



GEOSCIENCE
INFORMATION
SOCIETY

newsletter

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PRESIDENT'S COLUMN

What is a book? Most of you have probably heard about the recent court action centered around electronic rights of authors. It seems that the judge involved in this case wanted someone to give him a definition of a book. It brought back memories of Library School and courses with mysterious titles like 'History of the Book'. I wondered what the content of this class is now. I began to wonder what my definition of a book really is or should be. I went to Staples and looked at an e-book gadget. It certainly didn't look or feel like a book. Would I have been drawn to a career in Information if books looked like that? I doubt it. The judge seemed to have reservations as well and found enough difference between paper and metal to give the authors separate electronic rights to their 'books'.

Lately, my e-mail folder seems to be stuffed with one mind-boggling issue after another. Last month, the hot topic was the new book by Nicholson Baker, *Double Fold: Libraries and the Assault on Paper*. This book that describes librarians as destroyers of books has gotten more press than I would have thought possible. If you haven't heard enough already, both OCLC and ARL are maintaining Web sites of responses to the book (<http://www.oclc.org/oclc/presres/pubpres/bakerpage.htm> and <http://www.arl.org/preserv/baker.html>). Having just begun looking at the problem of turning a microform collection into a digital collection, I find myself feeling on the defensive when Baker attacks the destruction of original materials. Based on my

experience at Staples with the e-book gadget, I know I wouldn't want to be the user faced with an electronic file of books and reports.

The other issue that has been filling up my e-mail folder is the changing political landscape for PubScience. This Department of Energy (DOE) initiative that hopes to be a comprehensive on-line repository of abstracts and citations in physics is currently threatened with a massive budget cut -- part of the current Administration's re-evaluation of DOE's focus and programs. ALA is lobbying hard for its preservation. Again, I find myself confused. PubScience is free and available to everyone. Publishers, both commercial and society, have contributed citations and, sometimes, abstracts to the file. On the other hand, PubScience's search engine can only search on what is given to it. There is no controlled vocabulary, except for the Energy Science and Technology (EST) portion of the file provided by DOE. More and more, I hear that even casual users of the Web have recognized the need for some form of organization of information, i.e. controlled vocabulary or classification schemes.

Yesterday's e-mail centered around the revolt by scientists against the current model for commercial journal publishing. As the September deadline approaches for the large-scale boycott of scientific journals by the Public Library of Science (www.publiclibraryofscience.org), I expect there'll be lots of chatter. Less than an hour ago, I read that *Books in Print* is up for sale and that many reference librarians now use Amazon.com to locate current publications. I don't think that I can handle any more mind-bogglers right now. I'm going to go home and curl up on my sofa with a good (paperback) book.

VICE PRESIDENT'S COLUMN

Boston librarians are gearing up for the International Federation of Library Associations and Institutions (IFLA) Annual Conference, which will be held in August at the same conference hall that GSA will use in November. I'm accompanying attendees on three field trips to get some experience which may be useful for our meeting. MIT is located right across the Charles River from the area where the IFLA conference is being held.

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GIS members are encouraged to contribute materials for publication. Material for the October issue should be received no later than September 21, 2001. If possible, please send materials by e-mail.

(continued from p. 1)

Planning for our own conference is proceeding rapidly. As I write this column, I'm reviewing the abstracts that were submitted for our Topical Session (T72). Each Topical Session organizer is arranging his/her session. Then there will be some moving around of orphan abstracts, and some interdisciplinary sessions will be created from complimentary partial sessions. The Technical Program Chair will be looking at this time for sessions that should not be scheduled concurrently, in the best of all worlds. By mid-August, the sessions will be frozen for final review. Only after this process is completed will the rest of the meeting be scheduled. I have requested meetings for the Executive Board, committee meetings, Preservation Forum, Collection Development Issues Forum, GIS Reception, GIS Luncheon, GeoRef Users Group, Database Forum, Annual Business Meeting, and Professional Issues Forum. I plan to fit an MIT reception in the program also. We'll see how this turns out. The abstracts and program will appear in the October Newsletter.

Now what about the field trip? There is an announcement for it in this issue. Boston is a compact city, which makes a walking tour flexible. The field trip consists of modules so that you can see at least one area if you have to leave early. The weather will be an interesting component,

but at least the masses of autumn tourists should be gone by then.

Don't forget to register for the GIS Luncheon when you send in your conference registration form.

Now for our Boston anecdote: Boston is a huge college town. In addition to Harvard, MIT, Tufts, Boston University, Boston College, Northeastern, Brandeis, Wellesley, and the University of Massachusetts at Boston, there are scores of smaller colleges. In Back Bay alone, the site of the GSA conference, you will find outposts of Emerson, Fisher, Bay State, and Simmons Colleges and the Berklee School of Music. The result of this abundant student population is a large number of entertainment places, intense competition for housing in Boston, very crowded subway cars on the weekends during the academic terms, and a certain amount of vitality that you don't find in the center of many large cities. Kenmore Square, Newbury Street near Massachusetts Avenue, and Allston (Boston), Harvard Square, Central Square, and Inman Square (Cambridge), and Davis Square (Somerville) are particularly busy student areas. So many students are out celebrating after the subways shut down (1 AM) that the MBTA has had to initiate late night bus service along the subway routes.

GIS 2001 FIELD TRIP

The Boston Shoreline: Historical Scouring and Accretion

The shape of Boston looks quite different from the colonial period. Look at some maps from the book "Mapping Boston" at <http://www.mappingboston.com/> The coastline has changed as hills were leveled, bays were dammed, and mudflats were filled. Come on the Millennial Geoscience Information Society Field Trip to see how the Shawmut Peninsula has changed into the current Boston landscape and what's planned.

Time: Thursday November 8, starting in the morning

Themes: Hills, mudflats, shorelines, and views, with a little history and architecture and, of course, the Big Dig

Transportation: the MBTA subway (T) and your feet

Leader: Michael Noga

Length: The field trip will consist of visits to different areas of the Shawmut Peninsula, such as the Customs House & Long Wharf district, Dock Square, the trimountain (including Beacon Hill), and North End. Each segment will last from one-half hour to an hour.

Cost: \$10, which includes your T tokens or day pass

Refreshment: Probably lunchtime in the North End, Boston's traditional Italian district

Send registration form and payment (checks payable to the Geoscience Information Society) to:

Michael Noga
MIT - Science Library
14S-134
77 Massachusetts Ave.
Cambridge, MA 02139-4307

Name: _____

Address: _____

E-mail address: _____

Number of people: _____

Questions: Michael Noga, mnoga@mit.edu
617-253-1290

Geoscience Information Society
EXECUTIVE BOARD CONFERENCE CALL SUMMARY

June 28, 2001

4:00 EDT to 5:00 EDT

Attending: Shaun Hardy (Acting Treasurer), Lois Heiser (Past President), Suzanne Larsen (Secretary), Elizabeth Wallace (Publications Manager), Connie Manson (Newsletter Editor), Michael Noga (President Elect), Sharon Tahirkheli (President)
Sharon Tahirkheli presiding.

Treasurer

Sharon introduced Shaun Hardy as Acting Treasurer. Shaun will put together a working budget. He will also have a report for the annual meeting in November.

Secretary

Suzanne reported that the membership renewal had gone well and the number of members was stable. She sent out two e-mail reminders to those members from 2000 who had not renewed for 2001. Several renewed their memberships after receiving the reminder. She checked all the committee assignments against the active membership. Several were found not to be members.

President Elect

Michael said that there had been many inquiries about submitting abstracts for the meeting. Deadline is July 24 and they will be reviewed the first week in August. The theme is broad and will probably pick up some non-GIS members.

Michael has reserved the meeting rooms for various sessions. He currently has 10 set up. The Executive Board Meeting will be on Sunday morning. The luncheon request

has been submitted.

Newsletter Editor

The August newsletter should have a tentative schedule for the meeting,* including forums and any special sessions, and some sort of sign up for the fieldtrip. The deadline for that issue is July 27th.

After some discussion it was decided to wait and publish the abstracts of the talks and posters in the October newsletter when the schedule will be firm. An announcement should be made in the August issue* that the abstracts will appear in the October issue. That issue will also contain the annual reports. This way all the information needed by the members for the meeting will be in one newsletter. The deadline for material for that issue will be September 21 or 22.

Past President

Lois reported that the election was going smoothly and that the final results would be determined soon, since the deadline is July 1. Results will be reported in the August newsletter.

Publications Manager

Elizabeth is hoping to get the Directory and Proceedings out next week to the printer. She will try to determine the print run. The volumes will be out by Fall.

* *Editor's note:* The 2001 meeting agenda and abstracts are note included in this issue, but will be in the October issue.

GIS NEWS

GIS Election Results

I am pleased to announce that Lisa Dunn, Colorado School of Mines, has been elected Vice President/President Elect of the Geoscience Information Society. Patricia Yocum, University of Michigan, has been elected GIS Treasurer.

The Nominations Committee contacted several GIS members and asked them to consider being candidates for these positions. We wish to express our thanks to Elaine Clement and Diana Baclawski for their willingness to run. I believe all four are members who have devoted much time and energy to the society and thus were strong candidates.

I want to thank the other members of the Nominations Committee --Martha Andrews and David Lapse -- for their work.

Lois Heiser, Chair

Reimbursements

Requests for reimbursements should be forwarded to Shaun Hardy, who has been appointed Acting Treasurer through the end of 2001.

Member News

As of August Lura Joseph will be at the University of Illinois. Her e-mail is luraj@uiuc.edu. Her new work address is:

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223 Natural History Bldg
1301 W. Green St.
University of Illinois
Urbana, IL 61801

CARTOGRAPHIC USERS ADVISORY COUNCIL (CUAC) 2001 MEETING MINUTES

April 17-18, 2001

LC G&M

Washington, D. C.

CUAC representatives:

Janet Collins, Western Washington University (WAML)
Mike Furlough, University of Virginia (MAGERT)
Donna Koepp, University of Kansas (GODORT)
Clara McLeod, Washington University (GIS)
Bruce Obenhaus, Virginia Tech (SLA G&M)
Celia Pratt, University of North Carolina (SLA G&M)
Dan Seldin, Indiana University (NACIS)
Richard Spohn, University of Cincinnati (GIS)
Paul Stout, Ball State University (NACIS)
Christopher JJ Thiry, Colorado School of Mines (WAML)
Mark Thomas, Duke University (MAGERT)

Presenters:

Robin Haun-Mohamed (GPO)
Tad Downing (GPO)
Rea Mueller (USGS)
John Hebert (LC G&M)
Jim Lusby (NIMA)
Tim Trainor (Census)
Roger Payne (US BGN)
Nancy Haack (NPS)
Christine Clarke (NRCS)
Doug Vandegraft (F&WS)

Attendees:

Vi Moorhead (LC Cataloging)
Chip Woodward (LC Cataloging)
Wilford Daniels (LC Cataloging)
Patricia Banks (NOAA)
Sharon Kemp (NOAA)
Presentations:

CUAC Members

1. Copyright and Free Access Issues- Mark Thomas
2. CRADAS and Free Access- Janet Collins
3. Preservation and Public Access- Donna Koepp
4. GIS in Libraries - Mike Furlough
5. Summary- Christopher Thiry

Agencies

1. Government Printing Office- Robin Huan-Mohamed, Tad Downing
2. Geological Survey- Rea Mueller
3. Library of Congress Geography and Map Division- John Hebert
4. National Imagery and Mapping Agency- Jim Lusby
5. Census Bureau- Tim Trainor
6. Board of Geographic Names- Roger Payne
7. National Park Service- Nancy Haack
8. National Resources Conservation Services- Christine Clarke
9. Fish and Wildlife Service- Doug Vandegraft

Copyright and Free Access Issues: Mark Thomas

Copyright

The United States has a long tradition of government-funded basic research to provide the infrastructure needed for an informed citizenry and to provide the building blocks for academic and private research. It also has a tradition of copyright-free government publications, based on the belief that the property rights of government information resides with the people as a whole. This is something that sets this country apart from others-it's a tradition of which we should be proud and should try to preserve.

Free Access

Public money has paid for the collection and compilation of the information. A corollary to this is the implication that government agencies have the obligation to provide some sort of results or output to the public who funded it: giving the deliverables to the sponsors, as it were. Dissemination is just the final step; free access should be funded at this point as an integral portion of the government research process.

The concept of depository libraries--the idea that government information should be deposited in repositories for the use of the public--goes back to the early 19th century. By the late 1850s, the feature of congressional designation of depositories in districts or states had developed. The Printing Act of 1895 moved the Superintendent of Documents to the Government Printing Office (GPO) and ushered in the modern era of depositories. Title 44, chapters 19 and 13, of the United States Code requires agencies to provide material to the public through the Federal Depository Library Program (FDLP).

Benefits to the Agency

Freely available data, whether tangible products distributed through libraries or material provided free on the Internet, is good publicity for the agency. In many cases, such as with topographic maps or nautical charts, the library acts as a "showroom," since librarians frequently tell patrons how to purchase the products for themselves. Best selling commercial books are held by public libraries, often in multiple volumes, but this doesn't prevent them from becoming best sellers. For convenience or to have more control, many users always prefer to acquire material directly for themselves.

Even in cases, such as with many electronic products, where the a government agency disseminates material for free, the open access model has benefits for the agency. Besides advertising specific products, it "advertises" the

agency; good publicity can never hurt when it's time for funding to be renewed. Familiarizing users with the products and services of the agency will build and expand the user base for that agency's services and info. The Census Bureau has sold, for instance, CDs of 1990 Census data. Nonetheless, these were also available for free to libraries through the Federal Depository Library Program (FDLP). They eventually, with the advent of the World Wide Web, put this material on the Internet. This is a good model for all agencies.

For all the reasons listed above, benefiting the general public and the issuing agency alike, we urge the federal producers of maps and geospatial data to maintain this nation's longstanding tradition of free access to government-funded information.

Useful References

Government Information

American Library Association (ALA). Government Documents Round Table (GODORT). Principles on Government Information http://sunsite.berkeley.edu/GODORT/prin_GODORT.html

National Commission on Library and Information Science (NCLIS). NCLIS Principles of Public Information http://sunsite.berkeley.edu/GODORT/prin_nclis.html

Federal Depository Library Program

ALA GODORT. The Federal depository Library Program (fact sheet) <http://sunsite.berkeley.edu/GODORT/9704fact.html>

ALA Washington Office. Federal Depository Library Program Fact Sheet <http://www.ala.org/washoff/fdlpbackground.html>

United States Code. Title 44. <http://www.access.gpo.gov/congress/cong013.html>

United States Government Printing Office (GPO) Snapshots of the Federal Depository Library Program (historical overview) <http://ww1.access.gpo.gov/gpoaccess/fdlp/history/snapshot.html>

CRADAS and Free Access: Janet Collins

- 1) A trend with your agency?
- 2) How do you see it changing what you do within your agency?
- 3) What are the potential impacts to the depository program?
- 4) Will we still have free access to the information through the depository program? For how long? In what format?
- 5) Will the information be copyrighted? Potential costs?
- 6) How do we respond to the public that questions taxpayer-based information being copyrighted?
- 7) Can we work together to assure free access to government information, ongoing participation in the depository program, and benefit everyone?

PPA for Cartographic and Spatial Electronic Data:

Donna Koepp

1. What is your agency doing to archive your products? Will these archives be public and freely available?
2. Are snap shots at regular intervals being taken of products that are continually being updated in an electronic environment?
3. If some of your agencies products are being produced cooperatively-either with another federal agency or with a commercial sector partner (CRADA) are these products being archived in a way that they will continue to be freely accessible to the public?
4. Have you considered, when negotiating a CRADA, fitting into the agreement enough copies of your product to fulfill the need of the GPO depository library program?
5. The Cartographic/GIS library community is an excellent way to advertise the availability of your products and how they can be used. Is there any way you can think of that we might assist you in meeting your goals or mission?

GIS in Libraries: Mike Furlough

Constituencies

- ? Not just the academic users
- ? State and local government users
- ? General public

Information Needs

- ? Basic geographic information
- ? Raw data
- ? Assistance in converting data to information

Models of service

- ? Data provider
- ? Assistance in interpretation and use of data
- ? No single model works for all libraries
- ? Campus-wide GIS support may come from other units, but frequently doesn't
- ? Statewide clearinghouses are not as well positioned to support public data users

Levels of expertise

- ? Within libraries: often home-grown or self-trained
- ? Within public: largely novices
- ? Within researchers: increasingly more novices

Metadata and Cataloging

- ? A struggle:
- How to best catalog resources (MARC compliance)?
- How to best make use of available FGDC style metadata?
- Does the "clearinghouse" model work for all concerned?
- Who is getting left out?
- Encourage the production and distribution of metadata in standard forms Consider the distribution of metadata in

easier to use forms for general public

Industry

? Concern over industry-driven standards in format and software

? Support the development of open-standards

? Copyrights should belong to the public wherever it is possible

Cautions

? Spatial data tends to have wider uses than that for which it was originally created.

? We cannot always envision how data products will/should be used.

? Do not mistake delivery of geographic information for delivery of spatial data

Web-mapping is not the same as spatial analysis.

? GIS software industry is focused on government and business, not on education and the public

Summary: Christopher Thirty

This is a summary of the responses CUAC received from the questions asked last year to us by Robin Haun-Mohamed. The "X" signifies the number of times the response was given. In general, the responses came from academic libraries with large map collections.

Most mentioned concerns:

- Lack of printing facilities.
- High costs plotters or oversized printers.
- Purchase of, maintenance of, and lack of expertise in computer software and hardware.
- Archiving of, or lack thereof, data.
- Difficulty in finding many maps on the web.

Questions:

1) What is the impact on libraries when mapping is online?

- Can't support paper printing because of cost. X13
- Need for better equipment and software. X6
- Limited expertise in software and hardware. X4
- Complexity of data and software ties up computers. X4
- Archiving of maps? X3
- Format stability? Will we be able to ready CD-ROMs 20 years from now? X2
- Difficult to find on-line. X2
- Library may be by-passed. X2
- Requires less time to file and maintenance. X2
- Increased map use in general.
- Loss of ability to become aware of new maps.
- Easier to keep track of.
- Finding on-line often takes more time than finding in paper.
- Raises expectations of what is available on-line.
- Many patrons only interested in digital products and

forget/don't know about printed maps.

- Patrons not skilled in using them.
 - Cannot use.
 - Libraries of lesser means cannot keep up.
 - Move collection from ownership to access.
 - More up-to-date maps.
 - Older items (15' topos) not on-line.
 - Serious problem. Getting worse.
 - Plotters/printers do not have acid-free paper or permanent ink.
- 2) How do we use online spatial/cartographic data?
- Direct patron to web site-organize them on our web site. X4
 - Depends on request. X3
 - Don't. X2
 - Download as needed. X2
 - Used to supplement collection. X2
 - Many thesis have maps in them. X2
 - Not very useful to most patrons.
 - Do catalog relevant web sites.
 - Used at all levels.
 - Public want very specialized data.
 - Students want Arc-formatted data.
 - Make maps to display topical information.
- 3) Do we download things, save things, archive them, or do we go back to the original source material each time?
- Go to source each time, but problems with broken links. X6
 - Save if items cover own region. X4
 - Depends. X2
 - Save sometimes if patrons use it multiple times. X2
 - Download especially if large file or popular site.
 - Usually don't.
- 4) Do we handle electronic map needs in the library or do we send our users someplace else?
- Do not send elsewhere because we have expertise. X10
 - Both. X6
 - Help when possible, but limited expertise. X6
 - Send to GIS lab. X3
 - Let them check out CDs. X3
 - They must go elsewhere because there is no place to print. X3
 - Don't have GIS lab on campus.
 - Patrons want to take data away.
- 5) Do we use the airport charts, obstruction charts, approach charts, etc.?
- Little use. X8
 - Some use. X8
 - Yes.
 - Haven't received any in years.
 - Use VFR Terminal charts.
- 6) What will be the impact if the USGS Open File Reports go online only?
- No consistent format. X6
 - Question of archiving. X6

- Difficult to locate-not all in one place. X5
- Better than fiche. X4
- Both fiche and digital difficult to print large maps. X3
- No comprehensive index of online OFRs (in any format). X3
- More use? X2
- Save space. X2
- Requires less time to file and maintenance. X2
- Need for better equipment.
- Depends what's in OFRs. Criteria has changed.
- Same difficulty to use as fiche.
- Cannot afford to start if charge.

Government Printing Office: Robin Haun-Mohamed,
Tad Downing

Robin announced that this would probably be her last CUAC meeting, since there had been reorganization and reassignments at GPO, and that with the next meeting Tad Downing would officially take her place. At this meeting Tad would be learning about CUAC and commenting where he could.

Since Robin spoke to us last, GPO has experienced many changes. It was a very chaotic summer due to proposed budget cuts by Congress. There was an initial proposed cut by the House of 61%. The library community rallied with a letter campaign, testifying to Congress, newspaper articles, and in the end the GPO's budget was cut by about 6%. Throughout the summer, however, in this environment of uncertainty, the Library Program Service moved very quickly on some initiatives that they were committed to completing.

At the Depository Library Council meeting in October 2000, GPO presented a Superintendent of Documents directive (SOD 71) which sets policy for dissemination and distribution of materials in the Federal Depository Library Program (FDLP). Cartographic materials and their use were taken into consideration when these criteria were decided upon. A list of essential titles, which will continue to be published in paper, has also been developed. (See Administrative Notes January 15, 2001).

There have been many personnel changes at GPO. Sheila McGarr resigned in September to become the Director of the National Education Library. Robin has become the Chief of Depository Services. Tad is now wearing two hats: Acting Chief of Depository Administration Branch and Head of Cataloging Department. Coleen Davis is now heading the Depository Distribution Branch, and Vicki Barber is on special detail to the Superintendent of Document's office.

Even with the move to an electronic transition, LPS continues to distribute a number of physical products. The numbers, however, continue to decrease. In FY2000 there were 13,660 paper titles distributed or 22.3% of all FDLP titles. This number includes USGS maps. Microfiche distribution

was 14,572 titles, or 23.8% of total distribution. Online titles on GPO Access account for 11,715 titles or 19.2% distributed. Online titles from other agency websites account for 20,591 titles or 33.7% of FDLP titles distributed. The CD-ROM or DVD titles totaled 617 or just 1% of the total.

The total number of USGS map sheets distributed in FY2000 was 357,907. In 1999 it was 381,282. A title count was not available.

There is a new FDLP administrative page which is now called the FDLP Desktop. This contains cataloging and locator tools, as well as other useful tools for libraries. For example, Depository Shipping Lists are now available here in PDF format. These tools can be used for claiming as well. The Joint Operation Graphics (1501s) that Jim Lusby promised us last year will need to be surveyed with depository libraries to determine distribution.

New Products

- Oregon GAP Analysis.
- Research Maps (R-Map) from HUD in CD-ROM.
- Digital Atlas of Central and South America.
- National Land Cover Data Base (NLCDB) is online only but has been cataloged by GPO.
- Tide Tables temporarily dropped off the distribution but are now back. 2001 will come out shortly and 2002 will come as scheduled.
- National Atlas is coming as depository when pages can be sent. Some sheets are cooperatively done and are exempt from FDLP.
- Tract maps from Census 2000 will be coming on CD and DVDs when they come out but right now they are 'one offs'.

Recommended Specifications

The 2001 Recommended Specifications for Public Access Workstations in Federal Depository Libraries have been issued. Special specs for cartographic data use are noted. During inspections and self-studies, GPO is looking for written policies concerning computers for use with FDLP material. Computer specifications are checked, as well as any impediments to access to computer or online information. GPO is now taking comments regarding computer specifications that will go into effect in the fall of 2002. One noteworthy change is that libraries must provide a DVD player.

Selective FDLP housing sites need to be in compliance with all requirements of the FDLP Instruction and Guidelines for Depository Libraries. A decal on the door of selected housing sites is a requirement, as well as a written agreement for the selective housing site on file at GPO.

Robin asked for our ideas and participation in the October 2001 Depository Federal Library conference. She would like us to present a session on mapping.

Tad: Electronic transition not only in FDLP, but over all libraries. Transition to electronic has driven many chan-

ges within Library Program Service and this effects everyone. GPO is evaluating, validating, acquiring and cataloging electronic resources. Catalogers evaluate web sites, point to URLs and use PURLs. The links sometimes take the user to the exact page on the Web site that they think is appropriate: a place that is in accordance with the cataloging description. The Map catalogers are doing more of this than anyone else on the cataloging staff.

United States Geological Survey: Rea Mueller

Rea Mueller presented for the USGS. Currently, there are 55,000+ 7.5" quads that cover the entire country. The topo maps are a "national treasure". It took approximately 33 million hours to produce the topos and the cost would be \$1.6 billion at today's prices to re-do the set from scratch.

Over the next 10 years USGS, together with its partners, will implement a revision strategy that provides "truly current information" to customers in a cost effective way. This effort considers political, social, economic policy and technological challenges. Partners and stakeholders are part of the process. Implementation begins in 2002 with a vision that by the year 2010, this arrangement "will provide the nation with current, accurate, and nationally consistent basic spatial data, including digital data and derived topographic maps". The resulting proposal from this study, The National Map, is available on the web at <http://nationalmap.usgs.gov>. Comments are being requested by June 29, 2001.

Geographic Information will be delivered in a digital world. Geospatial data can be accessed at US Geodata online and electronic publications will include search and access tools. The Web URL is <http://www.usgs.gov>. Phone information are at 1-888-ASK-USGS. SDTs, DLGs, DEMs and land use/land cover data are available at no charge at <http://edc.usgs.gov/doc/edchrome/ndcdb/ndcbd.html>. Web search and access tools include National Water Stream Gauging Network, National Biological Information Infrastructure, place based scientific projects, and National Seismic Data Network. There is a new website for current mid-west flooding.

GLIS will be going away and replaced by Earth Explorer. Over 60 databases will be represented. MAC users will need to use GLIS for the present.

The National Atlas will continue to be published mainly in electronic format. Some printed sheets will still be published. The updated "General Reference" sheet will be out on depository soon at larger scale and updated from the 1973 edition.

Other new products include the Pennsylvania Shaded Relief map in experimental editions, DDS-62A "Global GIS Database: Digital Atlas of Central and South America", the online version of the National Land Cover Dataset and CD-ROM of " Status and Trends publications of the Department of the Interior".

USGS' goal is to be "seamless". Design goals include

web accessible, best available data, most current data, GIS application ready, multi-resolution and full coverage. Base map layers include Elevation (NED), Land Cover (NLCD), Hydrography (NHD), Orthoimagery (DOQ, TM), and Digital Raster Graphic (DRG) along with Geographic Names (GNIS) and reference layer.

Other trends include DLG's coming out on DVD. Web mapping will not be under copyright. CRADA's will continue (e.g. Laser Scan, Microsoft, ESRI, Chicago Map Corp, Earth Data, etc.).

Seamless maps are available on demand via Map Machines at several sites including REI stores, USGS Menlo Park, USGS Reston, etc. There will be more sites in the future. Users can center on a place and buy what they want (parts of many topos) at a cost usually less than the cost of purchasing all the topos (\$6.00 as opposed to \$4.00 for a standard topo sheet). These are color laminate maps. The machines were created through a partnership between USGS and National Geographic, which acquired Wildflower Productions. Users may soon be able to annotate on the map where they want to go.

Library of Congress Geography and Map Division: John Hebert

Digital Program

Three years ago EDR Sanborn and the Library of Congress Geography and Map Division signed a contract to scan all the Sanborn fire insurance maps held by the Library of Congress and EDR Sanborn. The contract has been broken because EDR Sanborn wanted new copyrights for the scanned images. The LC Geography and Map Division wants to keep the maps produced before 1923 in the public domain. Bell and Howell is placing scans of their black and white microfilm on the web. LC G&M is talking with them about a contract to create color scans on the web. Pascagoula, Mississippi has been done as a prototype. There have been a few Sanborn maps in the LC G&M scanning program. The division is looking for organizations to help fund the Sanborn scanning that do not have a commercial interest in the scanned images.

The LC G&M scanning program is proceeding with maps that are in the cartobibliographies created by the Division. These lists include: Panoramic Maps, Civil War, Revolutionary War, and John Hebert's Luso Hispanic Maps. The last cartobibliography contains over 1000 manuscript maps produced between 1500 and 1900. Other areas to be scanned include Russian Frontiers, Spanish Frontiers Parallel History, and Brazil. James Billington, the Librarian of Congress, has an interest in scanning maps of Italy and the Vatican, and Japan.

High quality printouts of the LC G&M scans are available from Museum Archives of Seattle. The Division has an overhead camera worth more than \$70,000 and a cradle worth about \$25,000 in the Division to scan atlases.

The Division is working to set up scanning agreements with outside organizations. A letter of agreement has been approved by LC with the Library of Virginia and the Virginia Historical Society to scan Civil War maps in their collections. It is now being studied in Richmond. LC G&M has begun discussions with Harvard for scanning maps of coastal areas in time of the American Revolution from the American Neptune. There may be some possibility of cooperation with WAML.

Cataloging

The LC Geography and Map Division and the National Imagery and Mapping Agency (NIMA) are both using Endeavor Voyager for their Integrated Library System. Because of this, they have begun cooperating on a project for the Division to create sheet level records for the set maps. LC will acquire the records from NIMA and create records for retrospective sheets.

Barbara Story is working with a Program for Cooperative Cataloging (PCC) committee chaired by Paige Andrew of Penn State to create a Core Level format for Cartographic Materials.

Recent Acquisitions

Dr. Charles B. Peterson, a cataloger at LC G&M, has donated his collection of approximately 15,000 gasoline company maps to LC. The Division has also acquired John Snyder's collection concerning projections and manuscript maps from the National Geographic Society. They have also purchased 1:100,000 scale Soviet maps of the United States. The Division is looking for funding to purchase Soviet maps covering Alaska and Canada. In addition to the cooperative acquisitions program for foreign maps that has existed for years, the Division is working with El Instituto Nacional de Estadística, Geografía e Informática (INEGI) to acquire sets of Mexican maps at 1:50,000, 1:100,000 and larger covering different subjects.

Summer Project

The 50th anniversary Summer Project will be held this summer with 6 participants. The Division has received 300,000 maps from NIMA. Jim Flatness, the Division's Acquisitions Officer had estimated that there would be about a 60% duplication with the Division's collections. However, a sample of the maps has shown that the duplication rate is less.

National Imagery and Mapping Agency (NIMA)

Jim Lusby

Jim Lusby began his presentation by distinguishing between NIMA customers and consumers of NIMA products. NIMA's customers are the National Defense and Intelligence agencies who require cartographic information, products and data produced by NIMA. They can also direct

NIMA to produce certain products or cover specific areas of the world. The civil and law enforcement agencies, along with the general public, are the consumers. The general public consumers may not be able to receive these products because of national security issues or because of cooperative arrangements made with organizations in other nations. The overall trend in NIMA has been a move to digital products and services, with print products based on those data being produced as needed.

He emphasized the political difficulty of arranging release of sensitive data produced for military or intelligence uses. In some cases, especially for emergency or disaster-relief situations, it can be accomplished on a limited basis. But it is sometimes less easy for educational and research use. In some cases, users may be able to review data but not duplicate it or receive a permanent copy. There is no plan to take NIMA products entirely out of the FDLP. All publicly available products, including digital products will be placed into the FDLP within budget and cost constraints. Jim attempts to move products into that program where he can and where costs allow it.

Jim outlined many initiatives and cooperative projects with federal agencies over the past year, including NASA, USGS, FEMA, and the Secret Service. He also acknowledged the difficulty of determining public availability of various NIMA products. A web site is being worked on that will attempt to bring all of that information together in one location. No release date was given. Jim then outlined the availability and schedule for various data products:

DOI 10 (Digital Orthorectified Imagery) 10-meter resolution imagery is now available for public download through the NIMA Geospatial Engine (<http://geoengine.nima.mil>).

DTED (Digital Terrain Elevation Data) DTED-0 (30 arc second/1km resolution) is now available with worldwide coverage through the NIMA Geospatial Engine; users may download about 50mb worth of data at a time. DTED-1 (SRTM) (100 m resolution) will be available for purchase through the EROS Data Center only for the areas in the United States. The projected time frame of this release is Dec 01; Lusby is working to make this data available through FDLP but there is no definite plan for that.

DTED-2 (SRTM) (30 meter resolution) will be available only for the United States sometime early 2002 (see comments on SRTM below).

SRTM (Shuttle Radar Topography Mission) The spring 2000 Space Shuttle mission took radar based elevation readings at 30 meter resolution over the entire world. The data is still being processed, with North America being the highest priority. Only United States data will be made available to the public as DTED-2 (see above), while the rest of the world will be restricted.

VMAP (Vector Map) VMAP-0 is now available with worldwide coverage through the NIMA Geospatial Engine; users may download about 50mb worth of data at a time.

VMAP-0 is also available in 4 CD set for the FDLP members. GPO can survey members and provide NIMA with a quantity requirement. VMAP-1 is also available on a case by case basis. Certain areas of the world along with the United States are available for public purchase, and as such, available to the FDLP. Again, GPO can survey members for interest.

He closed by displaying a list of printed items that will be made available through FDLP. Many of these were complete sets of 1:50,000 sheets for southeast Asia; others were complete sets of 1:50,000, 1:100,000, and city graphics at scales ranging from 1:12,500-1:25,000 for certain nations.

Census Bureau, Geography Division: Tim Trainor

Tim began by giving us an overview of American Fact Finder (AFF) at the Census web site (www.census.gov), which the agency is using to increase product availability. He demonstrated the layout of the AFF introduction page, which has general user information at the top; access to data from their web site is from a link in the lower left. The Census Bureau is getting more requests to download spatial data. Users can create thematic maps online using AFF.

Tim then talked about some of the major changes in Census geography for the 2000 census (many of these changes were things of which we were previously aware). For instance, Census is no longer using the term Block Numbering Area (BNA), but is only using the term "census tract" for this level of geography. There is no minimum population limit for Census Designated Places (CDPs). Block numbers will consist of four digits with no alpha suffix. The redistricting TIGER/Line 2000 files currently are available and have an updated feature network. The Zip Code Tabulation Area (ZCTA) is a new level of geography for aggregating data, where each block is assigned one and only one zip code, based on 2000 blocks. Tim asked for feedback on these, especially with how water features are handled by them. The March 28, 2001, Federal Register had a notice regarding new urban and rural area criteria; after public input, there will be a new list of urbanized areas in early 2002. The Office of Management and Budget is working on new Metropolitan Area definitions based on Census 2000 using the concept of Core Based Statistical Areas; these new definitions will likely be used in 2003.

TIGER will continue to be the spatial data source for the Geography Division. In the summer of 2001 they anticipate the latest version of the 2000 TIGER/Line files, which will include the ZCTA boundaries and updated address ranges. These will be available online, on DVD, and on custom CD-ROM.

Products available from Geography include paper maps, plotted on demand on 33 by 36-inch sheets, for five dollars per sheet through the customer services branch at 301-457-1101. These are also available on the Internet and on CD in Adobe Acrobat format. These include several

layers needed for redistricting purposes: county-based block maps (over 100,000 sheets), voting district outline maps (23,354 sheets, sometimes including state legislative districts), and census tract outline maps (6,514 sheets). One full set of the maps was plotted for the Library of Congress. Color is an important component of these maps. You can Click "maps" at the census web site to go to Geographic Products; this will lead to the appropriate web page. An index map will let you determine which sheets you need. These maps are also available in Hewlett-Packard Graphics Language (HPGL), for output to plotters, but this is scheduled at present for release only on DVD due to the large file sizes. Specifications for plotter configurations are available at the web site. A CD-ROM with Acrobat files will be in depositories this summer.

Tim had a table showing the historical changes in the U.S. center of population, as well as a map depicting the change. These are online, along with a description of the calculations used to determine this point. The 2000 center of population is in Phelps County, Missouri.

Other information available from the web site includes a map of the over 70 Census Information Centers (CICs). The American Community Survey is the proposed replacement for the decennial census long form. If the ACS is approved, the 2010 decennial form will likely be very short—maybe the size of a postcard. At present, the ACS plan involves 250,000 households per month within the survey. Finally, for geographic products, there are relationships files that relate 1990 census geography to 2000 census geography.

More forthcoming products from census will be American Indian Tract Outline maps, a Congressional district atlas for the 106th and 107th Congresses, state-based county subdivision maps, state/county outline map, and state/county metropolitan area outline maps. Other upcoming products include digital cartographic boundary files, generalized from TIGER, available in both low and high-resolution versions. A projected Census Atlas in printed book form will include about 70 thematic maps. It will be distributed through the depository program and will probably eventually be available in Acrobat format.

Tim welcomes feedback using the email address geography@geo.census.gov.

Board on Geographic Names: Roger L. Payne

Roger Payne from the Board on Geographic Names (BGN) gave an enthusiastic overview of its history, functions, and products. The Board was created in 1890 in response to the confusion caused by the variety of names given to physical features in the United States by scientific expeditions. The BGN's mission is to standardize names, establish principles and policies, and promulgate their decisions. It was established by law and its decisions are legally binding to agencies of the Federal Government. Although

legal authority extends to all feature types, by its own decision, the decisions only apply to physical features, not man-made features such as roads, parks, schools, etc. The names established by the BGN cannot be copyrighted.

BGN uses the following rules to make decisions: the names must be in the Romanized alphabet, and used locally, or established by Congress or executive order or other authorities (such as local governments). Of these, "local use" takes priority. The names may be in any language. The BGN does not approve names whimsically; much thought and research go into each decision. The process begins with the submission of a new name to BGN via their Geographic Names Information System (GNIS) (<http://geonames.usgs.gov/>) website/database or by other means. After submission, if the name is published elsewhere in "official" sources or established by historical resources, and non-controversial, it will be added to GNIS within 30 days. Cultural (man-made) features must be held for at least 30 days in order for a thorough review to take place. Natural features not found in publications are given to state and local governments for a 45-day exam period. Problematic or commemorative names take at least four months. There is currently a moratorium on naming physical features in wilderness areas, except for safety and education reasons. Some of the issues that BGN deals with include requests by or laws passed by Congress, commemorative names, wilderness areas, and derogatory names. A current controversy surrounds the name "squaw"; it is considered by many to be a derogatory name for a female. Five state governments are requiring that the word "squaw" appearing in a placename be changed. They are taking the initiative, not BGN, but BGN is working in cooperation with the state naming boards to make the changes official (Iowa and Indiana lack such boards).

Names are rarely changed by the BGN. Exceptions do occur. Some of the reasons names are changed include the addition of diacritic marks (as is happening extensively in Hawai'i), the elimination of duplicates and variants, and the shortening of lengthy ones. The GNIS database was developed in several phases. During the first phase, the Bureau melded all of the names found on US Geological Survey maps, National Forest Service maps, National Oceanographic Survey charts, and National Park Service maps. This yielded only 20% of the known names in the US. Phase II began in 1982. It used data from all federal, local governments, as well as historical and BGN "approved" documents. Most of Phase II is complete; only Alaska, Kentucky, Michigan, and New York have yet to be finished. The database now includes references to a name's origin if that name was the subject of a controversy since 1982. The names in GNIS do not have to be current; in fact, the database includes over 100,000 entries of places that are no more. Phase III will begin in 5 years and will be more in depth.

Federal Agencies must use the names found in GNIS; they cannot make up new ones. They may choose to leave out names. If the wrong name is used, there are serious

repercussions. The least may be embarrassment; the worst could lead to problems with safety and accidents.

GNIS has been incorporated into many government databases including "Gateway to Earth" by USGS, Terra-server, the National Atlas, and Landview. Landview 4 was last updated in July 2000, and contains approximately 90% of the names found on GNIS.

Since 1987, BGN has operated an electronic maintenance program. Recently, Florida and Delaware have entered in an agreement to aid with this process by keeping their respective names up to date, and more importantly, adding delineated boundaries to each name. Ultimately, the latter will allow people to spatially search GNIS. To that end, the U.S. Geological Survey is developing a new version of GNIS, and it is planned for release in October 2001. It is geographical enabled. The new version also includes the source of the names, and the name of every map name at every scale that the place name occurred.

National Park Service (NPS): Nancy Haack

Nancy indicated that there are many changes underway at the National Park Service. Many parks have geographic information systems (GIS) in place, and there are national coordinators in regional offices. The Park Service is using digital line graphs (DLG) and GIS to generate their maps.

Nancy stated that Harpers Ferry Center is located in West Virginia and is an interpretive service center for the entire park system. The center creates publications, exhibits, wayside exhibits, and films. Waysides are "up and coming" as a mapping unit in Harpers Ferry Center, creating maps for outdoor exhibits. Technical Information Center is located in NPS's Denver Service Center and is the library for internal drawings, plans and the like.

The National Park Map and Guide (map of all units of the NPS) is revised and current on the NPS website, Park-Net, at www.nps.gov. The web site includes information on programs and projects. The web site also includes entry to websites of affiliated units.

Nancy also mentioned another web site: <http://www.recreation.gov>. According to the web site, "Recreation.Gov is a partnership among federal land management agencies aimed at providing a single, easy-to-use web site with information about all federal recreation areas. The site allows you to search for recreation areas by state, by recreational activity, by agency, or by map".

"The message project" is a recent initiative of the NPS. The goal of the initiative is to bring all units together under a NPS arrowhead to create a corporate identity. Another initiative has involved the individual parks recreating maps (in-house) from existing visitor use map digital files and reproducing them as stripped down versions in their park newspapers. An example was a transportation "shuttle map" for Zion National Park. Adobe is used to create the in-house maps.

Printed examples provided were: Volunteers in Parks, the National Park System Map and Guide, National Park Index, Civil War at a Glance, Hawai'i Volcanoes, Grand Canyon, and a Revolutionary War at a Glance (for the 225th anniversary), which is currently being printed.

Most derived products are printed through Park Associations, not the Government Printing Office (GPO), and are not available through the depository program. By law, the Parks have to provide park brochures.

The NPS digital visitor use maps are posted on a website (www.nps.gov/carto) which includes information on data sources and accuracy. New maps are being made with digital line graphs from USGS. Shaded relief maps are created using digital elevation models (DEM) from USGS. An example of a shaded relief map is the national parklands map of Alaska.

The NPS also works closely with the U.S. Board on Geographic Names and the various State Boards on Geographic Names. The use of diacritical marks on maps by the NPS are now included for the parks in Hawai'i.

National Resources Conservation Service (NRCS) Christine Clarke

The Natural Resources Conservation Service presentation was given by Christine Clarke, NRCS Geodata Coordinator. Formerly the Soil Conservation Service, the NRCS's mission is to provide leadership in a partnership effort to help people conserve, improve, and sustain our natural resources and environment. They oversee conservation programs mandated in farm bills and help put conservation practices on the ground. The Service has 10,000 employees in 2,400 field offices located in almost all counties in the country, in addition to state, regional and national offices. They also maintain a vast network of partners including conservation districts, state and federal agencies, Earth Team volunteers, agricultural and environmental groups and professional societies. These employees help farmers and ranchers develop conservation plans suited to their local situation.

The Service began digitizing soil surveys about 20 years ago. Today they provide information at the state level through the State Soil Geographic Database (STATSGO) and the county level through Soil Survey Geographic (SSURGO) Data Base. Both are available on the web and designed for use in geographic information systems. Online soil survey manuscripts, generally PDF versions of the printed soil surveys, are available for some counties. In addition they produce a CD with "soil explorer", a graphical interface that allows easy map generation and the raw data files for the more GIS proficient to assist their field opera-

tions. The Service is developing an internet access tool allowing map generation on the web. This product is called the Soil Data Viewer.

Other NRCS products include the National Resources Inventory (NRI) which is a statistically based sample of 800,000 points surveyed at 5 year intervals of land use and natural resource conditions and trends on U.S. nonfederal lands. The National Soil Information System (NASIS) is the core component of the National Cooperative Soil Survey's vision of providing a dynamic resource of soils information for a wide range of needs and is designed to manage and maintain soil data from collection to dissemination. The PLANTS Database is a single source of standardized information about plants. The National Water and Climate Center provides water and climate information and technology which support natural resource conservation. Many of these products have data available for download and can be found from the NRCS web site at <http://www.nrcs.usda.gov/>.

The Service is concerned with both data access and archiving. They are a node on the FGDC National Geospatial Data Clearinghouse and develop metadata for their datasets. They are actively archiving soils data, the traditional focus of the NRCS. Other datasets generated on an as-needed local basis are not as actively archived or centralized for national use and applications.

Fish and Wildlife Service (F&WS) Doug Vandegrift

Doug introduced himself as the Chief Cartographer, F&WS. He noted that he had been a F&WS cartographer in Alaska before accepting the job as Chief Cartographer in D.C. one year ago.

His presentation focused on the maps of the National Wildlife Refuges through the years. He began the discussion with a brief history of U.S. Wildlife Refuges. The first was established in 1903 and for a number of years, the maps of Wildlife Refuges were made by the General Land Office. The Fish and Wildlife Service became a unit of the Department of Interior in 1940. Until recently, most maps of Wildlife Refuges were in black and white.

Mapping of wildlife refuges at F&WS has been revolutionized with the introduction of GIS. Among other advantages, this has increased the accuracy of boundaries and land ownership data. Examples of the different types of maps produced through the years were shown. These maps are becoming more valuable as a source of information and to document changes in land ownership and refuge boundaries. A question was raised concerning the distribution of wildlife refuge maps to library depositories. This issue will be investigated.

THE NATIONAL MAP PROPOSAL

Below is the text of the letter which is the official CUAC response to the National Map Proposal. It was sent on June 28, 2001, to Mr. Mark DeMulder, the National Cooperative Topographic Mapping Program Coordinator at USGS. The Council encourages you to continue to contact your representatives with issues and concerns about this initiative.

Dear Mr. DeMulder,

Thank you for allowing the Cartographic Users Advisory Counsel (CUAC) to comment on the National Map proposal. It is an impressive vision of the future of government mapping and access to cartographic information that will have a profound effect on mapping in this country.

CUAC is an umbrella organization representing Map Librarians across the United States in academic, special, and public libraries. CUAC functions in an advocacy capacity as liaison between the U.S. agencies producing cartographic products and CUAC's constituency of Map Library organizations and Map Librarians. We provide one of the strongest and most valuable links between cartographic producers and cartographic users.

We applaud the initiative to provide many data types in a seamless manner with an effort to maintain the data as current as possible, mapping with greater positional accuracy and at higher resolution. Emphasis on partnerships with governments at all levels, educational institutions and the commercial sector is commendable. The continuation of printed maps and the provision for on-demand printing are very important aspects of the National Map.

We have several concerns about this vision and the document *The National Map*, dated April 26, 2001. Our concerns are outlined below:

Archiving/preserving information. Maps are used not only as the source of current information but also as the record of physical and societal changes on the earth. The current U.S. Geological Survey topographic series, even with its infrequent and irregular updates, provides this historical record. Little mention is made of archiving this vast array of data on a periodic basis and how this archive would be made accessible to users. Archiving in printed format is only part of the solution. Archiving of the digital data is also an important aspect of preserving the historical record. The temporal aspect is becoming increasingly important in serving patron needs, whether through the use of maps and/or aerial photography.

Metadata. Keeping information on data source, accuracy, date, and the other characteristics represented in the Federal Geographic Data Committee's metadata standard is a formidable task but an essential one. The information gathering network for the National Map is extensive and keeping accurate records on data generation will be pivotal to its success. Maintaining metadata on the archived data sets is also essential for preserving the physical and cultural context of the data.

Printed maps. Continuing to print maps is an important aspect of the new National Map. The general public is

familiar with the printed map series of the U.S. Geological Survey and other government agencies and depends on the printed map for most of their research and recreational needs. The need to consider appropriate format for government information products cannot be emphasized enough. CUAC has stressed for many years that for usability for the general public the printed map is still the preferred format. This is not to discount the use of digital cartographic products by the research and commercial sectors. Dual distribution of mapping products is important to adequately cover the differing needs and abilities of all the constituencies involved. The Federal Depository Library Program and the Government Printing Office have played a critical role in the distribution of mapping products to libraries.

Melding public and private sector information and free public access. The draft proposal indicates that information will be gathered from all levels of government and the commercial sector. This information flow brings up several concerns. Keeping the National Map in the public domain is essential to the usability and availability of the map for researchers and the general public. Cooperative Research and Development Agreements (CRADA's) provide wonderful opportunities, but also potentially controversial copyright issues over use of taxpayer generated products enhanced and copyrighted by the commercial sector. Copyrighting of some of the data in the map will also limit access to data layers to those who can pay for copyright clearance. Who will set the cost of copyrighted data and how will it be determined? To what extent will the National Map be comprised of commercial data? Will agreements for use of commercial data be standardized so the user is not confronted with a myriad of contractual agreements to access the data? The draft proposal indicates that access to downloading large volumes of data may require a fee. GIS data sets are generally large but no size definition is provided to indicate the free/fee boundaries. Integration of information from these various entities will also be a formidable problem. Standards of data collection and presentation as well as strict adherence to provision of metadata will be essential to the success of the project. Additional costs to libraries for hardware, software, and staffing need to be recognized.

Partnering with state, county and local governments. Garnering the cooperation of government entities is a formidable task. Many of us in CUAC have tried to gain the cooperation of our local communities and it has taken much delicate negotiation and proving what essential services we can provide them before cooperation could be solidified. Do not underestimate the difficulty of garnering the cooperation of state and local governments

Partnering with federal agencies. No mention is made of the Government Printing Office or the Federal Depository Library Program it administers as partners to the national mapping effort. This agency has a proven track record of advertising, distributing and making available to the general public the vast array of government information in every format. The knowledge and networks they have accumulated would help with your successful promotion of the National Map as would distributing it through the depository libraries that have been so successful in increasing public access to government information for over 100 years. Their participation in the National Map should be encouraged.

Partnering with the library community. Librarians have been organizing, classifying, preserving and providing access to information for a very long time. Map librarians

are familiar with the uses of geospatial information in paper and digital formats. We are a community that are knowledgeable and willing to help.

Once again, we appreciate the opportunity to respond to this proposal for the National Map. It lays the foundation for an exciting era of growth in the mapping efforts of the U.S. Geological Survey and its partners. We look forward to your continuing efforts and being able to play a role in its development.

Thank you and with appreciation for your efforts,

Bruce Obenaus
CUAC Co-chair 2001-2002

Janet Collins
CUAC Co-chair 2001-2002

LITERATURE REVIEWS

by
Carol J. La Russa

Cliff Frolich and Lynn Resler have done an analysis of more than one thousand publications of scientists of the University of Texas Institute of Geophysics. They categorized the publications as "prestige" journal articles, other peer reviewed "archival" articles and publications, proceedings publications, or other. They then used Science Citation Index data to determine citation frequencies and cited half-lives. Prestige publications were cited the most and very few were never cited, but while more than twenty percent of cited archival articles were never cited they had the longest cited half-lives. A comparison is made of different methods to compute half-lives and this is contrasted with methods for computing earthquake magnitude frequencies. ("Analysis of Publications and Citations from a Geophysics Research Institute," *Journal of the American Society for Information Science and Technology*, v. 52, no. 9, p. 701-713, 2000).

Clifford Lynch has published a long and very thoughtful examination of the place of the book in an increasingly digital environment. He describes the current state of technology for digital books, the possibilities for reconceptualizing books using new media, the conversion of older books to digital, and the control (copyright and licensing) of digital books. He looks at what has happened in the music industry and tries to determine what is different about books. He sees problems in the future as formats go obsolete and the need for standards. He concludes that libraries should not prematurely marginalize books because the costs of reliance on digital books may be too high for libraries that want to provide long-term access to the cultural record. But the case can be made that in the future digital books will be a new genre that will provide fresh opportunities for the communication of ideas. ("The Battle to Define the Future of the Book in the Digital World," *First Monday*, v. 6, no.

6, June, 2001, URL: http://firstmonday.org/issues/issue6_6/lynch/index.html).

Lucia Snowhill summarizes the conclusions of the Ebook Task Force of the University of California's California Digital Library in her article in the July/August 2001 issue of *D-Lib Magazine*. The task force considered: content, software and hardware standards and protocols, digital rights management, access, archiving, privacy, the market and pricing, and enhancements and ideal e-book features. Its conclusion is similar to Lynch's above: "The role of e-books in academic libraries is still not clear, and there is considerable development of standards, technologies and pricing models needed to make the market for e-books viable and sustainable." ("E-books and Their Future in Academic Libraries," URL: <http://www.dlib.org/dlib/july01/snowhill/07snowhill.html>).

Bradley L. Schaffer expresses his concerns about the impact of electronic technology on libraries in his article titled: "Electronic Resources: A Wolf in Sheep's Clothing." He feels that "electronic technology is simply a tool" and that "electronic resources should complement rather than replace other formats." He cites licensing restrictions, high costs, the growing uniformity of research library collections, the unreliability of the Web for research, and preservation issues as reasons for caution. (*College & Research Libraries*, v. 62, no.3, p. 239-248).

The Chronicle of Higher Education published an article about JSTOR containing both praise and criticism for the journal digitization project. Researchers like the increased availability of older journals and the search capabilities. Critics complain about the cost, especially for small college libraries. Nicholson Baker fears that libraries will discard their paper runs of journals giving JSTOR a monopoly on these materials. (Scott Carlson,

"JSTOR's Journal-Archiving Service Makes Fans of Librarians and Scholars," July 27, 2001, p. A26).

Robert E. Donohue describes the PubScience project in his article in *Serials Review*. The project is an extension of the scientific mission of the U.S. Department of Energy which in the past published *Nuclear Science Abstracts* and still produces the Energy Database (EDB). Like them, PubScience is designed to facilitate the free flow of scientific information. Journals where DOE researchers publish were selected for cover-to-cover inclusion in the database. Publishers provide data containing citations, abstracts, and full text URLs and the resulting database is available without charge to the public. The user interface is simple and user-friendly. (PubScience URL: <http://pubsci.osti.gov>) ("PubScience: Accessing Scientific and Technical Journal Information at the Desktop", v. 27, no.1, p. 18-25).

An article in the March/April 2001 issue of *Online* compares the functionalities of eight web-based traditional search engines. The authors developed evaluation criteria which they applied to: DialogWeb, Dow Jones Interactive Publications, OCLC FirstSearch, ProQuestWeb, WilsonWeb, Ovid, SilverPlatter, and nexis.com. They conclude that DialogWeb is close to an ideal system but still lacks

some important features. (Luisa Sabin-Kildiss, Colleen Cool, Hong (Iris) Xie, "Accessing the Functionality of Traditional Search Engines, v. 25, no.2, p. 18-26).

Ron Chepesiuk writes in the May 2001 issue of *American Libraries* that digitizing special collections materials is expensive and uses a lot of staff time but that it should be done to preserve materials, to provide better access, and to create new users (such as K-12 classes). Librarians need to be mindful of copyright, donor wishes, and the need to get permission from authors and publishers for some materials. ("Digitizing Rare Materials: Special Collections Go Global," v. 32, no.5, p. 54-56).

The June/July 2001 issue of *American Libraries* has a short article on SFX that is illustrated by an example from the Caltech system. The library decides in advance what options a search in an SFX-enabled database will provide. The example shows what happens when a researcher starts with a keyword search in the Web of Science database and selects an article. The display leads to more resources including licensed full-text retrieval, Caltech library holdings, document delivery, an author search in Web of Science, and a cited author search in Web of Science. (K. G. Schneider, SFX: A Linkalicious Service," v. 32, no. 6, p. 118).

JOB ANNOUNCEMENTS

Head of Geology Library, Indiana University Libraries, Bloomington

The Head of the Geology Library is responsible for the leadership and overall management of the Geology Library, including planning, supervising, and evaluating the library's services, operations, and collections. Provides bibliographic instruction and reference services including the development of Web services for the Geology Library. Manages the Geology Library collection based on the needs of current and future constituents, including transfer to off-site shelving of low-use materials. Develops external funding opportunities including grants, gifts and exchanges. Promotes the Geology Library's resources to encourage their use and recognition. Participates in relevant professional associations. Together with the Geography/Maps Librarian, investigates and implements new ways to manage and provide services to repositories of printed and digital maps. The incumbent is expected to be conversant in GIS applications and to assist in defining the appropriate role for the Libraries on campus in the provision of software, hardware, and technical expertise to access and archive geospatial information. Qualifications: Required: ALA-accredited degree in library or information science and experience in managing library operations or the equivalent combination of degrees and experience. Knowledge of scholarly information trends in the physical or life sciences. Ability to work independently and collegially in a complex, rapidly changing, and culturally diverse environment. Strong analytical and quantitative skills. Excellent oral, written, and graphic communica-

tion skills. Ability to meet the requirements of a tenure-track appointment. Preferred: Degree or coursework in relevant subject area. Collection development experience in a scientific discipline. Experience with geospatial data management, digital imaging, and metadata standards and practices. Preference will be given to candidates who are familiar with GIS software and have additional technology experience. Salary and Benefits: Salary and rank are negotiable and competitive dependent upon qualifications and experience. This is a tenure-track academic appointment that includes eligibility for sabbatical leaves. Benefits include a university health care plan, TIAA/CREF retirement/annuity plan, group life insurance, and liberal vacation and sick leave. To apply: Review of applications will begin on August 10, 2001. The position will remain open until filled. Send letter of application, professional vita, and the names, addresses, and phone numbers of four references to: Yolanda Cooper-Birdine, Libraries Human Resources Officer, Indiana University Libraries, Main Library 201A, Bloomington, IN 47405. Phone: (812) 855-8196; Fax: (812-855-2576; e-mail: ycooperb@indiana.edu <<mailto:ycooperb@indiana.edu>> . For further information concerning Indiana University: <http://www.iub.edu>, or employment opportunities at the IUB Libraries: <http://www.indiana.edu/~libpers> <<http://www.indiana.edu/~libpers>> . Indiana University is an affirmative action/equal opportunity employer.

Betty Davis

Libraries Human Resources

Main Library 201A; (812) 855-8196

GIS Services Librarian, University of North Carolina at Chapel Hill

Available: August 1, 2001

Description: The Reference Department of the University of North Carolina at Chapel Hill seeks a highly qualified and experienced librarian to provide innovative and energetic leadership in the newly created position of GIS Services Librarian. The librarian will develop and implement GIS services and resources, working closely with students, faculty, and staff on campus.

Reporting directly to the Head of the Reference Department, the GIS Services Librarian will assist users with GIS projects and analyze users' spatial data needs and locate and deliver data in appropriate formats. The librarian will be responsible for collection development for GIS spatial data and the collection and development of metadata related to the library's holdings.

The GIS Services Librarian will serve on the Reference Department Data Team and will work together with the Electronic Documents/Data Librarian and other departmental and library staff to evaluate spatial and numeric data resources and services. The librarian will coordinate the library's GIS services with other campus GIS initiatives and cooperate with neighboring Triangle university GIS initiatives. The librarian will train library staff in the use of GIS and spatial data resources and will serve at the reference desk and work some nights and weekends.

The Reference Department of the Academic Affairs Library is responsible for providing reference service to the students, faculty, and staff of the University of North Carolina at Chapel Hill as well as providing the service to citizens of the State of North Carolina. Reference services cover humanities, social sciences, business and economics, and government information. The Library serves as a Regional Depository for federal information and also collects state documents, United Nations, and other international agency information and is responsible for the library's microform collection.

Qualifications

Required: ALA-accredited Masters Degree in Library Science, Information Science or an advanced degree in a discipline with an emphasis on spatial data. Work experience with or academic background in geospatial data and numeric data resources. Experience with geospatial processing software (ArcView, ArcInfo, MapInfo, ERDAS Imagine, ERMapper, Landview). Good understanding of/and experience with computer systems (DOS, UNIX, Windows NT). Ability to manage multiple projects and priorities effectively. Ability to work well with others in a team environment. Good teaching and communication skills and a strong commitment to public service.

Preferred: Work experience in an academic research library. Familiarity with current issues and technologies related to spatial data. Demonstrated ability to provide effective access to sources of cartographic and other spatial

and geographic information sources.

The University and the Libraries: The University of North Carolina at Chapel Hill is the country's oldest state university. UNC-CH has an enrollment of approximately 24,000 students, employs more than 2,200 faculty, offers the Ph.D. in 66 fields; and the Library collections include over 5 million volumes. The Library is a member of the Association of Research Libraries, the Center for Research Libraries, the Triangle Research Libraries Network (TRLN) and SOLINET.

The Triangle region is one of the most desirable places to live and work in North America and offers its residents a wide array of recreational, cultural and intellectual activities. The mountains and the seashore are each less than a half day's drive from Chapel Hill.

For more information on the University of North Carolina at Chapel Hill and our Libraries, consult our website.

The University of North Carolina is an equal opportunity employer and is strongly committed to the diversity of our faculty and staff.

Salary and Benefits: This is a twelve-month academic librarian appointment with a minimum salary of \$40,000. Standard state benefits of annual leave, sick leave, and State or TIAA-CREF retirement plan. Librarians are members of the general faculty.

Deadline for Application: Review of applications will begin on July 23, 2001. Applications will be accepted until the position is filled.

To Apply: Send a letter of application, a resume and the names, addresses, and telephone numbers of three professional references to:

GIS Services Librarian

Mari E. Marsh, Director of Library Personnel
The University of North Carolina at Chapel Hill
CB #3900, 206 Davis Library
Chapel Hill, NC 27514-8890

Maps/GIS Librarian, Texas Tech University Libraries, Lubbock, TX

Responsibilities: Texas Tech University Libraries seeks a highly motivated individual to be responsible for a wide-range of Maps and GIS service at this Library. Under the direction of the Assistant Head of Information Services for Documents and Maps, this position will supervise the processing and handling of maps and GIS material and be in charge of the GIS Lab. This position also will supervise one Senior Library Specialist. The applicant will contribute to the development of departmental policies and procedures; train and supervise staff; and participate in Libraries and departmental committees and task forces. This position works in cooperation with other Libraries staff.

Qualifications: Required: ALA-accredited Master's degree or international equivalent; good analytical, organizational, interpersonal, and communication skills; ability to train others; and demonstrated potential for professional

development and growth. Preferred: Experience with Maps or GIS, experience with OCLC or other major bibliographic utility, experience with an integrated library system, and supervisory experience.

Salary and Benefits: Depending on qualifications and experience, \$30,000-\$33,900 as an Assistant Librarian or \$34,000-\$39,500 as an Associate Librarian. Comprehensive benefits include choice of retirement programs, including TIAA-CREF; 13 state holidays; developmental leave opportunities; moving allowance; and no state or local income tax.

General Information: Texas Tech University (<<http://www.texastech.edu/>>) is a state-supported institution with an enrollment of 25,000. It offers a wide range of academic programs in thirteen colleges and schools, including law and medicine. There are approximately 100 master's degree programs and over 50 at the doctoral level. Texas Tech is a member of the Association of Research Libraries, Center for Research Libraries, and the Big 12 Plus Library Consortium. The newly renovated University Library (<<http://www.lib.ttu.edu/>>) has over 2.1 million volumes and an annual budget of over \$9 million. Lubbock has a metropolitan population of 224,000 and is the regional center for education, agriculture, health care, banking, and business.

Application Information: Send letter of application indicating qualifications and interest in the position, current resume, and names and contact information of three references to the Human Resources Office, Texas Tech University, Box 40002, Lubbock, Texas 79409-0002. Electronic submissions are welcome and should be sent to carol.roberts@ttu.edu <<mailto:carol.roberts@ttu.edu>>. Please address all correspondence to the Search Committee Chair, and specify the title of the position. Review of applications will continue until position is filled. Texas Tech University is an EEO/AA/ADA employer.

Physical Sciences Librarian, North Dakota State University, Fargo, ND

Description: North Dakota State University Libraries has an immediate opening for a Physical Sciences Librarian. This full-time, 12 month position reports to the Associate Director. The Physical Sciences Librarian provides general and specialized reference and research services, educational services, collection management, and liaison activities in the physical sciences and other assigned areas; serves on Library and University Committees; and completes special projects as assigned. This position also manages the Chemistry Library.

Qualifications: Required: ALA-accredited Masters Degree in Library Science; interest in physical sciences or related areas; experience with automated library services; demonstrated communication skills. Preferred: undergraduate or graduate degree in physical sciences or related area; professional experience in an academic, special or research library; experience with instruction.

Compensation: \$30,000+/year. Benefits include TIAA/CREF and Blue Cross/Blue Shield.

Application: Send letter of application; current resume; and names, addresses, e-mail addresses and phone numbers of three professional references to the Office of Human Resources, North Dakota State University, PO Box 5345, Fargo, ND 58105-5345. Screening will begin August 15, 2001. Applications accepted until position is filled.

Environment: NDSU is located in Fargo, an educational, cultural, financial and medical center for the Upper Plains. NDSU is a land-grant university with approximately 9,000 undergraduates, 1000 graduate students and 700 faculty. With a population of 174,000, the Fargo, N.D.-Moorhead, Minn. metropolitan area is known for its high quality of life. Fargo is within a short drive of the Minnesota lake country and 4 hours from Minneapolis or Winnipeg.

For further information regarding the NDSU Libraries visit its homepage at: <http://www.lib.ndsu.nodak.edu>.

NDSU is an equal opportunity institution.

GIS PUBLICATIONS LIST

Proceedings of the Annual GIS Meetings (ISSN 0072- 1409) \$45.00 each; standing orders are \$45.00 per year.

(Proceedings volumes 1 through 25 are out of print and available from: Out-of-print Books on Demand, University Microfilms, Inc., 300 North Zeeb Road, Ann Arbor, Michigan 48106.)

--v. 30, 2000, *Communication Divides: Perspectives on Supporting Information Bridges in the Geosciences*, ed. by Lois Heiser, (ISBN0-934485-32-1)

--v. 29, 1999 *Accreting the Continent's Collections*, ed. by C. R. M. Derksen and C. J. Manson, (ISBN 0-934485- 31-3)

--v. 28, 1998 *The Costs and Values of Geoscience Information*, ed. by C. J. Manson. (ISBN 0-934485- 29-1)

--v. 27, 1997 *Expanding Boundaries: Geoscience Information for Earth System Science*, ed. by B. J. DeFelice. (ISBN 0-934485-23-2)

v. 26, 1996 *Crossing the Bridge to the Future: Managing Geoscience Information in the Next Decade*, ed. by N. L. Blair. (ISBN 0-934485-26-7)

Proceedings of the International Geoscience Information Conferences

6th, 1998 *Science Editing and Information Management*, Proceedings of the Second International AESE/CBE/ EASE Joint Meeting, Sixth International Conference on Geoscience Information, and Thirty-second Annual Meeting, Association of Earth Science Editors, ed. by Connie J. Manson. (ISBN 0-934485-30-5) \$ 25.00

5th, 1994 *Geoinfo V, Proceedings of the 5th International Conference on Geoscience Information*, ed. by Jiri Hruska. (ISBN 0-934485-27-5) \$ 45.00 (2 vols.)

Directory of Geoscience Libraries, North America. 5th Edition, 1997. (ISBN 0-934485-25-9) Paper. \$ 35.00

GIS Newsletter (ISSN 0046-5801) published bimonthly; calendar year subscriptions only. United States and Canada \$ 40.00; other countries (via airmail) \$ 45.00

Mailing labels: Geoscience Information Society member mailing labels: Single use labels \$ 100.00.

Send orders to: Elizabeth Wallace

Science & Technology Libraries,

Syracuse University Library,

Syracuse, New York 13244-2010

phone: 315/443-2160; fax: 315/443-5549; e-mail: eawallac@library.syr.edu

Payment must be made in U.S. dollars.



GEOSCIENCE
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newsletter

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