



GEOSCIENCE
INFORMATION
SOCIETY

newsletter

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CONTENTS

Special Feature

News from the USGS Libraries, by Nancy Blair.....17

Departments

President's Column 1

Vice-President's Column 1

Annual Meeting Materials:

GIS 2001 Field Trip Agenda..... 3

Final Agenda.....3

Annual Reports.....4

Abstracts:

Topical Session..... 11

Poster Session 15

Job Announcement 18

New Members, and, Member News 18

Literature Reviews, by Carol J. LaRussa 19

GIS Publications List 20

PRESIDENT'S COLUMN

Ready to embark on an Odyssey of your own? This year the GIS annual meeting theme is "Geoscience Information: a Dynamic Odyssey" (in keeping with the Geological Society of America's overall theme - "A Geo-Odyssey"). As I heard from many of you regarding your plans for the coming meeting, I began to think that 'Odyssey' may take on additional meaning. Due to last week's bombing of the World Trade Center and the Pentagon, I hear about quickly changing travel plans and concerns about delayed or cancelled flights. Assuming none of you will be detained by Circe, imprisoned by a Cyclops, or pursued by Poseidon, I look forward to seeing many of you in Boston.

Do you ever feel that your daily tasks are about as difficult as stringing a bow and shooting an arrow through a row of axes? The Geoscience Information Society provides a great support network and our annual meetings are one major way to tap into it. This newsletter contains your guide to our information "Odyssey". Our annual meetings are a great way of sharing information and learning about other's experiences. They provide an opportunity to look back on changes and developments and consider their impact on the future. Our meetings offer a wide range of options for getting together with colleagues for informal

discussions, as well as a full conference schedule of formal presentations. It's a great chance to greet old friends, meet new people and learn about geoscience information.

Most of us won't have to face usurpers to our throne when we return home, but armed with the ideas and information from the annual meeting, we should be ready to take on new challenges. I would challenge all of you to stay involved with the Society throughout the year by serving on a committee and participating in GIS activities. The committees carry out the real work of the society. Take a look at the committee reports in this issue of the newsletter and think about what you would like to be involved in.

As I near the end of my own Odyssey as President of GIS, I find it hard to believe that the year has passed so quickly. It has been a busy year and I have learned a great deal while trying to keep an eye on issues of concern to our Society and the profession as a whole. During the year, I have talked to many of you about society activities. I hope to see many of you at the meeting in Boston!

VICE PRESIDENT'S COLUMN

The Geo-Odyssey is almost here. Let me tell you of some of the landmarks.

First there is the GIS Topical Session. The last decade has brought about major changes in the format and delivery of geoscience information. The session "Geoscience Information; A Dynamic Odyssey" focuses on changes in the delivery of geoscience information in libraries and the acquisition, preservation, exchange, and use of the digital geoscience literature.

How much faculty research is available on the Web? Do we have a structure for capturing this output? Can you find relevant geoscience information on the Web, or are some electronic publications and information sources "hidden" without extensive cross-checking of indexes and search engines? Does the metadata for digital geologic products ensure their integrity and authenticity? How are libraries meeting the challenges of the digital revolution in geoscience information? These are some of the questions that will be addressed at the GIS Topical Session on Monday, November 5th from 8:00 to Noon.

(continued, p. 3)

GEOSCIENCE INFORMATION SOCIETY
2001 Officers

President

Sharon Tahirkheli
American Geological Institute
4220 King Street
Alexandria, VA 22302
phone: 703/379-2480 x231; fax: 703/379-7563
e-mail: snt@agiweb.org

Vice-President (President-Elect)

Michael Mark Noga
Massachusetts Institute of Technology
Science Library
14S-134
77 Massachusetts Avenue
Cambridge, MA 02139-4307
phone: 617/253-1290; fax: 617/253-6365
e-mail: mnoga@mit.edu

Immediate Past President

Lois Heiser
Geology Library
1001 E. 10th Street
Indiana University
Bloomington IN 47405-1405
phone: 812/855-7170 fax: 812/855-6614
e-mail: heiser@indiana.edu

Secretary

Suzanne T. Larsen
Earth Sciences Library
Campus Box 184
University of Colorado
Boulder, CO 80309
phone: 303/492-4611; fax: 303/735-4879
e-mail: suzanne.larsen@colorado.edu

Acting Treasurer

Shaun J. Hardy
Carnegie Institution of Washington
DTM-Geophysical Laboratory
5241 Broad Branch Road, N.W.
Washington, DC 20015
phone: 202/686-4370; fax 202/686-2419
e-mail: hardy@dtm.ciw.edu

Homepage:

<http://www.geoinfo.org>
Chair: Jim O'Donnell
Geology Library 100-23
Caltech
Pasadena, CA 91125
phone: 626/395-2199; fax: 626/568-0935
e-mail: jimodo@caltech.edu

Listserv: geonet@purdue.edu

Editor: Carolyn J. Laffoon
Earth & Atmospheric Sciences Library CIVL 1210
Purdue University
West Lafayette, IN 47907-1210
phone: 765/494-0201; fax: 765/496-1210
e-mail: carolyn@purdue.edu

Newsletter Editor

Connie J. Manson
Washington Division of Geology & Earth Resources
P. O. Box 47007
Olympia, WA 98504-7007
phone: 360/902-1472; fax: 360/902-1785
e-mail: connie.manson@wadnr.gov

Publications Manager

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

Publicity Officer

Carol J. La Russa
Physical Sciences & Engineering Library
University of California, Davis
Davis, California 95616
phone: 530/752-0519; fax: 530/752-4719

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GIS members are encouraged to contribute materials for publication. Material for the December issue should be received no later than November 23, 2001. If possible, please send materials by e-mail.

(continued from p. 1)

We have both Collection Development Issues and Preservation Forums this year. It will be particularly interesting to hear of plans to make some of the geoscience literature's major journals available electronically to our library users.

The GIS Digital Forum this year will be "Endnote -- Bibliographies Made Easy," a workshop on software for creating and organizing bibliographic references, conducted by Nancy Matus, ISI ResearchSoft, the makers of Endnote. This is an exciting addition to our program. I recommend that you mention it to attendees from your institution.

There will be a reception at MIT. I plan to announce more details on Geonet-L and at the conference.

Finally, we come to our field trip, "The Boston Shoreline: Historical Scouring and Accretion." I took my library's processing section on two trial runs. They have given me helpful hints, including a very inexpensive rosticceria in the North End where we had lunch on the second part of the tour. They also told me that they enjoyed the trip and learned about parts of Boston that were unfamiliar to them. The schedule is listed below. I am starting at 9:30 AM so that you will have a chance to go to our Poster Session in the Hynes Convention Center.

The registration form was in the August Newsletter. Subway transportation is included in the registration cost. I realize that some of you may be giving posters, have other commitments on Thursday 11/8, or just have to leave Boston early that day. You can leave the field trip at the end of each segment. If I can manage it, I may do one part on the

preceding Saturday afternoon for those who are here early but unavailable on Thursday.

And now it's time for our Boston anecdote: I have two. First, I mention that my library, the MIT Science Library, is rearranging virtually the entire collection for probably the first time in 50 years. We have installed compact shelving right down the middle of the basement where the building "floats" on the high water table. The IFLA delegates that visited in August saw the confusion in progress. When you come to Boston, we hope to have the place looking ship-shape. My second anecdote is really just your visit to Boston in November. I hope that we have an enjoyable and worthwhile conference.

GIS 2001 Field Trip Agenda

- 9:30 -- leave from Convention Center
- 10:00 - 10:45 -- Warehouse District walking tour (from Old State House down State St to Custom House, Bulfinch warehouses, Fort Hill, Rowe's Wharf, and then South Station)
- 11:15 - 12:00 -- Pemberton Hill to North End (Pemberton Hill, Govt Center, Dock Square, Quincy Market, Commercial Wharf, North Square to Hanover St for lunch)
- 12:00 - 1:00 -- Lunch in North End
- 1:00 - 1:40 -- North End to Govt. Center (Copp's Hill, Mill Pond area, Creek Square area)
- 2:00 - 3:00 -- Beacon Hill to Back Bay (State House to Mt. Vernon St. to Louisburg Sq. to the earliest part of BackBay, then back to Convention Center)

Final Agenda: Geoscience Information Society Annual Meeting, Boston, MA, November 4-8, 2001

Sunday, November 4

- 9:00 - 12:00 GIS Executive Board: Sheraton Hampton
- 1:00 - 4:00 GIS Committee Meetings: Sheraton Dalton

Monday, November 5

- 8:00 - 12:00 GIS Topical Session, "Geoscience Information: A Dynamic Odyssey," Hynes Convention Center 208
- 1:30 - 3:30 GIS Preservation Forum; Elaine Clement, Chair; Sheraton Beacon A
- 4:00 - 5:30 GIS GeoRef Discussion Group; Nancy Blair, Chair; Sheraton Gardner
- 7:00 - 9:30 GIS Reception; Sheraton Gardner B

Tuesday, November 6

- 9:30 - 11:30 GIS Collection Development Issues Forum; Charlotte Derksen, Chair; Sheraton Gardner
- 12:00 - 1:30 GIS Luncheon and Awards Presentation; Sheraton Hampton
- 2:00 - 5:00 GIS Business Meeting; Sheraton Gardner
- Evening Reception at MIT, directions distributed at the conference, Michael Noga and Kathy Keefe

Wednesday, November 7

- 8:30 - 11:30 GIS Digital Forum; Adonna Fleming, Chair; Sheraton Gardner
- 1:30 - 3:30 GIS Professional Issues Forum; Sheraton Independence East Ballroom

Thursday, November 8

- 8:00 - 12:00 GIS Poster Session; Hynes Convention Center Hall D
- 9:30 - 3:00 GIS Field Trip: "The Boston Shoreline: Historical Scouring and Accretion," Michael Noga

ANNUAL REPORTS

Officers

Treasurer

Since my appointment as Acting Treasurer in June, I have focused on bringing the financial records of the Society up to date and clearing the backlog of banking transactions. An operating budget for 2001 was prepared for the Executive Board and accepted and work begun on readying the 2000 records for audit. The latter will be finished shortly and a final 2000 budget report published in the December Newsletter.

Instead of the usual mid-year report, I have prepared an interim budget report as of August 31, 2001 (included in this issue) to better reflect the current financial position of the Society. An update will be presented at the annual meeting in Boston, along with a draft operating budget for 2002.

Representatives and committee chairs requiring reimbursement are reminded to submit their receipts to me. Reimbursement request forms are available – please e-mail me (hardy@dtm.ciw.edu) if you need one. I would like to thank Sharon Tahirheli, Barbara Haner, and April Love for their help in facilitating the transfer of the Treasurer's files and bank authorizations.

Respectfully submitted,

Shaun J. Hardy, Acting Treasurer

(Editor's note: *The Interim Budget Report follows, on p. 8*)

Listserve Editor

In April, 2000, the GEONET-L listserve transferred hosts from Indiana University to Purdue University. With the transfer came a slight name change: GEONET. Currently, the listserve has 321 subscribers, down from 496 last year. The major reason for the drop is that several email addresses no longer worked, and with the transfer to Purdue University, the subscriber list was cleaned up. Dead links are now immediately deleted from the listserve. (Note to subscribers: If you are no longer receiving GEONET messages, you have likely been deleted because your email address is not exactly correct on the subscriber list. You may need to resubscribe.) Of the 321 subscribers, 150 have .edu in their address, 35 have .gov, 42-.com or .net, 8-.org, 88-countries outside the USA, and 7-other. Approximately 50% of the entries continue to be offerings for duplicates, 25% are informational and 25% are reference oriented. Between 1-2 entries are posted per business day.

Respectfully submitted,

Carolyn J. Laffoon, GEONET Listserve Editor

Literature Review Editor

The purpose of this appointed position is to survey the library and information science professional literature to find items that are likely to be of interest to GIS members. I submitted a column summarizing articles of possible interest for each issue of this year's *GIS Newsletter*.

Respectfully submitted,

Carol J. La Russa, Literature Review editor

Newsletter Editor

The GIS Newsletter continues to be published bi-monthly to report the Society's activities and new developments to the membership and to provide a historical record of those activities. We are very grateful to the members who sent materials for publication throughout the year.

Respectfully submitted,

Connie J. Manson, Newsletter editor

Publications Manager

Electronic Information Summit: New Developments and their Impacts, Proceedings of the 35th Meeting of the Geoscience Information Society, November 11-15, 2000, Reno, Nevada (v.31) was published in August 2001, and copies are being distributed in September 2001.

Sales since last report (September 16, 2000 through September 15, 2001):

Directory of Geoscience Libraries: North America	2
GeoInfo V	0
GIS Proceedings v. 26	1
GIS Proceedings v. 27	1
GIS Proceedings v. 28	1
GIS Proceedings v. 29	1
GIS Proceedings v. 30	34
Science Editing & Information Management	4

Respectfully submitted,

Elizabeth Wallace, Publications Manager

Publicity Officer

I am in the process of writing and distributing press releases for new GIS officers, 2001 award winners, and for the Digital Forum. One of last year's press releases resulted in an article and photograph in the February 2001 issue of *Geotimes* (vol. 46, no. 2, p. 36-37).

Respectfully submitted,

Carol J. La Russa, Publicity Officer

Representatives

AGI Government Affairs Program

The AGI Government Affairs Program (GAP) was established in 1992 to serve as a link between the federal government and the geoscience community. Through the GAP program AGI member societies are primarily involved in information transfer on important science issues to the legislative and executive branches of the US government.

Although I have mentioned it in the past, I want to remind members that the GAP web site is the best resource for up-to-date information not only on the program but on

a wide range of policy issues involving the earth sciences. The web site includes recent AGI actions, updates on congressional activities particularly involving agency budgets, and official positions of both AGI and member societies on important current issues such as evolution. GAP is at: <http://www.agiweb.org/gap/gaphome.html>

Another tool for current awareness is *Geotimes*. David Applegate, AGI Director of Government Affairs, writes Political Scene, a monthly column, on earth sciences in the news. The most recent column and back columns are available at: <http://www.geotimes.org/current/>

The April 2001 *Geotimes* issue, the 6th annual issue devoted to Geoscience and Public Policy, included articles on geology and the national parks, geoscientists working on Capitol Hill and the two recent NSF reports on USGS and NSF Earth Science Division's futures.

The December 2000 *Geotimes* issue featured the Evolution Debate. It included four articles focusing on evolution with an emphasis on activities in various states. "Evolution Grades for the States" is particularly interesting or depressing, if your state got a D as did my state, Wisconsin. The issue is at: <http://www.geotimes.org/dec00/index.html>

This *Geotimes* issue is one of several projects of AGI and member societies to improve the public's understanding of evolution and to strengthen the teaching of evolution this year. Another project is the recent publication, "Evolution and the Fossil Record", a booklet produced by the American Geological Institute in cooperation with the Paleontological Society. This booklet aimed at the general public is a non-technical introduction to evolution.

In the past, debates on evolution have been at the state and local levels. However, in June a non-binding Sense of the Senate resolution was introduced, attached to an Education bill and passed. This resolution singled out evolution as a controversial theory. Since then AGI and almost 90 other scientific and educational organizations have signed a joint letter asking the conference committee to remove the resolution. For a detailed discussion of this issue see the GAP web site.

The most recent meeting of the GAP advisory committee was on April 21, 2001. There is a detailed report of the meeting on the web site. Of particular interest, the group agreed to concentrate on these areas among others:

1. Improve advocacy efforts to increase earth science agencies budgets.
2. Raise congressional awareness of natural hazards.
3. Examine the interface of geology and public health
4. Develop and improve communication tools such as fact sheets.

The next advisory meeting will be held in Boston at the GSA annual meeting. If you have suggestions concerning projects or priorities, please let me know either before or at the meeting.

Respectfully submitted,
Marie Dvorzak, GIS Representative

AGI Member Society Council

Fall Meeting: November 13, 2000, Reno, Nevada

Two new societies were approved as Members of the American Geological Institute: the Environmental and Engineering Geophysical Society (EEGS) and the Society of Professional Well Log Analysts (SPWLA). The EEGS has approximately 700 members, while the SPWLA has about 300 members, of which 40% are Earth Scientists.

The treasurer reported that AGI is in good financial state. The report on the transition to a new federal administration was incomplete, as the administration was not yet fully in place. Reports were made on the activities of the third Earth Science Week, and the expansion into full color production for *Geotimes*.

Major topics discussed at this session included: Earth Science Education, a proposal for an Advanced Placement (AP) Geology course, the planned National Research Council Data Preservation Study, and a presentation from the American Institute of Physics on a project to get science news to local television stations, inviting member societies to collaborate in this effort. GIS member Linda Musser has subsequently been appointed to be a participant in the NRC Data Preservation study.

Spring Meeting: June 4, 2001, Denver, Colorado

The treasurer was able to report that AGI finished in the black for the 8th consecutive year in 2000. A request was made by the members for the next Treasurer's report to include a breakdown of revenue by AGI activity.

The Executive Director's report included several topics of possible interest to GIS members. AGI has released the initial *EarthComm* and *Investigating Earth Systems* curriculum modules. Three new booklets, *Sustaining our Soils and Society*, *Metal Mining and the Environment*, and *Living with Karst, A Fragile Foundation* have been published. The *Guide to Geoscience Departments* is now available only as a web document (<http://www.agiweb.org/ehr/ggd/>). A recent workshop looked at the need for and appropriateness of measuring geoscience human resources in North America; enrollment in the geosciences peaked at about 50,000 students in 1983, but fell sharply soon thereafter to the current levels of around 20,500.

Several presented special reports or proposals at the meeting, the highlight of which was the special report by Chip Groat: "USGS in the Future: How Broad & How Deep." The USGS director outlined the rationale behind the reorganization within the survey, emphasizing the interdisciplinarity of much of the research carried out by survey scientists now. Dave Stephenson presented the Geological Society of America's vision. (More details about these may become available later, after the minutes are approved.) An energy policy statement was put before the group for approval, but was voted down. Earth sciences education continues to be a major concern of the council's members. Discussion topics for this meeting included a study on the value of the field experience for geoscience

students, a GeoCare Health Package, and an Energy Literacy Project.

Incoming President Steven M. Stanley presented an initiative for his term in office, "EarthLaunch"; this scheme is envisioned as a program of summer field experiences for upper level high schoolers.

Respectfully submitted

Charlotte R. M. Derksen, GIS representative

MAGERT

The Map and Geography Round Table met at the American Library Association Annual Conference, San Francisco, June 15-19, 2001. The program included:

1) "Earthquakes, Fires, and Floods: Using Maps to Prepare for Disasters" - Three speakers: Dave Sapsis (California Department of Forestry and Fire Protection), Steve Walter (Earthquake Hazards Program of USGS), and Christopher Barkley (Federal Emergency Management Agency) explained how to use maps, data, and geographic information systems in disaster preparedness.

2) "Census 2000: Opportunities and Challenges" - Linda Clark (U.S. Census Bureau) spoke on mapping the new census data. See <http://www.census.gov/population/www/censusdata/c2kproducts.html> for the 100-Percent Data Products list (from short form) that includes release date and lowest level geographic measurement unit for each data set. Sample data (from long form) will be released in summer 2002. Problem in 2000 census was post office addresses, since census was mail-based. One change on 2000 census was multiple race question. Only 15% of printed census reports will be on paper for 2000 census. Use online version of *Statistical Abstracts of the U.S.* via <http://www.census.gov> and American FactFinder at <http://factfinder.census.gov> for 2000 census.

3) "Building Internet Map Libraries by Digitizing Historical Maps" - Three speakers: Alan Cornish (Systems Librarian) and Rosemary Streatfield (Science Librarian/Map Coordinator) of Washington State University Libraries, and David Rumsey (President of Cartography Associates) covered techniques of online archiving of historic maps, including scanning, compression, and access software.

In other news:

--MAGERT is an associate sponsor of GIS Day on November 14, part of Geography Awareness Week November 11-17, 2001.

--National Map. Mara Tongue (Chief of Earth Science Information Center in Menlo Park) reported on new digital national map in development. Base scale will be 1:24000 and weekly satellite imagery will update this DOQ product. Physical and human geographic landscape features are in content.

Respectfully submitted,

Thomas R. Zogg, GIS Representative

Committees

Mary B. Ansari Best Reference Work Committee

The GIS Mary B. Ansari Best Reference Work Committee nominated and evaluated nine reference works including: *Geographical Information Systems*; *Due to the Weather--Ways the Elements Affect Our Lives*; *Encyclopedia of Paleontology*; *Encyclopedia of Environmental Science*; *Encyclopedia of Hydrology and Water Resources*; *Sciences of the Earth--An Encyclopedia of Events, People and Phenomena*; *Oxford Companion to the Earth*; *Seas at the Millennium--An Environmental Evaluation*; and, *The Encyclopedia of Geochemistry*.

Committee Members who nominated and evaluated these titles were: Michael Farmer (Ohio University), Linda Musser (Pennsylvania State University), Linda Newman (University of Nevada-Reno), Janice Norris, Chair (Texas A&M University), Sally Scott (University of Wyoming), Charles W. "Wil" Weston (University of New Orleans), and Thomas Zogg (University of Minnesota, Duluth).

The Committee selected *Encyclopedia of Paleontology* (1999), edited by Ronald Singer, published by Fitzroy Dearborn Publishers as the recipient of the GIS Mary B. Ansari Best Reference Work Award.

Respectfully submitted,

Janice Norris, Chair

Archives

The Archives Committee has received the GeoNet-L archives and is exploring how to make this archive available via a searchable web-based interface. Other materials received this year have been reviewed and forwarded to the University of Illinois Archives.

Respectfully submitted,

Mary Krick, chair

Best Paper Award

The Committee members are Renee Davis, John Hunter, Chip (Julian) Green, Lura Joseph, and Thelma Thompson (Chair).

The Geoscience Information Society Best Paper Award Committee has chosen a paper for its annual award. It is "Information Literacy in the Geosciences: Report of a Practical Inquiry" by Patricia B. Yocum and Gretchen S. Almy, 1999, published in Proceedings of the 34th Meeting of the Geoscience Information Society, *Communication Divides: Perspectives on Supporting Information Bridges in the Geosciences*, p. 15-22.

In case there is any confusion about the date of the article, here is a brief explanation of the situation. The publication date of this volume of the proceedings is 1999. However, following the dating scheme of previous proceedings (33rd meeting took place in 1998, was dated 1999, and was evaluated by the award committee that met in 2000), this would have been the "2000" volume, and

thus the "correct" volume for consideration by our committee.

The committee called for nominations via the GIS newsletter and the GEONET-L listserv. Committee members searched bibliographic databases in library and information science, the earth sciences and related fields. Twelve papers were nominated for consideration and were evaluated based on criteria of significance, originality, scholarship, effectiveness of communication, and professional knowledge. The committee noted that Yocum and Almy's paper deals with an issue of concern to many geoscience librarians. The authors share results of an informal but effective polling of other institutions, and urge that there be collaborative efforts to address the need for undergraduate instruction in using the digital resources of geoscience libraries.

In addition to the winning paper, the committee wishes to informally bring to the attention of the society and others a series of excellent articles by T.V. Loudon. While no single article in the series was as highly rated as Yocum and Almy, these articles together are a significant contribution to geoscience information literature. They have been published in two formats, as a special issue of a journal and as a monograph.

The citations are:

Loudon, T.V., 2000, Geoscience after IT--A view of the present and future impact of information technology on geoscience:

Computers & Geosciences, v. 26, no. 3A, p. iii-viii, A1-A142.

Loudon, T.V., 2000, Geoscience after IT--A view of the present and future impact of information technology on geoscience: Pergamon, 142 p.

Respectfully submitted,
Thelma Thompson, Chair

Collection Development Issues

The Collection Development Committee is currently working on the contents of the Collection Development Issues Forum, to be held Tuesday morning, November 6, in Boston. Two speakers have been invited. Michael Noga is again collecting his extremely valuable serials price information. Monograph price information will also be presented. Any GIS members with topics for discussion should send them to me (cderksen@stanford.edu).

Respectfully submitted:
Charlotte R. M. Derksen, chair

Digital Data Committee

The committee is responsible for monitoring, evaluating and reporting new products, developing standards, and presenting the annual Digital Forum.

Members have been busy planning this year's Forum, "Endnote - Bibliographies Made Easy" a workshop on software for creating and organizing bibliographic references, conducted by Nancy Matus, ISI ResearchSoft, the makers of *Endnote*. 8:30-11 a.m., November 7th, the Boston Sheraton, during the annual meeting.

Respectfully submitted,
Adonna Fleming, Chair

Exhibits Committee

"An Information Odyssey" will be the theme of the exhibit booth at the GIS meeting in Boston. We plan to feature different types of organizations, libraries and people who assist in the quest for information. We will also be displaying the publications selected for the GIS best paper, guidebook, and reference awards. We will be at booth no. 712.

Respectfully submitted,
Sally Scott, Chair.

GeoRef Workshop

The committee has not met this year, but at least one or more telephone conferences will be set up in October to review the program. The major part of the program will be the update of progress of the GeoRef database during the past year by Sharon Tahirkheli or someone on her AGI GeoRef staff. The program will also focus on the information a librarian needs to gather to select the best vendor of GeoRef (as well as other electronic bibliographies) for their library users, including comparative trials, terms of licenses, and various options offered such as downloading methods, etc. The special needs and purchase procedures of different types of libraries - governmental, academic, and company- will be included in this discussion.

Respectfully submitted,
Nancy L Blair, Chair

Guidebook Standards

The Guidebook Standards Committee has selected "Southwest Passage: A Trip Through the Phanerozoic," edited by Timothy Lawton and others, New Mexico Geological Society, 2000 for the Best Guidebook award. "Southwest Passage" best met the Committee's guidebook standards and is a fine example of guidebook format and layout for other editors and publishers.

Respectfully submitted,
Lisa Dunn, Chair

International Initiatives

The International Initiatives Committee is planning for a third GIS Fellowship. During the past year, those present in Reno met and planned the year's activities. We revisited and have made modifications to the Fellowship's goals, objectives, and application. Letters of solicitation for funding were written and mailed by the GIS President in May 2001. Thus far, we have not received the \$6,000 needed for complete funding of the 2002 Fellowship. The fund raising effort will continue.

Respectfully submitted
Claren Kidd, Chair

GEOSCIENCE INFORMATION SOCIETY - Interim Budget Report (8/31/01)

	<u>Income Budgeted</u>	<u>Income Actual</u>	<u>Expense Budgeted</u>	<u>Expense Actual</u>
EXECUTIVE BOARD				
President			150.00	
Vice-President			100.00	
Past-President			25.00	
Secretary			450.00	391.94
Treasurer			100.00	106.45
Teleconferences			200.00	
Subtotal			<u>1,025.00</u>	<u>498.39</u>
MEETINGS				
2001 Meeting			800.00	
2001 Meeting: exhibits			500.00	
2001 Meeting: fieldtrip	800.00		800.00	
2000 Meeting			3,700.00	3,726.20
2000 Meeting: exhibits			100.00	113.63
Subtotal	<u>800.00</u>		<u>5,900.00</u>	<u>3,839.83</u>
DUES				
Institutional	2,000.00	2,025.00		
Personal	6,000.00	5,520.00		
Sustaining	600.00	300.00		
Retired	200.00	195.00		
Student	60.00	45.00		
Named Sponsorship	80.00			
Pooled Sponsorship	300.00	300.00		
Subtotal	<u>9,240.00</u>	<u>8,385.00</u>		
PUBLICATIONS				
Publications Manager			800.00	800.00
Directory of Geoscience Libraries	145.00	105.00		
Mailing labels	200.00	200.00		
Membership directory			1,050.00	1,030.00
Newsletter: printing			2,400.00	1,403.80
Newsletter: mailing			1,000.00	600.85
Newsletter: subscriptions	600.00	410.00		
Newsletter: back issues				
Proceedings, v.31 (2000)			1,650.00	1,640.00
Proceedings, v.30 (1999)	1,400.00	990.00		
Proceedings, v.29 (1998)	500.00	45.00		
Proceedings, v.28 (1997)	120.00			

Proceedings, prior volumes	80.00			
Index	15.00			
GEOINFO V Proceedings	100.00			
GEOINFO VI Proceedings	200.00	100.00		
Reprints				
Royalties				
Subtotal	3,360.00	1,850.00	6,900.00	5,474.65
REPRESENTATIVES/APPOINTEES				
AGI Member Council rep			25.00	
AGI Gov't Affairs Program rep			25.00	
CUAC (2 reps @ \$200 each)			400.00	
Publicity Officer			50.00	
Auditor			25.00	
Subtotal			525.00	
COMMITTEES				
Archives			50.00	
Best Paper			25.00	28.00
Best Reference Work			25.00	30.73
Best Guidebook			25.00	28.00
Collection Development			25.00	
Digital Data			25.00	
GeoRef Users Group			25.00	
Guidebook Standards			50.00	16.00
International Initiatives			100.00	
Membership			100.00	
Membership brochure				
Nominating			200.00	
Preservation			100.00	
Public Affairs			25.00	
Union List of Field Trip Guidebooks			25.00	
Website Advisory			50.00	
Subtotal			850.00	102.73
MISCELLANEOUS				
AGI member society dues			425.00	426.00
GAP contribution			400.00	
GIS International Fellow				206.07
Ansari Award	5,000.00	5,100.00	500.00	
EBSCO sample issue program				
Gifts (unrestricted)	250.00	285.00		
Bank charges			50.00	62.00
Interest	500.00	164.46		
Souvenirs				

Refunds				
Subtotal	<u>5,750.00</u>	<u>5,549.46</u>	<u>1,375.00</u>	<u>694.07</u>
TOTAL	<u>19,150.00</u>	<u>15,784.46</u>	<u>16,575.00</u>	<u>10,609.67</u>
Checking balance (8/31/01)				
Union Bank of California	11,356.92			
			Total	
			balance as	
			of 8/31/01:	\$32,775.33
Savings balances (8/31/01)				
Union Bank of California	17,484.94			
Bank of America: Ansari CD*	2,940.46			
Bank of America: Ansari Savings*	167.82			
Bank of America: Bristol Fund	825.19			

* \$5100 contributed to the Ansari Fund in 2000/01 was temporarily deposited in checking account; to be transferred to savings/CD later this year.

The GIS Digital Forum Presents: Endnote – Bibliographies Made Easy

Learn how to get your citations and bibliographic references organized! Join us for a workshop on software for creating and organizing bibliographic references, conducted by Nancy Matus, ISI ResearchSoft, the makers of *Endnote*.

8:30-11 a.m., November 7th, the Boston Sheraton.

Geoscience Information Society Annual Meeting
Topical Session: "Geoscience Information: A Dynamic Odyssey"
Hynes Convention Center 208
Monday, November 5, 2001

CHANGES IN GEOSCIENCE INFORMATION PROVISION AND THE ROLE OF THE ACADEMIC LIBRARY OVER A DECADE: DENVER, COLORADO 1990-2000

DUNN, Lisa G., Arthur Lakes Library, Colorado School of Mines

In the past decade there have been significant changes in the provision of geoscience information. These changes have altered the relationship between academic, government and corporate libraries, which has in turn altered the relationship of geoscience information users to their libraries. In metropolitan Denver, Colorado, geoscience libraries faced rapid advances in technological applications during a time of changing economics in the minerals and hydrocarbon industries and reduced funding for information dissemination. As a result, the traditional model of the organizational onsite geoscience library providing users with their primary information needs has been increasingly superceded by the new model of electronic access and shared offsite resources. Academic libraries play a key role in this emerging model. The Colorado School of Mines library has experienced the effects of these changes in geoscience collections and resources, and has participated in the shift from supplementing outside users' organizational libraries to replacing them. The decade's changes in geoscience information provision have an impact on the extent and type of academic library services offered to the public and on the service choices available to all academic libraries.

"GEODYNAMICS": THE CHANGING RELATIONSHIPS BETWEEN GEOSCIENCE DEPARTMENTS AND THEIR LIBRARIES

MCLEOD, Clara P. and DUBBERKE, Molly K., Earth and Planetary Sciences Library, Washington University

In the last decade a number of developments have contributed to a change in the relationship between geoscience branch/departmental libraries and the departments they serve. These developments include the rapid and accelerating advancements in technology, continuing changes in the nature of the geoscience disciplines and trends within institutions of higher education. In some distinct ways, the changes in the relationship between branch libraries and the departments they serve vary. Today's geoscience collections can be found in a variety of administrative structures: within a centralized library, as a separate departmental library, or in a combined science library (i.e., physics-geoscience library). Changes within academic departments have a powerful effect on branch/departmental libraries in areas such as space allocations, staff needs, and service requirements. These areas have been examined in isolation in a number of publications. Through the eyes of one librarian, this study

examines one library and compares and contrasts it to the experiences of other geoscience branch/departmental libraries over the past decade. It will focus on the changing relationship between the libraries and the departments they serve.

THE EVOLUTION OF A STATE GEOLOGICAL SURVEY LIBRARY--THE MORE THINGS CHANGE, THE MORE THEY STAY THE SAME

MANSON, Connie J., Division of Geology and Earth Resources, Washington Department of Natural Resources

The technological changes and advancements of the past twenty years have brought significant changes to the Washington Division of Geology and Earth Resources library--not in what we do, but in how we do it. While many of our methods have changed, our basic goals and functions remain the same. We still provide reference services, add new materials to the collection, index those materials, and publish indexes. The computer and Internet revolutions have changed our procedures. We're using the web more for reference and acquisitions. The paper card catalog has been replaced by the on-line bibliography and we're publishing more on our website. But some things don't change. The reference interview is still important--we can't answer the question until we know what the whole question is. In acquisitions, we still must decide what to select and what not to. For cataloging, we still have to puzzle out the descriptions and strive for accurate and consistent index terms. Computer tools can make these tasks easier but they can't make our decisions for us. Our clientele is very diverse and we must get them the materials they need in the formats that work for them. Some only want the latest digital format, while others can only use paper copies. Despite the advantages of digital, we're surprised by the continuing demand for paper products. Some of the new technologies have uncertain futures. While electronic publishing has clear benefits for rapid and widespread dissemination, it still has great uncertainties for long-term access. Many geoscience materials maintain their value over time but many websites are fleeting; the posted materials often disappear within weeks or months. Because I don't trust those materials to stay on the web we print the pertinent materials out and add them to the collection. The new technologies have changed, and will continue to change, the way our library works. They have not, however, changed our basic mission--to connect people with the information they need about Washington geology.

BIBLIOGRAPHIC INSTRUCTION FOR THE GEOSCIENCE UNDERGRADUATE: A DIGITAL WONDERLAND OR LOST IN SPACE?

FLEMING, Adonna C., James A. Michener Library, Univ of Northern Colorado

Technology has not only changed the format in which students access information, it has also changed the pedagogy of bibliographic instruction. Today, bibliographic instruction takes place in high-tech classrooms where librarians are teaching students computer skills, online search techniques, and most importantly how to determine what is appropriate for their research in a Web environment. In the past, an introduction to the library consisted of a tour of the reference department where students were shown the card catalog and the "Bibliography and Index of Geology" which was conveniently bound in orange. They were instructed that these were the two major components needed to access information for geology research papers. The students were then reminded that Government Publications was closed on weekends, and thus they had to plan ahead if they wanted any maps or reports published by the USGS. Furthermore, they were admonished that it took at least three weeks for interlibrary loan, and to request books and journal articles accordingly. The color coordinated indexes and "no maps on weekends" were relatively easy to remember compared to today's proliferation of electronic resources. Today, students access the "card catalog", citation indexes, full text journal articles, and maps, all from their computer. The library is open 24/7 from anywhere that has an Internet connection, and students expect immediate gratification. This presentation will include tips and suggestions for teaching bibliographic instruction to undergraduates in a digital environment, as well as some examples of the "good" and the "bad" in terms of online resources in the geosciences.

SCALING THE TOWER OF BABEL: CHALLENGES IN LIBRARY ACQUISITION OF DIGITAL RESOURCES

DURANCEAU, Ellen Finnie, Libraries, Massachusetts Institute of Technology

Since the birth of the web, libraries have grappled with wave after wave of changes in the publications they buy and the processes required to buy them. The earliest web products, primarily electronic journals offered with PDF images, exploded the print-based purchasing model by introducing site licensing, detailed signed license agreements, and serious issues related to performance reliability and pricing models. Since the initial ejournals hit the market, every year has brought a new and more complex challenge to the purchase process. Not only are licenses now the dominant mode of purchase, but publisher's offerings have become vastly more complicated, both in terms of pricing models and product functionality; there is a less direct relationship to print versions; more variety in organization of information, including a wide range of styles for offering historical content and managing access to content; legal

complexities altering database content; changes in the services offered by the key 'stable' third-party gateways for ejournals; the advent of exploding models for ebook delivery and pricing; and growing gaps between the amount of material available and desired and the amount that can be afforded. One ARL library's responses to these trends will be discussed.

AUTHORSHIP, AUTHENTICITY, INTEGRITY, PRESERVATION AND LIABILITY ASPECTS OF DIGITAL GEOLOGIC PRODUCTS

DUNCAN, Ian J., Virginia Division of Mineral Resources

Digital Geologic Products (DGP's) provide a key means to communicate the societal value of geology to stakeholders (who ultimately influence funding). DGP's also are a way to provide geologic information in a format that can be readily used by non-geologic professionals. The opinions of focus groups of customers for geologic data analyzed by the USGS lead to the conclusion that "the demand for digital maps is strong, diverse and far exceeds current production". The viability of DGP's as a replacement for traditional paper based products, requires resolution of the issues of authorship, authenticity, integrity and preservation. In addition DGP's have significant liability if the misuse of the data could lead to poor decisions and possible adverse outcomes. An approach to authorship of DGP's is proposed that is rooted in the traditional concepts of taking responsibility for part of the product. The responsibility taken by the geologic and digital authors can be detailed in the metadata. Metadata has also been proposed as a way of ensuring the authenticity and integrity of digital geologic maps. A random sample of 100 published metadata has been critically assessed in this context and found to be inadequate for these purposes. Similarly the metadata surveyed failed to address data quality issues in such a way that the liability associated with digital products is even minimally mitigated. A geologic metadata profile is proposed that focuses on a standardized approach to lineage and data quality. Such an enhanced metadata, combined with creation of a National Digital Geologic Product Standard forms the basis for addressing preservation issues as well as authenticity, integrity and liability issues.

DSPACE: MEETING THE CHALLENGE OF CAPTURING AND PRESERVING MIT'S INTELLECTUAL OUTPUT

STUVE, David H., MIT

Dspace is a joint project by MIT Libraries and the Hewlett Packard Company to build a stable and sustainable long-term digital system that captures, preserves and communicates the intellectual output of MIT's faculty and researchers. It provides web access to articles, technical reports, working papers, conference papers, images, datasets and rich media works produced at MIT.

Accommodating the diverse needs of different disciplines and groups within the Institute is one of DSpace's most challenging tasks. The DSpace system addresses the issue of multi-disciplinarity by subdividing DSpace into "communities", each of which serve a particular discipline or type of information. Each community will be self-managed, creating its own contributor, access, and rights policies, following its own workflow patterns, and implementing metadata standards appropriate to its needs. These diverse requirements have led to interesting design solutions, especially in the area of metadata architecture.

The DSpace long-term vision of a federated group of research institutions sharing each other's intellectual work through use of a common system has presented the team with the challenge of selecting low cost or open source components, as well as selecting solutions that can be easily installed, implemented and maintained.

Planning for maximum longevity has presented DSpace with several challenges. It must be flexible enough to accommodate replacement of software components in the future while maintaining the integrity of the data and metadata store. Dealing with data format and data representation issues with a view to long-term preservation presents its own set of challenges as libraries plunge into the digital future.

This presentation will give an overview of the DSpace customer and user needs, and the system design, architecture, and current beta release of DSpace.

GEOGRAPHIC INFORMATION SCIENCE AND TECHNOLOGIES: IMPACTS ON INFORMATION ACCESS AND EXCHANGE FOR THE GEOSCIENCES

BADUREK, Christopher A., Department of Geography, University at Buffalo

The use of geographic information systems has rapidly increased over the past ten years across the sciences and interest in its use in academic libraries has also increased. This increase and the rapid development of geographic information technologies have resulted in a need for easier and more effective mechanisms for accessing and exchanging digital geoscientific data. In light of this need, the development of geographic information technologies focusing upon the exchange and access of geoscientific data will be reviewed and potential impacts on users will be presented. Trends in data sharing such as data sharing networks, the Geographic Markup Language, and data standards will be evaluated as to what value they have for current users and geoscience information specialists. The purpose of this study is to briefly review the field and literature of geographic information science (GI Science) and discuss research areas relevant to geoscientific information sharing. The development of interest in GIS in the library literature as well as interest in library issues from the GI science community will be demonstrated and future developments in geoscientific data sharing presented.

ANALYSIS OF FACULTY CITATION BEHAVIOR IN 'THE ELECTRONIC AGE': A STUDY OF ONE INSTITUTION'S RECENT PUBLICATIONS

O'DONNELL, Jim, California Institute of Technology, Geological & Planetary Sciences Library

Everything's available electronically now! True or false? In October of 2000, the Caltech Library System set out to evaluate this conceit, and gathered data to see just how close to true that statement is. In a collaborative effort involving literally everyone on the Library's 65-person staff, data on cited references were gathered for the three most recent refereed publications (journal or conference papers, books, book chapters, technical reports, or electronically published materials) by all tenure-track faculty, and analyzed using a combination of Microsoft Excel and Access software. Our goal was to discover just how much of the literature cited by Caltech's faculty was, in fact, available electronically (whether or not we had subscriptions) as of October 1, 2000 - a uniform cut-off date for all faculty.

Analyzing the data from 285 faculty and 842 total publications was a tremendous task, and required the surmounting of some roadblocks before it could be completed. Among these were training and hardware issues that required much of the work to be funneled through one or two knowledgeable staffers. While these have since been resolved, they were part of the project.

In preliminary analysis, we found that, 54% of the journals cited were available online, but only about 38% of the cited references were available electronically, a fraction even more significant given Caltech's disproportionately large science and engineering faculty. We found that 62% of the papers were published in 1999 and 2000, and that significant numbers of citations were to items published as long ago as 1970.

The data are now available for manipulation by the Library System's Subject Specialists, and further analyses by research fields can be expected in the coming months.

DATA MINING IN GEOSCIENCE RESEARCH

FANG, Y. C., SCHWARTZ, F. W., and PARTHASARATHY, S., (1) Geological Sciences, The Ohio State University

We studied bibliometric data to uncover patterns in the usage of research work in hydrology. What we found was disturbing. Citation information related to key journals (e.g., *Water Resources Research*, *Ground Water* and *Journal of Hydrology*) showed that although many competent scientific papers have been produced, most are only minimally cited. This paper extends this research through the application of data mining in textual classification to examine whether research topic influences impact as measured by citations. More specifically, we studied research papers in five different sub-fields of hydrology (precipitation, unsaturated zone, groundwater, river/lake, and estuary/ocean). Bibliometric information related to articles in *Water Resources*

Research is available on ISI's Web of Science. These data were correlated with information derived from a classification based on data mining of the entire text of the journal articles. The full contents of all articles published after 1990 were accessed and downloaded in digital format through American Geophysical Union website. The bibliometric analysis showed broad variability in the impact of articles among these sub-fields, measured in terms of citations. Our preliminary results for *Water Resources Research* from 1990 through 1996 show that articles focused on the unsaturated zone and ground water received more attention than other sub-fields. We also discovered a relationship between major topical areas covered by the journal and the citations to papers in these topical areas. A framework is being developed such that we can review research work in water science in the past and predict the trend of research work in that discipline in the future. Ultimately, we are seeking ways to guide researchers in creating greater impact for their work.

EARTHQUAKES: A MEDIA FRENZY OR A GEOLOGIST'S DELIGHT: AN ANALYSIS OF BIBLIOGRAPHIC CITATIONS OF FOUR MAJOR EARTHQUAKES OVER MAGNITUDE 6.0 ON THE RICHTER SCALE

HANER, Barbara E., Science & Engineering Library, Univ. of California, Los Angeles

An Earthquake close to a major city will immediately attract the attention of the news media, especially if it is over 6.0 and located in North America. Bibliographic citations for four earthquakes located in contrasting environments of a major city in North America, Northridge, California (M6.7, 1994), a Pacific rim city, Kobe, Japan (M7.2, 1995), and two remote desert communities, Landers, California (M7.5, 1992) and the Hector Mine (M7.1, 1999). References to the earthquakes occurring prior to 1999 were collected for five years from five bibliographic online databases. The databases were Current Contents, GeoRef, INSPEC, Magazine Index and Newspaper Index. Each event was analyzed for the speed of publication, type of publication, source of publication, and continuing research interest in the event. In addition, socio-economic factors were considered in terms of location, total damage, and disruption to communications.

The advent of the Web has also added a new dynamic resource for disseminating seismic information. Less than one percent of the references to the 1999 Hector Mine Earthquake are in the printed literature, but the Web has over 2,300 sites. This study was extended to review these sites emphasizing sustainability, cross linking, duplication, and the source and reliability of the information. In addition, the archiving potential of these sites was also considered for future information retrieval, analysis, and research for geoscientists.

USGS PUBLICATIONS: CURRENT ACCESS VIA THE WEB AND VIA CATALOGS

DERKSEN, Charlotte R.M., Branner Earth Sciences Library & Map Collections, Stanford University

The mission of the U.S. Geological Survey (USGS) has included providing the Nation with reliable, impartial information to describe and understand the Earth. This has been accomplished, at least in part, by producing publications, including: bulletins, professional papers, various map series, water resources investigations, and open-file reports. Many of these publications, both those currently being released, as well as some which have long been out of print, are now being made available more quickly and widely via the many USGS web servers. Organized subject access to these publications is still provided by several of the traditional indexing sources, including: GeoRef, the National Geological Map Database, the USGS publications database, and the New Publications of the U.S. Geological Survey, as well as via Government Printing Office (GPO) records. Many local universities or agencies load these GPO records into the local library catalogs. This study examined coverage in these sources of both currently released publications and previously published titles, which have recently been made available in electronic form; findings indicate that coverage of neither electronic nor print versions of USGS publications is presently comprehensive in the above mentioned tools. Thus researchers may need to search a variety of sources to be sure of retrieving the most appropriate information for their needs. As the USGS moves to consolidate and standardize its web presence, it is expected that title coverage and subject indexing will become more consistently available.

THE IMPACT OF ONLINE GOVERNMENT DOCUMENTS ON GEOSCIENCE LIBRARY COLLECTIONS

JENSEN, Kristi L., Fletcher L. Byrom Earth & Mineral Sciences Library, Pennsylvania State University

Government documents are an important part of an academic research library collection in the geosciences. Many libraries expect to receive these materials through the Federal Depository Library Program (FDLP). For a number of reasons, however, online publications have so far not been "distributed" in a consistent manner via the FDLP. With the advent of online publishing and a lack of "active" distribution strategies, it is becoming more difficult to ensure that users will discover federal government publications via traditional library tools like the online catalog.

Given the discovery that hundreds of U.S. Geological Survey (USGS) online publications were missing from the collection at the Fletcher L. Byrom Earth & Mineral Sciences Library at the Pennsylvania State University, an investigation was undertaken to determine how widespread the problem of the "hidden" document really is. In the end a list of more than 1300 online documents was compiled, including over 760 items to be added to our library catalog. A

subset of this list included 240 items not found in our catalog or on the USGS list of online publications. Further investigation was undertaken in order to determine whether or not these 240 "missing" USGS documents could be located utilizing other library research and collection management tools. For example, each item was searched for in GeoRef, several other academic library catalogs, WorldCat, and the Catalog of U.S. Publications.

Geoscience Information Society Annual Meeting
Poster Session
Poster Session 154, Hynes Convention Center, Hall D

'PUTTING IT ON THE TABLE' - VIRTUAL AND AUGMENTED REALITY TECHNOLOGIES FOR EXPERIMENTAL GEOLOGY AND EDUCATION

ENCARNAÇÃO, L. Miguel, Human Media Technologies, Fraunhofer Ctr for Rsch in Computer Graphics

The analysis of the enormous amount of data such as acquired by the oil and gas industry for the exploration of potential new reservoirs challenges the team of experts that are tasked to sight and interpret the data. Mostly performed with sophisticated software systems on desktop workstations, the small display size and the conventional desktop interface strongly contradict the task requirements for analyzing three-dimensional subsurface structures and well topologies that need to be studied and discussed in interdisciplinary teams.

Here, Virtual and Augmented Reality promised to provide valuable means for interactive data analysis, but the underlying technologies still create a cumbersome work environment that is inadequate for clinical employment. A major shortcoming of such environments is still a lack of perceptive, direct-manipulative, multi-modal interaction with the displayed data set. Moreover, Virtual and Augmented Reality technologies tend to grow its users 'lonely' by restricting them from sharing the same perspective onto a data set (due to the limitation of the display hardware to generate perspective correct stereoscopic imagery for multiple users) or by prohibiting direct social interaction among users, e.g., in fully-immersive setups employing head-mounted displays, thus ruling out collaborative decision making.

In realization of these shortcomings of Virtual and Augmented Reality technologies, we are focusing our research and development efforts onto two main areas:

Perceptive interaction with multi-dimensional data in immersive and semi-immersive environments combines the advantages of the familiar 2D interfaces with the superiority of virtual environments with respect to direct manipulation and perception. The developed 'StudyDesk' system is a combination of an interaction-rich VR system and a volume-rendering system and is designed to enable users to view and analyze the data in stereoscopic projection.

Stereoscopic multi-user displays combining the advan-

Background information about online government documents and the FDLP, as well as the investigation process and results mentioned above, and suggestions for dealing with online government documents will be discussed in this presentation. In addition links to a downloadable file, compiled by the presenter, containing more detailed information about these "hidden" documents will also be provided.

tages of Virtual and Augmented Reality technology address the need for collaboration in decision making and educational processes. With the 'Virtual Showcase' we are developing a new projection-based Augmented Reality display that allows multi-user collaboration and walk-around inspection of 3D data sets.

DIGITAL INDEXES TO GEOLOGIC MAP SETS

MUSSER, Linda R. and JENSEN, Kristi L., Fletcher L. Byrom Earth & Mineral Sciences Library, Pennsylvania State University

One of the challenges facing users of geologic maps is in locating the correct sheet for the area of interest. Map sets exist at varying scales and it is not uncommon for one's local library to have an incomplete set of geologic maps at a particular scale. In most libraries today, the geologist must visit the library to use the index map for a particular map set in order to determine the sheet required. Unfortunately, it is not uncommon for the geologist to then find that the library doesn't own the sheet in question. This project describes an experiment in providing remote access to these index maps via the Internet and in enhancing the utility of the library catalog and the index maps for remote users. Digital index maps were created for various geologic map sets, featuring links from each individually represented map sheet on the index to the relevant library catalog record. Methods to represent sheets not owned were also explored. Records for the digital index maps were added to the library catalog and links to the index were added to the library catalog records of the geologic maps and sheets. This cross-linking allows users to access the index map from multiple entry points and facilitates its use. This project provides a solution for the remote user trying to identify a particular map sheet without visiting the library. It also illustrates the potential for sharing digital index maps among libraries worldwide.

INFORMATION SOURCES ON PIPELINES

TRIPLEHORN, Julia H., Keith B. Mather Library, Geophysical Institute/Int'l Arctic Rsch Ctr and BARBOZA, Kay Kenyon, former Librarian at Alyeska Pipeline Service Co.

Two large Alaska pipeline construction projects are

under consideration: the Alaska natural gas pipeline and drilling in the Arctic National Wildlife Refuge (ANWR). What information sources will be needed to locate the pertinent subjects for these and other pipeline discussions? Is your library prepared to respond to pipeline reference questions?

This poster will address the major reference tools that librarians will find useful to answer questions about pipelines. It will list handbooks, associations, dictionaries, journals, indexes, databases, and directories along with pertinent websites. Special attention will be given to information sources on arctic engineering and permafrost. Other related topics will include coal slurry pipelines, pigs, statistics and safety. The accompanying bibliography can be used as a collection development tool by geologic and petroleum libraries.

STORMS, MINING REPORTS, AND OFFICIAL SURVEYS: THE U.S. SERIAL SET AS A SOURCE FOR HISTORICAL GEOSCIENCE RESEARCH

KAWULA, John D., Rasmuson Library, University of Alaska

Generally speaking, publication, indexing, and retrieval patterns reach their greatest level of complexity and development in the sciences. The geoscience fields rely on a wide variety of sources and indexes. In this respect, they are little different from other sciences. Two of the most distinguishing features of the geosciences are the importance of historical literature, and the heavy reliance placed on government-generated reports.

GeoRef and other major indexes address both of these points by the extensive chronology of their coverage and inclusion of state and federal survey publications. Even so, their coverage of historical material is incomplete. Highly specialized sources must often be consulted for this material.

The U.S. Serial Set is an ongoing collection of publications issued since 1789 under the direction of Congress. This set is now in excess of 14,000 printed volumes. It is a rich source of historical scientific data and reports. The Congressional Information Service has published an excellent multi-part index to this set. One portion indexes the estimated 50,000 maps in the Serial Set. Most of this presentation consists of textual and cartographic examples illustrating the potential the Serial Set and its index has for historical geoscience research.

THE VIRTUAL ANTARCTIC MASTER DIRECTORY: A PORTAL TO ANTARCTIC DATA SETS

LEICESTER, Stephanie M., Sci Systems and Applications, Inc., WEIR, Heather, Sci Systems and Applications, Inc, and BELBIN, Lee, Australian Antarctic Div, Tasmania

The Joint Committee on Antarctic Data Management (JCADM) has joined with NASA's Global Change Master

Directory (GCMD) to expand the exposure of Antarctic data sets. JCADM is comprised of data managers from National Antarctic Data Centers of various Antarctic treaty countries who, previously, held their metadata in a separate database, the Antarctic Master Directory (AMD). For the AMD, the GCMD has created a customized portal to Antarctic metadata. The portal increases the exposure of Antarctic data sets and benefits Antarctic researchers by delivering access to a far greater volume and range of metadata through the GCMD.

Users of the AMD can now search a virtual subset of the GCMD database to discover data set descriptions meeting the following criteria: - Geographic location equal to "Antarctic"; - Geographic location equal to "Southern Ocean"; - International Directory Network (IDN) Node beginning with "AMD".

Two search interfaces have been developed by the GCMD: a free-text interface and one based on a controlled set of science keywords. The Free-Text interface at http://gcmd.gsfc.nasa.gov/amd/ft_search.html, allows the user to type a word or phrase in one text box or use the Boolean operators, "and"/"or" to relate another word or phrase in a second text box. Users may also perform geospatial and/or temporal searches. The AMD Science Parameters Interface, http://gcmd.gsfc.nasa.gov/amd/amd_params.html, allows users to perform a search by choosing from a controlled set of science keywords.

The number of metadata records in the 'virtual AMD' is currently 1575, with 1263 records contributed by JCADM during CY2000. Antarctic researchers continue to submit metadata records in dramatically increasing numbers showing that research from cold regions is indeed a hot topic.

USING THE INTERNET FOR THE MAINTENANCE AND DISTRIBUTION OF DATA AND OUT-OF-PRINT PUBLICATIONS AT THE KANSAS GEOLOGICAL SURVEY

ADKINS-HELJESON, D. M. and SORENSEN, J. H., Kansas Geological Survey

The Kansas Geological Survey has been distributing data over the WWW since 1995. While early web pages focussed on educational information and news (contact lists, news releases), we have worked to add data from our oil and gas and water-well databases and to add selected out-of-print publications to the web site. Adding raw data to the web site was facilitated through the use of relational databases and a consistent use of the internet as the only interface to the data. Raw data are added in two ways. First, a subset of data is typed in from each well record. The columns to be added were selected based on consultation with KGS scientists. Then, for water wells, the well-completion form is scanned and placed online. Both a high-resolution TIFF (for archival purposes) and a quick-to-load GIF are saved for each form. Oil and gas completion forms are scanned using a similar process for areas of interest. During

the school year, one student can complete 600-700 scans a month, keeping up with incoming records. Additional time and student help in the summer allows us to go back through counties, scanning old forms and checking each record. Out-of-print publications that are major geologic works for counties are OCR'd and turned into web pages. Scanning and checking the text takes a student only a few days; typing in tables of data takes longer but is done to add as much of the publication as possible. Large sheets are not done at this time, though Acrobat PDF files might be used in the future. With minimal investments in equipment (less than \$1,000 for a PC and scanner) and students, a large number of scans and raw data can be added to a web site. Customers from other population centers in Kansas and from companies across the US can access original data. Using a centralized database to tie together related data for each water or oil and gas well allows researchers to learn everything about a well in one query. Web pages are used exclusively to edit databases as well, so that the only software needed for retrieving or creating data is a web browser.

PROTOTYPE DATABASE DEVELOPMENT LEADING TO A NATIONAL GEOLOGIC MAP DATABASE

WAHL, Ronald R., U.S. Geological Survey

The efficiency and capability to utilize geospatial data

depends upon the structure and language used to organize diverse data sets, in short a data model. The National Geologic Map Database Project (NGMDB) of the U.S. Geological Survey (USGS) has been working with national and international partners to implement the evolving North American Data Model Steering Committee (NADMSC) data model. NGMDB has developed a number of prototype databases using object-relational GIS software to reach the functionality demanded by the model, to provide a seamless database of geologic map data; to provide versions of the data for publishing, investigation and analysis; and to provide web access to deliver such data. Results to date are encouraging and provide the following benefits over more conventional GIS approaches. Iterative changes to the underlying data model do not change the data already in place. Implementation of dynamic map generation based on feature generalizations is straightforward. Web access of the database allows rapid access, modification, query and efficient analysis. Geologic map features are referenced by geologic concepts primarily rather than by the geometry of the feature. Some problems encountered remain demanding. Geologic language tables to accompany the database have been difficult to develop, a list of routine queries for use with the database have been slow to evolve, and the routine importation of multiple data formats from the same GIS software has not been implemented.

News from the USGS Libraries

By Nancy Blair

All USGS libraries closed after the events on September 11, but re-opened the next day. Increased security means that parking lots adjacent to the Reston building are closed and visitors must walk a little further to use the library.

Emily Shen-Torbik is the new head librarian for the USGS library in Menlo Park. She comes with experience as head of the Los Angeles District library of the U.S. Army Corps of Engineers and jobs with public and university libraries. The Menlo Park library is in the process of filling a circulation position and then, for the first time in years, the library system will be fully staffed.

The library system is now receiving a steady percentage of the agency's budget. While our funding will rise and fall with the fortunes of the USGS in the budget process, we are not faced with sudden cuts and have maintained a good serials and book budget.

The USGS has several smaller libraries affiliated with different offices and field stations, in addition to the library system of four libraries (Denver, Flagstaff, Menlo Park, and Reston) known as the Library Services Group (LSG). These libraries have local or research group funding, their own staffing, and local administration. During the past two years, the various USGS librarians have been meeting to share resources and expertise and have formed a consortium for cooperative efforts.

During 2001 and 2002, we are replacing analog photocopiers with digital copiers and will initiate sending articles requested by the other USGS libraries and by field researchers in digital format rather than photocopies. A large percentage of USGS researchers are not located near any USGS library and are scattered across the United States, Puerto Rico, Guam, and foreign countries. Our goal is to provide equal service to all USGS library users wherever they are located by increasing the number of Surveywide licenses for e-journals and databases and speeding delivery of requested materials.

We have been working on updating our exchange program that has over the years provided us with publications from all over the world. Spurred by a request from Linda Newman in Reno about those pesky USGS publications issued in parts with A,B, etc. with missing parts, the editors in the three regions are trying to supply me with the information about which ones are expected to be published in the near future and which ones will never be completed. We are working with others in the USGS to build a truly authoritative electronic listing of all USGS publications including those on the Web, open-files, those issued in limited distribution, and those that are out-of-print. At the business meeting (or other venue) of the GIS annual gathering in Boston, I will supply as much information as I can on the status of USGS publications.

JOB ANNOUNCEMENT

Monograph Catalog Librarian, Arthur Lakes Library, Colorado School of Mines, Golden, CO

Colorado School of Mines Arthur Lakes Library invites applications for the faculty position of Monograph Catalog Librarian.

Responsibilities include: As principal monographs cataloger for the library, responsibilities include providing original cataloging for theses, CSM publications, and monographs in all formats; maintaining a quality bibliographic database, with oversight of all library cataloging; developing, documenting, and implementing cataloging policies and procedures; supervising one library technician responsible for copy cataloging and materials processing; staffing the Reference Desk 5 hrs/wk or as assigned; maintaining Cataloging and Acquisitions profiles on the library's Voyager system; serving as liaison to academic departments; participating on library and campus committees; engaging in professional, scholarly, and service activities; participating in general operations of the library and special projects as assigned. Must demonstrate potential for professional growth and development.

The Colorado School of Mines is a doctoral-granting institution devoted to engineering and applied science, particularly in the areas of energy, mineral and materials science, and engineering.

The Arthur Lakes Library is a specialized technical library that supports the educational and research goals of the Colorado School of Mines and serves as a regional center for information in engineering and science. The library staff consists of 9 library faculty and 11 support staff.

Required: ALA-accredited master's degree in library/

information science; minimum 1 year professional cataloging experience in an online environment; minimum 1 year supervisory experience.

Preferred: Facility with AACR2r, MARC21, LCSH, LC classification schedules, OCLC/RLIN, and other cataloging tools; experience with authority control; familiarity with metadata, MARC/XML, and catalog gateway initiatives; experience with Endeavor's Voyager system; bachelor's degree OR a second master's degree in a science/-engineering field; and experience in a science/engineering library. Excellent verbal and written communication skills, and demonstrated ability to work effectively both independently and as part of a team are a plus. Strong commitments to enhanced catalog access, public service, and effective leadership in the face of change in the information environment are of extreme importance.

Salary: Minimum \$35,000, negotiable commensurate with experience.

The position is currently available and first consideration will begin September 21, 2001, and will continue until the position is filled.

Candidates should send a letter of application, resume, photocopy of transcripts and the names and phone numbers of 4 professional references to: Office of Human Resources - Search #01-461900, Colorado School of Mines 1500 Illinois Street Golden, CO 80401. CSM is an AA/EOE. Women and minorities are encouraged to apply.

For more information about working at Arthur Lakes Library, check out our web site:
<http://www.mines.edu/library/jobs/index.html>

NEW MEMBERS

Dana Adkins-Heljeson
Program Assistant
Kansas Geological Survey
Lawrence, KS 66047

Aimee deChambeau
Assistant Professor of Bibliography
The University of Akron
Science and Technology Library
Akron, OH 44325-3907

Janet B. Dixon (renewal)
Reference Department
University of Arkansas
Fayetteville AR 72701

Molly Dubberke (student)
Library Assistant
Washington University
Earth and Planetary Sciences Library
St. Louis, MO 63726

Angela M. Gooden
Head, Geology/Physics Library
University of Cincinnati
Cincinnati, OH 45221

Emily Shen-Torbik
Head Librarian
USGS Library
345 Middlefield Rd, MS 955
Menlo Park, CA 94025

MEMBER NEWS

We were saddened to learn of the death of **Timothy Keel** this spring. He had been a cataloger at the University of Oklahoma, Norman, and only recently moved to the University of Missouri, Rolla as a cataloger.

LITERATURE REVIEWS

by

Carol J. La Russa

The September 2001 issue of *D-Lib Magazine* has an article titled "Preserving Scholarly E-Journals in which Dale Flecker of the Harvard University Library discusses what is involved in planning for digital preservation. The importance of digital archiving is growing as libraries rely more and more on e-journals. The Mellon Foundation is providing grants to plan for future archives. Issues involved include: the relationship of the publisher/archive/subscriber, whether the content of the archive be "dark" (not accessible for daily use), the conditions under which the archive be used, who is allowed to access the archive, what content should be archived (cover-to-cover, for example), whether to normalize the content into standard formats, the desirability of standard formats for new additions to the archive, and who will pay and when and how much. (<http://www.dlib.org/dlib/september01/flecker/09flecker.htm>)

Thomas Mann argues in his article in the July 2001 issue of *Journal of Academic Librarianship* that although electronic materials are needed, academic libraries must continue to provide access to printed books because books can be easily preserved, because they make possible the understanding of the content on long textual works, and because most are not and never will be available electronically. Mann begins by invalidating the "railroads failed because they thought they were in the railroad business and not the transportation business" statement by showing that it is simply untrue. He concludes that academic libraries should not buy into the idea that they are only in the information business and not the book business. He recaps the usual arguments against e-books including: lack of readability, copyright restrictions, preservation problems, and lack of quality control of the content. ("The Importance of Books, Free Access, and Libraries as Places--And the Dangerous Inadequacy of the Information Science Paradigm," vol. 27, no. 4, p. 268-281, 2001).

Michael Jensen of the National Academy Press describes how making the content of the books published by his organization available online has actually increased their sales. Apparently very few want to read lengthy works online. ("Academic Press Gives Away its Secret of Success," *Chronicle of Higher Education*, v. 48, no. 3, p. B24, Sept. 14, 2001).

Robin Henshaw worries about future coverage of free Internet journals (like *First Monday* where he is metadata editor) and non-profit web sites in Internet search engines. He believes that as search engine companies become more profit-driven they will emphasize various forms of paid advertisements. These forms include paid placement that

guarantees a particular position on the first page of search results, paid inclusion that allows advertisers to pay for more search terms and thus have their sites appear more often in search results, and paid submission in which advertisers pay a processing fee to be included in the database. Henshaw is particularly concerned that search engines using crawlers might stop including free listings. Non-profit organizations might need to band together to produce their own search engine. ("What Next for Internet Journals? Implications of the Trend Towards Paid Placement in Search Engines," *First Monday*, vol. 6, no. 9, Sept. 2001, http://firstmonday.org/issues/issue6_9/henshaw/index.html).

Stephen Sottong uses Raymond Kurzweil's proposed seven stages in the "life cycle of a technology" to compare audio technology to e-book technology. Kurzweil's seven stages are: (1) Precursor, (2) Invention, (3) Development, (4) Maturity, (5) False Pretenders, (6) Obsolescence, and (7) Antiquity. Sottong elaborates on these stages by providing criteria for determining how to compare mature and new technologies. The newer technology must at least be comparable in quality, durability, initial cost, continuing cost, ease of use, and features and the newer technology must be standardized and offer extra features. Using these criteria he demonstrates why CDs made LP records obsolete while cassettes and other audio technology did not. By applying these criteria to e-books Sottong concludes e-books will not make printed books obsolete because they fail six of his eight criteria. ("E-Book Technology: Waiting for the 'False Pretender'," *Information Technology and Libraries*, vol. 20, no. 2, p. 72-60, June, 2001).

The August 2001 issue of *Library Journal* has a short article discussing the issues involved in "born digital" theses. Standards are needed not only for markup and metadata but also for file formats to ensure that theses will be decipherable in the future. (Judy Matthews and Richard W. Wiggins, "Born Digital: Hypermedia Theses," vol. 26, no. 3, p. 37).

Michele Valerie Cloonan of the UCLA Graduate School of Education and Information Studies argues in his article in the April, 2001 issue of *The Library Quarterly* that too much emphasis is being given to the technological issues involved in preservation efforts and not enough attention to the cultural, social, political aspects. He concludes that preserving items and providing electronic access to their content are not equivalent activities. Libraries, as cultural heritage managers, need to do both. ("W(h)ither Preservation," vol. 71, no. 2, p. 231-242)

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.31, 2000 *Electronic Information Summit: New Developments and their Impacts*, ed. by Sharon N. Tahirkheli. (ISEN 0-934485-33-X)

--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. DeFelicis. (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.

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GIS Newsletter Editor
Connie J. Manson
2525 Sleater Kinney Road N.E.
Olympia, WA 98506



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Massachusetts Institute of Technology
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