.

Maps Information: USGS distribution problems, Interagency agreement between GPO and USGS has come up for renewal and will be take care of. GPO also believes there is a problem in the warehouse. GPO has reached out to their contacts at USGS to find out what is going on. Linda Zellmer stated that she is not getting USGS shipping lists in a timely manner; by the time we get the shipping lists on the web site, it is too late to claim missing maps. Robin will look into that and try to resolve the problem.

Distribution of Bureau of Land Management maps. Dan Seldin stated that when USGS was printing for BLM there was an agreement that maps would come flat (not folded) to depository libraries. Now USGS is not printing the maps and they are coming folded. Katie is working with the BLM rep to get flat instead of folded maps distributed to libraries. USGS report series consolidated into just a few series and may not be making it into the depository system. USGS and GPO need to look at this problem.

CIA Maps are in the World Factbook. They are also increasingly available online and not in paper.

NOS and Aeronautical Maps are being cataloged as serials, when possible.

Map distribution statistics so far for 2006:

USGS 189; BLM 135; CIA 20; NOS 188; FAA 25; NGA 0 Discussion: No NGA distribution may be related to

international events. There is a need to find a contact and open discussions with NGA. Robin will see what she can find out and get back to us,

Linda Zellmer asked about VMAP1 (sale 1:250,000) electronic data recently completed by NGA. Distribution may be daunting on CD/DVD because of the numbers of CD/DVDs needed. Indiana University would be happy to store and serve the data if that would get it available.

Bruce Obenhaus asked about item number surveys. The question came up because in 2003? NIMA stated they had maps ready for distribution and was waiting for GPO to survey to see what libraries wanted them. Robin thinks we missed the window of opportunity on that one. Robin is trying to find a contact in NGA. When that happens she will find out if that material is still available. She suspects it is not.

Important Projects: Sales and Distribution RFP has been released with an option for Depository Distribution included.

Beta mode for the OPAC for the new ILS and the newly redone Catalog of U.S. Government Publications is almost over. They are working on restoring title browsing which they had at one point but it went away.

New askGPO contact center hours, 7am to 8 pm eastern time.

Authentication of Digital Files is waiting for the award of the contract. This is bulk signing of PDF to ensure authenticity of the document. This is one of the requirements of the Future Digital System.

Biennial Survey: The 2005 Biennial Survey of Depository Libraries ran from December 2, 2005 through the end of December 2005. Since then, GPO has been adding libraries that were late responders. As of March 13, 2006, 1,214 libraries have responded. GPO is working to get the data compiled and available.

Questions 65 and 66, dealing with digital publications files, generated a healthy exchange of ideas for the discussion lists.

Q. 65: My library systematically downloads, stores online publications identified from GPO Access or through GPOcreated PURLS, and makes them accessible to the general public from local servers. This past year my library downloaded the following number of digital publication files (this does not include shipping lists, Web pages, or datasets):

Percentage of tabulated responses: 0---81.06%

1-25---10.91% 26-100---3.05% 101-500---3.53% 501-1000---0.64% 1001-5000---0.80% More than 5000---0.00%

Q. 66. My library is willing to receive Federal digital publication files on deposit from GPO, store them, and make the accessible to the general public from local servers. My library is willing to receive the following number of digital publication files per year (this does not include shipping lists, Web pages, or databases):

Depository Library Council Update April 2006

Percentage of tabulated responses:

0 72.52% 1-25 15.31% 26-100 4.77% 101-500 3.25% 501-1000 1.93% 1001-5000 1.12% More than 5000 1.12%

Web Harvesting Project two vendors going through

EPA web sites identifying any in-scope federal publication. These harvesting efforts will be compared to what GPO has found manually to see if this is a good method of capturing fugitive documents. The first scan has recently been completed but the data is not in yet.

GPO/FedEx Kinkos Express Program, a service for printing for agencies at discount prices, has identified 11 documents in-scope for the depository system. This may prove a good way to capture what would become fugitive documents. More information can be found at http://www. gpo.gov/gpoexpress/index.html

Digitization of the Historical Collection project was approved by the Joint Committee on Printing at the end of March. A pilot project will run for 6 months, beginning June 1. Material to be digitized is part of the first tier in GPO's Priorities for Digitization of Legacy Collection, located at http://www.gpoaccess.gov/legacy/index.html. Requests for donations of specific publications will be sent very soon to the documents community, including Federal Register, Congressional Record, Code of Federal Regulations, U.S. Code, Congressional Record Indexes, possibly Bills (possibly because they don't want to do it from microfiche and they have to find paper copies), and Public and Private Laws. Digitization Specs will be covered by Ted Priebe.

# Ted Preibe, Director, Library Planning & Development, GPO

Library Planning & Development is responsible for new and existing initiatives for tangible, electronic, and Web collections within the Library Planning and Development organizations.

Future Digital System, a content management system that will provide permanent public access to all federal government information, is to accomplish preservation, version control and authentication. Access is the key so users can get it in the format they want including print on demand, hand held devices and future digital formats.

Digitization Project: Digital Conservation Service (DCS) is responsible for the digitization project that was approved by the Joint Committee on Printing at the end of March and starting June 1. DCS is not only to provide a mechanism for completing the project but also reaching out in a collaborative way to agencies and talking to customers about what the goals are from a preservation level and access level. Preservation and access are not the same thing, factors include scanning resolution, what is a faithful reproduction, and color vs. black and white. There is a need to educate the public and customers on these factors so something is not digitized more than once. DCS is also looking into metadata creation (brief bibliographic record or full catalog record). Specifications are available from GPO.

Preservation Quality Scanning: working on establishing a Memorandum of Understanding (MOU) between GPO and NARA and LC to not duplicate digitization efforts. Hopefully this will result in all working on common standards for baseline preservation quality scanning. There is an opportunity to bring in more federal agencies and get broadbased support. The standards are necessary for long term success of the digitization project and to avoid duplication of effort. Preservation is underlying theme. The standards call for scanning at resolutions of a high enough quality so that it can be repurposed into any number of formats based on what the current technologies are and what technologies are projected for the future.

Digitization specifications – version 3.3 is available at GPO website. Quality control specifications are going out for public comment probably next week concerning quantitative measures to use to say what is a faithful reproduction, what is the level of accuracy expected.

RFP for Master Integrator for FDSys is available at http://www.gpo.gov/projects/fdsys.htm.

Registry of Digitization Projects: GPO would like to know about any digitization projects. Please register at the registry of digitization projects. Information on the priorities for digitization of the legacy collection and the registry of U.S. Government publication digitization projects is available at http://www.gpoaccess.gov/legacy/. The goal is permanent free public access.

- Submitted by Bruce Obenhaus

# Dr. John R. Hébert, Chief, Geography and Map Division, Library of Congress

The L.C. Geography and Map Division is working with Readex to scan the colored maps from the Serial Set. The project has reached Serial Set maps produced by 1900.

Last year's conference on the Future of Map Libraries, sponsored by CUAC and the Geography and Map Division, has brought about a number of cooperative ventures. The University of Texas and the University of California System have proposed the scanning of pre-1923 Sanborn maps for their respective states. The University of Texas has planned to send a person to scan the maps and California is contemplating funding to have LC scan the maps. There is a common agreement on standards. The maps will be scanned for research at 300 DPI and would be compressed using JPEG 2000.

Another cooperative program is the National Digital Infrastructure Preservation Project which will create archival digital collections. There are 2 geospatial projects in the NDIIPP. North Carolina State University is trying to capture North Carolina state and local digital spatial data. University of California, Santa Barbara and Stanford University are collecting cartographic and geospatial data and are testing ways to ensure migration of those data.

The Geography and Map Division is working with the LC Office of Strategic Initiatives to look into LC archiving the National Map and National Atlas as a backup to USGS. The G & M Division is also looking into working with USGS and the National Archives to archive and possibly scan the "legacy" collection of USGS quadrangle maps. There has to be an agreement on scanning standards.

There have been some international programs. Academia Sinica from Taipei, Taiwan has sent a team of specialists and technicians in the falls of 2004 and 2005 to scan, using their own equipment, pre-1970 maps of China. The G & M Division has started a project to catalog the scanned images, increasing the control of their holdings. The National Library of Korea came to review the Division's historical holdings of Korea. They have proposed a project to preserve and to scan these rare maps and atlases in 2006 and 2007.

While hiring remains tight at LC, the G & M Division will be permitted to fill 2 cataloging positions from within Library Services. Also the Division will be able to fill the positions of Cataloging Team Leader from within the Library and the Head of the Reading Room from within Library Services (the former Head retired at Christmas 2005). The Division can hire a GS-14 Digital Specialist from outside LC. A GS 9-12 Cartographer for the Congressional Cartography Program can also be hired.

LC is planning to put the 1507 Waldseemuller map on permanent display in late summer 2007 in a special encasement with inert gases and constant monitoring that will last 20-25 years without degradation. They are planning a 2 day conference in September 2007 to discuss all aspects of the map and its time period.

The digital team has scanned over 9000 maps that have been put on LC's web site. The most impressive additions during the past year are the Jedediah Hotchkiss Civil War maps and a collection of situation maps from World War Two showing the daily progress of allied forces through Europe from D-Day to V.E. Day.

The Congressional Cartography Program has one GIS specialist who is producing maps for Congressmen and Senators. The maps produced are not available unless the Congressman or Senator makes them available. The Program is producing congressional district maps and state maps with congressional boundaries. The current acting team leader for the Cataloging Team in G&M is Rodney Pollock. Two years ago, the G & M Division began a pilot project to allow online access to set map holdings. Then the funding for the project ended. During the past four months, this project has been resurrected with the development of a plan to capture holdings data on LC's Sudan set maps; G&M holds 55 different series covering Sudan. Using the Sudan capture as a proof of concept, the G & M Division will seek funding to launch a larger effort to develop digital access to sheet level holdings for their approximately 2,000,000 sheet set map collection.

With regards to digital data, the G & M Division is cataloging only CD-ROMs and not online data. They are attempting to list all the data sets in the record.

Submitted by Dan Seldin

### Submitted Written Agency Reports:

## U.S. Department of Energy, National Renewable Energy Resources Laboratory, May 2006

NREL's GIS holdings are focused on renewable resource datasets.

Currently our FTP site (http://www.nrel.gov/gis) has geographic shapefiles of annual wind power class (for 33 states and an older national assessment), annual and monthly solar resource (direct normal and tilt=latitude collector), and biomass resource. In the near future, we will also be adding a higher resolution solar resource data (10 km ground resolution) for the southwestern U.S., and next year hope to have a conterminous U.S. version of that data available. We also provide access to a number of stand-alone Geospatial Toolkits that have been created for international projects, to provide those countries with some limited GIS querying capability. These toolkits include renewable resource, infrastructure and other base data for the country as part of the installation package.

There are many additional datasets that can be provided upon request, but aren't distributed on the FTP site. Some of these datasets require review of need and management approval before they can be sent. These include the original raster power density datasets that the wind power class shapefiles are created from; supplemental/unvalidated wind speed and power information for different heights above ground and time scales; wind measurement data; and solar modeled hourly values.

Contact persons: Donna Heimiller Pamela Gray-Hann Research Scientist (GIS) Webmaster for FTP site National Renewable Energy Laboratory Phone:303-275-4626 1617 Cole Blvd FAX: 303-275-4675 Golden, CO 80401 pamela\_gray\_hann@nrel.gov 303-384-7098 donna\_heimiller@nrel.gov – submitted by Anita Oser by Frederick. M. (Rick) Wall, Chairman

The Mission of the Publication Pipeline

The mission of the AAPG Publication Pipeline Committee is to improve geoscience education in overseas countries by providing used geoscience books and periodicals at no cost to libraries that request them.

### Geoscientists Helping Geoscientists

The AAPG Publication Pipeline committee collects, inventories, boxes, stores, and sends, free of charge to the recipients, donated geoscience periodicals and books to university libraries and other libraries overseas which are in need of them for use by the students, faculty, and researchers. We arrange shipment of the publications overseas through the help of companies and organizations operating overseas.

To date the committee has shipped over 27 tons of publications to universities that need them. Our most urgent problems are identifying universities that need the publications, finding contacts within the universities to work with the AAPG Publication Pipeline in arranging receipt of publications as well as locating companies and or organizations willing to underwrite shipment costs.

Donations to the Publication Pipeline and distributions overseas.

From July 1, 2005 to June 30, 2006 the Publication Pipeline accepted donations of geoscience publications from 38 individuals and organizations with a cumulative weight of 8500 pounds. We now have about 52,000 pounds of publications in storage, of which 70% are inventoried. This past year the Publication Pipeline committee has entered into a multi-donation arrangement with ExxonMobil to accept used publications from their library management system. The first shipment consisting of 700 boxes was used to make up a USGS sponsored donation of books to universities in Afghanistan.

From July 2005 to June 2006 the committee shipped over 11 tons of books to universities that needed them. These include shipments to universities in Afghanistan and Indonesia as well as Texas Southern University. Additional shipments are in progress or planned to Bangladesh, Kazakhstan, Indonesia, Iraq, Papua New Guinea and Mongolia. In addition, the committee took a proactive approach to contact universities in the U.S. gulf coast that were hit hard by hurricanes Katrina and Rita, to offer assistance to their storm damaged libraries. Many of the universities in Louisiana, Mississippi and Texas are still surveying the extent of their damage.

#### Storage space is getting critical!

As in years past, the J. A. Green Development Corp. has generously provided free storage for our donated books.

As a result of our success in attracting donations, our space in their warehouse is filling up. Although J. A. Green continues to find space for us, unless we start moving more donations overseas, there is a very real and present danger that we will exceed our capacity at the warehouse.

#### Challenges

Currently our biggest challenge is arranging shipments at a pace sufficient to equal our intake of donations. In spite of the general desire for publications, making contacts with universities overseas and arranging shipments is a slow process. This process is helped by working with and through our AAPG regional organizations and affiliates. This year special emphasis will be put upon getting the word out that Publication Pipeline publications are available free of charge to those that need them. In addition we will continue to contact corporate partners and government organizations to solicit funds to ship publications to universities that need them.

#### Inventory and Webpage

Taking inventory of donations is a continuous and time consuming process. We prefer that an inventory is provided by the donors but this last year several large donations were accepted without an inventory. Anadarko and Samson have made grants to help pay for the inventory of donated material, but more help is needed. A partial inventory of our holdings can be viewed and downloaded from the Publication Pipeline webpage at www.aapg.org/committees/ pubs\_ pipeline.

### The Pipeline Needs Your Help!

We request aid from the membership in four ways: 1. Please help us identify universities overseas in need of publications. Consider acting as an ambassador for our cause.

2. Recommend to your company that they sponsor a shipment of publications overseas to needy universities in the host country of your operations. Experience shows that is a win-win activity for all involved.

We need the help of individuals to join us on the committee. Help is especially needed in Houston to work with us in handling donations and arranging distributions.
 If and when you decide to dispose of your library, please keep us in mind. Overseas universities often do need both books and periodicals.

5. We do need funding. The AAPG provided us with a \$4000.00 budget this last year but to be most effective we need at least \$22,000 a year. Donations can be made to the AAPG Foundation marked for the Publication Pipeline, either endowment or operating funds.

Geographic Information Systems (GIS) Manager, Stanford University, Branner Earth Sciences Library, Stanford, CA

#### General description

The GIS Manager is a member of the Science and Engineering Resource Group (SERG) of the Stanford University Libraries (SUL). Together with the GIS & Map Librarian, the GIS Manager sustains and strengthens the GIS program asthe primary provider of GIS-based services, research consultation, and user education to Stanford University (SU) students, faculty and staff from all departments across campus.

This position is based in the Branner Earth Sciences Library, but the GIS Manager collaborates with and provides high-level technical support to other resource groups on campus in an effort to establish coordinated GIS support to the entire campus. Since s/he will provide GIS support to users from a wide-range of academic disciplines (Earth Sciences to History to Epidemiology) the ideal candidate will have demonstrable experience in applying GIS methods to a variety of disciplines.

In support of campus research and instructional needs, the GIS Manager designs and delivers instruction to GIS users, assisting the integration of GIS skills into the curriculum. S/he also leads an ongoing outreach program to expand understanding and utilization of GIS throughout all appropriate departments at Stanford.

The GIS Manager collaborates with library staff and faculty members to develop and implement new directions and long-range plans for improving the provision of GIS services. The GIS Manager supports the GIS operations in Branner Library, which include: selecting GIS software, data, hardware and peripherals; training and supervising a student staff person to assist with GIS services and Website maintenance; managing campus-wide GIS software licenses; and maintaining four networked public PCs, dedicated to GIS.

Specific Duties and Responsibilities

\* Provides expert GIS consultation services to users with varying needs and abilities ranging from basic GIS skills to research level analysis involving manipulating, customizing, querying, or modeling of data. This may at times be in greater depth for patrons needing special assistance for courses or projects heavily using GIS.

\* Works with GIS & Map Librarian on all aspects of the program from outreach, data acquisition, and collection management to future planning for services in the campus user community.

\* Designs, creates and delivers GIS training and documentation to patrons and staff. Content of the training varies from group to group, ranging from accessing GIS data to teaching a specific GIS software application. This includes giving demonstrations ranging in size from one individual to classrooms of fifty people or more. \* Assesses ongoing campus user needs for GIS. Maintains current awareness of GIS data availability (including Internet resources),software, and hardware.

\* Continually builds and maintains campus-wide access to over one-terabyte of GIS data.

\* Configures, updates, and troubleshoots Branner Library's four GIS workstations in a networked environment.

\* Designs and manages the Branner library GIS web site, including access for users to download GIS software programs.

\* Manages a list serve, stanfordgis@lists, to facilitate communication among GIS users at Stanford.

\* Hires, trains and supervises one part-time student who assists with Website editing and various tasks in support of GIS services.

\* Serves as a software license administrator by providing Windows and UNIX hardware and software key codes for over 30 GIS software applications. This includes managing an MS Access database tracking GIS use across campus.
\* Serves as Stanford's primary contact to ESRI, our most heavily-used GIS software company, and is authorized to contact their technical support.

\* Maintains awareness of current trends in GIS & related technologies by attending user conferences and regional meetings, communicating with staff and faculty from GIS labs at other universities, and through communication with the Stanford campus administrative units using GIS, such as the Planning and Facilities Offices.

\* As a member of the SUL Expert Partners (EP) program, s/he is one of two staff members responsible for providing EP support to Branner Library staff.

### Qualifications

\* Minimum three years work experience or academic background with ESRI products is required. This includes the ability to use, test, analyze (at an advanced level), document and provide training for geographic information systems software. The ability to manage GIS projects from start to finish a must.

\* Familiarity with other GIS/GES products is highly desirable.

\* Knowledge of spatial data formats and metadata issues required.

\* Some GIS programming/scripting experience (VBA, Python) preferred.

\* Bachelor's degree (Masters preferred) in Geography, or a related Engineering, Physical, Social or Computer science discipline.

\* Demonstrated experience with planning and executing significant improvements in programs, showing initiative, independence and sound judgment in problem-solving.

\* Experience in teaching or working in a public service unit where training others is necessary.

\* Experience with common Windows software, such as MS Office, including Access.

\* Experience with web page creation, preferably using Dreamweaver software and having knowledge of HTML, JavaScript, and Perl.

\* High degree of computer literacy and interest in current advances in new technologies. Experience with Windows operating systems, including installation and configuration of hardware & software in a networked computing environment, and in applying diagnostic techniques for troubleshooting.

\* Ability to manage multiple projects simultaneously, working collaboratively with all levels of users and staff.

Demonstrated ability to communicate effectively in written and spoken English. Excellent interpersonal skills and the ability to work effectively with a diverse clientele.

#### MEMBER NEWS

The latest issue of Pennsylvania Geology (v.36, no.1) features a profile of GSIS member **Richard Keen** on p.17-18

**Angela Gooden** received the SLA Diversity Leadership Development Award at the 2006 SLA Annual Meeting in Baltimore. Application Instructions:

In order to be considered for this position, you MUST apply online at:

http://jobs.stanford.edu/openings/display.cgi?Job\_Req=0106 13&JFam=NIL&JOBCODE=5017.The requisition number for this job is 010613.

Julie Sweetkind-Singer

Head Librarian; GIS & Map Librarian Branner Earth Sciences Library & Map Collections 397 Panama Mall, M/C 2211 Stanford University Stanford, CA 94305 sweetkind@stanford.edu Phone: 650-725-1102

Reader recommendation:

Jim O'Donnell wrote, "I've just read a fascinating article in Chemical Heritage 24:1 (Spring 2006), "The Fabric of the Globe: Chemistry and Geology in Enlightenment Edinburgh", by Matthew D. Eddy (pp. 4-7 and continuing on pp. 36-38). It reviews the importance of Chemical and Medical research at the University of Edinburgh on the development of, among others, Hutton's Theory of the Earth."



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