



NEWSLETTER

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PRESIDENT'S COLUMN

Blue skies, lovely fall colors, and warm to brisk temperatures greeted us in Toronto and stayed with us all the way through the field trip to Niagara Falls. About 55 GIS members attended the society's annual meeting, held together with that of the Geological Society of America, October 24 through 29. Total attendance at the GSA meeting was a little under 6000, which is fairly good, considering that some of the usual attendees either could not afford to travel to Toronto or were not encouraged to travel outside of the USA by their institution or agency. We did get a chance to meet with some Canadian colleagues, whom we don't get to see as often.

A special highlight of our meeting was the GIS luncheon, where GIS member, John Mulvihill, received a special award from the society for his work as *GeoRef* Editor. Other highlights included the informative Preservation Forum, and an excellent suite of speakers in the symposium.

The society continues to serve the needs of the broader geoscience community in several ways. This year we again actively participated in a friends of the USGS library session. We continued our strong support of the programs of AGI; this year, we personalized our efforts, by presenting AGI with a special award in honor of its 50th anniversary during our luncheon.

One of the delightful times at the conference was hearing the GIS Fellow, Arlene Marzo of the University of the Philippines, speak on her fellowship experience and answer questions from the group, during the Professional Issues Forum.

The Technical session speakers, although speaking very late in the day, gave well-presented and informative papers; those of you who weren't able to attend will find these, as well as those of the symposium, well worth the reading, in the proceedings volume. Discussions in all of the Forum sessions: Collection Development, Preservation, Database, and Professional Issues, were lively and instructive. We expect to include summaries of the Forum sessions in the upcoming proceedings volume. While I don't actually have any of the final papers in hand yet, several of the speakers have told me that the formal paper is well under way or almost completed. The deadline for completed papers is February 1, so we hope to have the final volume out for you sometime in the Spring.

Volunteers Needed! I'm working hard on filling committees with members. Check out the complete list of committees on pp. 52-54 in your 1998 membership directory. If you have any questions about what is involved in serving on one of these committees, please do phone (650-725 1102) or email me. Two new committees being formed this year are the Union List of Field Trip Guidebooks Committee, to be chaired by John Mulvihill, and the Public Affairs Committee. If you have not yet given me your committee interests, please email me at: cderksen@marine.stanford.edu, as soon as possible. You can't make it to annual meetings very often? Committees that you might serve on include: the Best Paper Award, the Mary B. Ansari Best Reference Work Award, or the Guidebook Standards committees.

The Publications Manager position is currently vacant. If you are interested, please contact Lois Heiser or me for information.

Connie Manson has provided outstanding leadership for the society this past year, for which we are all very grateful. I also want to thank the other 1998 executive board members (Barbara DeFelice, Lisa Dunn, and Susan Goodman) for their support during the planning of the 1998 GIS annual meeting.

In addition, special thanks are due to Barbara Haner for her help throughout the year. Many thanks are due to April Love and her committee members for a fine exhibit. The committee chairs and/or forum coordinators (Adonna Fleming, Michael Noga, Linda Musser, Lisa Wishard, Nancy Blair, and Claren Kidd) provided enthusiastic and professional leadership for the various sessions; Connie Manson coordinated a great field trip (in which I WISH I could have participated!). Finally, a very special commendation goes to Lois Heiser for her work as Publications Manager, a position she is vacating as she assumes her post of Vice President/President-elect.

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GIS members are encouraged to contribute materials for publication. Due to current vacancies, all materials—research articles, technical reports, information reports, officer and committee reports, publication notices, job announcements, and other news items—should be sent to the Newsletter editor until further notice.

Material for the February 1999 issue of the GIS Newsletter should be received no later than 20 January 1999. If possible, please send materials by e-mail or on IBM-compatible disc (Word'97 or ASCII format).

VICE PRESIDENT'S COLUMN

Looking forward to DENVER! It is time to start planning your papers, posters, and parties for the 1999 GEOSCIENCE INFORMATION SOCIETY annual conference. The GSA theme is CROSSING DIVIDES: with emphasis on the cross-disciplinary nature of the geological sciences. The intent is to encourage proposals which show a mix of disciplines, discuss significant changes in the field, or cross intellectual divides.

Thinking about this, I can see many possible avenues of discussion. There will be an opportunity to identify concepts that divide us as well as the many bridges we build to rise over those divisions.

At the GIS business meeting in Toronto, a few which came to mind were:

1. have and have nots: financial and/or technological;
2. electronic, paper and micro formats ;
3. self-service or contact services;
4. public and proprietary information;
5. language.

This last caused several members to think about the divide of the Rio Grande and the necessity of crossing the bridge to Mexico, Central and South America. I am sure you can come forth with others. When you have a splendid idea for a paper or speaker, please contact me (heiser@indiana.edu).

We will have the opportunity to present a number of diverse programs, including a PARDEE KEYNOTE session of invited papers, a topical session (invited or volunteered papers), an invited speaker with reactor panel and discussion, forums, and posters. In addition, sessions can be arranged in formats of 2-hour or 4-hour blocks. While abstracts will not be due until July 12th, your thoughts now will assist in defining the content, focus, and style of our sessions.

Another exciting prospect: the WAML meeting will be hosted by the Colorado School of Mines in Golden on October 21-22. While GIS will not officially start until October 25th, it could be possible to arrange for a joint field trip prior to our usual meeting times. This might be a wonderful bonus as many miss the GIS field trips when they are scheduled for the Thursday at the end of the meeting. An early bird field trip with WAML members on Saturday the 23rd could give us an enjoyable crossing to our meeting.

Lois Heiser
GIS Vice President

GEOSCIENCE INFORMATION SOCIETY ANNUAL REPORTS

GIS Ad Hoc Committee on the AGI Anniversary Year

Members of the Ad Hoc Committee on the AGI Anniversary Year are Suzanne Larsen and Miriam Sheaves. The charge to the committee was "To acknowledge and celebrate the 50th anniversary of the founding of the American Geological Institute; to prepare and present a special award to AGI from GIS, with special focus on *GeoRef*, and to write a brief article about the history of the AGI for the Newsletter."

We wrote letters inviting Marcus Milling, Executive Director of AGI, Susan Landon, 1998 President of AGI, and John Mulvihill, past Director of *GeoRef* Information Systems and his wife Anna Marie Mulvihill to be our guests at the GIS Luncheon in Toronto. We arranged for 75 booklets on AGI history, "American Geological Institute 1948-1998: Celebrating 50 Years of Federation & Service", compiled by J. Thomas Dutro, Jr. and Julia A. Jackson, to be distributed to each attendee at the luncheon.

During the luncheon awards ceremony we presented two gifts commemorating this gala event: an engraved plaque to AGI presented to Susan Landon and Marcus Milling, and a signed copy of the book "Atlas of the New West", presented to John Mulvihill. The inscription on the plaque read "AGI, 1948-1998, Presented to the American Geological Institute, In recognition of exceptional leadership and service to the geoscience community on the occasion of your 50th Anniversary. We celebrate your achievements and express our gratitude for the establishment and development of *GeoRef* and other programs which foster the sharing of scientific information. The Geoscience Information Society, October 28, 1998."

We enclosed a card in the book presented to John which read: "In recognition of your unwavering dedication and leadership in guiding *GeoRef* from infancy to its present prominence and excellence, and in gratitude for your many contributions to GIS. Thank you. We will miss you. The Geoscience Information Society. 28 October 1998."

Many GIS members attended the AGI Reception at the Toronto meeting to see John Mulvihill receive the Heroy Award for Distinguished Service to AGI.

John directed the *GeoRef* database from 1974 until his retirement in February 1998, and also served as President of the Geoscience Information Society in 1977. Suzanne is preparing an article for the GIS Newsletter, highlighting the history of *GeoRef*.

Respectfully submitted,
Miriam L. Sheaves, Chair

Literature Review Editor

The purpose of this appointed position is to look at the library and information science professional literature and call attention to items of potential interest to GIS members. I submitted a column, "Literature Review", for each issue of the GIS Newsletter and also contacted a member of GIS to review a book. This review will appear in a forthcoming issue. I solicited feedback from readers on the usefulness of this column and received several positive responses that the column is looked at and used. To my question about what would be helpful, one person suggested concentrating on articles from serials less likely to come to the attention of our members and readers.

I encourage suggestions on how the column can be improved and on items for inclusion in the column.

Respectfully submitted,
Miriam L. Sheaves

Past President's Annual Report

This last year as a GIS officer has been very busy and exciting, and I have enjoyed working with GIS members on the *GeoInfoVI* meeting and other projects.

I attended these meetings as a representative of GIS:

Forum on International Geoscience, 11/17/97,
Washington, DC
Online Journal Publishing in the Geosciences,
1/17/98, Washington, DC

Written reports were published in the April GIS Newsletter.

I served on the Program Committee for the conference "Science Editing and Information Management" of which *GeoInfoVI* was an important component. This involved reviewing abstracts, contacting speakers, organizing sessions and helping to run some of the geoscience related programs.

I submitted two articles for *Geotimes*:

"Geoscience Information" for the February '98
Geoscience Highlights issue
"Geoscience Information Society" for the July '98
Member Societies section, to mark the 50th
anniversary of AGI

I served as the Chair of the Nominating Committee, and look forward to passing on files and other information to the new officers!

Respectfully submitted,
Barbara DeFelice

GIS EXECUTIVE BOARD MEETING 10/25/98

Attending: DeFelice, Derksen, Dunn, Dvorzak, Goodman, Haner, Hardy, Heiser, Kidd, La Russa, Lembo, Love, Manson, Musser, O'Donnell, Scott, Sorensen, Wishard, Yocum

I. Minutes

The minutes of the last GIS Board meeting were approved.

II. Officers

President. Manson announced that 32 people signed up for the field trip, and the departure date has been moved to 8:00am. Manson reported that color illustrations in the last proceedings boosted the price considerably (by about \$2,000), and asked for feedback. It was pointed out that the sales of the proceedings typically pays for the costs, but the \$4,400 spent for this issue will be difficult to recover. There was consensus that the price of the proceedings not be raised to accommodate color illustrations. There was discussion on the pros and cons of color illustrations, and on digitizing all or part of the proceedings. Objections to digitizing were raised concerning the impact on print sales, archiving responsibility, and access. Manson indicated that if authors were asked to bear the costs of color, it would be about \$200/page, so this may be a self-limiting process. The consensus was that color may be appropriate but the proceedings need to be self-supporting. The suggestion was to require authors to provide a legible black-and-white copy, and indicate that color was an option that the author should subsidize. Musser asked whether the proceedings were currently printed on archival paper and this will be looked into. Heiser asked about whether there were plans for digitizing the proceedings to preserve them (none so far).

Vice President/President Elect. Derksen commented on logistics of getting around in the Convention Center and made announcements about GIS events. There was brief discussion about abstracts, submission and rejection policies for GSA.

Past President. DeFelice reported on the Board's conference calls, with only one scheduled one this year, and indicated that they may be becoming obsolete due to the prevalence of e-mail. She distributed the GIS calendar of events.

Dunn mentioned that the membership directory should be pushed back as late in the year as possible to accommodate late member payments, and there was discussion on membership renewals. There was also discussion on the schedule for the annual audit and closing out of treasurer's accounts.

Secretary. Dunn reported an increase in membership and distributed a statistical update. GIS now represents over 20 countries. There has been a lot of new activity on memberships via the web and through web applications. Heiser discussed promoting membership at other meetings, and asked about the possibility of tracking membership inquiries resulting in this. Dunn distributed the results of the membership directory survey. In summary, members are in favor of a web directory with varying amounts of contact information available, but want the print directory retained.

Treasurer. Goodman distributed an updated financial report. She asked about the status of the EBSCO Sample and the GIS Membership Directory for next year. The EBSCO Sample program provides samples of our publications and referral to the Society at other meetings for a fee, and acts as an advertisement. After discussion it was felt that this activity, which reaches a potentially significant group of library-related meetings, should be continued. At this time there are plans to publish the 1999 Membership Directory in print format.

Goodman reviewed the draft budget for 1999 and there was discussion. Investing GIS money: Goodman is still researching this issue. One possibility is a "cap" account earning 4.6-4.8%. Additional suggestions were offered. Goodman asked whether different accounts should be combined to take advantage of interest accrued. This may be useful but could create accounting problems. She will continue to look into investments with a target date of November 1998. The International Fellow money that didn't get used needs to be dealt with, and there was a suggestion that GIS contact the donors and indicate that it would be used for a similar purpose to the Fellowship. Excess money from *GeoInfo VI* may be reallocated to publish the next proceedings.

III. Committees and Representatives

GIS Booth. Love reported on the new display booth. The old display equipment will be donated to another organization or school. Love indicated that she brought fewer materials and rented fittings on site to better deal with Customs. Volunteers are needed to staff the booth. Love is attending SLA in 1999 and suggested that she bring the GIS display. The motion was seconded and approved.

Newsletter Editor. Lembo reported on the logistics of mailing the newsletter. This is labor-intensive for international members. For bulk mailing, money can be put on deposit annually. O'Donnell volunteered to investigate the possibility of outsourcing bulk mailing tasks.

Publications. Heiser is getting requests for electronic payment for publications. This can probably be handled with the Society's bank and the treasurer. A new publications manager is needed, and the

membership should be asked for volunteers. GeoNet-L editor responsibilities were also discussed. Heiser said she could continue if necessary. Manson mentioned that the GIS bylaws state that officers shouldn't hold other appointed offices or committee chairs, but the Board could override this if necessary. Concern was expressed over getting other members involved in GIS activities, and it was decided that the membership should be asked for volunteers.

Webpage Editor. O'Donnell volunteered to take over for Linda Pierce.

Publicity Manager. La Russa reminded everyone to notify her of events worthy of publicity.

Government Affairs Program (GAP). Dvorzak asked for suggestions on issues. Issues to date: copyright; digital information usability and archiving; USGS libraries; government information distribution and access. She reported on AGI's request for a letter of support from the member societies concerning a geoscience/core repository at Stapleton airport, Denver. Dvorzak provided an overview of the "climate change" issue and AGI's involvement. AGI has requested that GIS as a member society support AGI's position statement. Dvorzak recommended that GIS not get involved on the grounds that this isn't the members' area of expertise.

GeoInfo VI and the International Program. Kidd reported that *GeoInfo VI* was successful, and well attended. The next meeting will be held in Canberra, Australia in 2002. Fellowship program: The program was funded by company donations and had 40 applications (there was some confusion about the relation with "geographic information systems"). The final eleven applicants were reviewed by the committee, six finalists ranked, and two selected. The candidate from the Philippines participated but the Botswana/Zimbabwean candidate was denied a US visa. Efforts are underway to get back some of this money from cancellations, etc. The committee will get together and produce some suggestions on what to do in the future and how to spend any extra money. Another applicant was able to visit on her own, funded by her organization.

Preservation. Musser and Wishard announced the committee meeting and Preservation Forum.

Best Paper Award Committee. Sorensen (for Zipp) reported that the committee expects to be evaluating at least one electronic paper next year, but they would be able to follow existing guidelines.

IV. Other

Manson announced that the Friends of the USGS Libraries meeting will take place this evening. There was discussion on logistics, fundraising, lobbying and "national library" status. It was agreed that the Society logo be updated. A logo contest was proposed and will be announced at the Business meeting.

V. New Business

Meeting format: Derksen indicated that there had been problems with a lack of program-related abstracts submitted and that there was considerable pressure from AGI to combine sessions. She suggested that GIS fold some of its forums (like preservation or collection development) into sessions with submitted abstracts, and asked for feedback. Panel discussions can also be incorporated into a forum.

It was announced that John Mulvihill is getting a special award from AGI, presented on Tuesday night.

It was announced that Joanne Lerud will be the next Secretary for AGI Member Council.

Respectfully submitted,
Lisa G. Dunn, GIS Secretary

AGI MEMBER SOCIETY COUNCIL MEETING

Toronto 1998 Sheraton Hotel, Monday October 26

A typical AGI Member Society meeting has three components:

Introduction and General Business:

Roll call, Approval of minutes of last meeting, Introduction of new officers including a special welcome to Joanne Lerud as Secretary;

Reports from AGI Officers and Staff:

Budget, Fundraising, Publications, Government Affairs, Education, Data Repository;

Special Presentations:

New ideas which are of interest to geoscience community and new AGI projects which may require input from the executive boards of member societies.

GENERAL BUSINESS

New Membership Applications received from the Paleobotanical Section of the Botanical Society of America and the Geo-Institute of the American Society of Civil Engineers were approved. The total number of members representing a broad range of disciplines within the earth sciences is now thirty-four.

Budget

This was the fifth year that AGI is in the black. *GeoRef* is still a major revenue provider and is one of the major assets of AGI. Funds are also raised from grants and the active work of the AGI Foundation. Jan van Sant, Foundation Chair, in reporting on the Foundation fundraising effort reflected on the 64%

increase in this area from 1992-98. There has been a marked increase in revenue since 1994 with money being devoted to support of an AGI Congressional Science Fellow, support of the EdCom program for K-12 students, and the Geoscience Careers Program in cooperation with the Sloan Foundation.

Government Affairs Program

During this active year the Program has continued to represent the geosciences at congressional hearings, to provide geoscience information to policy makers, and continue to keep the geoscience community alert to impending legislation or potential impact through Action Alerts at both the society, state and international level. The Member Society Council approved a strategic plan for the next five years, which was developed with the assistance of an outside consultant.

AGI 50th Anniversary Celebrations

This committee has been active under the leadership of Sam Adams. The goal was to raise public perception of the geosciences. This has included Earth Sciences Week, a conference in Washington, and by the end of the celebration year in 1999, a comprehensive membership directory.

Earth Sciences Week was chosen to be the second week in October. The effort to get the week recognized was spearheaded by Jon Price and the program developed by Julie Jackson. Over 30 states officially proclaimed this week as a special event and it was endorsed by President Clinton. Over 200,000 posters were distributed and over 7500 information packets were sent to teachers and scout leaders. The web site received many thousand hits and state surveys and local geological clubs were actively engaged. Although Earth Sciences Week was a significant expenditure of funds and energy, it has proved to be an effective way to reach the general public.

On November 14, 1998, a meeting entitled, "The Future of the Earth Sciences - The Challenges and Opportunities of Multiple Disciplines and Diversity" will take place at the National Science Foundation in Washington DC. The meeting and an evening banquet will celebrate AGI's 50th anniversary

The Directory of Geoscientists will be published in 1999.

Publications

This has been a successful year with many updates of Glossaries being published. Additional revenues are still being sought for *Geotimes* and the journal is receiving wider recognition. A new Publications List includes publications and membership information for 11 of the 34 AGI Council members including GIS.

National Geoscience Data Repository Systems (NGDRS)

After much negotiation it now appears that hangers at the Denver's Stapleton Airport can be adapted to become a national repository of cores, samples and other collections to be donated by industry and state geological surveys. To purchase and maintain the repository, AGI will need ten million dollars. Letters of intent have been received and a grant from the Department of Energy is being actively sought to maintain this program.

Special Presentations

A letter of support from AGI Member Society Council in support of "Chip" Groat, new Director of the USGS was presented by William L. Fisher and Charles J. Mankin. It was noted that this was the first time that such a letter has been written by AGI to endorse and support a new director. The letter was overwhelmingly approved and will be sent.

Ethical Issues

A draft of a document being developed under the leadership of President Elect David Stephenson on Ethical Practices in the Earth Sciences was presented. The need for such a document was recognized following a multidisciplinary conference on this topic when it was recognized that such a document did not exist within the earth sciences.

SPECIAL PRESENTATIONS

National Geological Library

GIS President Connie Manson told the group that support for the USGS Library has been noted by the Agency. The USGS now recognizes and acknowledges that their library is important to many people beyond the agency and is a national resource that must supported and enhanced. The Library is now a line item in the USGS Budget. A Friends of the Library Group is being created and will work to assist the Library.

National Research Council

The Council exists to bring together a group of volunteer experts who independently review, research and write about public policy. Among the Council's commissions is one on the Geosciences, which has among its titles, publications on the Antarctic, wetlands, water, and earthquakes. An International Geoscience Roundtable is being created to create partnerships and internships to facilitate the exchange of information and to foster increased cooperation. Membership will be open.

Natural Hazards Caucus

AGI is creating a Natural Hazards Caucus to enhance the awareness of natural hazards and their

effect on the quality of life to the members and staff of the US Congress.

Canadian Geoscience Council

Canadian Geoscience Council serves as a focal point for the coordination of information distributed to general public and geoscientists on matters of significance to Canada and the world by: providing expert advice to federal and provincial governments; promoting scientific awareness and education in Canada; encouraging Canadians to consider careers in the earth sciences; organizing Canadian participation in non-governmental, global, cooperative earth science programs; and by providing an accountability and reporting center for major cooperative geoscience projects in Canada and for Canadian contributions to similar international projects.

Submitted by Barbara Haner and Claren Kidd

GIS ANNUAL BUSINESS MEETING

10/28/98

I. Call to order

II. Introductions

The officers introduced themselves. New officers: Lois Heiser, new Vice-President/President Elect; Shaun Hardy, incoming Secretary. General introductions went around the room.

Call for Appointees/Committee Assignments. There was a call for committee volunteers, and a sign-up list went around the room. Specifically, an opening for Publications Manager was announced. Heiser volunteered to remain GeoNet-L master.

III. Minutes of the previous meeting (published in the newsletter)

The minutes were approved.

III. Elected Officer reports

President. Manson announced that there were openings for the GIS field trip.

On the 1997 GIS Proceedings: Manson reported that the proceedings volume cost an additional \$4,400, primarily due to the addition of color reproductions. She indicated that this was an experiment and asked for feedback. In the discussion, the following points were raised: black-and-white should be the standard and authors should be informed of this; the authors should support any additional color costs; color illustrations improve the look of the publication; some illustrations require color; black-and-white is often better for photocopy reproduction. It was indicated that the proceedings have always paid for themselves by sales, and shouldn't be supported by other Society revenue

streams. Use of color increases the price and makes it significantly more difficult for the proceedings to pay for themselves. Manson suggested that authors be asked to pay color-related costs and that they be given a cost figure. Heiser suggested that final decisions be left to the discretion of the proceedings editor and Executive Board.

Vice President. Derksen announced that there was one ticket left for the luncheon.

Past President. DeFelice reported on the write-up on GIS in Geotimes as part of the 50th year anniversary of AGI. Executive Board meetings: DeFelice said that there was only one conference call this year. E-mail and phoning seems to be reducing the need for more.

GeoInfo VI organizational committee: The committee's activities were published in the newsletter.

Secretary. Dunn gave an update on membership information: GIS had a net gain in membership for a total of 220 members, the Society's first membership increase since 1991.

Dunn distributed a summary of the survey on the membership directory. In brief, most respondents favored a web directory containing limited contact information, but wanted the print directory continued. Manson asked if GIS "membership" (ID) numbers would be useful. For example, the GSA website restricts access to certain portions by requiring input of a membership number. If GIS wants to have a restricted website of its own, security measures will probably require something similar.

Treasurer. Goodman reported on the status of the accounts, and distributed a handout. This included updates and notes on the current budget; contributions; field trip funds; International Fellows Program funds. The financial health of GIS is sound.

V. Appointed Officer reports

[The annual reports have been published in the newsletter.] Updates and announcements were made.

Newsletter Editor. Lembo will gather information about a foreign mailing jobber to help process international mailings.

Reviews Editor. Sheaves asked for comments and suggestions.

Publicity Officer. La Russa reminded people to submit information on noteworthy events for publicity.

GeoNet-L Editor. Heiser has agreed to continue as editor during her vice-presidency.

Webpage Editor. O'Donnell has agreed to become webpage editor for Linda Pierce, who has stepped down.

VI. Representative reports

[The annual reports have been published in the newsletter.] Updates and announcements were made.

AGI GeoRef Advisory Committee. Larsen announced that with John Mulvihill's retirement,

Sharon Tarakheli is now Director of Information Systems. GeoRef currently has 34 staff members. Their document delivery business has been going down, since they no longer have access to the USGS library at Reston. The move from CD-ROM to a web-based product is not going as fast as expected. About half of the CD-ROM subscriptions are held outside the USA. The Bibliography and Index is still being published. Derksen is the new chair of this committee.

AGI Government Affairs Program (GAP). Dvorzak said that her full report will be in the next newsletter to include the results of recent meetings. The Congressional Fellow program and the intern program have been successful. Earth Science Week was a success. The National Geoscience Data Repository System is going ahead and negotiations are underway to acquire the Stapleton airport hanger in Denver CO for storage. The Committee's minutes are on the AGI website, allowing you to track initiatives and legislation, including copyright. Dr. Charles Groat was confirmed as head of the USGS. GAP's current priorities are: copyright and fair use issues; digital information accessibility; the USGS libraries; the distribution and accessibility of government information, especially in electronic formats.

AGI Member Society Council. Haner and Kidd. Haner gave a summary of how the meetings are organized. There has been a big increase in member societies, making AGI strong and very diverse. This is the fifth year straight that AGI is in the black financially. GeoRef used to be AGI's financial prop, but there is now a program of successful fundraising. AGI's 50th anniversary goal is to raise the public perception of the geosciences. Earth Sciences Week: Haner gave a report on Earth Sciences Week, which will be on the second week in October in the future. Over 30 states have declared this week as Earth Sciences Week, a poster was created and distributed, a website built, and almost 8,000 information packets sent to educators. There was a general interest in finding out what other libraries did for Earth Science Week. Haner will collect this information and distribute it. Dvorzak said that Julie Jackson put together a great earth science package, and she can be contacted through AGI. The Directory of Geoscientists will come out late this year. The AGI Publications List is out, and GIS has a full-page spread. The National Geoscience Data Repository System will be looking for funding, including from DOE. The issue of ethical professional conduct is being discussed. Kidd gave an overview of AGI's education initiatives, including standards for earth science education at state and national levels. The International Geoscience Roundtable is set up to facilitate the transfer of information and cooperation, to pursue partnerships and internships. USGS library: A Friends group was perceived as a positive advocacy tool for an enhanced

USGS library. There was an ad hoc committee report on professional accreditation/certification. The Natural Hazards Caucus will work with Congress to keep them informed on their issues.

AGI Environmental Advisory Committee. Lerud and DeFelice. DeFelice announced that Lerud will step down due to her new duties as AGI Member Council Secretary. The first of the new publications on environmental issues is out. Other publications, including one by the Soil Science Society of America and ASEE, are being planned. There was a request that GIS contribute to this series. Professional training and development calendars are being put together by various societies as well. This Committee is interested in developing international partnerships.

CUAC. McLeod. The next meeting will be held in May in Denver. SLA Geography & Map Division. Clement announced that they are planning for the next meeting in Minneapolis MN in June and working on a newsletter to share information with the membership. Their membership has plateaued and they are developing initiatives to address this.

WAML. O'Donnell announced that WAML will meet next year in Golden CO right before GSA. Haner suggested a joint field trip with WAML and GIS or a joint banquet. Lerud said that this would be a possibility and that all present were invited to the WAML meeting.

VII. Committee reports

Annual Meeting. Derksen commended the committee members and said that Beverly Chen is still ill and was not able to attend. Field trip logistics were discussed.

Archives. Krick and Pausch. A reminder was given for people to send material to be archived.

Mary B. Ansari Best Reference Work. Lerud announced that both editors of the winning work will be at the ceremony and the publisher, Cambridge University Press, will take pictures.

Collection Development. Noga distributed handouts. Manson suggested that write-ups of GIS sessions (collection development, preservation, etc.) be included in the proceedings volume as well. This suggestion was positively received.

Digital Data. Fleming is recruiting members.

Exhibits. Love said that this is the first year for the new display, which was purchased under budget. The display had less material this year to better manage Canadian Customs. The Executive Board approved an exhibit at SLA this year, to attract new members, and a request went to SLA's Geography and Map Division members to assist in staffing the booth. Love asked for suggestions for Denver in 1999. She extended thanks to Scott and O'Donnell.

GeoNet-L Advisory Committee [inactive]. It was suggested that the Executive Board dissolve this committee, and revive it as needed.

GeoRef Users Group Steering Committee. Blair announced the Users Group meeting this afternoon, which will have a presentation on changes in GeoRef and plans for the future.

Guidebook Standards Committee. Dunn suggested that GIS assign someone the responsibility of disseminating the Standards to the GSA field trip leaders each year. Larsen volunteered to contact next year's field trip organizers. At Haner's suggestion, O'Donnell will post the Standards on the GIS website. There was general consensus that the Committee plan on disseminating the Standards more actively. Dunn suggested that the Standards be included as a permanent part of the membership directory.

International Initiatives. Kidd reported on the activities of the Ad Hoc Committee for GeoInfo VI. The meeting was successful: there were about 250 participants, including international attendance, with Europe predominating. The next meeting will be in Canberra, ACT, Australia, in late winter/early spring 2002. On the International Fellowship Program: the Fellow from the Philippines will be at the Professional Issues Forum this afternoon to report on her experiences. Enough money was raised for two fellowships, \$5,000 per fellow. The second Fellow was unable to get a USA visa and could not participate. The Committee will try to recover as much of these funds as possible. The committee will review the application guidelines and better communicate the committee's goals to the applicants. Significant funding for future activities may be available. Kidd extended thanks to the committee members.

Manson said that GIS will publish the GeoInfo VI Proceedings volume.

Hardy announced that there was a spread in the GSA conference newsletter on the Fellowship Program. Membership.

O'Donnell sent brochures to the GeoInfo VI attendees, and has plans to send to the library schools. He will leave this committee to edit the GIS website.

Nominating. DeFelice announced the results of the elections, and thanked the committee.

Preservation. Musser and Wishard. New committee members are needed. A hands-on preservation workshop instead of the preservation forum is a possibility at the next meeting, and there was interest expressed for this. There was a request for discussion on establishing an award for the best preservation project and the committee wants feedback. They are working on a long-range plan or vision statement for the committee. It was recommended to the Executive Board that someone from GIS be appointed to ALA Preservation Group from GIS.

Website Advisory. Blair announced that Vivian Roumani-Denn had left.

Ad Hoc--AGI Anniversary Year. Sheaves announced that to celebrate and honor AGI on its 50th anniversary, guests from AGI have been invited to the luncheon today. There is an article in the GIS newsletter on the history of GIS/AGI involvement and GeoRef.

Educational Initiatives. Brown and Krick. Websites for K-12 have been reviewed, and the Committee has responded to requests from GIS members and others. They forwarded information to AGI's Julie Jackson for Earth Science Week. Suggestions are needed on how to disseminate this information.

Ad Hoc--Future of the Union List of Geologic Field Trip Guidebooks. Mulvihill reported on the web database under development, which will reside on AGI's server and be publicly accessible. It is based on and organized similar to the printed 6th Edition, with old holdings preserved. This database can be updated remotely. Mulvihill requested that GIS consider whether the members want to maintain it, and who should be appointed to do the updating. He volunteered to collect data for guidebooks published in 1991-1998 from people who had been gathering it, but needs six or seven volunteers to help with data entry. There was discussion on the List's features and logistics of updating. In response to a copyright question it was indicated that the web List is copyrighted. There was discussion on holdings information, to be continued under old business. Volunteers for editorial responsibilities should contact O'Donnell.

VIII. Old Business

Goodman reminded the members to get business receipts to her as soon as possible.

Union List of Geologic Field Trip Guidebooks. Do we want to revisit the holdings issue? [GIS's previous decision was to continue the List as an electronic publication without updated holdings. At present, the electronic version has only the holdings from the 6th Edition.] The main concern is accuracy and amount of work for a volunteer editorial staff. Dvorzak mentioned that holdings information in OPACs is often inadequate, and holdings in the List are helpful. However, it was pointed out that incomplete or incorrect holdings send a wrong message. After discussion, Musser moved that the current project go forward as proposed and that the electronic List allows libraries to submit their holdings information as an option. The motion was seconded by Pausch and approved. The ad hoc committee will probably be dissolved, a standing committee formed, and editors appointed. It was suggested that instructions be included in the website both on how to use the database and what to do when the user identifies a guidebook. Mulvihill indicated that part of the original incentive

for this project was to get this information included in GeoRef, which means that entries need to be submitted with more complete bibliographic information. Derksen added that stratigraphic and geographic index guidelines are needed for contributors.

IX. New Business

Status of the USGS Libraries. Manson announced the Friends of the USGS Libraries meeting, and reviewed the situation leading to the actions of the outside user community and the USGS response. USGS representatives are responsive to both a Friends (lobbying) group and a Foundation (fundraising). Dunn said that the minutes of the Friends meeting will be available, possibly in the GIS newsletter. Contact information for John Aaron should also be published there. O'Donnell said that this issue should be a high priority for GIS. Yocum asked whether a resolution in support of the USGS libraries was appropriate. Lerud advised caution and suggested that we wait for more information. O'Donnell said that the President is generally authorized to send such a letter when the time is right. Expressions of support will be left to the Executive Board.

International Fellows Program. Kidd proposed that in two years GIS appoint another Fellow to visit the USA for about four weeks and attend GSA in Reno NV, and that GIS plan to award a fellowship every two years (funding permitted). The motion was seconded by O'Donnell and passed. O'Donnell recommended that the Committee purchase trip cancellation insurance against future participation problems. Kidd announced that GIS coffee mugs and globe paperweights are available for order.

Logo Design. A "Logo Design" contest was announced. New designs must be submitted in digital format to Lembo by June 1 1999. The name "Geoscience Information Society" must be incorporated into the logo (see below). The new logo should be designed with reproducibility and webpage display in mind. Attention to existing trademarks should be paid, and there was a suggestion to outsource the design process to others as appropriate. O'Donnell made a motion that the Society's name remain the "Geoscience Information Society" in perpetuity. Larsen seconded the motion and it carried. O'Donnell motioned that the name of the society in full be included in the logo. Larsen seconded the motion and it carried.

Career Brochures: Haner proposed that we create an updated career brochures. Discussion on an ad hoc committee to do this will take place at the Executive Board.

X. Announcements

Heiser announced next year's GSA meeting theme as "Crossing Divides." Suggestions included: financial

haves and have-nots; paper vs. electronic; outsourcing or in-house; proprietary vs. public access. Another possibility is addressing issues from a geographic perspective (North vs. Central and South America). Heiser called for suggestions.

Lembo announced that the deadline for the next newsletter is Nov 20th.

Wishard announced that there is a new organization for atmospheric science professionals, and she can be contacted for additional information.

Lerud suggested that the Society use its next anniversary as a big kick off for Society strategic planning, to determine priorities and objectives for the next 5 years. The Executive Board should direct this effort.

Lerud announced that the 5th International Symposium on Collections in Mining, Metallurgy and Geosciences will be held in Golden CO in 2000.

Scott announced that there is a vacancy at the University of Wyoming, and she can be contacted for further information.

Hardy asked for feedback on formulating a web membership directory.

Dunn announced that this year's GSA field trip guidebooks are in short supply. The guidebook publisher (at University of Toronto) would like to know if anyone wants them, and Dunn will forward requests to him.

Mulvihill said that GAP needs member input on the issue of fair use. The Executive Board will work on a response. Haner said that drafts of letters on this issue from members could be posted on GeoNet-L to share information.

XI. Adjournment

The meeting was adjourned.

Respectfully submitted,
Lisa G. Dunn, GIS Secretary

GIS EXECUTIVE BOARD MEETING - HIGHLIGHTS

October 28, 1998
Toronto, Ontario

Attending: Derksen (presiding), Goodman, Hardy, Heiser, Lembo, and Manson.

The Executive Board took the following actions at its final meeting on October 28, 1998:

discussed possible changes in the program structure of the 1999 annual meeting and the

opportunity to sponsor a "keynote talk" at a no-conflict time;

approved transfer of the membership database from dBase to Access and the assignment of membership ID numbers;

authorized initiation of a Web-based version of the membership directory in 1999, as a supplement to the print version (participation at members' discretion);

directed that the Guidebook Standards be posted on the Web site and published in the next membership directory;

converted the Ad Hoc Committee on the Future of the Union List of Field Trip Guidebooks to a standing committee, to be known as the "Union List of Field Trip Guidebooks Committee" (charged with maintenance of the guidebooks database and with proposing a suitable name for the database);

established a "Public Affairs Committee," to serve as a watchdog group on government affairs and to keep members regularly updated on relevant legislation and regulations (and to include among its members our AGI GAP representative);

abolished the GeoNet-L Advisory Committee;

set parameters for the new logo contest (including a submission deadline of June 1, 1999);

established an "Ad Hoc Committee on Career Information," to draft text for a brochure on careers in geoscience information for AGI;

discussed the vacant positions of Publications Manager and Auditor;

agreed to draft a letter of support for the USGS Library;

delegated to the new Public Affairs Committee responsibility for drafting a position letter on WIPO and fair use for submission to GAP;

approved the draft budget for 1999;

authorized the sale of GeoInfo VI Proceedings to contributing authors "at cost";

made initial preparations for transfer of the Society's funds to a CAP account, while requesting the Treasurer investigate and report on other investment options before taking final action;

authorized GIS participation in the EBSCO Sample Issue Program at the April, 1999 ACRL conference and the June, 1999 ALA conference.

Detailed minutes of the meeting are available to interested members on request from the Secretary.

Shaun J. Hardy
Secretary

SUMMARY OF REPORT PRESENTED TO GEOREF USER'S GROUP MEETING,

Toronto, October 28, 1998

by Sharon Tahirkheli, Director,
Information Systems, American Geological Institute

75,000+ references will be added to *GeoRef* in 1998.

21% of current references being added contain abstracts.

GeoRef is currently available on the Web through three different providers, COS, OCLC, and SilverPlatter.

COS and SilverPlatter reloaded *GeoRef* during the year using the most current version of the file. This version contains all corrections made during the past year and changes prompted by the publication of the Eighth edition of the *GeoRef Thesaurus*. The SilverPlatter reload resulted in 5 CD-ROMs.

A 5% price increase will go into effect in 1999. This price increase has become necessary due to the rise in production costs. Subscription prices for *GeoRef* were held steady throughout most of the time period from 1990-1997.

GeoRef obtained a grant from NSF for the digitization of the Arctic Bibliography. This publication consists of 16 volumes (108,000 references on the Arctic region. Publication dates for the references range from the 1800's to around 1975. The Arctic Bibliography will be produced as a separate data base and, in addition, about 40,000 relevant items will be added to *GeoRef*.

Sources for *GeoRef* references have expanded greatly in past years and now number nineteen separate sources. Each source is identified in the reference and each reference is edited and reviewed by *GeoRef* staff for consistency. A list of the current sources will appear in a later *GeoRef* update to the newsletter.

New Products from *GeoRef*

Groundwater and Soil Contamination database - this database is now produced by AGI directly. The material contained in the database overlaps with *GeoRef* with the notable exception of NTIS references. These appear first in the Groundwater and Soil Contamination database and, after a twelve-month holding period, appear in *GeoRef*.

GeoRef Previews database - this free database is available on the Web at AGI's homepage <http://www.agiweb.org>. It contains references to current materials that have not been completely edited and indexed.

GeoRef Electronic Sources database - this free database will appear on AGI's homepage later this year. It will contain references to electronic materials. Because this database will be updated frequently, it can be used to confirm URLs for references cited in *GeoRef*.

GIS FELLOWSHIP

GIS Fellow Arlene Marzo, National Institute of Geological Science Library, University of Philippines has completed the first GIS Fellowship.

Following weeks spent in the Washington DC area and University Park Pennsylvania, Ms. Marzo flew to Austin TX. During the three week stay hosted by Dr. Julie Hallmark, The University of Texas at Austin (UT), Graduate School of Library and Information Science, Ms. Marzo. Attended several UT Library and Information Science classes and campus activities. Visits to local special libraries included the Texas Bureau of Economic Geology (BEG) Library and the BEG well log collection, the USGS Library, and the Texas Natural Resources Commission Library. On campus she visited the science branch libraries (Chemistry, Geology, Life Sciences, Engineering, and Physics-Math-Astronomy) for tours and electronic demos/practice with the branch librarians. Other specialized interests and short courses included Document Delivery, Web Graphics (short course), two three-hour sessions in the GSLIS course in Information Resources in Science and Technology, Lexis-Nexis demo and practice, and colloquia. She also was a guest at the fall potluck dinner of the local SLA chapter.

On October 17, Arlene flew to Ottawa, Ontario where she was hosted by Pauline Kamal, Earth Sciences Information Center. As her visit coincided with National Science & Technology Week, she was able to attend special lectures offered as part of those celebrations. She learned about the *Geoscan* database and viewed the photo library. She worked with the Earth Sciences Information Center's reference staff and learned about *Imnopac*.

At the Geological Survey of Canada, she visited the Cartography and Publication Departments. She toured the Canada Institute for Scientific and Technical Information (CISTI), the Library of the Canada Centre for Mineral and Energy Technology (Canmet) and the National Resources Canada's headquarters library.

Arlene rode Via Rail to Toronto for her final week as a GIS Fellow participating in the activities associated with the GIS annual meeting. She visited the exhibits and attended GIS meetings, papers, forums, the luncheon and field trip. She was able to meet GIS members and make contacts that may be useful in the

future. At the GIS Luncheon she was presented with a certificate recognizing her as the first GIS Fellow, a copy of the Glossary of Geology, and a copy of GIS's Best Reference Book of the Year. A certificate of commendation will be sent via the mail.

The GIS Fellowship goals were met; therefore the International Initiatives Committee, the Executive Board, and the membership assembled at the Annual Business Meeting have agreed that the Fellowship Program should be continued. If funding is secured and a suitable candidate can be identified, a single Fellowship will be offered for the autumn of 2000. It will be for four weeks instead of seven, and will correspond with the occurrence of the GIS annual meeting to be held in Reno, Nevada, USA.

Thanks are extended to all the following people who helped to make the Fellowship a reality. They include the members of the International Initiatives Committee (Xiping Cao, Pauline Kamal, substituting for Beverly Chen, Zelda Colodner, Glenn Cook, Julie Hallmark, Barbara Haner, Dena Hanson, Independencia Isellidh, Dorothy McGarry, and Patricia Yocum) Shaun Hardy, and GIS President Connie Manson who all worked to make the Fellowship a success. The hosts and facilitators in New Jersey/District of Columbia were Susan Goodman, Shaun Hardy and Sharon Tahirkheli; in University Park Pennsylvania, Linda Musser; in Austin Texas, Julie Hallmark; and in Ottawa, Ontario, Pauline Kamal.

Generous funding for the Fellowships came from Newmont Mining and Homestake Mining.

Thanks are also extended to the people who applied for the Fellowships and to Arlene Marzo, our first Fellow. We are disappointed that Mwiya Clement Siyumbwa was unable to participate, but happy that Li Mei Chen was present at GEOINFO VI and could participate as a Fellow for the days spent at Pennsylvania State University, University Park Pennsylvania.

The International Initiatives Committee will now begin work toward the next Fellowship

Submitted by Claren Kidd, Chair,
GIS International Initiatives Committee

JOHN MULVIHILL AWARDED FOR 25 YEARS OF SERVICE TO AGI

ALEXANDRIA, VA. — The American Geological Institute (AGI) will present the William B. Heroy Jr. Award to John Mulvihill during a reception and awards ceremony on Tuesday, Oct. 27, at the annual meeting of the Geological Society of America, a member

society of the Institute. The Heroy Award is presented annually to a geoscientist in recognition of distinguished service to the Institute and to the geoscience profession. Mulvihill directed AGI's large bibliographic database, *GeoRef*, for 25 years and guided its development and technical modernization.

GeoRef was under Mulvihill's leadership for almost 25 years, until he retired in February. The AGI database is a collection of 2.1 million bibliographic references to journals, books, maps, and other geoscience publications in 40 different languages. Mulvihill took charge of the database in its early stages, when it contained only 217,000 references and when its National Science Foundation funding ended and the database had to be self-supporting. "He joined AGI as manager of the *GeoRef* system just as the bibliographic database was coming of age," says Marcus Milling, executive director of AGI.

Mulvihill extended *GeoRef's* coverage back to 1785 when he engineered the addition of two large print bibliographies into the database during the 1980s. The database went on-line in 1978, was published on CD-ROM in the late 1980s, and became accessible through the Internet in the mid-1990s.

Mulvihill's contributions have extended beyond his retirement. This year, the National Science Foundation awarded *GeoRef* a grant to save the *Arctic Bibliography*, a comprehensive guide to literature about the Arctic and a major bibliographic source for Arctic research. Because it only exists in print or on microfilm in few libraries, it is hard to find and therefore rarely used. Under the leadership of Sharon Tahirkheli, the new director of *GeoRef*, AGI will convert the bibliography into a more accessible, electronic form. Mulvihill was instrumental in helping *GeoRef* win the NSF grant for the project, Tahirkheli says.

Mulvihill started indexing in 1962, when he joined Astra Pharmaceutical Products Inc. as a librarian after he earned his master's degree in library science from the University of Texas in 1960. In 1964 he joined the American Petroleum Institute and became the director of AGI's *GeoRef* Information System 10 years later.

The American Geological Institute's awards ceremony, held during GSA's annual meeting every fall, honors a select group of outstanding American geoscientists. The William B. Heroy Jr. Award is presented in honor of one of the outstanding geologists of the 20th century. Heroy advanced the use of geophysics in petroleum exploration and in geologic research worldwide. Recipients of this award are measured against his exemplary career. This year's reception and awards ceremony will be held from 5:00 to 7:00 p.m., in the Grand Ballroom of the Sheraton Centre in Toronto.

The American Geological Institute, established in 1948, provides information services to its 32 member societies and a worldwide geoscience community. AGI coordinates improvements in earth-science education, offers scholarship assistance to minority students, and works to increase public awareness of the vital role geology plays in our society. In keeping with those goals, AGI founded and directs *GeoRef* and publishes a variety of books and publications, including *Geotimes*, a monthly earth-science magazine.

A VERY BRIEF HISTORY OF GEOREF

By Suzanne T. Larsen

Once upon a time there were two major reference sources in the geosciences. The Bibliography of North American Geology, which dated back to 1785, was produced by the USGS, and the Bibliography and Index of Geology Exclusive of North America, dating from 1933 and produced by the Geological Society of America (GSA). The American Geological Institute (AGI) became involved in 1966 when AGI received a grant from the National Science Foundation to unify the two indexes in a single computer readable file. Known as the "Geological Reference File", this was the origin of GeoRef. It was originally created to generate the paper index that was then to be published by GSA. In 1970, GSA published the first unified Bibliography and Index of Geology, which was photocomposed from AGI's GeoRef files. GSA continued to publish the Bib and Index, as it is affectionately known, from these files for several years.

NSF funding continued until 1973. This marked a very difficult time financially for GeoRef and AGI. Many positions were cut. That same year marked GeoRef's debut online on SDC's ORBIT system. This online system and those that followed would eventually provide financial security for GeoRef and contribute to the success of AGI. The technology was rudimentary. Remember the old acoustic coupler, 300-baud computer connections? How about the thermal paper that curled and faded in the light? With high connect time charges as well as charges per citation printed and a cumbersome search methodology, librarians had to serve as intermediaries for researchers. It would be almost 20 years before an effective, relatively inexpensive way to provide direct end-user access to GeoRef would be found.

The first thesaurus and guide to indexing was published in 1977 with funding from several oil companies. In 1978 over 126,000 back file citations

were added to GeoRef. These citations came from Geophysical Abstracts 1966-1971, Bibliography of Theses in Geology, 1965-1966, and the Bibliography of North American Geology, 1961-1970. An additional 139,000 citations from the Bibliography of North American Geology, 1785 to 1960 were added to GeoRef in 1984. Unlike many other disciplines, creating a large retrospective database was critical to the geosciences. Much of the older material remains core to current research.

Even with the addition of the Bibliography and Index of Geology Exclusive of North America, AGI realized that literature from outside of the United States was very poorly represented in the GeoRef. In 1981, an exchange with the Centre National de la Recherche Scientifique began. This was the first in a number of agreements with foreign scientific agencies for access to their records. This year also marked the debut of GeoRef on the Dialog system online. This eventually became platform of choice to most online searchers, particularly in the academic setting. A year later GeoRef went online with CAN/OLE, the Canadian online system. The proliferation of platforms on which to access GeoRef continued with the addition of STN in 1987.

Access to the database increased the need of researchers and librarians to obtain material cited in the system in a speedy and efficient manner. With that in mind, AGI got into the document delivery service in 1984. At that time the bulk of the citations in GeoRef were to material held by the USGS Library in Reston, VA.

Probably the biggest breakthrough in searching bibliographic databases, was the concept of bringing searching directly to the hands of the researcher. Until the development of CD-ROM technology, access to GeoRef was based on online systems charging substantial sums per minute for access to the database as well as additional charges per citation printed. This was not something to be put in the hands of the researcher who wanted to read each citation carefully as it appeared on the screen and plan searches. Librarians and information specialists were forced to be the "middlemen" on searches. With knowledge of searching techniques it was possible to find the information needed by the researcher without being an expert on a topic. However, logically the most efficient way to find the information needed for research was to put the process in the hands of the researcher. After years of promise and development, SilverPlatter offered the entire GeoRef database on CD-ROM for subscription in 1990. There was a flat charge for the database, although exponentially higher for multiple users. The time and number of printouts was irrelevant. The system was not inexpensive and certainly a burden to already devastated library budgets. However, AGI was sensitive to the pricing

issue and as part of the initial agreement with SilverPlatter, negotiated a tiered pricing system based on the size of geology departments, for academic libraries. The search engine on the CD-ROM went through several versions before finally settling into a relatively stable Windows based system.

End user searching was quite obviously the right track to take. Providing better access to the end user in the library and beyond was the next step to take. The first attempt to provide access to the desktop of the end user through the Internet was through OCLC's FirstSearch system in the early 1990's. This was primarily for academic libraries, and could be bundled with a number of other databases to make it very cost efficient. This was available first in a text version and later on a Web platform. SilverPlatter pursued the Web-based platform with their WebSpurs version of the database. The final player in the delivery of GeoRef to the end user, in 1997, is Community of Science (COS). This web-based system was developed in consultation with AGI and the geoscience information community.

In 1996, GeoRef surpassed the two million record mark. From modest beginnings, GeoRef has grown into a hugely effective repository of citations in the geosciences. With coverage from 1785, it is the most retrospective database in electronic format in existence, as well as being one of the first. Residing on over half a dozen systems, it is in demand by large numbers of researchers and students the earth sciences. We in the Geoscience Information Society would like to salute AGI for its continued support of GeoRef through the ups and downs of development, funding, pricing, ever shifting technology, and the often demanding requests of earth science librarians!

EARTH SCIENCE WEEK: MOMENTUM FOR THE FUTURE

By Julie Jackson, Program Director of Earth Science Week for the American Geological Institute

"A roaring success" is how AGI Past President Susan Landon described the first Earth Science Week. From Oct. 11 to 17, 1998, activities took place in every state and also in Australia, Canada, Germany, and India. Publicly recognizing the importance of the earth sciences, 39 state governors and at least three city mayors signed Earth Science Week proclamations. Oregon Sen. Ron Wyden read an Earth Science Week resolution into the Congressional Record in July; and on Oct. 9, President Clinton issued a message urging every citizen to participate in Earth Science Week. In several states, these endorsements were presented at

signing ceremonies and public events, bringing local media coverage and attention to the earth sciences.

By promoting Earth Science Week, many AGI member societies, state geological surveys, geoscience organizations, and various publications contributed to its successful launching. In Idaho, the geological survey, Earth Science Teachers Association, and Department of Education worked together to get Earth Science Week posters and bookmarks and the Ideas and Activities booklet (which described student activities for teaching earth-science concepts) into every school. In New Jersey, the geological survey sent postcards promoting Earth Science Week to 3,200 schools. Science Scope, the National Science Teachers Association journal read by about 20,000 middle-school teachers, featured an earth-science issue in October.

Many teachers are still using the Earth Science Week *Ideas and Activities* booklet in their classrooms.

Week-long celebrations of Earth Science Week included open houses, lecture series, film festivals, demonstrations, and exhibits. Sponsors were the Paleontological Research Institution and Cornell University; Delaware Geological Survey; Department of Geology, University of Arkansas, Fayetteville; the student Geo Club at George Mason University, Fairfax, Va.; Bob Campbell Geology Museum and Department of Geological Sciences at Clemson University; and the Kentucky Geological Survey.

One-day events also drew crowds. More than 100 participants attended every field trip sponsored by the Nevada Geological Survey. Earth Science Day at Arizona State University, Tempe, attracted more than 800 visitors, and more than 1,400 people showed up for Western New York Earth Science Day at the Penn Dixie Paleontological and Outdoor Education Center near Hamburg. More than 1,000 people spent the afternoon in Highbanks Metro Park in suburban Columbus for the Earth Science Week Expo sponsored by the Ohio Geological Survey, the Water Resources Division of the U.S. Geological Survey, and other agencies. A byproduct of that Earth Science Week event is a new program offering field trips for school groups. And a byproduct of activities at Austin Community College in Texas is a permanent monitoring well on campus that was drilled into the Edwards Aquifer during Earth Science Week.

A geologist from Wolf Point, Mont., visited schools on a nearby Indian reservation during Earth Science Week. Two geologists in Iowa City spent a day teaching 700 students about aquifers. Don Davidson, executive director of the Geological Society of America, gave presentations to 1,000 students at 11 schools in the Boulder, Colo., area; six of the schools have already invited him back.

New Partnerships

Perhaps the most significant byproduct of Earth Science Week is that it has fostered so many new partnerships and communication links. These links unite geoscience organizations, industries and communities, scientists and teachers, and youth leaders and scientists. These and other partnerships will flourish as communities organize to celebrate Earth Science Week every year. In fact, many organizations and individuals are already planning Earth Science Week 1999, Oct. 10-16.

Making the first Earth Science Week part of AGI's 50th anniversary celebration, along with a resolution from the Association of American State Geologists, got the ball rolling. Dedicated volunteers throughout the country created local interest and momentum for Earth Science Week that kept it going and growing. Robert Cowdery, Earth Science Week volunteer and chairman for the Kansas Geological Society's public relations committee, recognizes both the potential and the challenge Earth Science Week offers. "It takes funding, it takes somebody being interested," he says, "and it takes someone in every state."

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MEMBER NEWS

New Members:

Patricia Cotosman
Librarian
Newmont Gold Company
10101 East Dry Creek Road
Englewood CO 80112
tel: 303-708-4116
fax: 303-708-4060
e-mail: plc@nel.newmont.com

Mel DeSart
Coordinator, Science & Engineering Resources & Services
Anschutz Library
University of Kansas
Lawrence KS 66045
tel: 785-864-3854
fax: 785-864-5705
e-mail: desart@ukans.edu

Ann M. Juneau
Head, Dept. of Natural & Physical Sciences

Smithsonian Institution Libraries
Rm 51
10th and Constitution Ave., NW
Washington DC 20560-0154
tel: 202-357-4939
fax: 202-357-1896
e-mail: ajuneau@sil.si.edu

Address Changes

Michael McGarr's new work address:
Institution of Mining and Metallurgy
77 Hallam Street
London W1N 5LR
United Kingdom

Xiping Cao's new work address:
National Geological Library of the
People's Republic of China
P.O. Box 8324
Beijing 100083
China

A note from Victor van Beuren:

Dear Connie:

A belated, but sincere thank you for the certificate of recognition that you gave to me on behalf of GIS. I am truly honored (and was truly surprised at the luncheon!) As I mentioned, the recognition should really go to the members of the program committee. Barbara DeFelice, Barbara Haner, Sharon Tahirkheli, Claren Kidd, and the others did a wonderful job. Their expertise and commitment came shinning through.

Thanks again.

Regards, Victor

Victor V. van Beuren
Director,
Communications and Publications; Editor, *Geotimes*
American Geological Institute

Notes from the Mulvihills

Suzanne Larsen and I have heard from John Mulvihill and Anna Marie Mulvihill and wish to share their greetings with GIS members. John wrote to thank Suzanne for selecting the "Atlas of the New West" as a gift from GIS. It is a topic of special interest to him and he looks forward to reading it soon. Anna Marie asked me to share her letter, the text of which follows:

"Now that the Geoscience Information Society meeting for 1998 is a memory, I want to assure you and all the members that for me it is a very happy

memory. I want to thank you all for including me in your receptions all these many years and most especially for having me as a luncheon guest for the meeting just past.

Being a tag-along has been fun because I have always been made to feel welcome. It's that simple and most heartfelt. Special thanks to you, Miriam, for passing my message to each and all."

I think you will all agree that it was OUR pleasure to have John and Anna Marie among us in Toronto and to be able to express in person to John our deep appreciation.

Miriam Sheaves

MUGS & PAPERWEIGHTS FOR SALE!

GIS now has mugs and paperweights for sale. Each are \$US6.00, postpaid.

The 13 oz white porcelain mug carries navy lettering (GIS on one side and Geoscience Information Society on the other).

The 2-inch clear acrylic paperweight has a colorful world globe inside the cube. GIS and Geoscience Information Society in white lettering are on one side of the cube.

If you want to place an order, send they order and a check payable to the **Geoscience Information Society** to:

Claren Kidd
L.S. Youngblood Energy Library
100 E. Boyd R220
Norman, OK 73019-0628

PUBLICATIONS

FREE copies of the AGI Member Society Publications and Services catalog are available. To get a copy, contact Connie Manson, GIS Past President.

NATIONAL STANDARD FOR SPATIAL DATA ACCURACY

Anyone who routinely uses USGS quadrangle maps is familiar with the statement; "This map complies with national map accuracy standards." The standards referred to have been in existence since the 1940's and help provide some indication of the map's quality.

Last summer, the United States National Map Accuracy Standards were replaced with a new standard designed to better represent not just printed maps, but also the growing number of geographic databases. This new standard - the National Standard for Spatial Data Accuracy - provides guidance in three areas. The NSSDA:

- Identifies a well-defined statistic used to describe accuracy;
- Describes a method to test spatial data for positional accuracy;
- Provides a way to report that accuracy that makes it easier to evaluate the fitness for use of a database.

The Minnesota Governor's Council on Geographic Information Standards Committee recently released a draft handbook designed to help explain the new standard and guide data developers in evaluating the accuracy of their spatial databases. *Implementing the National Standard for Spatial Data Accuracy* explains how positional accuracy can be measured and reported for databases that contain geographic features like roads, rivers and property lines. Five practical examples walk you through the process using databases developed at the Minnesota Departments of Transportation and Natural Resources, the City of Minneapolis, Washington County and The Lawrence Group, a private mapping firm.

The handbook, with practical examples and formatted spreadsheets that make calculating the accuracy statistic easy, can be downloaded in PDF and Excel formats from the committee's web site:
<http://www.mnplan.state.mn.us/press/accurate.html>

A printed version of the handbook can be ordered through the web site or by contacting LMIC.

Your comments on the material included in the handbook and its overall usefulness are strongly encouraged and can be directed to Christopher Cialek at LMIC, phone 651.297.2488, fax 651.296.1212 or e-mail: gc@mnplan.state.mn.us. Responses received by January 1, 1999 will be used to refine the handbook for final publication.

SURF'S UP: COMPUTER WAVELET TOOL FILTERS INFORMATION

RICHLAND, Wash. - The amount of information available to businesses, governments and scientists today is unprecedented. Businesses must pay close attention to marketing plans, strategy reports and government regulations. Governments must analyze satellite data, news and intelligence reports quickly and thoroughly.

The pressure to keep one step ahead of the competition can create information overload.

But mathematicians and computer scientists at the Department of Energy's Pacific Northwest National Laboratory are developing an escape from information anxiety - TOPIC ISLANDS(tm). This new interactive software program transforms data from large documents into visualizations and excerpted summaries. It recognizes themes and the evolution of topics within a document then breaks it into easily understandable sections.

"This technology could help people who are overloaded with information, such as teachers, researchers and lawyers," said Rik Littlefield, senior research scientist at Pacific Northwest. "They could find out what topics are discussed in a document and to what degree without having to spend 10 hours reading."

TOPIC ISLANDS(tm) creates visual outlines of major themes much like a student would outline an essay using Roman numerals depicting major themes and letters indicating subtopics. However, this new computer program categorizes the document into themes using algorithms and can process many pages simultaneously.

For example, Pacific Northwest researchers tested the technology on speeches given by Fidel Castro over the past 30 years. The test detected the main theme of each speech while sifting through tangent topics. TOPIC ISLANDS(tm) was able to quickly focus on the main theme of Castro's speeches and the order in which he visited various topics in each speech.

TOPIC ISLANDS(tm) is applicable to the daily needs of individuals and organizations. The program could be used by businesses wanting to better manage document storage, legal aides searching for case law, intelligence agencies needing improved information analysis and business owners trying to keep up on the latest trends. Scientists and technical editors also could use the technology to better manage their workload, information needs and research requirements.

The underlying technology is called TOPIC-OGRAPHY(tm). Here's how it works:

A computer program creates a digital signal using words within a document. The signal is inputted to a

wavelet engine, or a tool that mathematically filters the signal to varying degrees. TOPIC ISLANDS(tm) can be tailored to a person's needs by further filtering the text to create more detailed information of theme changes. The resulting thematic structure can be visualized in many different ways or can be formatted into a table of contents with emphasis on the most prominent themes.

"Our goal is to reduce the time a person needs to spend reading long articles," Littlefield said. "This technology allows a person to determine if that document possesses pertinent information and deserves further attention. A person can understand what information is in a document, what themes it covers and whether it requires complete reading."

The U.S. intelligence community paid about \$200,000 for development of TOPIC ISLANDS(tm) over the past year. The technology is being advanced further this year through the Defense Advanced Research Projects Agency for about \$120,000.

This developing technology is not yet available for licensing. Business inquiries should be directed to Dennis McQuerry, business development coordinator for PNNL Information Visualization, at mcq@pnl.gov or 509-375-2953. Also, information about TOPIC ISLANDS(tm) is available at Pacific Northwest's information visualization web site, <http://multimedia.pnl.gov:2080/infoviz/index.html>.

Pacific Northwest is one of DOE's nine multiprogram national laboratories and conducts research in the fields of environment, energy, health sciences and national security. Battelle, based in Columbus, Ohio, has operated Pacific Northwest for DOE since 1965.



LITERATURE REVIEW

By Miriam Sheaves

An article in *Computers In Human Behavior*, 14 (3) Aug. 1998: 417-428, by G.K. Rousseau and W.A. Rogers, reports the results of a study on "Computer Usage Patterns of University Faculty Members Across the Life Span", which found that there was little evidence that older faculty avoided new technology. They used fewer computer applications and were less comfortable using the online library system than their younger colleagues, but were interested in receiving training.

In "A New Classification System to Describe the Aging of Scientific Journals and Their Impact Factors", *Journal of Documentation*, 54 (4) Sept.1998: 387-419, the authors H.F. Moed, T.N. Van Leeuwen, and J. Reedijk propose a new system which they believe is a significant improvement over ISI's Journal Citation Reports (JCR) for obtaining journal impact data. Their study looked at aging patterns of all scientific journals processed for the Science Citation Index during 1981-1995.

Yin Zhang in "The Impact of Internet-based Electronic Resources on Formal Scholarly Communication in the Area of Library and Information Science: a Citation Analysis", *Journal of Information Science*, 24 (4) 1998: 241-254, notes that compared with the impact of print sources, the impact of e-sources on formal scholarly communication in LIS is small.

The October issue of *RLG DigiNews*, 2 (5) Oct. 1998, contains two feature articles: "Joint RLG and NPO Conference on Guidelines for Digital Imaging" by Nancy Elkington and Neil Beagrie and "The Role of National Initiatives in Digital Preservation" by Margaret Hedstrom. See <http://www.rlg.org/preserv/diginews/> from North America and <http://www.thames.rlg.org/preserv/digine/> from Australia (or Europe).

ALCTS NETWORK NEWS: An electronic publication of the Association for Library Collections & Technical Services, 16 (11) Oct.13, 1998, announced an annotated bibliography published on their web site (http://www.ala.org/alcts/organization/div/nrmc/bib_main.html).

"Standardized Handling of Networked Resources: An Annotated Bibliography" is the work of the Networked Resources and Metadata Committee's Subcommittee on Standards. The bibliography has pulled together resources pertaining to transport, markup, display, identifiers, metadata, and ratings. It includes a glossary of acronyms and contains links to a

variety of online resources. It will serve as a starting point for exploring standardized handling of networked resources.

There is an interesting article on scholarly publishing mentioned in a review in *Current Cites*, 9 (10) Oct.1998, (The Library, University of California, Berkeley, Edited by Teri Andrews Rinne). It refers to an article published in *ARL Newsletter* 200 (October 1998) by Mike Sosteric, director of the International Consortium of Alternative Academic Publication (ICAAP) (<http://www.icaap.org/>). In his article, "At the Speed of Thought: Pursuing Non-Commercial Alternatives to Scholarly Communication" Sosteric describes the ICAAP's mission of reducing barriers to independent scholarly publication by bringing together scholars and institutions from all countries and all disciplines. The consortium will provide editorial assistance, develop an apprenticeship program for young scholars, and work to develop technical standards for electronic publishing. (See <http://www.arl.org/newsltr/200/sosteric.html>)

Also among the resources reviewed in the same issue of *Current Cites* (<http://sunsite.berkeley.edu/CurrentCites/1998/cc98.9.10.html>) are the following:

Douglas A. Kranch proposes encapsulating digital content in a "tablet" that contains all the hardware and software required to use it. He suggests that these tablets would prevent the need to migrate the information forward into new systems that replace the ones used to create the information in the first place. "Beyond Migration: Preserving Electronic Documents with Digital Tablets." *Information Technology & Libraries* 17(3) Sept. 1998: 138-148.

In "Digital Alternatives: Solving the Problem or Shifting the Costs?" *Journal of Electronic Publishing*, 4 (Sept. 1998), Colin Day maintains that digital publication of a monograph shifts the cost of production from the publisher to the scholar. (See <http://www.press.umich.edu/jep/04-01/day.html>).

Varian, Hal R. "The Future of Electronic Journals" *Journal of Electronic Publishing*, 4 (Sept. 1998). This article is the text of a talk he delivered at the Scholarly Communication and Technology Conference (<http://arl.cni.org/scomm/scatl/>) in April 1997. Varian discusses the economics of journal production and proposes a model which would have reviewers anonymous evaluations linked to the article, and searchable. (See <http://www.press.umich.edu/jep/04-01/varian.html>).

Proceedings of Reference Services in a Digital Age Washington: Library of Congress, 1998 (See <http://lcweb.loc.gov/rr/digiref/>). This Institute pondered questions such as "What should reference services be like when increasingly the information our users need is in digital form, and it can be accessed without ever stepping foot in a library? How can we

interject human (and humane) assistance into these new environments?"

Distance Education, (video conference presentation), Presented by Dr. Michael Churden, Florida State University (tentative)

Moderated by Linda Pikula, NOAA Atlantic Oceanographic and Meteorological Laboratory Library, Miami, FL.

CONFERENCE ANNOUNCEMENTS

Atmospheric Science Librarians International (ASLI) Meeting Preliminary Program Dallas, Texas

WEDNESDAY JANUARY 13-FRIDAY 15, 1999

WEDNESDAY JANUARY 13

8:30-Noon ASLI ROUNDTABLE

Discussion and introduction of ASLI members, their collections, data holdings and round-robin discussion of issues related to atmospheric science librarianship. Guest speaker, Dr. Diane Gaffen from NOAA, who will be sharing her research about women in meteorology.

Moderated by Janice Beattie, NOAA Library and Information Services Division, Silver Spring, MD.

Noon-1:00 BREAK FOR LUNCH

1:00-4:00 P.M. ATMOSPHERIC INFORMATION AND EDUCATION PROGRAMS

(1:00-1:30) *Locating Earth Science Data Sets on the World Wide Web*, Presented by Scott Ritz, NASA Global Change Master Directory, Greenbelt, MD

(1:30-2:00) *Franklin Institute Library and Education Programs*, Presented by Dr. Jon Nese, Franklin Institute, Philadelphia, PA

(2:00-2:30) *AMS K-12 Education Programs*, Presented by Dr. Ira Geer, American Meteorological Society, Washington, DC

(2:30-3:00) *NOAA Historical Map and Chart Collection Online*, Presented by Curtis Loy, NOAA, Silver Spring, MD

(3:00-3:30) *A Citation Analysis of El Nino Literature Phenomena*, Presented by Vince Mariner, Center for Ocean-Atmospheric Prediction Studies Library, Tallahassee, FL

3:30-4:00 BREAK

4-5 INVITED SPEAKER - VIDEO CONFERENCE PRESENTATION, sponsor: TBA

THURSDAY JANUARY 14

8:30-11:00 VENDORS & PUBLISHERS: NEW & UPDATED PRODUCTS

(8:30-9:00) *American Meteorological Society*, Dr. Keith Seitter; Ejournals, etc.

(9:00-9:30) *Accu-Weather*, Mike Steinberg; API Photo archive, etc.

(9:30-10:00) *National Climatic Data Center*, Thomas Ross; Various products

(10:00-10:30) *Academic Press Ltd.*, Colin McNeil, Various products

(10:30-11:00) *Publishing Opportunities for Atmospheric Science Librarians*, Judy Matthews, (Libraries Unlimited), Michigan State University, E. Lansing, MI

Moderated by Maria Latyszewskij, Environment Canada Downsview, ON, Canada

11:00-Noon MGA POWER TIPS

Bill Clark or Larry Buckland from Inforonics will offer tips on how to search Meteorological and Geostrophysical Abstracts.

Moderated by Madeleine M. Needles, MIT Haystack Observatory, Westford, MA

Noon-1:00 BREAK FOR LUNCH

1:00-3:00 ASLI CONTRIBUTED PAPERS

(1:00-1:30) *The WMO Technical Library and its Homepage: Current Status and Future Developments*, Presented by Anna Banchieri, WMO Library, Geneva, Switzerland

(1:30-2:00) *What is the 'Journal Archive' as we Move into an Electronic World?* Presented by Dr. Keith Seitter, American Meteorological Society, Boston, MA

(2:00-2:30) *Sharing Resources through Collaboration using Technology*, Presented by Evelyn Poole-Kober, EPA Atmospheric Sciences Modeling Division Library, Research Triangle Park, NC

(2:30-3:00) *Information Resources for Forensic Meteorology*, Lisa Wishard, The Pennsylvania State University, Earth and Mineral Sciences Library, University Park, PA

Moderated by Judie Triplehorn, University of Alaska-Fairbanks, Geophysical Institute, Fairbanks, AK

3:00-3:30 BREAK

3:30-5:00 CASE STUDIES IN THE USE AND ACCESS OF ATMOSPHERIC INFORMATION

(3:30-4:00) *The Coastal Data and Information Center at the University of Rhode Island, Graduate School of Oceanography Library*, Presented by Eleanor Uhlinger, Pell Marine Science Library, University of Rhode Island, Narragansett, RI

(4:00-4:30) *Interactive Satellite Meteorology Laboratory Module on the Web*, Presented by Gregory Byrd, University Consortium for Atmospheric Research, Boulder, CO

(4:30-5:00) *Forecast Modeling of Tropical Storms*, Presented by Richard Pasch, NHC/TPC, Miami, FL

Moderated by Judie Triplehorn, University of Alaska-Fairbanks, Geophysical Institute, Fairbanks, AK

6:00-?? ASLI DUTCH TREAT DINNER

Location: TBA

FRIDAY JANUARY 15

8:30-11 ASLI BUSINESS MEETING

Moderated by Lisa Wishard, The Pennsylvania State University, Earth and Mineral Sciences Library, University Park, PA

Afternoon Fieldtrip
Destination: TBA

For more information, visit the ASLI website at:
<http://www.lib.noaa.gov/asli/asli.html>

Lisa Wishard
Penn State Earth and Mineral Sciences Library
LAR14@PSU.EDU 814/865-3694

COASTAL GEOTOOLS '99

The NOAA Coastal Services Center (CSC) is pleased to announce the Coastal GeoTools '99 conference to be held in Charleston, South Carolina, April 5 to 7, 1999. The purpose of this conference will be to increase awareness and understanding of geospatial data, tools, and technology applications for studying and effectively managing the coastal environment. We plan to provide an interesting and stimulating collection of speaker presentations, interactive posters, and special interest meetings for our conference participants, and we hope that you will consider attending. Confirmed presentation topics include NSDI, Open GIS, metadata, and state clearinghouse / data distribution policies.

Although we see our primary audience as state coastal resource managers and planners, our desire is to have a diverse mix of government, industry, and academic participants at Coastal GeoTools '99. While we hope to provide you with an excellent learning opportunity and a chance to interact with others interested in using geospatial technologies to solve coastal management problems, we also want to provide you with an opportunity to share your perspective. Please consider presenting your efforts and insights by submitting an abstract for oral or poster presentation. The deadline for abstract submittal is December 15, 1998.

Please visit our website at: <http://www.csc.noaa.gov/GeoTools99/> to see our list of potential conference topics and invited speakers, and to learn about abstract submission procedures, conference registration, and accommodations.

Sponsors include the NOAA Coastal Services Center (CSC), the Coastal States Organization (CSO), the Federal Geographic Data Committee (FGDC), the National States Geographic Information Council (NSGIC), Technology Planning and Management Corporation (TPMC), and Environmental System Research Institute, Inc. (ESRI).

Thanks, and we hope to see you next spring in historic downtown Charleston for Coastal GeoTools '99.

Steve Meador
CIS Program Coordination Officer
NOAA Coastal Services Center
2234 South Hobson Avenue
Charleston, South Carolina 29405-2413
(843)740-1334 (843)740-1315 (fax)
email: smeador@csc.noaa.gov

CALL FOR PAPERS
TeleGeo'99: FIRST INTERNATIONAL
WORKSHOP ON TELEGEOPROCESSING
Lyon, France - May 6-7, 1999

Scope of the conference: This conference aims at bringing together all people carrying out research in novel systems in telegeoprocessing, cross-fertilization between Geographic Information Systems (GIS) and Telecommunications. Telegeoprocessing can be defined as a new discipline based on real time spatial databases updated regularly by means of telecommunications systems in order to support online decision-making. Overall attention will be given to systems based on Global Positioning Systems (GPS) and all other technologies for sending data from sensors to GIS systems by means of wireless communications. Among others, we are especially looking for papers dealing with:

- Real time GIS, especially based on GPS
- Real time spatial data structures
- Real time GIS indexing
- Embarked GIS
- Online Spatial Decision Support System
- CASE tools for telegeoprocessing
- Visual languages and user interfaces
- Active hypermaps
- Sensors and radio-communications
- Multi-source fusion especially for updating
- Parallel and distributed GIS
- Interoperability in telegeoprocessing
- Geographic data interchange standards
- GIS and internet working
- Visualization and huge synoptics design
- Animated cartography
- Real time graphics semiology
- Groupware and GIS (CSCW)
- Client-server architecture for GIS
- GIS and Java
- Distributed spatial objects
- Spatial knowledge engineering
- Systems for spatial reasoning
- Byzantine situations

Among novel applications, overall attention will be paid to domains such as:

- Urban planning
- Environmental planning
- Risk prevention
- Traffic management
- Geological information systems
- Fleet management

This conference will be organized under the aegis of
University of Southwestern Louisiana, USA

National Institute for Applied Sciences (INSA),
Lyon, France
Claude Bernard University of Lyon, France
University of Versailles-Saint Quentin, France
Hassan II University of Mohammedia, Morocco
GeoInformatica, International Journal on
Advances of Computer Science for GIS

Program Committee Chair: Robert Laurini, Claude
Bernard University of Lyon, France

Program Committee Members:

Patrick Bergougnoux, Paul Sabatier University,
Toulouse, France;
Azedine Boulmakoul, Hassan II University,
Mohammedia, Morocco;
Patrice Boursier, University of La Rochelle, France
Bruno Defude, INT, France;
Claude Guédat, INSA, Lyon, France;
Werner Kuhn, University of Münster, Germany;
Corinne Ledoux, CTS/ToS, Sweden;
Ki-Joune Li, Pusan National University, South
Korea;
Kia Makki, University of Southern Louisiana, USA;
Claudia Bauzer Medeiros, University of Campinas,
Brazil;
Richard Muntz, University of California, Los
Angeles, USA;
Niki Pissinou, University of Southern Louisiana,
USA;
Sylvie Servigne, INSA, Lyon, France;
Tullio Tanzi, Ecole des Mines de Paris, Sophia-
Antipolis, France;
Ouri Wolfson, University of Illinois, USA;
Michael Worboys, Keele University, UK;
Karine Zeitouni, UVSQ, France.

Submission: Please, send full papers, limited to 12
pages, together with authors' names and addresses to
the Program Committee Chairman by February 1, 1999
only by electronic submission to Professor Robert
LAURINI, E-mail: Robert.Laurini@if.insa-lyon.fr.
Best papers will be considered for publication in the
international journal GeoInformatica.

IMPORTANT DATES

Paper submission deadline:	February 1, 1999
Notification of acceptance:	March 1, 1999
Camera ready paper due:	April 1, 1999
TeleGeo'99 date:	May 6-7, 1999

Geological Society Internet Bookshop

A major new initiative by the Geological Society has been the launch of an on-line bookshop, through which both Fellows and non-Fellows of the Society can purchase Geological Society books. The bookshop can be found at: <http://bookshop.geolsoc.org.uk>

The bookshop is aimed to be both visual and informative, please just visit and browse if you would like to obtain details of the books available.

If you are a Fellow of the Society please have your membership number to hand when you log in, as this will enable you to access the members discounted prices.

Mike Collins
Publications Manager
Geological Society
collinsm@geolsoc.org.uk

New England Intercollegiate Geologic Conference

The New England Intercollegiate Geologic Conference (NEIGC) now has a Web site, which includes information about obtaining the more recent fieldtrip guidebooks, which usually involves contacting the organizers: <http://kilburn.keene.edu/EarthScience/NEIGC/Guidebooks.html>

**Binghamton University Libraries
State University Of New York**

Binghamton University seeks to fill a library faculty position for the Science Library. The Science Library is a primary resource for six academic departments and two professional schools. It houses materials in the physical and natural sciences, engineering, and nursing.

**REFERENCE LIBRARIAN FOR ENGINEERING
AND APPLIED SCIENCE**

DESCRIPTION: The librarian in this position participates in the Science Library's reference service, develops and maintains library resources for the Watson School of Engineering and Applied Science, acts as a primary liaison and plans and implements library instructional programs for the Watson School.

QUALIFICATIONS: Required: An MLS from an ALA-accredited institution; working experience with electronic information resources, particularly those related to science and technology; degree in science and/or recent experience in reference and instruction in the sciences or technology in a academic or special library; effective interpersonal and analytical skills; demonstrated clarity in oral and written communications; demonstrated initiative and ability to work independently and as a team member in developing services and completing projects; strong commitment to service and professional development.

Finalists invited for an interview must demonstrate communication skills and knowledge of public services through a presentation to library faculty, staff, and other members of the university community.

COMPENSATION: Salary minimum for Assistant Librarian \$28,500; Senior Assistant Librarian \$32,500, plus excellent fringe benefits including TIAA/CREF. Appointment at Assistant or Senior Assistant Librarian rank, depending on qualifications and experience.

ENVIRONMENT: Binghamton University is nationally recognized for its strong academic programs, distinguished faculty, and talented students. Fifteen specialized research centers attract scholars from around the globe to Binghamton's modern campus. One of four university centers within the State University of New York, Binghamton enrolls approximately 12,000 students in programs leading to bachelor's, master's, and doctoral degrees. Binghamton University Libraries are highly automated. The collections consist of approximately 1.5 million volumes. For more information on Binghamton University, visit our web presence at <http://www.binghamton.edu>

APPLICATION: Send or fax a cover letter (no electronic applications), current resume, and names, addresses and telephone numbers of three professional references who may be contacted to:

Mary Ann Sincavage
Assistant to the Director for Personnel
Administration
Binghamton University Libraries
State University of New York
P.O. Box 6012
Binghamton, NY 13902-6012
Fax (607)777-4848

For priority consideration, applications should be received by January 4, 1999. Applications will be accepted until the position is filled.

Binghamton University is an Equal Opportunity/Affirmative Action Employer.

UNIVERSITY OF CALIFORNIA, SAN DIEGO

Head, Science And Engineering Library,
University of California, San Diego
<http://orpheus.ucsd.edu/fac/s&ehead.htm>
Associate Librarian II-VI, \$41,328 - \$56,844, or
Librarian I-IV, \$53,052 - \$66,780.

The UCSD Libraries seek an experienced, dynamic, innovative professional to provide leadership for our Science and Engineering (S&E) Library (<http://scilib.ucsd.edu>). The S&E Library, and its satellite information center at the Center for Magnetic Recording Research, provide a full complement of public services and research collections to support the information needs of faculty, graduate students and undergraduates in Chemistry, Mathematics, Physics and the School of Engineering. The Head of S&E is responsible for planning, organizing and managing programs and services to meet the requirements of a demanding and technologically sophisticated clientele; develops new programs and modifies existing ones, taking advantage of new technologies to improve access to scientific and technical information; actively represents the concerns of the S&E Library in librarywide planning initiatives; encourages and facilitates the performance of a dedicated and talented staff of 4.5 librarians, 7.75 support staff, and 4.5 FTE student assistants; stays abreast of developments in relevant campus departments as well as in information delivery and scholarly communication.

Required: ALA-accredited MLS; five years of experience in an academic, special, medical or science library serving similar clientele; demonstrated skills in management and supervision; evidence of innovative

leadership; experience with relevant information technology; familiarity with issues, trends and operational needs of science libraries; excellent interpersonal skills; demonstrated ability to work effectively with others and to foster teamwork; superior organizational, analytical, and communication skills. Candidate must have a strong commitment to excellence in service and be able to work both independently and collaboratively in a complex changing environment. Preferred: 2 years supervisory or management experience. Appointment at the Librarian rank requires substantial relevant experience and superior qualifications.

Consideration of applications will begin January 8, 1999 and continue until the position is filled. Submit a letter of application, a resume and a list of 3 references to: Debra Ambrose, Recruitment Coordinator, Library 0175H (3), University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0175, or send to "libraryjobs@ucsd.edu". AA/EOE.

UNIVERSITY OF WYOMING

SCIENCE REFERENCE LIBRARIAN: The University of Wyoming is seeking applicants for a science reference librarian. Duties will include reference desk service in the science and geology branch libraries, including some evenings and weekends; bibliographic instruction and collection development for the geology and geography academic departments; and coordination of the map functions. Librarians hold faculty status with expectations for scholarship and service.

REQUIRED: Master's in Library Science degree (MLS) from an ALA accredited program or an acceptable combination of education and experience; degree(s) in a science discipline; minimum of one year of post-MLS reference experience in an academic science or geology library; excellent interpersonal, oral, and written communication skills; familiarity with electronic resources, including CD-ROMs, online databases, and the Internet; experience with map collections.

PREFERRED: Degree(s) in geology; experience with or interest in Geographic Information Systems; teaching experience; collection development experience.

HIRING RANGE: \$26,000 to \$29,000 dependent upon qualifications and experience; 12-month appointment, 22 days vacation; sick leave, group health insurance, state and TIAA-CREF retirement plans, no state income tax.

ENVIRONMENT: The University of Wyoming is the only accredited four year institution of higher

education in the state; nine colleges and schools form the foundation for its education and research programs. The University, a land grant institution, has placed special emphasis on a number of cross-disciplinary programs. The University's library collections total nearly 1.2 million volumes. Laramie, a city of 26,000 located 130 miles northwest of Denver, offers a reasonable cost of living and the friendly, relaxed atmosphere of a small community combined with the cultural and social activities associated with the University. Laramie is located in an area of national forests, clean air, wide open spaces, and excellent summer and winter recreation sites. Additional information about the Libraries and the University of Wyoming may be accessed through its Web site: <http://www.uwyo.edu>

DEADLINE FOR APPLICATION: Applications must be postmarked by January 8, 1999.

TO APPLY: Send resume and the names of three professional references to Scott Royce; Assistant Director of Administrative Services; University of Wyoming Libraries; P.O. Box 3334; Laramie, WY 82071; FAX: (307) 766-2150; e-mail: royce@uwyo.edu. EEO/AA.

UNIVERSITY OF CALIFORNIA, DAVIS

POSITION AVAILABLE: Engineering/Physical Sciences Librarian (Search Re-opened)

SALARY: Assistant Librarian I to V (\$32,292 - \$39,456). Appointment rank and salary based on qualifications and experience.

OPEN: Immediately.

RESPONSIBILITIES: The Engineering/Physical Sciences Librarian delivers responsive, innovative information services that support the needs of the university community working in the physical sciences and engineering. Works collaboratively to develop and coordinate collections and services in assigned subjects, including electronic resources. Primary subject responsibility will be computer science and electrical engineering, with two more areas to be chosen from aeronautical and mechanical, civil engineering, or physics and applied science. Manages the print collections in assigned areas, including appropriate and timely transfers to an off-site storage facility. Cultivates and maintains strong working relationships with faculty. Maintains an understanding of the research and teaching programs in assigned areas. Develops and delivers instructional services in engineering and physical science disciplines. Shares in providing reference desk service (10-15 hours/week), instruction, ILL bibliographic verification, and database searches.

Participates in electronic delivery of information to researchers and develops information services and products, including design of web pages and instructional guides. Participates as a team member in the operation of the Physical Sciences Library and in library-wide responsibilities. Reports to the Head of the Physical Sciences Library.

QUALIFICATIONS: Graduate degree in librarianship from an ALA-accredited institution or its equivalent. Demonstrated interest in sci/tech topics via coursework, internship, or experience. Familiarity with standard subject indexes and major reference works in engineering and physical sciences, both print and electronic. Excellent and demonstrated grasp of information needs of scientists and engineers and of the application of information technologies, including an understanding of trends. Excellent computer and Internet skills and ability to use computers in a networked environment. Familiarity with electronic information resources, including those available on the Internet. Superior oral and written communication skills and interpersonal skills; excellent analytical and organizational skills. Demonstrated ability to contribute positively in a collegial, team environment. Ability to work independently and collaboratively. Ability to work effectively with colleagues, students, faculty and staff in a rapidly changing, complex, and multicultural environment. Demonstrated initiative and flexibility in adapting to change. Strong commitment to public service. Ability to develop and deliver discipline-related instructional sessions. Ability to perform work requiring attention to detail. Strong bibliographic verification skills.

Desirable: academic background in engineering/physics and/or experience in providing access to sci/tech information in an academic research environment. Database search skills, particularly STN. Knowledge of technical report literature and indexes.

THE ENVIRONMENT: The Physical Sciences Library is a branch library serving the information needs in the disciplines of engineering, chemistry, geology and physics. The staff consists of 4 Librarians and 8.5 FTE staff. The collection comprises over 300,000 volumes, including 4,600 currently received serials.

The University of California, Davis campus is a multicultural environment with a commitment to maintain a socially and ethnically diverse community of faculty, staff and students. It has an enrollment of nearly 23,000 students and offers a balanced academic program. The Library ranks among the top 35 research libraries in North America. Its current holdings of more than 2,600,000 volumes grow at an annual rate of 75,000 volumes. Davis is a unique environmentally-aware community of 50,000 located in the lower Sacramento valley - 75 miles northeast of San Francisco and 15 miles west of the state capital. As a

result of the University's presence, Davis offers many cultural advantages and a wide range of professional services.

BENEFITS: Librarians are academic appointees. They earn 24 days of vacation and 12 days of sick leave per annum. The University has an excellent retirement system, which is coordinated with Social Security. Several health, dental, and vision plans are currently provided by the University. Group term life insurance and reduced enrollment fees are available.

Applicants should send letter, resume, and the names, addresses, and telephone numbers of three references (including current supervisor) to:

Sandra A. Vella
Academic Personnel Coordinator
Peter J. Shields Library
University of California
100 North West Quad
Davis, CA 95616-5292
Phone: (530) 752-1138
Fax: (530) 752-6899

This position is covered by a collective bargaining agreement.

Applications received by January 29, 1999 will be assured consideration.

The University of California does not discriminate on the basis of race, color, national origin, religion, sex, sexual orientation, disability, age, veterans' status, medical condition, ancestry, or marital status. The University of California is an affirmative action/equal opportunity employer. Call (530) 752-2071 for more information. Speech or hearing impaired persons may dial (530) 752-7320 (TDD).

UNIVERSITY OF WISCONSIN-MILWAUKEE

American Geographical Society Collection
Cartographic Materials Cataloger/Reference Librarian
(Academic Librarian)
Golda Meir Library
University of Wisconsin-Milwaukee

The University of Wisconsin-Milwaukee (UWM) is a Research II university serving nearly 23,000 students, and offering 17 doctoral and over 50 masters programs. The campus is located on Milwaukee's tree-shaded residential east side bordering Lake Michigan. The Golda Meir Library is a modern, centralized library housing over 4.7 million bibliographical items including the 1 million item American Geographical

Society Collection. The materials budget exceeds \$2.5 million/year.

Responsibilities: Classifying, cataloging and accessioning maps and digital cartographic materials; cataloging of other graphic materials (photographs, slides, prints); participating in collection development with respect to cartographic materials. Sharing responsibility with other staff members for providing reference services involving all aspects of the Collection; preparing AGS Collection exhibits and displays; planning special programs; maintaining the AGSC website; and providing liaison with campus, local and other professional communities. Help supervise paraprofessional and student staff members. Reports to Curator of the AGS Collection.

Qualifications: Required: ALA accredited MLS/MLIS; bachelor's degree in geography or closely related discipline; minimum 2 years experience cataloging cartographic materials in an academic or research library; extensive experience with online catalog utilities; computer literacy; knowledge of cartographic history and cartobibliography; strong communication and interpersonal skills. Desired: Ability to catalog materials in a variety of European languages; experience with graphics, archival or rare book cataloging; advanced degree or graduate level course work in geography or closely related discipline.

Salary: Academic Librarian (salary range: \$35,133 - \$43,916) depending upon qualifications and experience.

Appointment/Benefits: This is a 12-month academic staff probationary appointment leading to indefinite appointment. Generous vacation and fringe benefits.

Application: Full position description is available. Send letter of application and statement of qualifications, resume, transcripts, and name/address/telephone number of three references, to:

Maureen Powless
Interim Personnel Librarian
University of Wisconsin-Milwaukee
Golda Meir Library
P.O. Box 604
Milwaukee, WI 53201-0604.

All applications must be postmarked no later than January 31, 1999.

THE UNIVERSITY OF WISCONSIN-MILWAUKEE IS AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER AND ACTIVELY SOLICITS APPLICATIONS FROM QUALIFIED WOMEN AND MINORITY CANDIDATES

DRAFT OPERATING BUDGET FOR 1999

ITEM	INCOME	EXPENSES
Executive Board		\$1,475
Reps/Appointees		\$600
Committees		\$1,450
AGI Dues		\$525
Bank Charges		\$25
Meetings	\$500	\$5,350
Publications	\$4,975	\$11,350
Dues	\$8,570	
Gifts	\$350	
Interest	\$650	
TOTAL	\$15,045	\$20,775

Submitted by
Susan Goodman, GIS Treasurer

GEOSCIENCE JOURNAL PRICES

compiled by
Michael M. Noga

Collection Development Issues Committee

The following is a list of serial price histories through 1999. The core of the list was handed out at the GIS Annual Meeting in Toronto. Prices come from invoices, price lists from publishers, serial vendor catalogs, and journal issues.

Prices vary depending on the subscription source and the date of payment.

Journals were included if they fit two criteria: 1) the subject of the journal fits broadly in the geosciences; and 2) there was sufficient price information. The latest title of each journal was used.

Total number of titles: 139

Average price change

1997/1998 7.8%

1998/1999 6.7%

PRICES IN U.S. DOLLARS

	1993	1994	1995	1996	1997	1998	1999
AAPG Bulletin.....	135	135	135	140	140	140	280
American Journal of Science.....	90	115	125	135	148	150	152
American Mineralogist.....	225	250	270	295	320	320	430
Annales Geophysicae.....	721	597	675	943	1124	1124	1320

Annual Review of Earth & Planet Sci	53	56	56	60	126	140	140
Antarctic Science.....	151	156	164	178	236	322	330
Applied Geochemistry.....	300	300	329	385	430	499	584
Arctic and Antarctic Alpine Researc	70	75	75	80	90	90	95
Atlantic Geology.....	38	38	43	43	48	48	60
Australian Journal of Earth Science	290	325	349	385	513	560	590
Basin Research.....	209	190	208	269	340	540	592
Biogeochemistry.....	598	542	628	830	874	874	1078
Boreas.....	142	127	143	172	179	189	199
Bulletin of Volcanology.....	470	477	508	558	596	596	643
Canadian Journal of Earth Sciences.	335	365	398	455	510	556	612
Canadian Mineralogist.....	195	250	280	295	310	310	340
Carbonates and Evaporites.....	50	50	52	54	57	57	64
Catena.....	332	363	551	704	787	810	784
Chemical Geology.....	1447	1626	1814	2261	2444	2457	2379
Chinese Journal of Geophysics.....	350	375	405	465	500	560	615
Clay Minerals.....	150	150	155	155	160	175	191
Computers & Geosciences.....	938	930	1006	1177	1355	1443	1454
Continental Shelf Research.....	713	760	842	1010	1162	1312	1370
Contributions to Mineralogy & Petro	2043	2174	2236	2796	2707	2707	2698
Deep Sea Research Pt. I and II.....	1644	1565	1759	2099	2431	2775	2796
Earth & Planetary Science Letters..	1352	1456	1743	2168	2333	2471	2490
Earth, Moon, and Planets.....	925	880	984	1166	1228	1170	1362
Earth Science Reviews.....	430	439	454	579	648	819	825
Earth Surface Processes & Landforms	565	635	725	950	1175	1355	1595
Engineering Geology.....	608	650	696	592	704	1000	1063
Environmental & Engineering Geoscie	90	90	135	125	125	125	125
Environmental Geology.....	337	344	359	404	597	615	771
Eos.....	205	225	230	295	315	340	357
Evolution.....	160	160	160	160	160	170	170
First Break.....	410	399	442	505	505	526	584
Geoarchaeology.....	225	260	294	342	568	656	787
Geochimica et Cosmochimica Acta....	775	895	1000	1150	1295	1410	1530
Geoderma.....	783	1003	1172	1482	1667	1707	1654
Geoforum.....	398	410	440	519	575	630	668
Geological Magazine.....	249	263	282	298	312	324	338
Geologie en Mijnbouw.....	168	153	187	247	250	252	305
Geologische Rundschau.....	337	317	331	398	441	460	552
Geology.....	150	150	170	170	350	350	360
Geology Today.....	195	172	190	217	234	271	296
Geo-Marine Letters.....	202	202	235	318	350	368	447
Geomorphology.....	423	594	639	814	1185	1195	1264
Geophysical Journal International..	970	872	972	1037	1043	1229	1355
Geophysical Prospecting.....	362	369	406	464	501	501	563
Geophysical Research Letters.....	498	590	590	780	826	879	985
Geoscientist.....	67	70	70	76	82	95	100
Geothermics.....	409	425	599	573	628	734	803
Global Environmental Change.....	185	208	246	303	368	408	452
Grana.....	217	220	242	277	285	295	305
Ground Water.....	90	90	100	150	165	200	220
Ground Water Monitoring & Remediati	30	30	35	53	58	70	77
GSA Abstracts with Programs.....	73	80	73	89	113	129	129
GSA Bulletin.....	185	185	205	205	350	350	350
Holocene.....	225	275	316	349	384	537	569
Hydrological Processes.....	250	345	495	725	995	1295	1795

Icarus.....	966	1080	1242	1379	1572	1830	2070
Intl Jour of Rock Mech & Mining Sci	1197	845	976	1249	1419	1616	1767
International Geology Review.....	789	849	889	949	985	985	985
International Journal of Coal Geol.	617	466	521	696	802	1138	1348
Journal of African Earth Sciences..	595	676	723	875	984	1172	1576
Journal of Applied Geophysics.....	212	417	447	585	704	690	668
Journal of Asian Earth Sciences....	513	490	485	859	663	721	783
Journal of Atmos & Solar-Terr Phys.	1279	1245	1319	1654	2014	2190	2270
Journal of Atmospheric Chemistry...	408	369	498	589	632	647	646
Journal of Coastal Research.....	125	125	125	135	135	145	145
Journal of Geochemical Exploration.	701	633	742	988	1139	968	896
Journal of Geodesy.....	332	357	409	456	540	571	675
Journal of Geodynamics.....	447	455	n/a	629	741	914	1086
Journal of Geophysical Research....	2800	3065	3510	3970	4310	4598	4965
Journal of Hydrology.....	2349	2383	2495	3147	3475	3621	3508
Journal of Marine Research.....	80	90	90	100	110	110	110
Journal of Metamorphic Geology....	395	435	475	495	530	560	610
Journal of Micropaleontology.....	100	100	100	108	117	123	129
Journal of Molluscan Studies.....	160	165	170	190	205	220	250
Journal of Paleontology.....	99	99	99	99	99	99	110
Journal of Petrology.....	273	295	350	380	525	595	700
Journal of South Amer Earth Science	266	255	254	414	467	508	597
Journal of Structural Geology.....	618	640	708	835	936	1018	1036
Journal of the Atmospheric Sciences	350	350	355	390	455	475	495
Journal of the Geol Soc of London..	441	524	524	571	617	641	673
Journal of Vertebrate Paleontology.	85	85	85	125	195	195	210
Lethaia.....	142	129	143	171	179	180	189
Lithos.....	339	529	551	723	796	802	828
Marine & Petroleum Geology.....	535	604	716	899	1032	1123	1260
Marine Chemistry.....	855	867	919	1183	1348	1368	1456
Marine Geology.....	1352	1385	1481	2049	2316	2345	2412
Marine Micropaleontology.....	434	444	473	585	889	879	851
Marine Pollution Bulletin.....	447	430	462	589	656	783	821
Mathematical Geology.....	425	455	462	525	555	595	645
Meteoritics & Planetary Science....	150	210	220	230	265	330	360
Mineralogical Magazine.....	202	215	225	225	250	270	295
Natural Hazards.....	282	288	329	413	428	431	512
Nature.....	428	425	425	495	495	595	595
Nautilus.....	40	40	45	45	45	45	45
New Zealand Journal of Geol & Geoph	190	190	190	200	200	210	210
Northeastern Geology & Environ Sci.	40	52	52	58	59	59	79
Norwegian Journal of Geology.....	133	125	135	155	160	170	180
Oceanologica Acta.....	294	279	338	341	344	370	363
Oil and Gas Journal.....	120	127	135	145	145	145	154
Ore Geology Reviews.....	310	306	342	445	519	529	628
Organic Geochemistry.....	618	700	1185	1646	1807	1965	2056
Origins of Life & Evol of Biosphere	251	228	276	344	350	354	414
Palaeogeog, Palaeoclim, Palaeoecol.	1587	1539	1809	2477	2528	2586	2553
Palaios.....	115	120	128	147	165	165	165
Paleobiology.....	65	65	65	65	65	65	65
Paleoceanography.....	195	215	270	275	280	299	319
Petroleum Geoscience.....	n/a	n/a	171	180	195	217	229
Physics & Chemistry of Minerals....	832	814	883	1127	1173	1173	1320
Physics of Earth & Planetary Interi	1274	1317	1370	1683	1826	1845	1785
Planetary and Space Science.....	1416	1355	1431	1718	1926	2096	2173

Precambrian Research.....	1038	1219	1244	1592	1741	1759	1703
Proceedings of the Geologists Assoc	129	134	140	149	161	169	184
Proceedings of Yorkshire Geol Soc..	77	94	92	96	109	114	122
Progress in Oceanography.....	632	705	753	891	900	1094	1286
Quarterly Journal of Engineer Geol.	234	245	245	281	304	307	322
Quaternary International.....	262	250	373	438	563	614	691
Quaternary Science Reviews.....	599	575	619	724	798	1014	1151
Remote Sensing of Environment.....	796	908	1159	1236	1398	1564	1660
Rev of Paleobotany and Palynology..	898	908	973	1457	1574	1552	1503
Reviews of Geophysics.....	220	220	250	250	250	265	280
Rock Mechanics and Rock Engineering	215	225	237	222	228	228	259
Russian Geology and Geophysics.....	875	920	980	1065	1155	1245	1375
Science.....	205	215	228	250	260	295	325
Scottish Journal of Geology.....	102	114	119	126	136	142	150
Sedimentary Geology.....	1004	1187	1348	1686	1944	2115	2046
Sedimentology.....	474	434	479	546	588	729	802
Seismological Research Letters.....	20	20	85	85	85	85	90
Soil Science.....	128	140	149	164	179	195	215
Soil Science Society of Amer Journ.	92	100	108	117	137	195	215
Surveys in Geophysics.....	296	296	352	433	447	426	498
Tectonics.....	308	330	380	385	392	409	429
Tectonophysics.....	2444	2429	2505	3090	3267	3362	3349
Terra Nova.....	338	314	358	409	433	502	537
Water Research.....	1493	1615	1841	2268	2516	2516	3243
Water Resources Research.....	530	660	675	675	680	720	720

n/a not applicable

GIS LOGO CONTEST

We're pleased to announce a contest to choose a new GIS logo. The rules are simple:

1. The graphic must be readily reproducible at various scales.
2. It could include our society name and(or) initials, but doesn't have to.
3. You may submit as many entries as you like.
4. The entrants will remain anonymous (*you* can reveal your identity, but we won't).
5. Send your entries to **Connie Manson**; she will forward them to the GIS Executive Board.
6. **Entries must be received by June 1, 1999.**
7. The Executive Board will select the finalists, which will be voted on by the members.
8. The winner will receive a Prize (to be determined later).

We already have one entry-- some variant of:

GIS

We were here first!

Mary Frances Lembo, GIS Newsletter Editor
406 Shoreline Court
Richland, WA 99325

Bulk Rate
U.S. Postage
PAID
Permit No. 193
Richland, WA 99352

Michael Mark Noga
Massachusetts Institute of Technology
Science Library
14S-134
Cambridge MA 02139-4307