

p. 3
p. 4 - de po
7-13



GEOSCIENCE INFORMATION SOCIETY

newsletter

Number 143, August, 1993

ISSN 0046-5801

CONTENTS

Special features

Digital Database Forum, by Steve Hiller 17

"Electronic Imaging--Clip Art to Virtual Reality"
by Susan Klimley 19

Departments

President's Column 1

Vice President's Column 3

GIS Annual Meeting, Boston, October 24-28, 1993

Final Schedule 3

Field Trip Description and Registration 5

Symposium: Program and abstracts 7

Technical Session: Program and abstracts 9

Poster Session: Program and abstracts 12

Meeting Notes: Digital Database Forum 13

GIS Publications Sale 6

GIS Financial Reports 14

GIS Committee Reports 14

Announcements 4

Readings and Publications in Geoscience Info. .. 19

PRESIDENT'S COLUMN

The new Bylaws proposal passed on a vote of 92 to 0. The GIS is now governed by the Articles of Incorporation in conjunction with the new Bylaws. I am not certain that the new documents will be printed in the 1993 Membership Directory, so please retain the copies you received this Spring.

Officers, Committee Chairs and Representatives should have received a mailing reminding them of their annual report and other upcoming deadlines.

GEOINFO5 preparations seem to be continuing. Because the successful presenters will not be notified until at least July 31, I will defer the reimbursement application instructions for members until the October 1993 Newsletter issue.

Completion of the Union List 6th edition has been delayed due to Richard Spohn's ill health. I have asked Co-Chair Dorothy McGarry to assume responsibility for the new entries, and committee member Lori Knox will take over responsibility for adding holdings to existing

entries and problem resolution. I have asked them to omit the 1991 entries, so we can get the data to AGI by the end of 1993. In addition, I have suspended all activity on the 7th edition for now, so Richard can lighten his load.

At the August 3 conference call, the Executive Board again revisited the Society's fiscal condition. Although we have had anecdotal knowledge that postage costs for mailings to foreign members were impacting our finances, we now have better data on how operating costs vary per member. This information is summarized elsewhere in this issue. I want to thank Marie Dvorzak for her analysis and Barbara DeFelice for her end-of-year forecasts of our finances. Since it appears we will have another loss in 1993, the Board took the following actions: US and Canadian 1994 Newsletter subscriptions will increase to \$35 and other foreign subscriptions to \$45. Proceedings prices for volumes 20-21 will increase to \$40 and prices for volumes 22-23 are \$45. There will be a \$5 discount per volume for standing order customers. Our inventory of older Proceedings will be reduced by a sale (see flyer in this issue), and the leftovers will be recycled after October 1. The Board will bring to the Annual Business Meeting two options for membership dues increases. We will need your suggestions, and your commitment to implement them, on other income enhancements. The Board is also considering a change in dues payment procedure for foreign members, but Barbara DeFelice is still investigating. I hope to have a decision on this issue by September 1.

Since June 1993, I have been serving as acting Publications Manager for sales and printing. Amanda Masterson has continued with manuscript preparation for Proceedings volume 23. The Publications Manager position is open if anyone wants to volunteer. This position now deals exclusively with printing, sales, and preparation of only minor items. There will be a new position of Editorial Assistant. This person will essentially take hard or electronic copy of the Proceedings and Membership Directory materials and prepare manuscripts for printing. Both position descriptions are available. If you are interested in serving in either position, please contact me or Connie Wick.

continued, p. 3

**GEOSCIENCE INFORMATION SOCIETY
1993 OFFICERS**

President

Louise Zipp
until August 20:
University of Iowa Geology Library
136 Trowbridge Hall
Iowa City, IA 52242-1379
319/335-3419; fax: 319/335-1821
email (Bitnet): cadlszts@uiamvs;
(Internet): louise-zipp@uiowa.edu
August 23 until September 12:

1703 Maxwell Ave.
Ames, IA 50010
515/233-0276
After September 13:
Collection Development Dept.
Parks Library 204
Iowa State University
Ames, IA 50011-2140
515/294-5478
ILL fax 515-294-1885).

Vice President/President Elect

Connie Wick
Kummel Library
Harvard University
24 Oxford Street
Cambridge, MA 02138
617/495-0791; fax: 617/495-4711
email (Bitnet): cswick@harvarda
(internet): CSWICK@harvarda.harvard.edu

Immediate Past President

Dena Hanson
Information Consultant
3110 McPherson
Fort Worth, TX 76109
817/923-7052
email (Bitnet): hanson@tcucvms
(Internet): hanson@gamma.is.tcu.edu

Secretary

Clara P. McLeod
Earth and Planetary Sciences Library
Washington University/Campus Box 1169
One Brookings Drive
St. Louis, MO 63130
314/935-5406; fax: 314/935-4800
email (Bitnet): cpmcleod@wulibs

Treasurer

Barbara DeFelice
Kresge Physical Sciences Library
Dartmouth College
Hanover, NH 03755
603/646-3845; fax: 603/646-3681
email (Internet):
Barbara.DeFelice@DARTMOUTH.EDU

Listserv GEONET-L@IUBVM

Editor: Lois Heiser
Geology Library
Indiana University
Bloomington, IN 47405
812/855-7170; fax 812/855-6614
email (Bitnet): heiser@ucs.indiana.edu

Publication Officers

Newsletter Advisory Board, Chair

Deborah S. Grealy
GRI Natural Gas Supply Information Center
Arthur Lakes Library
Colorado School of Mines
Golden, CO 80401
303/273-3707; fax 303/273-3199
email (Bitnet): DGrealy@Mines

Newsletter Editors

Receiving Editor
Deborah S. Grealy
[see address above]
Production Editor
Connie Manson
Washington Div. Geology and Earth Resources
P. O. Box 47007
Olympia, WA 98504-7007
206/902-1472; fax: 206/902-1785
email (Bitnet): cjmanson@carson
(Internet): cjmanson@u.washington.edu

Reviews Editor

Linda Musser
725 Musser Lane
Bellefonte, PA 16823
814/865-9517
email (Bitnet): lrm@psulias
(Internet): lrm@psulias.psu.edu

Features Editor

Sally Scott
Science Library
University of Wyoming
P.O. Box 3262
Laramie, WY 82071-3262
email (Internet): sscott@corral.uwyo.edu

Publications Manager

[vacant]

The GIS Newsletter is published bi-monthly in February, April, June, August, October, and December by the Geoscience Information Society. Subscription to the Newsletter is \$30 per year and is included in the Society's annual membership dues. All correspondence regarding dues, membership status, and address changes should be directed to the GIS Secretary.

GIS members are encouraged to contribute materials for publication. Research articles and technical reports should be submitted to the Editorial Board for review and possible publication. Information reports, officer and committee reports, publication notices, job announcements, and other news items should be submitted to the News Gathering Editor.

Material for the October, 1993 issue of the GIS Newsletter should be received by the Receiving Editor no later than September 15, 1993. If possible please send materials on IBM-compatible disk (Wordstar 3.3, Wordperfect 5.1, or ASCII format) or by e-mail.

The Proceedings volume 23 is close to completion. I hope to have it ready for distribution in early September. The 1993 Membership Directory is still in progress, but I hope to distribute it along with the Proceedings volume.

Finally, a transition is underway for me this Summer. After more than eighteen years as Geology Librarian at the University of Iowa, I am leaving to become Head of the Collection Development Dept./ Principal Bibliographer for the Sciences at Iowa State University in Ames. I expect to leave the University of Iowa on August 20 and start work at Iowa State University by September 13. My new work information is: Collection Development Dept., Parks Library 204, Iowa State University, Ames, IA 50011-2140 (phone: 515-294-5478; fax: 515-294-1885). I will announce my new Bitnet ID via GEONET-L, when I get back on e-mail. My new home address and phone number are 1703 Maxwell Avenue, Ames, IA 50010 (515-233-0276), but I don't expect to be living there until August 23. I will be hard to reach from August 23 - September 13, but I will leave as much information as possible with my Geology Library Assistant, Nancy, in Iowa City. Yes, I will also be the geology selector at ISU. And I will be attending the annual meeting activities in Boston in October.

VICE PRESIDENT'S COLUMN

Everything (well, almost!) is set for our upcoming meeting in Boston. In this issue you will find the abstracts for our Symposium, Technical Session, and Poster Session. I hope you will agree that it will be a meeting well-worth attending. Please also note the final schedule for various GIS events. There are a few changes since the last schedule was published.

Our reception will be held at the Park Plaza Hotel this year. A special effort was made to ensure that we are in the same hotel as most of the alumni receptions, which many of our members also attend.

A REMINDER: If you wish to attend the GIS Luncheon and Awards, be sure to register on the GSA registration form. Tickets will NOT be sold at the door!

As you can see from the schedule, we have added an event to the already-busy roster. David Cobb, Curator of the Harvard Map Collection (and one of our symposium speakers!) has extended the invitation for GIS members to attend a reception and tour of the Harvard Map Collection. Be sure to join us for a look at this unique collection and some of the new technologies which are enhancing its use. The reception will be held after the GeoRef Users group. Cambridge is a quick subway or cab ride from the Con-

GEOSCIENCE INFORMATION SOCIETY

Annual Meeting

October 24-28, 1993

Final Schedule

Sunday, October 24, 1993

- 9 am - 12 pm GIS 1993 Executive Board - Marriott Copley Place: Yarmouth
- 1 pm - 3 pm GIS Collection Development Issues Committee - Marriott Copley Place: Salons A-B
- 3 pm - 5 pm GIS Database Forum - Marriott Copley Place: Salons C-D

Monday, October 25, 1993

- 11 am - 12 pm Discussion of GIS Professional Issues - Marriott Copley Place: Harvard
- 1 pm - 5 pm GIS Business Meeting - Marriott Copley Place: Salons C-D
- 7 pm - 9:30 pm GIS Reception - Park Plaza Hotel: Thoreau

Tuesday, October 26, 1993

- 8 am - 12 pm GIS Symposium: Finding and Communicating Geoscience Information - Hynes Convention Center: 203
- 12:15 pm - 2:15 pm GIS Luncheon and Awards - Marriott Copley Place: Yarmouth/Vineyard
(awards presented at 1:45 pm)
- 2:30 pm - 4 pm GeoRef Intermediate/Advanced Workshop - Marriott Copley Place: Provincetown/Orleans
- 4 pm - 5:30 pm GIS GeoRef Users Group - Marriott Copley Place: Provincetown/Orleans
- 6 pm Reception/Tour for GIS Members at Harvard Map Collection

Wednesday, October 27, 1993

- 8 am - 10 am GIS Technical Session - Hynes Convention Center:202
- 1:30 pm - 5:30 pm GIS Poster Session - Hynes Convention Center
- 2 pm - 6 pm GIS 1994 Executive Board - Marriott Copley Place: Falmouth

Thursday, October 28, 1993

- 8 am - GIS Field Trip: Geology of the Boston Basin

vention Center, and you'll have plenty of time afterwards for dining and sightseeing around Harvard Square.

And speaking of dining and sightseeing, Program Committee member Kathy Keefe is putting together a list of suggested places to eat in the Convention Center area, as well as some other information. You will be able to pick up that list at any of our events on Sunday, or at the Business Meeting on Monday.

Be sure to see notices elsewhere in this issue for information regarding the Database Forum and the GIS Field Trip.

I just got back from the GSA Joint Technical Program Committee meeting. Sounds like next year's meeting planning is well underway. More about that and more on JTTC news in the next issue...in the meantime, don't forget to send in your registration and hotel request if you haven't already. Registration is running high this year, and you don't want to lose out on your events and hotel choices.

I'm looking forward to seeing GIS members in Boston. In the meantime, please contact me if you have any questions.

ANNOUNCEMENTS

AMERICAN GEOLOGICAL INSTITUTE NEWS

Congressional testimony: AGI urged Congress to support geoscience research programs in the U.S. Geological Survey, Department of Energy, and the National Science Foundation. In invited testimony to the four congressional subcommittees that consider appropriations for those agencies, AGI Government Affairs Coordinator Craig Schiffries noted that federal investments in geoscience research and development continue to pay enormous dividends.

Earth Science Education: Mobil and ARCO have provided grants that will enable AGI's Department of Education and Human Resources to expand its Earth Science Education Clearinghouse and Network System information services for science teachers.

Faculty Salary Report, 1993: This year's report, which gives monthly salary data for U.S. college and university faculty, will be available on July 12. Contact: Human Resources Manager Nick Claudy.

Saving geoscience data: Preliminary results from AGI's survey of more than 800 organizations indicate broad support and interest in the geoscience community for developing a process for capturing and retaining geoscience data in jeopardy of being lost. Large international oil and gas companies that are reducing operations in the United States would be major data contributors to a repository system. The geoscience community and independent oil and gas producers would be the primary users of data in the system. The steering committee for the

National Geoscience Data Repository System will meet July 14 in Dallas to review preliminary results of the survey. Contact: Executive Director Marcus E. Milling.

Russian-U.S. Geoscience Exchange Program: The American Geological Institute and the Russian Federation Committee on Geology and Use of Mineral Resources have jointly established a Russian-U.S. Geoscience Student Exchange Program. It is anticipated that six to eight Russian students will begin their appointments at U.S. universities this fall. Candidates for the exchange program are geoscience students interested in professional careers in the energy and minerals industry. The undergraduate, graduate students, and postgraduate professionals will receive 12-month academic appointments at selected universities where they will undertake training in exploration technology, mineral resources production, mineral economics, and the legal aspects of mineral resource development. Special emphasis will be given to training the students in Western economics and business practices and Russian resource assessment and mapping technologies.

WAML ELECTION RESULTS

The Western Association of Map Libraries has announced its election results. Katherine Rankin, University of Nevada, Las Vegas, has been elected Vice President/President Elect and Kathryn Womble, University of Washington has been elected Secretary.

GOLDEN TRILOBITE AWARDS ANNOUNCED

The *Journal of Paleontology* (v. 67 no. 4, p. 680) announced the special Golden Trilobite Awards, which recognize excellence in paleontological publishing. The categories and the winners are:

Popular: *On Methuselah's Trail*, by Peter Ward

Young Person's: *Traces of Life*, Kathryn Lasky

Systematic Monograph: "Morphology, Anatomy, and Systematics of the Cinctiporidae, New Family (Bryozoa: Stenolomata)", by R.S. Boardman, F.K. McKinney and P.D. Taylor, published as Smithsonian Contribution to Paleobiology no. 70.

Special publishing category: Fossils poster, by the Geological Survey of Canada

There is a wonderful outlet for those serial and text duplicates you hate to discard: the Center for Interamerican Mineral Resources Investigations, c/o Norman Page, USGS, 210 E. 7th St., Tucson, AZ 85705. He forwards them to needy Latin American geoscience libraries. No AAPG, but will take GSA and especially textbooks. Call him at (602) 670-5510 to verify any particular set before sending.

GIS FIELD TRIP

GEOLOGY OF THE BOSTON BASIN

**THURSDAY, OCTOBER 28, 1993
9:00 A.M. TO 3:00 P.M.**

COST: \$25.00

The Geoscience Information Society presents its annual Fall Field Trip, to be held in conjunction with the GIS/GSA Annual Meeting in Boston, Massachusetts. The trip will provide an overview of Boston area geology, highlighting some of the currently-proposed models for evolution of the Boston Basin.

October presents some of the more reliable weather to the Boston area, but New England's weather is never predictable! Rain gear, walking shoes and a layer for warmth are advised. The trip will not require any strenuous activity, although some trail walking will be involved.

THIS FLYER REPRESENTS FINAL NOTICE FOR THE FIELD TRIP.

To confirm registration, please return the form below, along with a check or money order, in the amount of \$25.00 per person, payable to Geoscience Information Society, to Karen Campbell, Lindgren Library 54-200, MIT, 77 Massachusetts Avenue, Cambridge, MA 02139. The field trip is open to guests as well as GIS members. For more information, please call or e-mail Karen Campbell, (617)253-5679, kmcampbe@athena.mit.edu.

GIS BOSTON FIELD TRIP CONFIRMATION

NAME: _____

ADDRESS: _____

TELEPHONE : _____

E-MAIL: _____

NUMBER OF PARTICIPANTS: _____

GEOSCIENCE INFORMATION SOCIETY

Publications Sale SALE ENDS OCTOBER 1, 1993

GIS PROCEEDINGS

Vol.	Title, year	Regular price	Sale price
2	Toward the Development of a Geoscience Information System, 1972	\$1.00	\$0.50
3	[untitled], 1972	\$3.00	\$1.50
4	Geoscience Information, 1974	\$6.00	\$3.00
6	Retrieval of Geoscience Information, 1976	\$6.00	\$3.00
7	Geoscience Information, 1977	\$8.00	\$4.00
8	Geoscience Information Retrieval Update, 1978	\$8.00	\$4.00
9	Geoscience Information: Publications-Processing-Management, 1979	\$8.00	\$4.00
10	Collection Development in Geoscience Libraries, 1980	\$15.00	\$7.50
11	Keeping Current with Geoscience Information, 1981	\$20.00	\$10.00
12	The Future of the Journal, 1983	\$20.00	\$10.00
13	Geologic Hazards Data, 1984	\$20.00	\$10.00
14	Roles & Responsibilities in Geoscience Information, 1984	\$20.00	\$10.00
15	Maps in the Geoscience Community, 1985	\$20.00	\$10.00
<i>Special offer: 1 copy each of v. 2-4 and 6-15 for \$50.00</i>			
16	Micros, Minis, and Geoscience Information (limited supplies)		\$15.00
17	The User and Geoscience Information (limited supplies)		\$15.00
18	Collections for the Future (limited supplies, all with slight damage)		\$10.00
19	Individual Workstations: Information Supermarkets for Geoscientists (limited supplies)		\$15.00

SPECIAL COMPASS ISSUE

The Winter, 1991 issue of *The Compass--The earth science journal of Sigma Gamma Epsilon* was a special issue commemorating the 25th anniversary of GIS. It includes 13 articles on various topics in geoscience information. Single copies are **FREE ON REQUEST**.

Prepayment in U.S. dollars required and must be received by October 1, 1993. Prices include shipping by third class mail (domestic) and surface mail (foreign).

ORDER FROM:

Louise S. Zipp
President, Geoscience Information Society
Collection Development Dept.
Parks Library
Iowa State University
Ames, IA 50011

GEOSCIENCE INFORMATION SOCIETY
Symposium (S22): "Finding and Communicating Geoscience Information"

Tuesday, October 26
Hynes Convention Center 203
8 am - 12 pm

Connie Wick and Mary Ansari, presiding

- 8:00 Introduction
- 8:05 Steven Z. Hiller: Geoscience information and libraries: the new paradigm.
- 8:30 Berlinda M. Kerkhof: Journal publishing and the (electronic) future: expectations, challenges and reality.
- 8:55 John E. Costa and Arthur G. Sylvester: Geoscience publications in the 1990's: the editors' view.
- 9:20 Susan Klimley: Limitation of *Science Citation Index* data in evaluating journals and scientists in geology.
- 9:45 Break
- 10:00 Patricia B. Yocum: CIESIN: Information resources for global change.
- 10:25 David A. Cobb: Layer upon layer: mystery upon mystery.
- 10:50 Craig M. Schiffries: Communicating with Congress: the interface between geoscience and public policy.
- 11:15 Lisa G. Dunn: INTERNET, electronic media and changes in geoscience information.
- 11:40 Discussion

GIS 1993 SYMPOSIUM ABSTRACTS

Geoscience information and libraries: the new paradigm.

HILLER, Steven Z., University of Washington
Libraries FM-25, Seattle, WA 98185

The traditional model of research libraries as institutions based on comprehensive on-site collections and services is undergoing rapid change. There are a number of factors leading to this paradigm shift. They include the continued growth in the number of published scientific papers, the escalating costs of acquiring these publications--especially journals, significantly expanded access to and delivery of information through computer networks, changes in the pattern of scholarly communication, and new directions in policies and funding for libraries.

These changes will have major ramifications for libraries as well as the producers and consumers of geoscience information. Libraries are acquiring an ever diminishing proportion of the international geoscience literature at the same time that scholars, researchers and practitioners have gained unbridled access to these information sources as well as a multitude of scientific data sets. This paper will examine the impacts and implications of these changes and the development of new models that emphasize the role of libraries as providers of value-added information services and suppliers of just-in-time information resources.

Journal publishing and the (electronic) future: expectations, challenges and reality.

KERKHOF, Berlinda M., Elsevier Science Publishers
b.v., P.O. Box 1930, 1000 BX, Amsterdam, the
Netherlands

Journal publishing continues to evolve. For decades the classical "information cycle"--wherein the author, the

publisher, the library and the reader had their own well established role--existed without changes. However, publishers are now getting ready to enter the electronic age. No longer business as usual. Technology seems to be reaching the right level for providing fully fledged electronic information carriers, and the market has changed. The daily environment of authors and readers of journals has been modernised to such a degree that the traditional journal seems at time a resented anachronism. Secondary services such as abstract services and document delivery services are gaining importance. Moreover the archival purchasers--libraries--and the readers encounter problems in coping with an unwieldy amount of information.

In the meantime publishers are getting ready for this electronic future. They will concentrate even more on the process of adding value to their journals--in terms of scientific quality, current awareness, retrievability etc.--and they incorporate electronic media in their production processes. Furthermore publishers are participating in a number of experiments concerning the electronic future. Probably Elsevier's most widely known effort in that respect is "TULIP", a programme in which Elsevier collaborates with 9 American universities to test systems for networked delivery and use of journals in material sciences.

At this stage, only one thing seems clear; the traditional role of all the "actors" in the classical information cycle is definitely changing, the speed of changes remains to be seen.

Geoscience publications in the 1990s: the editors' view.

COSTA, J. E., U.S. Geological Survey, 5400 MacArthur Blvd., Vancouver, WA 98661;
SYLVESTER, A. G., Department of Geological Sciences, University of California, Santa Barbara, CA 93106

Volunteer, temporary editors of major general geoscience journals have a unique perspective of the publication process. From our viewpoint, the science of geology is healthy and vigorous, judging from the quality and quantity of geoscience literature we have reviewed over the past five years. Individual and institutional participation in this vigor, is however, uneven, and there are signs of new as well as chronic problems with geoscience publication. High-quality geoscience research is becoming less accessible because results get chopped up, unnecessarily repeated, diluted, and distributed among too many journals, some of which libraries can no longer afford to purchase. We believe the primary source of difficulties in geoscience publication today is the evaluation and reward system of organizations, primarily universities, that employ publishing geoscientists. The current system is flawed because science administrators are more excited with numbers of titles than quality of work, and scientists respond. This mindset has produced a cascade of unfortunate, misguided practices by authors and publishers. These include redundant publication, less risk-taking to increase publication success by graduate students as well as senior investigators, overload and resultant constipation of the review system with progress reports and updates rather than definitive investigations, encroachment of commercial publishers through the spawning of more specialized and larger journals, financial rewards for submitting papers to particular journals, and rapidly increasing journal prices. Regrettably, some journals have come to exist largely for the benefit of authors rather than readers.

Limitations of *Science Citation Index* data in evaluating journals and scientists in geology.

KLIMLEY, Susan, Library, Lamont-Doherty Earth Observatory, Palisades, NY 10964

Science Citation Index data is frequently used to support theories on trends in the sciences, arguments on the quality of journals and as documentation for performance reviews. The use of SCI to evaluate aspects of geology is of particular concern because the scope of source documents used to generate SCI data excludes government and most geologic society publications, which form the basis of the geologic literature. The information science literature commenting on the limitations of citation analysis in general and alternate citation data collected by geology librarians will be reviewed.

CIESIN: Information resources for global change.

YOCUM, Patricia B., Library Studies Project, CIESIN, 2250 Pierce Road, University Center, MI 48710

CIESIN, the Consortium for an International Earth Science Information Network, is a non-profit organization whose mission is to facilitate access to, use, and understanding of global environmental change information worldwide. CIESIN seeks to fulfill this mission through such programs as SEDAC, the Information Cooperative, and GCRI, as well as through its contributions to multi-organization endeavors such as the Global Change Master Directory.

This talk will present an overview of these activities as they might benefit librarians wishing to connect clients to new information resources in the area of global change. The talk will also highlight the development of library/information services internal to CIESIN and their potential value and relationship to external users.

Layer upon layer: mystery upon mystery.

COBB, David A., Harvard Map Collection, Harvard University, Cambridge, MA 02138

The role of GIS technology in library information services is not a concept for future planning for it is happening now. The Association of Research Libraries is coordinating a project to evaluate this significant technology in research libraries.

What are the implications of this technology for the librarian and the researcher? Will it change the services that geoscience libraries have to offer? What are the technological requirements that libraries should be aware of in the future? These, and other topics, will be discussed as we view into the next generation of information service to the geosciences.

Communicating with Congress: the interface between geoscience and public policy.

SCHIFFRIES, Craig M., American Geological Institute, 4220 King Street, Alexandria, VA 22302

Geoscience information plays an increasingly important role in a growing range of societal issues. Congress requires accurate and timely geoscience information to make informed policy decisions regarding global climate change, energy and mineral resources, environmental protection, waste disposal, water pollution, geologic hazards mitigation, and land-use planning. The American Geological Institute is working to improve communications between Congress and the geoscience community.

In an unprecedented series of events for the geoscience community, the American Geological Institute recently presented testimony to the four congressional subcommittees in the House and Senate that have jurisdiction over appropriations for the National Science Founda-

tion, the U.S. Geological Survey, and the Department of Energy's Fossil Energy Research and Development Program.

Congress is actively involved with science and technology issues in general, and geoscience issues in particular. Geoscience legislation passed by Congress last year includes the National Geologic Mapping Act, Landsat Policy Act, and Energy Policy Act. Among the geoscience issues currently pending before Congress are amendments to the Mining Law of 1872, and legislation to reauthorize the Clean Water Act, Drinking Water Act, and Superfund hazardous waste cleanup program.

The end of the Cold War may be as significant as the end of World War II with regard to national science and technology policy. Federal agencies and national laboratories are redefining their mission and restructuring their operations in response to recent domestic and international developments. These changes have important implications for the geosciences. The geoscience community needs to communicate effectively with Congress during this critical period, as decisions made in the next several years may have a major impact on science and technology policy for the next several decades.

INTERNET, electronic media, and changes in geoscience information.

DUNN, Lisa G., Arthur Lakes Library, Colorado School of Mines, Golden, CO 80401

The INTERNET offers new opportunities for geoscience information providers to expand and innovate their services. Communications and information transfer via the INTERNET are becoming widespread among both experienced and novice users and new search tools allow improved access to INTERNET resources. A variety of geoscience information resources are currently available on networks around the country. The explosive growth of the INTERNET along with increasing availability of published and unpublished geoscience information in electronic format also means re-addressing current concerns such as collection management, resource allocation and reference services, and re-thinking traditional ways of doing business in light of technology's changing capabilities.

GEOSCIENCE INFORMATION SOCIETY

Technical Session

Wednesday, October 27

Hynes Convention Center 202

8 am - 10 am

Dena Hanson and Susan Klimley, presiding

- 8:00 Charlotte R. M. Derksen, Michael Noga, and Barbara E. Haner: Characteristics of serial use by faculty and students.
- 8:15 James H. Anderson and Julia H. Triplehorn: Assessment of the seismology and volcanology collection, Geophysical Institute Library, University of Alaska Fairbanks.
- 8:30 Julie Hallmark: Geoscientists' access and retrieval of references cited in their recent journal articles.
- 8:45 Linda P. Newman: The Mines Library endowment, a ten year report on the library's efforts in seeking financial support from the local commercial mining community.
- 9:00 Joanne V. Lerud: Visiting committee implementation, Arthur Lakes Library, Colorado School of Mines.
- 9:15 Julia H. Triplehorn: Tracking information sources on gold mining.
- 9:30 Karen M. Campbell: The role of photographic archives in the earth sciences.
- 9:45 Barbara J. DeFelice: Coverage of environmental geology topics in major abstracting and indexing services: a citation overlap study of GeoRef, Water Resources Abstracts, and Chemical Abstracts.

Characteristics of serial use by faculty and students.

DERKSEN, Charlotte R. M., Branner Earth Sciences Library, Mitchell Bldg., Stanford University, Stanford, CA 94305; NOGA, Michael M., UCLA - Geology/Geophysics Library, 4697 Geology Bldg., 405 Hilgard Ave., Los Angeles, CA 90024-1567; HANER, Barbara E., Physical Sciences Library, P.O. Box 5900, Univ. of California, Riverside, CA 92517.

Recent papers have evaluated the quality of academic serials through citation studies or use statistics. *Science Citation Index* journal citation rankings are not sufficient to assess the value of serials in a collection. Circulation figures are useful, but they do not give the whole picture. We show that these citations, faculty publications, faculty citations, and in-house use all give further evidence on which serials are used. Data from the geoscience libraries at Stanford University and UCLA are used to determine the most valuable measures of use.

Assessment of the seismology and volcanology collection, Geophysical Institute Library, University of Alaska Fairbanks

ANDERSON, James H., School of Library and Information Sciences, Brigham Young University, and Institute of Arctic Biology, University of Alaska Fairbanks, Alaska; TRIPLEHORN, Julia H., Keith B. Mather Library, Geophysical Institute, University of Alaska Fairbanks, Alaska 99775-0800.

This assessment studied the adequacy of the collection for meeting the needs of the students and researchers who are its major users, focusing on seven questions concerning collection size, comparison with an authoritative bibliography, local availability of not-held bibliography titles, acquisition priorities, user behavior, journal readership, and overall user rating. The bibliography was compiled from four published sources, and 23 completed survey questionnaires were obtained. Results include (1) a relatively high holdings count with numerically good representation in most subject subdivisions, (2) generally favorable comparisons with the authoritative bibliography in terms of held-item distributions across subjects, publishers and publication dates, (3) limited local availability of not-held titles, (4) a relatively short list of high-priority titles for acquisition, (5) data on use of various print and electronic information sources and other aspects of user behavior, (6) determination of 26 held and not-held journals most important to users and (7) dominant overall collection ratings for research and instruction of very good, the next-highest on a five-point scale. The collection was determined to be generally strong and well used but with specific minor inadequacies that can be remedied at modest cost. This work demonstrates the efficacy of conventional assessment tools adapted to a particular collection and user community.

Geoscientists' access and retrieval of references cited in their recent journal articles.

HALLMARK, Julie, Graduate School of Library and Information Science, The University of Texas at Austin, Austin, TX 78712-1276.

Authors of 92 articles randomly chosen from five geology journals were asked to explain how they: (1) first became aware of a specific reference which they cited, and (2) how they obtained it.

Cited references represented both English and foreign language articles as well as a wide variety of publication dates. Thus, access and retrieval could be compared in terms of language and age of the citation.

Geologists depended primarily on personal contacts, browsing, and literature references when learning about journal articles of interest. Of six possible methods of retrieval, library subscriptions and obtaining copies from colleagues were most frequently used.

In addition to providing data on access and retrieval, a number of participants in the study commented on problems with their journal literature and made suggestions for improvement. These unstructured remarks revealed some interesting ideas and provided insight into users' views of the ongoing journal crisis. Findings have implications for present and future roles played by the library in serving geoscientists.

The Mines Library endowment, a ten year report on the library's efforts in seeking financial support from the local commercial mining community.

NEWMAN, Linda P., Mines Library, University of Nevada, Reno, NV 89557.

The Mines Library, University of Nevada, Reno, established an endowment exactly ten years ago with funds raised with annual appeals to the local mining companies who use the library.

While established primarily to serve the University of Nevada's Mackay School of Mines and the Nevada Bureau of Mines & Geology, the Mines Library, as the foremost mining/geology collection in the state, also serves as a research library for much of the local commercial mining community. Circulation records documented over many years indicate a steady one-third use by non-university clientele. It is to these local companies and consultants that an annual appeal is made for contributions to the Endowment. The Endowment was established after several years of annual appeals eventually resulting in a sufficient donation base to set up a permanent fund.

This paper addresses the history and techniques of the drive; the scope of the appeal and related problems in establishing a defacto relationship with the public; the demands such an annual appeal places on the library staff and direct expenses of the appeal; and the benefits, both immediate and residual.

Visiting committee implementation, Arthur Lakes Library, Colorado School of Mines.

LERUD, Joanne V., Colorado School of Mines,
Golden, CO 80401

Each academic department at the Colorado School of Mines (CSM) has been asked to consult with an external committee of leaders from industry, academia, and government as it determines current priorities and plans for the decade ahead. In 1989, the Arthur Lakes Library was asked by the Vice President for Academic Affairs to follow the precedent set by the other departments. It was an opportunity for additional access to and possible influence on the CSM Administration so that CSM students, faculty, staff, and the community associated with the institution might have the services, technologies, and programs appropriate for their information needs and the changing world.

The Arthur Lakes Library viewed the request to develop a Visiting Committee as an opportunity important to the forward progress of the Library and the determination of the members of the Visiting Committee was a very serious activity. The Visiting Committee would not only champion the interests of the Library but would also challenge the views already held by the Library and/or the CSM Administration. This advocacy approach is different than a program review, accreditation visit, or self-study activity. The Visiting committee, as a peer group to the institution's Administration, strives to influence the direction of the Library and has been successful in that effort.

Tracking sources on gold mining.

TRIPLEHORN, Julia H., Librarian, Keith B. Mather Library, Geophysical Institute, University of Alaska Fairbanks, Fairbanks, AK 99775-0800.

When the price of gold increases, there is a surge of interest for gold mining information in geologic libraries (public, university, and survey). This paper will provide the key information sources, as dictionaries, handbooks, classic textbooks, indexes, and databases which might be consulted. Attention will also be given to government publications from state and federal geologic and mining agencies.

The role of photographic archives in the earth sciences.

CAMPBELL, Karen M., Lindgren Library, Massachusetts Institute of Technology, Cambridge, MA 02139.

From the moment it became a portable medium, photography has played an important role in earth science research. As the focus of earth science exploration has evolved from the days of the Powell surveys to new frontiers at ocean depths, in space, and at microscopic and submicroscopic levels, technological advances in photography have kept pace. Every geologist has a personal photograph collection; every institution that trains or employs geologist develops, formally or informally, a photographic archive.

Changing research methods and evolving technologies present new issues in the management of photographic archives in the earth sciences. A survey of existing archives in the United States was conducted to determine their content, the nature of their patron community, and the current access and preservation issues they face. Survey results indicate an extensive, if somewhat hidden, resource. Collections range from historic western survey photographs to sophisticated satellite imagery. User groups for these collections extend beyond the traditional earth sciences community. Current access and preservation issues include development of online access systems and preservation through optical imaging.

Results of the survey are presented and current issues, such as changing use patterns, are discussed. A need for coordinated access and preservation is indicated; cooperative development of photographic archives would maximize available resources and enhance access. To this end, a preliminary directory of photographic archives in the earth sciences has been compiled.

Coverage of environmental geology topics in major abstracting and indexing services: A citation overlap study of GeoRef, Water Resources Abstracts, and Chemical Abstracts.

DEFELICE, Barbara J., Kresge Physical Sciences Library, Dartmouth College, Hanover, NH 03755-3571.

In libraries where GeoRef on CD-ROM is available, it is the source of choice for faculty and students alike. Traditional geological subject areas are well covered in this core geology index. However, an increasing number of geology faculty and students are engaged in research and study in the interdisciplinary field included under the rubric Environmental Geology, rather than or in addition to the more traditional fields of geology.

Is GeoRef sufficient to serve the needs of faculty and students in this growing area of study and research? What other databases should be consulted routinely for literature searches on environmental geology topics?

A citation overlap study was done to answer these questions. Several research questions from faculty and graduate students in the Earth Sciences Department at Dartmouth College were searched in GeoRef, Water Resources Abstracts, and Chemical Abstracts, three major abstracting and indexing services that cover the literature of environmental geology. Results were analyzed to determine percent of overlap among the databases and percent of unique citations in each database.

Preliminary results indicate that multiple database searching is necessary for the best coverage of some environmental geology topics.

Ideas for assisting and encouraging geology faculty and students to use a wide range of databases for environmental geology topics are also presented.

GEOSCIENCE INFORMATION SOCIETY

Poster Session

Wednesday, October 27

Hynes Convention Center

1:30 pm - 5:30 pm

- Suzanne T. Larsen: Taking it on the road: teaching the use of electronic bibliographic databases in the classroom.
Nancy J. Butkovich and Linda R. Musser: Analysis of references cited in U.S. Geological Survey Bulletins, Circulars, and Professional Papers.
Patricia F. Donovan-Ealy, Paul T. Gayes, Douglas D. Nelson, and Robert F. Van Dolah: Development of an INTERMAR database of beach renourishment and critical habitats on the South Carolina continental shelf.
Nancy L. Blair and Connie J. Manson: Need for a national geologic mapping index database.
Terry S. Maley and Bob Randolph: New program to identify and manage unique and geologically significant resources on federal lands.

GIS 1993 POSTER SESSION ABSTRACTS

Taking it on the road: teaching the use of electronic bibliographic databases in the classroom.

LARSEN, Suzanne T., Earth Sciences Library, University of Colorado, Boulder, Campus Box 184, Boulder, CO 80309.

Libraries are being confronted by the fact that many important bibliographic sources are not in electronic format. This presents major problems when giving in-class bibliographic instruction. Presenting these formats through lecture with no way to demonstrate them live is not very productive.

"Smart" classrooms, allowing electronic access and having computer screen projection systems, exist on the CU-Boulder Campus but are few in number and difficult to schedule. The capability of live presentations in the standard classroom exists with the aid of a laptop computer, portable CD-ROM drive, LCD screen projection system, and overhead projector. The classroom needs to have only a screen and electrical outlets, items which are found in even the most rustic of classrooms on the Boulder Campus.

University libraries are rarely in the position to fund this type of equipment. At CU-Boulder, funding for this system was sought from several sources within the University before being successful through the Vice Chancellor of Academic Affairs. That source was suggested by a member of the teaching faculty who saw the enormous benefit in the addition of such a system to the educational process. This leads to the conclusion that librarians must be more creative in seeking funding from sources outside of the library. Collaboration with and the support of the teaching faculty is critical to the success of such a project.

The computer system acquired through this funding will be demonstrated during the poster session.

Analysis of references cited in U.S. Geological Survey Bulletins, Circulars, and Professional Papers.

BUTKOVICH, Nancy J., Pennsylvania State Univ., Physical Sciences Library, 230 Davey Lab., University Park, PA 16802; MUSSER, Linda R., Pennsylvania State Univ., Earth and Mineral Sciences Library., 105 Dieke Bldg., University Park, PA 16802.

The publications of the U.S. Geological Survey are well known and widely cited in the geological literature. Previous studies have examined the role of these publications as cited in journal articles and dissertations; however, little work has been done examining the characteristics of the references cited in USGS publications themselves. This study examined the citation characteristics of three major USGS series--bulletins, circulars and professional papers. Because 1985 has proven to be a benchmark year in the study of geological literature, it was chosen as the sample year for this study. References from USGS series were sampled using standard statistical methods, and results were tabulated. These data were then compared with citation analyses of journal articles and dissertations from the same period. This study provides information regarding another major literature type, one of great importance to the geological community.

Development of an INTERMAR database of beach renourishment and critical habitats on the South Carolina continental shelf.

DONAVAN-EALY, Patricia F., GAYES, Paul T., NELSON, Douglas D., Center for Marine and Wetland Studies, Coastal Carolina University, PO Box 1954, Conway, SC 29526; VAN DOLAH, Robert F., South Carolina Wildlife and Marine Resources, Marine Resources Research Division, PO Box 12559, Charleston, SC 29412.

A comprehensive geologic database focusing on beach renourishment resources and critical habitats on the South Carolina continental shelf has been compiled as part of a

state/federal task force in South Carolina. Minerals Management Service Office of International Activities and Marine Minerals (INTERMAR) is funding the effort to evaluate the sand, mineral, and hard bottom resources on the shelf within 16 km of the South Carolina coast. The biological and hard bottom database is being compiled by South Carolina Wildlife and Marine Resources. The database will be included into the SEAMAP database for the southeastern U.S.

The geologic database contains existing high resolution seismic reflection survey lines; side scan sonar surveys, surficial sediment characterizations, heavy mineral/phosphate percentages, vibracore/ boring logs, and literature on shallow geologic structure, sea level change and shelf evolution. The database records the following information: sample location, date, equipment type, water depth, mean grain size, % sand/silt/clay, % carbonate, % heavy minerals, % economic heavy minerals, zircon/tourmaline/rutile index, % phosphate, and complete reference information on the study and principal investigator. The database currently contains over 1000 records.

A bibliography of geological and geophysical studies on the South Carolina continental shelf was simultaneously developed. This bibliographic database includes data from nearly 200 studies.

Subsequent years of the INTERMAR project involve compilation of the geological, biological, and historical data into a GIS system and detailed study of specific resources.

Need for a national geologic mapping index database.

BLAIR, Nancy L., U.S. Geological Survey Library, M.S. 955, 345 Middlefield Road, Menlo Park, CA 94025; MANSON, Connie J., Washington Dept. of Natural Res., Div. of Geology and Earth Resources, P.O. Box 47007, Olympia, WA 98504-7007.

To locate geologic mapping on an area, researchers need to search a variety of bibliographic and information sources. Although the process was shortened by on-line and CD-ROM access to bibliographic databases such as GeoRef and dial access to libraries, access to bibliographical information and completeness of these searches depends heavily on the sophistication and persistence of the searcher.

Developing a nationwide geologic map indexing system would save the time and energy of countless professionals, students, and geoscience information specialists and insure that geologic research would be aided by access to the best and latest mapping.

The parts for a good geologic map information system exist and need to be brought together to expedite geologic mapping and its applications. The components are (1) the people with the knowledge to do the job (2) the geologic publications to be indexed, (3) existing indexes and

bibliographies, and (4) the electronic technology. GIS technology combined with quality controlled bibliographical input and network access would allow a wide range of searching modes to satisfy the needs of the many potential users of geologic maps.

New program to identify and manage unique and geologically significant resources on federal lands.

MALEY, Terry S., Bureau of Land Management, 3380 American, Boise, ID 83706; RANDOLPH, Bob, U.S. Forest Service, 324 25th Street, Ogden, UT 84401.

The Bureau of Land Management and the U.S. Forest Service have initiated a program to identify, inventory, preserve, and administer exceptional, unique and geologically significant resources on federally owned lands. In the past, recognition and protection has been limited to only those resources that have spectacular scenic or other attractive qualities such as Glacier National Park. For the most part, those resources that do not have special scenic qualities have not been systematically inventoried or protected. Many geologic resources, which are not particularly scenic, but have great scientific value because of their uniqueness or because they are an outstanding example of their kind, need special management. This uniqueness could take the form of a rare or exotic rock or mineral type, a particularly outstanding example of some geologic feature or structure, a type locality or a paleontological resource.

Goals:

1. Establish nationwide program to recognize exceptional, unique and geologically significant resources on public lands.
2. Describe, assess and integrate these resources into land use plans.
3. Develop management plans for protection, interpretation, exhibition, avoidance, public awareness, etc.
4. Develop public awareness and understanding of the sites through showcasing such as interpretive programs, publications and lectures.

ANNUAL MEETING NOTES

Digital Database Forum

To help you plan your GSA travel and program attendance, the Digital Data Committee would like to announce the tentative presenters at the Digital Database Forum this fall: Elsevier for their new GeoBase on CD-ROM product; William Harbert for the World Paleomagnetic Database; Cambridge for the Oceanic Abstracts section of the Aquatic Sciences and Fisheries CD-ROM; and GSA for the new GSA Journals on CD-ROM. The Forum will be on Sunday (10/24) from 3-5. The location has not been set yet, but will be in your programs.

FINANCIAL REPORTS

Detailed lists of expenses and income for 1992 and up through the 2nd quarter of 1993 are included in this Newsletter. As you can see, last year expenses exceeded income by a significant amount. A couple of important factors were the *Compass* Special Issue and the Earth Sciences Resources for Teachers, 1992, both of which were worthy projects but did not bring in income.

Although it appears that income is keeping up better with expenses so far this year, two large bills have yet to be paid: Proceedings vol. 23 and the Membership Directory. The *Directory of Geoscience Libraries* is selling successfully and has made a real contribution to the Society's fiscal health. However, we are still expecting expenses to exceed income again this year. In the President's column of this Newsletter, Louise has referred to a necessary rise in the prices of the publications which should help address this problem, although not solve it completely.

Marie Dvorzak has compiled the approximate cost per member for one year of the Society's activities,

including the Newsletter and proceedings volumes, phone and postage expenses of the committees, and the costs of the annual meeting (Table 1). We hope that these figures will help the members understand what their dues cover. We also hope the information will help members to make an informed judgment on the issue of raising membership dues that will be an item on the agenda at the next annual meeting.

We have one additional sustaining membership, which is valuable. We want to encourage more members, especially corporate members, to consider a sustaining membership.

A housekeeping request to help keep the accounts neater: Please get any reimbursement requests you might have to the Treasurer in a timely manner. It is much easier to balance the society's finances if reimbursements are received as soon as possible, and within the year of the expense.

Respectfully submitted,
Barbara DeFelice, Treasurer
Dena Hanson, Past President

Table 1: Geoscience Information Society operating costs per member. (Membership grouped to allow for postage differences.)

<u>Expenses</u>	<u>Domestic:</u>		<u>Foreign:</u>
	<u>United States</u>	<u>Canada</u>	<u>Other Countries</u>
Membership Costs	\$21.98	\$28.20	\$28.22-\$38.00
Annual Meeting	\$16.05	\$16.05	\$16.05
Society business	\$15.61	\$15.61	\$15.61
TOTAL	\$53.64	\$59.86	\$59.86-\$70.00

Membership costs include expenses for printing and postage for the 1992 proceedings and membership directory, printing and postage for 6 newsletters (Aug. 1992 - June 1993), dues, and expenses related to membership such as mailings for renewal and election. The postage costs for foreign members varies considerably. The range of costs is representative rather than exact.

1992 GIS **Annual Meeting** includes expenses for meetings, exhibits, workshops, etc.

Society business includes expenses for officers, representatives and committees for July 1, 1992 - June 30, 1993. Some of these expenses are telephone charges, postage, and copying.

COMMITTEE REPORTS

Best Reference Work Committee

The Best Reference Work Committee has recommended the 1993 award be given to the *Encyclopedia of Earth System Science*, edited by William A. Nierenberg, published by Academic Press.

GEOSCIENCE INFORMATION SOCIETY Financial report, 1992

*BALANCE FROM 1991	CHECKING ACCOUNTS	*SAVINGS ACCTS	TOTAL
	\$24,714.72	\$10,942.63	\$35,657.35
INCOME:			
DUES-PERS.	\$ 7605.00		
DUES-SUSTAINING	\$ 100.00		
DUES-CORP.	\$ 2700.00		
GIFTS	\$ 75.00		
NEWSL. SUB.	\$ 780.00		
PROC. V. 22	\$ 160.00		
PROC. V. 21	\$ 560.00		
PROC. V. 20	\$ 385.00		
PROC. V. 19	\$ 245.00		
PROC. V. 18	\$ 70.00		
PROC. V. 17	\$ 35.00		
PROC. V. 16	\$ 35.00		
PROC. V. 15	\$ 60.00		
OLD PROC.	\$ 403.00		
MAILING LABELS	\$ 100.00		
INT BA	\$ 614.95	\$38.89 (BRISTOL)	
INT NH	\$ 55.70		
INT Home Savings		\$440.21	
Field Trip, AM 92	\$ 640.00		
Other	\$ 10.00		
TOTAL INCOME:	\$15,112.75		
EXPENSES:			
1991 Annual Meeting	\$ 1919.72		
1992 Annual Meeting	\$ 640.98		
92 Exhibit	\$ 794.98		
92 Field Trip	\$ 520.02		
President	\$ 1210.80		
Vice President	\$ 223.67		
Past Pres	\$ 4.90		
Secretary	\$ 1004.65		
Newsletter	\$ 2478.67		
Refund Newsletter	\$ 30.00		
Proc. Vol. 22	\$ 3774.40		
Dir. Geos. Libs.	\$ 371.29		
Membership Directory	\$ 1465.00		
Publications Manager	\$ 86.40		
Sample Issue Display	\$ 195.00		
Compass Special Issue	\$ 3688.23		
Earth Sciences Resources for Teachers, from Bristol fund		\$1000.00	
Society Dues (AGI; Advocacy)	\$ 585.00		
Representatives	\$ 598.47		
Collection Dev. Comm.	\$ 63.71		
Nominating Com.	\$ 181.49		
Membership Com.	\$ 26.17		
Bank Charges-NH	\$ 143.72		
Bank Charges-BA	\$ 15.00		
Refund Membership	\$ 50.00		
TOTAL EXPENSES	\$21,072.27		
Balances:	\$19,276.10	\$10,421.73	\$29,697.83

GEOSCIENCE INFORMATION SOCIETY 2nd Quarter Financial Report, 1993

	Checking accounts	Bristol	Home Savings	TOTAL
*BALANCE FROM 1992:	\$19,276.10	\$1081.31	\$9340.42	\$29,697.83
INCOME:				
DUES-PERS.	\$ 4860.00			
DUES-SUSTAINING	\$ 200.00			
DUES-CORP.	\$ 1250.00			
GIFTS	\$ 65.73			
NEWSL. SUB.	\$ 490.00			
DIR. GEOS. LIBS.	\$ 2630.00			
PROC. V. 22	\$ 1200.00			
PROC. V. 21	\$ 70.00			
PROC. V. 20	\$ 35.00			
PROC. V. 19				
PROC. V. 18				
PROC. V. 17				
PROC. V. 16				
PROC. V. 15	\$ 20.00			
OLD PROC.				
MAILING LABELS	\$ 100.00			
INT BA	\$ 200.33	\$11.11		
INT NH	\$ 1.26			
INT Home Savings				
OTHER	\$ 176.84			
TOTAL INCOME: \$11,310.27				
EXPENSES:				
1992 Annual Meeting	\$ 2482.42			
92 Exhibit	\$ 269.42			
1993 Annual Meeting	\$ 345.74			
President	\$ 640.80			
Vice President	\$ 81.29			
Past Pres	\$ 199.00			
Secretary	\$ 609.61			
Newsletter	\$ 1901.36			
Dir. Geos. Libs.	\$ 1774.86			
Membership Directory	\$ 0.00			
Publications Manager	\$ 295.18			
CESE		\$372.00		
Society Dues (AGI; Advocacy)	\$ 717.25			
Representatives	\$ 517.94			
Awards Com.	\$ 60.18			
Collection Dev. Comm.	\$ 0.00			
Nominating Com.	\$ 196.01			
Membership Com.	\$ 235.55			
GeoRef Users Com.	\$ 0.52			
Ad-Hoc Bylaws	\$ 199.64			
Guidebook	\$ 14.93			
Refunds	\$ 85.00			
Bank Charges-NH	\$ 14.40			
Bank Charges-Mascoma	\$ 10.78			
TOTAL EXPENSES: \$11,023.88				
Balances	\$19,923.38	\$720.42	\$9340.42	\$29,984.22

**DIGITAL DATABASE FORUM:
GEOSCIENCE INFORMATION FOR THE
NON-SPECIALIST: A COMPARISON OF THREE
DATABASES**

by
Steve Hiller
University of Washington Libraries

Geoscience librarians have done an excellent job in promoting GeoRef searching to a wide range of users. Many libraries have now acquired GeoRef on CD-ROM which allows users to search directly and some have loaded GeoRef tapes on their local system or provide self-search access through a vendor such as OCLC First Search. Users, especially researchers, have greatly appreciated this opportunity for direct access to a comprehensive source of geological information. Yet, for many non-geoscientists and undergraduate students, GeoRef searching can be a frustrating experience. Many of us have witnessed those confused looks as students look at the screen or printed lists and wonder what to do next or find literature that is highly technical. Other non-specialists face similar difficulties.

General periodical indexes and databases also provide access to geoscience information and an increasing number of academic institutions are now offering direct access to these more general sources. Databases produced by such vendors as Wilson, Information Access, and UMI, are available in CD-ROM as well as through local taping or other access. Geoscience librarians have used printed equivalents of these indexes in the past and more flexible and powerful searching techniques have enhanced the value of their online counterparts.

How useful are these general indexes in providing geoscience information, especially for the non-specialist? I chose two current interest topics which an undergraduate or non-specialist might want information about "sea level rise" and "mass extinction at the K/T boundary." I then

searched these topics on three databases: GeoRef on CD-ROM, Information Access Corporation's Expanded Academic Index (EAI) through local tape load, and Wilson's Applied Science and Technology Index (ASTI) on CD-ROM. The latter two are representative of the more generalized literature databases available. I examined the number of citations retrieved, the relevance of the citations to the topic, the research proportion of the relevant citations, and the availability of the sources. The results provided some interesting data on applicability of each database to the topic searched.

Searches were limited to the 1992 year. While both EAI and ASTI contain more recent information, the latest GeoRef disc (as of 15 July 1993) went through December 1992. Most of us are familiar with GeoRef so I won't describe here. EAI covers approximately 1500 journals tailored to academic libraries and provides some abstracts. EAI includes 13 specific earth science journals as well as such general sciences ones like *Science*, *Nature*, and *Science News*. ASTI indexes more than 400 journals and covers 13 earth science journals as well as related areas in the physical sciences.

SEA LEVEL

Sea level rise is a topic of current interest with the growing emphasis on global change. The assumption was made that non-specialists would be interested in sea level changes during the past five million years (Pliocene period to the present) and not in older paleoenvironments. However no period limitation was used.

SEA LEVEL SEARCH

	Number of citations		
	GeoRef	ASTI	EAI
Journal citations - Pliocene to present	34	19	15
Journal citations - paleoenvironments	17	8	4
Abstracts to meeting presentations	36	-	-
Other sources (books, responses, proceedings)	10	-	2
Other subject (geodesy)	-	3	-
TOTAL	97	30	21
Research articles in relevant journal cites	35/36	15/20	7/15

Search Strategy

GeoRef does not use "sea level" as a descriptor. Sea level changes are often indexed by the descriptor "changes of level," but this also includes lake level changes and was not used in the search. "Sea level" was searched as a key word. Both ASTI and EAI use "sea level" as subject descriptors, primarily for sea level rise and both databases were searched using this subject term.

There was surprisingly little overlap between the databases among relevant journal articles. Only two articles were found in all 3 databases and these were not published in geology journals. One came from the *Bulletin of the American Meteorological Society*, while the other was published in the *Journal of Hydraulic Engineering*. There were several reasons for this lack of overlap. Keyword searching in GeoRef missed some relevant articles which did not have "sea level" in the title, but used changes-of-level as a subject heading; the GeoRef CD-ROM had not been updated to index late 1992 publications; GeoRef provides far more comprehensive coverage of geoscience sources while ASTI and EAI rely on news articles or reports in publications such as *Science News* and *New Scientist* as well as research journals outside the core geoscience field. Both ASTI and EAI had a much higher proportion of citations to news reports while 37% of GeoRef citations were to abstracts of papers delivered at meetings.

MASS EXTINCTION

The time and cause of dinosaur extinction has turned into a robust research as well as popular topic. Since the early 1980's much work has focused on mass extinction at the Cretaceous/Tertiary boundary and this was the period used for this database comparison.

Search Strategy

GeoRef uses descriptors for mass extinction as well as specific geologic time periods. K-T Boundary has recently been used, but there has been inconsistency in its application. The GeoRef search was done using the truncated word "extinct" and both "K-T Boundary" and "Upper Cretaceous". Wilson continues to use the arcane LC subject heading of "catastrophes (geology)" to cover mass extinction in this period. Of course, one organism's catastrophe is another's opportunity. ASTI was searched using this subject term. The search of EAI used the subject term "mass-extinction."

There was greater overlap between databases with 7 of the GeoRef articles also found in ASTI. The ability of GeoRef to specify geologic period resulted in a better defined search which retrieved more relevant articles than in the other databases. Again, there was a significant number of news articles in EAI and ASTI. Indeed, Expanded Academic Index contained only 2 relevant research articles, the rest were short reports or reviews.

CONCLUSION

ASTI and EAI provide access primarily to non-technical information about current geoscience topics. ASTI provides better coverage of the research literature than EAI, but both emphasize more generalized sources. These sources are ones that would be of interest to non-specialists. As these databases index a large number of publications outside of the geosciences they can also provide different perspectives. A larger proportion of the cited articles are available in most local collections, thus reducing user frustration. However, these databases should not be seen as substitutes for those seeking research articles. GeoRef remains the primary source for this information.

MASS EXTINCTION AT THE K/T BOUNDARY SEARCH RESULTS

	GeoRef	ASTI	EAI
Journal citations K/T Boundary	11	10	12
Journal citations other periods	0	20	10
Abstracts	3	-	-
Other (article response)	-	-	1
Research articles in relevant journal cites	7/11	4/10	2/12

Conference Report:

"Electronic Imaging--Clip Art to Virtual Reality"
American Society for Information Science,
Mid-Year Meeting, May 23-27, Knoxville, TN
reported by
Susan Klimley
Lamont-Doherty Earth Observatory
of Columbia University

Unlike the themes of most of the large conferences I've attended ("Empowering People through Libraries," "At the Leading Edge"), the ASIS theme of "Electronic Imaging" was specific in its focus and, at the same time, fascinating in its breadth and depth, zeroing in on an area of enormous experimentation and development. A smallish meeting (400) compared to those I usually attend, it attracted an unusually high percentage of first time attendees (40%) and an amazingly wide spectrum of professionals.

Several professors had interesting joint appointments: computer and art history departments, computer and philosophy departments. Librarians had wide ranges of experience in imaging, from page images for preservation (or as an alternative method of journal distribution) to scientific visualizations. Visual artists spoke articulately on the corporate control of media images. John Gage of Sun Microcomputers talked about how the Internet had made everyone on it a personal broadcasting station. Scientific visualizations ranged from the global modeling of climate that I'm familiar with at the macro-level to atomic level models. Talk of fuzzy logic, visual grammars and data lineages, as well as working examples of virtual reality, dominated the four-day meeting.

Perhaps the most provocative idea pervading the meeting was that having come from an oral tradition, society is now undergoing the transformation from a textural tradition to a visual one. Upon reflection, the change is apparent as we evolve from newspaper readers to news program watchers and television information grazers, a generation in which pilots receive considerable training in virtual reality systems rather than in airplanes themselves.

Coming from a scientific discipline that has successfully utilized visualizations from the 19th Century and now uses complex computer animations profitably, I found myself wondering if this new visual tradition would be rich enough to represent the complex ideas of philosophy, history and literature presently culled from text. I thought of how easy it was in the academic cloister not to see the changes, not just in computerization but in the way people are gathering information and learning. And I wondered what this would mean for the university, the library, and the librarian. In the bastion of (mostly printed) text, what would a librarian's role be in a scenario in which what text there is is online and has been, for all intents and purposes, superseded by complex graphic environments for learning and pleasure? Will we become catalogers and reference librarians for locating snippets of video or hypertext versions of *David Copperfield*? Spigots for the Internet firehose?*

I happened to have taken Bill McKibben's *The Age of Missing Information* with me to the meeting. It was a curious choice in the midst of all this discussion of electronic images, as McKibben analyzes the simultaneous flood and drought of television offerings. His thoughts on content were interesting, offering a vision of what corporate America might offer us in this new electronic world. But as only a moderate television watcher, I realized, via McKibben, that this electronic image-driven future isn't a future at all. It's the "here and now."

* Many people have likened making use of the Internet to "trying to drink from a firehose."

PUBLICATIONS

The *Geologic map of surficial deposits in the Seattle 30' x 60' quadrangle, Washington*, by J. C. Yount, J. P. Minard, and G. R. Dembroff has been issued as U.S. Geological Survey Open-File Report 93-233. It is two sheets, scale 1:100,000; it sells for \$12.75 paper; \$1.50 microfiche. Order from:

U.S. Geological Survey Open-Files
P. O. Box 25286, MS 517
Denver, CO 80225-0286

USGS DIGITAL DATA SERIES CD-ROMS

New Publications of the USGS will start listing new Digital Data Series CD-ROMs with the May 1993 issue. If you want to read about past CD-ROMs issued in the Digital Data Series (they were not covered in New Publications of USGS), read John Shuler's article, "Democracy on disc, the Earth abides", in *CD-ROM World*, v. 8, no. 5, p. 45-47, June 1993.

READINGS IN GEOSCIENCE INFORMATION

"LIBRARY LITERATURE" NOW AVAILABLE

Library Literature, the H.W. Wilson index, is now available on OCLC's FirstSearch Catalog and on the EPIC service. Library Literature indexes more than 200 periodicals and more than 600 monographs annually; it is updated monthly. The FirstSearch subscription price is \$1,800 for 1-10 simultaneous log-ons and \$3,600 for 11-20 simultaneous log-ons; the menu name is LibraryLit. The cost on EPIC is \$20 per hour (\$10 per hour for the practice database); the file name is database 5 (practice file 905).

LIBRARY PERIODICALS--AN ANNUAL GUIDE FOR SUBSCRIBERS, AUTHORS, AND PUBLICISTS

So, you want to write for publication? Consult "Library periodicals--An annual guide for subscribers, authors, and publicists." It lists 150 library literature periodicals, with information on which ones publish practice-oriented articles, which publish research reports, and which are refereed. It is available from Periodical Guides Publishing Company, 1633 Pearl Street, Alameda, CA 94501. Cost: \$18 plus \$4 for shipping and handling; California orders should add 8.25% for sales tax.

readings:

Triplehorn, Don Murray; Triplehorn, Julia Hardesty, 1993, Geologists select the great books of geology: Journal of Geological Education, v. 41, p. 260.

Emiliani, Cesare, 1993, Forum--Authors, review yourselves!: Eos (American Geophysical Union Transactions), v. 74, no. 23, p. 258.

Connie J. Manson, Co-Editor
Geoscience Information Society
2525 Sleater Kinney Road N.E.
Olympia, WA 98506



Linda Musser
725 Musser Lane
Bellefonte, PA 16823