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GEOSCIENCE INFORMATION SOCIETY

NEWSLETTER

No. 21

December 1972

GIS OFFICERS

The new GIS Executive Committee for 1973 is:

PRESIDENT:

Hartley K. Phinney, jr., Supervisor, Technical Information Center, Chevron Oil Field Research Company, P.O. Box 446, La Habra, Calif. 90631 (213/691-2241, ext.2366)

VICE-PRESIDENT:

Mrs. Marjorie W. Wheeler, Science-Technology Librarian, Lamar State College of Technology, 5775 Viking Drive, Beaumont, Texas 77706 (713/838-8934)

SECRETARY:

Ruth L. Keefer, Reference Librarian, Technical Information Section, Field Research Laboratory, Mobil Research and Development Corp., 3600 Duncanville Rd, Dallas, Texas 75211 (214/331-6531, ext.524)

TREASURER:

Janet Meserve, Subject Cataloger, Subject Cataloging Division, Library of Congress, Washington, D.C. 20540 (202/426-5342); *USE HOME ADDRESS*: 1301 Delaware Ave, S.W., Apt.N411, Washington, D.C. 20024

PAST PRESIDENT:

Dr. Roy W. Graves, Information Specialist, Information Services Dept, Univ of Tulsa, 1133 North Lewis Ave, Tulsa, Okla. 74110 (918/939-6351, ext.296 or 297)

1972 GIS ANNUAL MEETING in MINNEAPOLIS, Minn.

The 7th Annual Meeting of the Geoscience Information Society was held 13-14 November 1972 in Minneapolis, Minn., in conjunction with the annual meetings of the Geological Society of America (GSA) and its Associated Societies. The GIS meeting featured a technical session, the annual luncheon and annual business meeting, a 3-day exhibit display, and an all-day field trip. Summaries of each event are given below.

GIS TECHNICAL SESSION

The GIS technical session, organized and moderated by Vice-President Hartley K. Phinney, jr., was held Monday morning, November 13, in the Diamond Room of the Minneapolis Convention Center. About 70 people attended the session, which consisted of four invited and two contributed papers.

The speakers and their topics (see *GIS Newsletter* no.20 for the abstracts of the papers):

Harold L. Cousminer (Dept of Geology, Rutgers Univ):

Another Product of GEO-REF: the Bibliography and Index of Micropaleontology.---The monthly bibliography, published by the American Museum of Natural History starting in 1972 (9 issues published thus far) and using the GEO-REF computerized data base, will test the concept that specialized bibliographies are necessary and will be used and that they can be self-sustaining. The bibliography is aimed at the individual user and subscriber. It is hoped that subscriptions will reach \$45,000, based on the following annual subscription schedule: individuals (\$20 bibliography, \$10 index); institutions (\$80 bibliography, \$40 index); companies (\$200 bibliography, \$100 index); and students (\$8 bibliography, \$5 index). The annual index is optional. During discussion, the speaker commented that subject specialists are not "crucial" for indexing the micropaleontologic literature.

Peter Blau (American Geological Institute): *GEO-REF:*

A Report and Forecast.---The speaker read the paper scheduled to be given by Joel J. Lloyd, director of science information at AGI. GEO-REF is AGI's magnetic tape-stored file of bibliographic references to the world's geologic literature. Now completing its third year, GEO-REF will input up to 60,000 current references during 1972. It is picking up citations to subject matter formerly included in the now-discontinued U.S. Geological Survey bibliographies. The GEO-REF staff contains "eight to ten editors (all geologists)". About 20 to 30 retrospective searches are performed each month. The cost (1972) per reference in GEO-REF is \$9, but this can be reduced if AGI can obtain the cooperation of the geologic community. The speaker "urged" all GIS members to take an interest in GEO-REF, but in response to a question in regard to *specific* action on the part of GIS and/or GIS members, the answer was simply "spread the word". There are 3 subscribers to the GEO-REF tape, and AGI is presently negotiating with "two or three" others. A list of serials covered by GEO-REF will be available "perhaps in early 1973".

Norman Herz (Dept of Geology, Univ of Georgia): *Computerized Literature Searching in Geology.*---

The speaker read the paper scheduled to be given by George S. Koch, jr., of the Dept of Geology at the Univ of Georgia. The University's literature search system was described, with special emphasis on searching geologic data bases (the Univ of Georgia is one of the three subscribers to GEO-REF). The Georgia Information Dissemination Center provides computer-based literature searches for the faculty, research staff, and graduate students of the 28 state-supported colleges and universities

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within the University System of Georgia and also provides services to other universities, government agencies, and industrial organizations on a cost-recovery basis. Several geologic search questions were presented, using Boolean logic. Price for current-awareness search of GEO-REF is \$10 per profile per monthly issue; price for retrospective search of GEO-REF (1967-) is \$100 per profile per volume (one volume per year), with two to three weeks turn-around time for retrospective batch searches from receipt of initial profile to delivery of final search results. Abstracts are printed for an additional charge of 10¢ per abstract.

Eric C. Dahlberg (Amoco Canada Petroleum Co., Calgary, Alta.): *Aspects of Unbiased and Biased Contouring of Geologic Data by Human and Machine Operators.*---There is ambiguity in all maps - the problem is developing a statistical device to document such ambiguity. In a delightful talk, the speaker demonstrated the astonishing degree of variation attributable to human interpretation when professional geologists were asked to contour a 12-point model map. It was shown that machine-contoured maps closely approximate the unbiased "consensus map". The "geocybernetic approach" involves "teaching" the machine to accept statistical criteria.

Paul M. Junemann (IBM Corporation, Denver): *Computer-Based Geologic Information Systems for Mining.*---A geologic information system is a file of computer-readable data. The use of the computer as a tool, not as an answer, in exploration is necessary in utilizing a geologic information system (for mining) consisting of computer-readable data. The speaker discussed application problems and solutions.

Bruce B. Hanshaw (U.S. Geological Survey, Washington, D.C.), scheduled to speak on the "proposed integrated program for providing resource and land information", did not appear. His plane could not leave Denver because of engine and landing trouble and because the airport was snowed in.

Clarence A. Sturdivant (Marathon Oil Co., Littleton, Colo.): *The Development and Initial Use of Computer-Based Geoscience Information Files at Marathon Oil Company.*---Marathon has converted several commercially available geoscience-related files for computerized literature searching by reformatting them to a common API standard format. The most difficult file to process is NTIS' Government Reports Announcements (GRA) owing to its "extremely complex coding". The USGS bibliographies, used for retrospective searching, are difficult to use because of their shallow and "almost uncontrolled nature" of the indexes. AGI's GEO-REF has been the easiest to reformat, and the extremely marketable nature of its contents has led to a big payoff in SDI; the loss of abstracts is more than made up by high recall and relevance of the output. The speaker would like to see AGI offer, for lease, subsets of GEO-REF (based on subject matter) for retrospective

searching. The big demand for information services at Marathon has led to a toning down or "de-marketing" of the services available.

GIS plans to publish the technical-session papers as volume 3 of the GIS *Proceedings*. Publication is scheduled for early 1973.

GIS ANNUAL LUNCHEON and BUSINESS MEETING

The Annual Luncheon was held Monday, November 13, at noon in Public Rooms 6 and 7 of the Holiday Inn--Central in downtown Minneapolis. The Annual Business Meeting immediately following the luncheon was convened in the same locale at 1:00 p.m. by President Roy W. Graves. There were 34 GISers in attendance, which represented a fine turnout and serious interest in the Society by those attending the GSA meetings.

Vice-President Hartley K. Phinney, jr., reported briefly on the morning's technical session. An abbreviated version of the minutes of the 6th Annual Business Meeting of GIS (held in Washington, D.C., 2 November 1971) was read by Secretary Kathryn N. Cutler and approved. Janet Meserve read the Treasurer's report (see page 5 of this newsletter for an up-to-date financial statement); she indicated that the Society's 163 paid-up members included 26 new members during 1972, although there was a net loss of 15 members from last year. Institutional membership has dropped from 14 (in 1971) to 5.

Nominating Committee. Joseph C. Carl (Gulf Research & Development Co., Pittsburgh, Pa.), chairman of the GIS Nominating Committee, announced the results of the election of GIS officers for 1973. The winning candidates were introduced (see page 1 of this newsletter). Of the 180 ballots that were mailed, 87 were returned (48% of the membership).

Objectives and Policy Committee. Dr. Cornelius F. Burk, jr., chairman of the committee, presented the committee's report (see page 5 of this newsletter for the full report). The report and its recommendations represent a working document submitted to the GIS membership at large for consideration and discussion. Dr. Burk noted that the wide scope of interest and geographic distribution of GIS members is the source of both GIS' strength and weakness--it makes the Society "unique" and "diverse", but very "thin" and lacking in clout. Dr. Burk recommended that the committee continue during 1973. There was discussion of the committee report by the members attending the business meeting, especially those parts of the report dealing with constitutional revision, newsletter frequency, establishment of a professional journal, Annual Meeting format, continuity of the Executive Committee, and affiliation with other groups. A motion by Keith Young (Univ of Texas) that GIS initiate steps to amend the Constitution to provide for the Vice-President to also assume the position of President-elect was passed. The Executive Committee will consider this motion and other mechanisms for providing greater continuity on the Executive Committee,

and President Graves plans to establish a Constitutional Revision Committee.

Capability Index Project Committee. Chairman Arleen N. Somerville (Univ of Rochester) reviewed the work of the committee which is to conduct a research project that aims to develop a technique for evaluating geoscience libraries on a nationwide basis by determining their capability to supply documents its users need on demand. As many as 50 academic geoscience libraries will be invited to participate: these include geology dept libraries and centralized university libraries or science libraries with geoscience collections. Mrs. Somerville is developing a sample of 300 documents to be used in the test. GIS is supporting the project by providing up to \$500, but additional funding may be necessary and sources for such funding will be pursued in the coming months.

GEO-REF Advisory Committee. Hartley K. Phinney, jr. (Chevron Oil Field Research Co., La Habra, Calif.), chairman of this newly established committee, reported the difficulties he has had in establishing workable communications with the American Geological Institute regarding GEO-REF. The committee is to furnish user-oriented advice to GEO-REF in order to improve the system's usefulness by the geoscience community. However, the lack of response by the GEO-REF staff to requests from the committee for information has frustrated the operation of the committee. In an effort to improve communications with AGI, Logan O. Cowgill, the official GIS representative to the AGI Committee on Geoscience Information, will be added to the committee in 1973. Mr. Phinney recommended that the committee also be expanded to include current users of the GEO-REF system. During discussion of the report, some GIS members lashed out at AGI for its apparent indifference to GIS and its seeming disregard for answering correspondence pertaining to GEO-REF. Aphrodite Mamoulides (Shell Development Co., Houston) said she has been unable to get facts and figures regarding the types of information going into GEO-REF, and she suggested that AGI needs to advertise what it includes in the system if it expects GEO-REF to be successful. Thomas F. Rafter, jr., the only AGI staff person present at the meeting, attempted to answer these complaints by urging GIS members to use their Society in getting answers (such as by writing to the GIS officers and relaying their problems to the official GIS representative to the AGI Committee on Geoscience Information), by noting that AGI is working on a promotion policy and has hired a marketing specialist to introduce GEO-REF to potential users, and by suggesting that GISers contact him personally or other AGI staff people if they are unable to get any response when dealing directly with the GEO-REF staff.

GIS Representative to AGI Committee on Geoscience Information. The GIS representative, Logan O. Cowgill (Water Resources Scientific Information Center, U.S. Dept of the Interior), reported on his activities since his appointment to the AGI committee on 13 June 1972. He has attended three meetings of the committee. Initial meetings were

focused on primary publication services (current and potential) and the information programs of other professional societies. At its October meeting, the AGI committee proposed that a draft recommendation be prepared to the AGI Publications Committee, and to the AGI Governing Board, for a primary, or pre-publication, abstract journal for the geosciences. This recommendation will be discussed at the November meeting. In addition, the committee has questioned its relationship to the GEO-REF program. Joel Lloyd, AGI director of science information, reported to the committee that AGI would "welcome participation by the committee in GEO-REF problems: economic, scope, policy, quality, etc." The committee is aware of "the imminent funding problems of GEO-REF and the importance of keeping it alive". Mr. Lloyd was asked to prepare a summary of these problems for presentation to the committee at its November meeting.

GIS Representative to AGI House of Society Representatives. The GIS representative, Sara Aull (Univ of Houston), reported on her activities for the year. At the final meeting of the House, which was held 16 April 1972 in Denver, the names of the members of the new GIS advisory committee to the AGI GEO-REF system were announced. Miss Aull also seconded a motion, later withdrawn, to change the name of AGI to the American Geoscience Institute. The main business transacted by the House was the unanimous authorization of the new AGI Constitution and Bylaws, to become effective 60 days after ratification by two-thirds of the member societies. The new Constitution and Bylaws provides for a "Governing Board" to replace the three previous governing bodies (Board of Directors, Council of Society Presidents, and House of Society Representatives). When the ratification of the new Constitution and Bylaws was completed by the required two-thirds of the member societies on 15 September 1972 (GIS was one of those which ratified), the meeting of the House scheduled for 12 November 1972 was cancelled. The House completed its work by mail, with members approving minutes of the 16 April meeting and voting for a President of AGI for 1973. The first meeting of the new Governing Board, consisting of the president or chief executive officer of each member society, was held 19-21 November 1972 in Colorado Springs; Roy Graves is GIS' delegated officer to the Board for the remainder of the year.

GIS Newsletter. Editor Robert McAfee, jr. (American Society for Information Science) reported that 3 issues have been published thus far during 1972 (January, June, October), totalling 36 pages. Costs for printing, collation, and mailing were \$232.03. The editor made his annual plea for input to the newsletter from the members and officers of the Society. Amy Bumberg (U.S. Geological Survey, Washington, D.C.) has been appointed assistant editor. Plans were announced to issue a December 1972 issue, and six issues during 1973 (bi-monthly). The newsletter seems to have evolved more into a medium for reporting geoscience information activities rather than describing solely GIS affairs. Comments from members are always welcome (and may even get printed!).

Pacific Coast Section of GIS. President Graves read a report prepared by Eleanore E. Wilkins (U.S. Geological Survey, Menlo Park, Calif.). A memorandum was sent in September 1972 to 28 GIS members in the states of Arizona, California, Oregon, Utah, and Washington. The memo attempted to ascertain the degree of interest by the members regarding the establishment of a local chapter along the west coast and/or the holding of regional meetings either independently or in conjunction with those of GSA, AAPG, or AIME. From the 14 responses, there appears to be "some interest in holding GIS meetings, but only if they are held locally; the majority want only semiannual meetings". Miss Wilkins concluded: "I would therefore recommend that we plan semiannual local meetings in Los Angeles and San Francisco and in other areas where there are five or more members. It's possible that a Texan chapter could be organized that would include several cities".

President's Report. President Graves reported on the meeting of the AGI Council of Society Presidents held in White Sulphur Springs, W.Va., 16-19 February 1972. Copies of the new AGI Constitution and Bylaws are available from him. Volume 2 of the GIS *Proceedings* was sent to all GIS members in late September: the delay in producing the volume was due to the necessity of retyping each paper for offset printing. Volume 3 of the *Proceedings* (of the 1972 GIS meeting) will be published soon: the editor, Hartley K. Phinney, jr., already has some camera-ready copies in hand. President Graves has received an inquiry from the Association of Earth Science Editors regarding areas of mutual interest. AESE and GIS might consider the possibility of a joint annual meeting in the near future (AESE prefers to meet by itself, not at GSA or AAPG meetings, in order to avoid scheduling conflicts). AESE has extended an open invitation to GIS members to attend AESE meetings. An offer from the Geosystems Division of Lea Associates Ltd in London, Eng., to combine the GIS *Newsletter* with its *Geoscience Documentation* and thereby make the latter the official publication of GIS was declined by the GIS Executive Committee because it would have necessitated raising the GIS annual dues by at least \$5 and possibly \$10. President Graves has asked George Goodwin (U.S. Geological Survey, Washington, D.C.) to revise the one-page *Geotimes* (April 1967) article regarding careers in geoscience libraries, prepared by Mark W. Pangborn, jr., and distributed by AGI in response to requests for such information received by the Institute. The list of accredited library schools and some salary information need to be brought up to date.

Geoscience Serials. Harriet W. Smith (Univ of Illinois) inquired about the status of the AGI project to develop a list of geoscience serials, and recommended that AGI publish the list. Thomas F. Rafter, jr. (American Geological Institute) replied that the project is dormant due to lack of funds. AGI has received 8 cartons of material from H. Robert Malinowsky, the original project manager, but this material requires considerable checking before a list of geoscience serials can be prepared.

GSA Guidebooks. Harriet W. Smith (Univ of Illinois) presented the following motion, which was passed: "That GIS recommend to GSA that they add the following to the instructions given to the local committee for each annual GSA meeting: In the preliminary announcement that is published in *Geotimes* include with information on listing of the field trips, the title of the guidebook for each trip, the publisher, if in series, the name of the series and the issue number, the approximate price, and where the guidebook can be obtained". During discussion of the motion, it was suggested that GIS place an advance order, on behalf of its interested members, to guarantee availability of the guidebooks, and that GIS contact the 1973 local (Dallas) GSA annual meeting committee now for placing such a bulk order.

The Annual Business Meeting was adjourned at 3:08 p.m. The 8th Annual Meeting of GIS will be held in Dallas, Tex., during the annual meetings of the Geological Society of America, 12-14 November 1973.

GIS FIELD TRIP

On a chilly Tuesday, November 14, eighteen GISers participated in an all-day field trip organized by Sue Alexander, geology librarian at the Univ of Minnesota. The bus left the Leamington Hotel at 9:45 a.m. and returned at 4:20 p.m. In between, the group visited two libraries, a cultural center, and a brewery--all for \$2.00! (including lunch).

The morning was spent at the St. Paul Arts and Science Center. Bruce R. Erickson, of the Dept of Paleontology, discussed his paleoecologic study of a crocodile site in North Dakota, and conducted the group on a tour of the paleontology laboratory and the storage areas for rock, mineral, fossil, anthropologic, and archaeological specimens. Cheerful teacher-guide Annette Lee then discussed the Science Museum, and lead the group through various parts of it, including Anthropology Hall and the Rock and Mineral Room. Librarian Mary Finlayson briefly described the Louis S. Headley Memorial Library.

On the way to the University of Minnesota, the field trip made an unscheduled stop at the Theodore Hamm Brewing Co., St. Paul, for free samples *before* taking an abbreviated tour of the plant.

At the University, a lunch of cider and make-your-own sandwiches was available in the seminar room of Pillsbury Hall, followed by a tour of the Winchell Library of Geology in the same building. The group then bussed to the O. Meredith Wilson Library where Carole Hanson led a tour of the four-year-old building housing the main library collection of the University. Included in the tour was the James Ford Bell Library where curator Dr. John Parker described the collection of 8000 titles pertaining to the history of European business expansion, commerce, and exploration prior to 1800. The field trip concluded with a visit to the Map Division of the Wilson Library.

STATEMENT OF OUTGOING GIS PRESIDENT

I have enjoyed very much my term of office and thank you all for your acceptance and fine cooperation. Your new officers are knowledgeable and enthusiastic people and I know they can count on your continuing support. The opportunity to serve you is appreciated and I must say that I know considerably more about the Society now than I did back in January.

My personal thanks and those of the Society are due to committee members and chairmen and a special "thank you" to the Executive Committee. See you in Dallas next year?

Dr. Roy W. Graves
GIS President, 1972

GIS TREASURER'S REPORT

On hand (1 Jan 1972)	\$ 2,450.38
Deposits (dues, subscription to newsletter, sale of publications)	<u>2,025.54</u>
	\$ 4,475.92
Less:	
Expenses	\$ 1,821.73
Stale checks	<u>23.00</u>
	\$ 1,844.73
On hand (8 Dec 1972)	\$ 2,631.19
Breakdown of Expenses:	
Postage, stationery, office expenses	\$ 158.44
Newsletters	232.03
Proceedings, volume 2	464.51
1971 Annual Meeting	30.75
1972 Annual Meeting	200.00
Officers' travel	456.00
AGI Membership Dues	<u>280.00</u>
	\$ 1,821.73

Janet R. Meserve
GIS Treasurer, 1972

GIS OBJECTIVES AND POLICY COMMITTEE

(The following is the report of the GIS Objectives and Policy Committee, submitted 7 Nov 1972 by Dr. C.F. Burk, jr., chairman. Copies of this report were distributed at the Annual Business Meeting, and aspects of it were discussed. Comments from GIS members should be addressed to Dr. Burk, Canadian Centre for Geoscience Data, Geological Survey of Canada, 601 Booth St, Ottawa 4, Ont., Canada)

The committee, comprising C.F. Burk, jr. (chairman), Thomas F. Rafter, jr. (American Geological Institute), Roza Ekimov (Humble Oil & Refining Co., Los Angeles), and Robert McAfee, jr. (American Society for Information Science), carried out its business during 1972 by correspondence and telephone. The objective of its work was to:

1. Examine the constitutional purpose of the Society in light of present and past de facto policies.
2. Review selected GIS activities believed to be crucial to the general health and long-term development of the Society.

This report summarizes the views of the committee at this point in time and is presented to the membership as a *working document* to form the basis for further discussion, and if appropriate, for action by the Executive Committee.

Constitutional Purpose

As it presently reads, the purpose of the Society directs it "to initiate, aid and improve, the exchange of information in the earth sciences through mutual cooperation among librarians, earth scientists, documentalists, editors and information specialists" (GIS Constitution; 21 Oct 1967). There are at least two distinct aspects to such a mandate, one service-oriented and the other professionally oriented. The service-oriented aspect refers to the direct provision of specific information services or products by GIS (e.g. publication of a directory to field guidebooks). The latter refers to the provision of professional advice and leadership in the field of information (e.g. participation in the AGI Committee on Geoscience Information).

Burk expressed the view that the present constitutional purpose blurs this distinction. Perhaps as a result, GIS has devoted most of its energy to the provision of specific information services, sometimes by default, and not enough energy to developing methods and policies of wide interest.

Recommendation: The Society should modify its purpose to recognize and reflect a balance between service and professionalism.

Publications Program

Publications constitute an important element in the activities of any professional society, and yet GIS has been unable to publish a formal journal. Its *Newsletter* appears only three times a year. The *Proceedings* of its Annual Meetings have not always been published, and when published, have been very late in appearing.

McAfee noted that Society publications bring at least three immediate benefits: (1) enhancement of the Society's image; (2) revenue; and (3) intellectual advancement of the profession. As observed by Rafter, the *Newsletter* is the only visible product members receive regularly for their dues, yet the schedule of publication is limited to 3 issues per year. Presumably GIS could service its own members with more copious volumes of the commodity it specializes in - information!

Recommendation: A regular professional journal sponsored by GIS should be established, and the frequency of the Newsletter should be increased to 6 issues per year.

(con't)

Continuity of Executive Personnel

The direction and management of the Society is the responsibility of the Executive Committee. However, it is clear that with the nearly complete turnover of personnel each year and their wide geographic distribution, the effective conduct of its business is made exceedingly difficult. The reduction of turnover would help significantly, especially with respect to the positions of President and Vice-President.

Recommendation: The Constitution should be modified to provide for the Vice-President to also assume the position of President-elect, thereby enabling a single person to serve for 3 successive years on the Executive Committee, as Vice-President, President, and Past President.

Organizational Affiliation of the Society

The committee recognized other general areas of concern, solutions to many of which are related to the basic premise underlying the formation of GIS as an independent society. Other organizational means for achieving the Society's goals were considered, and the following options were noted, none of which includes the status quo:

1. Independent Society. As at present in the broad sense, but with a redefined and revitalized Constitution to allow for solutions to the current problem besetting GIS. Continued affiliation with AGI and GSA.
2. Affiliation with American Society for Information Science (ASIS). Our Society could transform itself into a "special interest group" (SIG) of ASIS and operate under its umbrella.
3. Disbanding GIS. Members could find at least partial, and in many cases greater, fulfillment of their society aspirations by joining other organizations such as: American Society for Information Science, Special Libraries Association, Canadian Association for Information Science, Geological Information Group (Geological Society of London), Alberta Information Retrieval Association, and Association of Earth Science Editors.

BIBLIOGRAPHY OF THESES IN GEOLOGY

(The following is a report, dated 1 Nov 1972, from Dederick C. Ward, chairman of the GIS Theses Bibliography Committee)

The June 1972 issue of the *GIS Newsletter* has already announced our publication plans: the 1967-1970 titles of theses in geology (U.S. and Canada) as *Special paper* no.143 of the Geological Society of America (to be published April or May 1973) and the 1971- titles for inclusion in the *GSA Bibliography and index of geology*. The latter plan is already in operation, as you may have noticed in the monthly bibliography (July 1972 issues to date). At present, we are working very concentratedly on the *Special paper*. I have just completed editing

the GEO-REF-produced proof sheets (approx 4300) and returned them to AGI for correction and photocomposition. The elements for the "head and tail" portions are in the hands of the GSA staff.

On the matter of quality, there is a "minus" which we've had to accept. The subject index, as you know, follows the format and philosophy of the monthly bibliography. Changes in subject and area terms were made in the data base during the period 1967-1970, but the terms were not updated since their input. Therefore, variations in indexing (principally on the 2nd level) exist. To standardize the index at this time would have cost GSA over \$7,000; this would have resulted in an estimated \$4.00 increase in the purchase price per book. Our decision was not to raise the price, nor to delay publication of the volume any longer. Thus, the principal variations are explained to the user at the beginning of the index (these are very easy to understand) and a running title on each page of the subject index assures that these be read.

Now, I'd like to get your reaction to another matter involving quality. We are sending out a letter this year to departments from which we have received titles needing clarification. The letter will request the departments to supply abstracts for those few titles which have been returned to us by GEO-REF's editor-in-chief whose staff found it difficult to adequately describe the contents of a thesis from its title alone (in Boulder, we classify only age and location). In addition, this letter will solicit the departments' reaction to our proposal that next year's appeal include a request for copies of abstracts for each thesis title submitted--on the theory that the departments will want their efforts properly announced in the bibliography and easily retrievable from the GEO-REF data base.

What is the reaction of GIS in this matter?

Dederick C. Ward
Bibliography of Theses in Geology
Dept of Geological Sciences
University of Colorado
Boulder, Colorado 80302

GLOSSARY OF GEOLOGY

Gary, Margaret; McAfee, Robert, jr.; and Wolf, Carol L., eds. (1972) *Glossary of geology*. With a forward by Ian Campbell. Washington, D.C.: American Geological Institute. 805p. + 52-page bibliography. \$22.50 (ISBN 0-913312-00-2)

At long last, the completely revised and updated AGI geologic glossary has been published. The nearly 33,000 terms in the new edition greatly exceeds the 18,363 terms in the last edition published by AGI in 1960. The use of more than 175 leading experts in all branches of geology lends authority, as well as comprehensiveness, to the new edition. A valuable by-product of the compilation is the 52-page bibliography containing more than 1500 citations.

(con't)

The terms in the glossary have appeared in recognized publications and reflect, in general, North American usage, although some British and Australian terminology is included. Colloquialisms are generally restricted to those of the U.S. Old and obsolete terms are defined when possible (and are distinguished as such), since the older geologic literature continues to be a valuable research tool. Foreign-language terms are included only if they appear as such in the English-language literature.

According to the introduction, the glossary emphasizes "the current or preferred meaning of a term rather than ... its original usage or historical development, although this information is sometimes given". The glossary is "descriptive rather than prescriptive; the editors have hoped to present an authoritative work on the basis of completeness and a reflective, explanatory style". Terms are extensively cross-referenced.

All three editors are members of GIS.

GISers in the NEWS

Eugene J. Demeter, formerly with Kennecott Exploration Services in Salt Lake City, is now minerals staff geologist with the Minerals Exploration Dept., Getty Oil Co., 3810 Wilshire Blvd, Los Angeles, Calif. 90010.

Rita K. Llaverias, formerly at the Water Resources Division of USGS, is now with the ERIC Clearinghouse on Teacher Education, Washington, D.C.

Mary W. Scott, geolibrarian at the North Dakota Geological Survey, is also part-time administrative assistant to the director of libraries at the Univ of North Dakota where she serves as liaison between the main university library staff and the department libraries for geology, chemistry, engineering, and physics-math.

NEW MEMBERS OF GIS

- Chappell, Mrs. Barbara: Geology Librarian, Geology Bldg.302, Univ of Texas, Austin, Tex. 78712
 Instituto Mexicano del Petroleo, Division de Informacion, Av. cien Metros no.152, Mexico 14, D.F.
 Pruett, Mrs. Nancy Jones: Map Librarian, Science Information Center, Southern Methodist Univ, Dallas, Tex. 75222
 Rios, Miguel M.: Head, Division de Informacion, Instituto Mexicano del Petroleo, Av. cien Metros no.152, Mexico 14, D.F.
 Waranius, Mrs. Frances B.: Librarian, Lunar Science Institute, 3303 NASA Road no.1, Houston, Tex. 77058

LITERATURE CITATIONS

(GISers indicated in UPPER CASE)

American Geological Institute (1972) *Directory of geoscience departments; United States and Canada*. 1972 ed. Washington, D.C.: AGI. 240p. \$8.---
 Directory of 700 colleges and universities offering Earth science courses, with addresses and phone numbers. Includes list of 4,700 faculty members, with scientific specialties, cross-indexed to their institutions; also charts of degree programs (with major fields, arranged by geographic location) and of summer field courses and special field trips.

Buffum, Charles W. (Summer 1972) *Map cataloging*. Library resources & technical services, v.16, no.3, p.400.---Defends "author" entry for maps in letter to editor; reply from Hans Wellisch, p.401.

Capps, Marie T. (Oct 1972) *Preservation and maintenance of maps*. Special libraries, v.63, no.10, p.457-462.

Chakraborty, A.R. (Sept 1971) *Early attempts of documentation of geological literature in India--a review*. Annals of library science and documentation, v.18, no.3, p.132-140.

Council of Biology Editors. Committee on Form and Style, ed. (1972) *CBE style manual*. 3rd ed. Washington, D.C.: American Institute of Biological Sciences. 297p. \$6.---Designed for research workers preparing manuscripts for publication in biological journals, and for students and other prospective authors.

HOFFER, F.B. (1972) *Bibliography of Virginia geology and mineral resources--1950-1959*. Virginia. Division of Mineral Resources. Information circular 19. 103p.

Hruska, Jiri (1971) *A short review of data processing in the earth sciences in Czechoslovakia*. International Association for Mathematical Geology. Journal, v.3, no.4, p.369-373.---Discussion of a computer-based environmental/geological data center.

Hubaux, A. (1971) *Scheme for a quick description of rocks*. International Association for Mathematical Geology. Journal, v.3, no.3, p.317-322. ---The method of using standards as reference points is introduced.

International Union of Geological Sciences. Committee on Geological Documentation (July 1972) *Multilingual thesaurus for the geological subfield "Tectonics"*. 1st draft. Orleans, France: B.R.G.M. 123p.---In 4 sections: Czech, German, English, and French.

Kilchenmann, André (1972) *Möglichkeiten der geographischen Datenerfassung in EDV-Informationssystemen*. Geographica Helvetica, Jahrg.27, no.1, p.25-30.---The basic terms of geographical data acquisition and storage are defined, together with the requirements and specifications for information systems. The statistical units, the problems of spatial encoding, and the resulting data organizations are discussed.

Koerner, Alberta G. (Nov 1972) *Acquisition philosophy and cataloging priorities for university map libraries*. Special libraries, v.63, no.11, p.511-516.

McCann, J.A., and Smith, G.G. (1971) *An annotated bibliography of the Masters theses and doctoral dissertations on water resources and their uses, 1930-70*. Amherst: Univ of Massachusetts. 53p. (NTIS: PB-209 210).

National Lending Library for Science and Technology (April 1971) *Select list of NLL translations: No. 2 Palaeontology*. NLL review, v.1, no.2, p.67-69.---Lists 23 translations which can be purchased from NLL, Boston Spa, Yorkshire LS23 7BQ, Great Britain.

Pretorius, D.A. (March 1972) *Bibliography of theses in the geological sciences submitted to universities in southern Africa*. Witwatersrand. University, Johannesburg. Economic Geology Research Unit. Information circular no.67. 98p. ---Arranged by author and by university.

SNOWBALL, GEORGE J. (Oct 1972) *Information/library statistics as a management aid: a graphic presentation; alternative solutions*. Special libraries, v.63, no.10, p.443-447.---Proposes 3 solutions to the problem of treating compiled statistical data graphically as alternatives to that developed by Hoey.

Weedman, Parmula K., and others, comp. (Sept 1972) *Sea Grant publications index, 1968-71*. Vol. 1. Rockville, Md.: U.S. Environmental Science Information Center. 152p. (NOAA technical memorandum EDS ESIC-4).---Lists all materials received by the National Sea Grant Depository, Univ of Rhode Island, Narragansett, R.I., through 29 Feb 1971, with the exception of newsletters and any material with a 1972 publication data. Volume 1 contains the document listing.

Weedman, Parmula K., and others, comp. (Sept 1972) *Sea Grant publications index, 1968-71*. Vol. 2. Rockville, Md.: U.S. Environmental Science Information Center. 190p. (NOAA technical memorandum EDS ESIC-5).---Indexes to volume 1. Contains KWIC subject, author, corporate, and grant number indexes.

GEO·REF NEWS

*** The Board of Directors of the American Geological Institute at its 11-12 Sept 1972 meeting approved proposals to the National Science Foundation for partial support of GEO·REF in 1973-1974 and for publication of a GEO·REF indexing manual (which is intended as a standard for bibliographic data processing in the earth sciences).

*** Under a contract with GEO·REF, the U.S. Geological Survey is to pay \$50,000 for an expanded reference system to include North American and geophysical references that would have been covered

otherwise only by the now-discontinued USGS bibliographies. GEO·REF will also provide the Survey with a magnetic tape storing each year's data.

*** GEO·REF is collecting and indexing information for a bibliography of Saskatchewan geology for the years 1966-1970 under an agreement with the Institute of Northern Studies, Calgary. GEO·REF is also preparing a monthly bibliography of micro-paleontology for the American Museum of Natural History (see page 1 of this newsletter for paper given by H.L. Cousminer at the GIS Annual Meeting).

*** GEO·REF now offers retrospective bibliographic searches of the computer-stored references in its earth science file. Queries may be stated in any form or language, and will be reviewed by a search editor before submitted to the computer. Queries may be submitted by telephone or letter and responses will be mailed within a week. Each reference contains a title, senior and junior authors, publication data, content notes, and a brief annotation if the title is not sufficiently descriptive. Search price: \$25 plus 25¢ per reference for the first hundred, and 10¢ for each reference in excess of a hundred.

LC CLASSIFICATION ON REFERENCES ON EARTHQUAKES

(The following was received from J. Charles Levesque, librarian at the Earth Physics Branch, Dept of Energy, Mines and Resources, Ottawa, Ont., Canada)

In the Library of Congress schedules, earthquakes are classified under three separate headings:

QE 535 - Western Hemisphere
QE 536 - Eastern Hemisphere - Europe
QE 537 - Eastern Hemisphere - Asia, etc.

We find that this classification is far too broad for a library specialized in the geosciences or, for that matter, any collection with a sizeable quantity of documents on earthquakes.

To refine the classification somewhat we have made a slight change in the author number of the documents: each document on specific earthquakes in our collections will now have a prefix to the author number of the document. The prefix will be the last two digits of the year of the quake--i.e. a book by K. Ergin on the Gediz-Turkey earthquake of 28 March 1970 would be classed as QE537.70E67; similarly a book by P.C. Jennings on the San Fernando earthquake of 9 February 1971 would be classed as QE535.71J54.

Books on earthquakes prior to 1901 are prefixed with 00. In this way they are located at the beginning of the shelf arrangement for each hemisphere.

We had considered a finer classification whereby books on particular earthquakes would be shelved together; however, this involved a more complex book number which would lead to problems with catalogers and users in the library. The broader scheme seems

to outweigh the more complex yet more defined scheme.

The system seems to be operating in practice although it has only recently been adapted. We would appreciate any comments or criticisms on matters that we have not foreseen.

Also we have established many new subdivisions, such as "--Mathematics", which is now used following the headings "Geodesy", "Geology", "Geomorphology", and "Seismology".

NEW DEVELOPMENTS IN THE GEOSCIENCES AT LC

(The following was submitted by Janet R. Meserve of the Subject Cataloging Division, Library of Congress)

The most important announcement that I have to make is that the new edition of the Library of Congress Classification, Class Q (Science), is expected to be published by 1 April 1973. This is a very extensive revision: the QE (Geology) schedule will contain many changes and new numbers, which we have not started using yet ourselves. In this revision we have attempted to list in detail African countries, rock and mineral names, and animal and plant taxa. Also of interest is that all editions of LC Classification will be under constant revision instead of being reissued with additions and changes printed in the back as formerly.

We have made several important changes in subclasses GB (Physical geography) and GC (Oceanography). In the GB schedule we have developed the geomorphology section to classify books by place. Also we have added a series of new numbers for natural disasters and natural water chemistry. We anticipate making several changes in the caves and speleology section to better provide for karst landforms. In the GC schedule we have added new numbers for continental margins, continental shelves, and continental slopes. Also we have added several numbers for water masses and "local, A-Z" breakdowns for ocean currents.

The subject-heading change of greatest interest is that of the subdivision "Guide-books", which can be used following the indirect subdivision of the headings "Geology" and "Caves". An example is *Geology--Maryland--Montgomery Co.--Guide-books*.

Other subject headings of recent vintage are:

- Aquifers (Indirect)
- Continental margins (Direct)
- Cuestas (Indirect)
- End of the world (Astronomy)
- Free earth oscillations
- Groundwater flow (Indirect)
- Gushers
- Historical geology
- Natural disasters (Indirect)
- Paleopedology (Indirect)
- Physical geology
- Sea-floor spreading
- Solar chromosphere
- Solar cosmic rays
- Solar photosphere
- Thermoclines (Oceanography)
- Underwater light
- Water chemistry
- Water masses
- Water table (Indirect)

ASSOCIATION OF EARTH SCIENCE EDITORS

(The following was prepared by Walter P. Ketterer of the Office of Technical Reports, U.S. Geological Survey, Washington, D.C., and a board member of AESE)

The 6th Annual Conference of the Association of Earth Science Editors (AESE) was held in the new headquarters building of the Geological Society of America (GSA) in Boulder, Colo., 15-17 October 1972. AESE was the first group to be fortunate enough to hold a meeting in this beautiful and impressive building. More than 80 members and visitors were present for most of the conference, making this one of the best-attended meetings in the history of this organization.

Following a welcoming address by Edwin B. Eckel, Executive Secretary of GSA, Conference Chairman Gerald M. Friedman (RPI) began the session by moderating a stimulating panel on style manuals. This was followed by another excellent panel moderated by Patricia Wood Dickerson (Secretary-Treasurer of AESE) on the subject of some new production techniques. After lunch, Wallace R. Hansen (USGS, Denver) and John D. Haun (Colorado School of Mines) led the group on a field trip to several exposures of the Lyons Sandstone; many unique sedimentary features as well as structural and geomorphic points of interest along part of the Front Range were visited.

A well-attended banquet (no after-dinner speeches!) was the highlight of Monday evening, giving ample opportunity for social and business conversations. Tuesday morning began with the annual business session highlighted by a brief talk by R. Dana Russell (pinch-hitting for P.E. LaMoreaux) who welcomed AESE to membership in the American Geological Institute. Following the business meeting, a panel on format, design, and illustrations for producers and users was moderated by John P. Wilshusen (Pennsylvania Geological Survey). The final panel on Tuesday afternoon was titled "Think Small--Microforms", moderated by Walter P. Ketterer (USGS, Washington, D.C.).

All who attended the conference agreed that sessions and informal contacts were of great value. AESE is now a strong organization, and it is the hope of the officers that membership will be enlarged to include most key editorial personnel in the earth science field. Officers for 1973 are: Richard V. Dietrich (Chairman); Mary R. Hill (Vice-Chairman and Chairman-elect); Gerald M. Friedman (Past Chairman); Patricia Wood Dickerson (Secretary-Treasurer); and W.P. Ketterer, Ira A. Lutsey, and A.F. Spilhaus, jr. (Board Members).

The Association plans to hold its 1973 meeting in Ottawa, Canada.

24th INTERNATIONAL GEOLOGICAL CONGRESS

Following is the list of papers presented for Section 16--Computer-Based Storage, Retrieval and Processing of Geological Information--during the 24th International Geological Congress held August 1972 in Montreal. Conveners for Section 16 were R. Bergeron, C.F. Burk, jr., and S.C. Robinson.

THEME A: GEOLOGICAL FIELD DATA SYSTEMS

Chairmen: P. Laffitte and W.C. Brisbin

A computer-based system for geological field data on the Coast Mountains Project, British Columbia, Canada. J.A. Roddick & W.W. Hutchison

Application of data processing techniques in the Grenville Province, Quebec, Canada. A.F. Laurin, K.N.M. Sharma, H.R. Wynne-Edwards, & A. Franconi

GEOMAP--A data system for geological mapping. H. Berner, T. Ekstrom, R. Lilljequist, O. Stephansson, & A. Wikstrom

Development of a coastal data bank for the north-eastern United States. Joseph M. Colonell, Victor Goldsmith, & Peter N. Turbide

THEME B: GEOPHYSICAL AND GEOCHEMICAL DATA SYSTEMS

Chairmen: I. Nichol and R. Bergeron

Bedford Institute geographically ordered marine geophysical data storage and retrieval system. K.G. Shih & D.E. Heffler

Digital processing of airborne infrared imaging signals. Ronald W. Stingelin & Glen B. Avis

Storage and automatic processing of hydrogeochemical data. Mario Dall'Aglia & C. Gigli

Étude statistique sur ordinateur de la géochimie de certains éléments dans les formations sédimentaires du Bassin de Paris. Régis Pelet & Benjamin de Jekhowsky

THEME C: PALEONTOLOGICAL AND PETROLEUM SYSTEMS

Chairmen: J.B. Chase and J.L. Cutbill

An automated system for paleontologic data retrieval--a case history. William B.N. Berry

Computer-based information bank for foraminiferal data, western Interior region, North America. Harry C. Kent

Development of the Saskatchewan computerized well information system, 1964-1971. John V. Buller

Geologic features of oil and gas pools. G.J. Dickie & G.D. Williams

THEME D: MINERAL DEPOSITS AND MINERALOGICAL DATA SYSTEMS: AUTOMATED MAP PRODUCTION

Chairmen: A.M. Kelly and C.J. Dixon

BASIMINE: Stratégie de prospection des gîtes liés aux massifs basiques et ultrabasiques. P. Laffitte, B. Capitant, M. Lenci, H. Bremner-Teil, & M. Vannier

Data storage-retrieval problems and pilot-scale computer studies in mineralogy and petrography. R.K. Harrison, R.I. Lawson, J.R. Hawkes, & J. Dangerfield

Règles à suivre pour la collecte, le traitement et la communication des coordonnées. Ph. Grandclaude

The production of a multi-color geological map by automated means. D.P. Bickmore & B. Kelk

THEME E: EVALUATION OF DATA SYSTEMS

Chairmen: P.G. Sutterlin and A.B. Vistelius

Economic use of geological data files in exploration. J.E. Robinson

Evolution of data systems in oil exploration. D.L. Stauff

Applications of generalized information systems to the storage and retrieval of geologic and geographic information. D.W. Moody

A computer-based descriptor-type information retrieval system for geology. V.N. Moshkin & other members of the All-Union Geological Research Institute (VSEGEI), Leningrad

Computerized system for storage and retrieval of geologic data. R.T. Haworth & R. Sparkes

THEME F: BIBLIOGRAPHICAL AND INDEXING SERVICES: NATIONAL AND INTERNATIONAL SYSTEMS

Chairmen: A. Hubaux and C.F. Burk, jr.

Computerized indexing and retrieval of information regarding on-going geological research. Joseph P. Riva, jr.

Collaboration internationale en documentation des sciences de la terre. L. Delbos & J.C. Dumort

Geo-Archive: An information retrieval system for geoscience. Graham Lea

The Canadian System for Geoscience Data. D.A. Sharp

Towards an international information system for the geosciences. Joel J. Lloyd

GIS members can purchase the proceedings of Section 16 for \$5.00 (Can.) from: 24th International Geological Congress, 601 Booth Street, Ottawa K1A 0E8, Canada.

EXCHANGE OF ACCESSION LISTS

It has been suggested that librarian members of GIS initiate the exchanging of their accession lists. GISer Chuck Levesque is willing to serve as the con-

tact person to get the interested members corresponding with one another. He proposes that "all interested persons send their names to me and I will produce a list which I will send to each as a mailing list guide".

Write to: J. Charles Levesque, Earth Physics Branch Library, Dept of Energy, Mines and Resources, Ottawa K1A 0E4, Ontario, Canada.

CATALOGING GUIDEBOOKS

GISer Mary W. Scott (North Dakota Geological Survey, University Station, Grand Forks, N.D. 58201) writes: "Our Serials Cataloger has asked 'Is there any way to determine the main entry when cataloging a guidebook from a field trip sponsored by several different societies?' I would like to hear how others do it".

JOURNAL OF RESEARCH of the U.S.G.S.

Announcing a new publication . . .

The *Journal of research of the U.S. Geological Survey* will contain papers written by members of the Survey and their professional colleagues on various subjects in geology, hydrology, topography, and related earth sciences. It also contains a listing and short description of recently released USGS publications.

Each issue contains papers in a number of subject matter fields representative of the work of the Survey. The papers cover such subjects as analytical methods, astrogeology, economic geology, estuarine hydrology, geochemistry, geochronology, geomorphology, geophysics, glacial geology, glaciology, ground water, hydrologic techniques, marine geology, mineralogy, paleontology, petrology, quality of water, remote sensing, sedimentation, stratigraphy, structural geology, surface water, topographic studies, urban hydrology, and others.

An annual subject index is provided to aid readers in finding papers in specific areas or subjects.

The *Journal of research*: will be published six times a year, beginning January 1973; supersedes the short-papers chapters of the former USGS research (annual review) series of professional papers; will have up to 120 pages per issue; and will contain approximately 20 papers per issue. Costs: \$8.50 per year domestic (plus \$2.25 additional for foreign mailing) or \$1.50 per single copy.

To obtain the *Journal of research of the U.S. Geological Survey*, contact: Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

NATIONAL ATLAS SHEETS FOR SALE

The U.S. Geological Survey has announced that more than 60,000 excess map sheets of the *National atlas of the United States* are available for public sale as long as the supply lasts. The excess sheets are multi-colored (many in six or more colors), 4-page signatures left over after the binding of the *National atlas* and are offered in sets of such related subjects as history, manufacturing, transport-communications, and status of mapping and charting. Some single sheets are also included. The folded, 19x28-inch sheets are exceptional values for use as teaching aids and for research, reference, and display.

The excess sheets are duplicates of many of the pages contained in the hard-bound, comprehensive *National atlas* published in 1970 by the USGS after nearly a decade of planning and production involving the cooperation of more than 80 Federal agencies and numerous commercial firms, specialists, and consultants. The complete 431-page atlas, containing 336 pages of multi-colored, reference and special subject maps as well as a 41,000-name gazetteer, can be purchased for \$100 from the Geological Survey.

Although not all atlas sheets are available as surplus sales items, more than 25 major topics are included in the sets or single sheets comprising the sales program. Prices range from a General Reference set (pages 1-54 of the *National atlas*) at \$5 to a number of special subject single sheets at \$1 each. The 80-page gazetteer is also available in the surplus sales program at \$5.

Among the single sheets available for sale are:

pages of <i>National atlas</i>	<u>content</u>	price <u>per sheet</u>
55-58	physical (text); relief U.S.)	\$1.50
65-68	gravity; earthquakes; magnetism	1.00
73-76	geologic history (text); geology; glacial geology	1.00
81-84	tides; sea temperatures & salinity; wave heights	1.00
97-100	precipitation; snowfall	1.00
121-124	floods & droughts; ground water; minerals in water	1.00
125-128	water impurities; water use; water resources	1.00
177-180	mineral & energy resources (text); major metals; principal ferro-alloy raw materials	1.00
181-184	nonmetallic raw materials; construction materials; industrial & chemical raw materials	1.00
185-188	energy raw materials; organic fuels; source & use of energy	1.00
189-192	power production & consumption; power generation & transmission; mining & mineral industries	1.00

Orders for the *National atlas* surplus materials should be sent only to the Distribution Section, USGS, 1200 South Eads St, Arlington, Va. 22202.

ARCTIC ENVIRONMENTAL INFORMATION

Alaska House Bill 370--an appropriation bill to establish an Arctic Environmental Information and Data Center (AEIDC) at Anchorage, Alaska--was signed into law by Gov. William A. Egan on 4 July 1972. The bill allocates \$100,000 to the Univ of Alaska from the State's general fund to establish the Center, and culminates many years of effort by Alaska environmental interests. The funds will permit the establishment and operation of a prototype center during a model year.

Tentatively, the goals of the Center will be to: (1) provide industry, the academic community, government agencies, and the public with a source of objective information and data on biological and physical sciences and related engineering aspects of the Arctic; (2) foster use and interchange of data; (3) document Alaska institutional accomplishments; (4) aid management in resource zoning; and (5) become the U.S. focal point in planning Arctic research.

The ultimate functions of AEIDC will be to collect, review, analyze, appraise, and summarize environmental data and information and to provide advisory and other user services concerning Arctic science and technology, with emphasis on dissemination to users.

ZENTRALBLATT für GEOLOGIE und PALÄONTOLOGIE

The editors and publishers of the *Zentralblatt für Geologie und Paläontologie; Teil I: Allgemeine, Angewandte, Regionale und Historische Geologie* have decided that "progress reports" in the individual branches of the geosciences will be given preferential treatment in future editions of the journal. Bibliographies and reviews of journal articles will be largely omitted, while critical reviews of technical books in the geosciences will continue to be published.

Considerations as to content have been made. The progress reports will regularly include the latest research findings, presented by region or topic; they will provide a concise survey of the current state of research in the various branches of the geosciences. The progress reports might take the form of collective reviews or critical literature summaries.

The editors depend on the cooperation of many colleagues for the realization of these plans; they anticipate enthusiastic response and strong support. As of 1972, the information center of the Bundesanstalt für Bodenforschung in Hannover can provide a compilation of the literature to the authors of the progress reports.

COASTAL STATES DATA CENTER

Through various research projects, the Urban Information Studies Group at the Univ of Southern California has acquired several unique data files and

established the capability of processing these files to produce information useful for and comprehensible to researchers and decision-makers. This information includes data about selected coastal zone counties in California.

The new Coastal States Data Center, established under the sponsorship of the Univ of Southern California Sea Grant Program, provides basic information on coastal land ownership, land use and other parcel information from county assessors, land values and rents, demographic information from the 1970 Census and selected update sources, and economic information. The basis level of aggregation is Census Tract. These data have been found to be useful in analyzing human activity in the coastal zone area. All data are held in computer-readable form, from which reports can be generated in tabular, map, or statistical form.

The Center is said to be the only one of its kind in the U.S., providing a valuable tool for persons studying or making decisions concerning coastal areas.

STOCKHOLM CONFERENCE ON THE HUMAN ENVIRONMENT

The United Nations Conference on the Human Environment, held in Stockholm on 5-16 June 1972, was attended by participants from 114 nations. One of the five main subject areas considered was "Educational, informational, social and cultural aspects of environmental issues".

It was widely recognized that although a considerable amount of information on the environment is available, access to it is difficult for the world community because of the diversity of subjects, the disparity of sources from which the information can be obtained, and the variety of users. Hence, among the many practical proposals treated at the conference was the recommendation that "a modest International Referral Service for sources of environmental information" be established.

Such a service would enable the maximum benefit to be gained from the exchange of information about local, national, and international research, application, and legislative and management experiences in environmental matters. The users of the service would be governments and bodies of the United Nations system. The service could be gradually extended to other users, subject to the availability of financial resources. It would provide addresses and descriptions of those sources of information most likely to be of help to the user. For developing countries, the service would provide help in the formulation of questions and the interpretation of the answers.

The Referral Service would cover the five substantive subjects of the Conference agenda: planning and management of human settlements for environmental quality; environmental aspects of natural resources management; identification and control of pollutants and nuisances of broad international significance; educational, informational, social, and cultural aspects of environmental issues; and de-

velopment and environment. The service should catalog all relevant governmental and international sources of: data; technological and scientific information; social and economic information; legislative, administrative, and policy information; and public information. The resulting output would consist of a computer print-out listing the sources of information.

Another proposal to be submitted to the U.N. General Assembly for approval is the "Earth Watch Program". This global program involves the establishment of a comprehensive environmental monitoring, research, assessment, and information exchange effort to be carried out by governments and U.N. agencies with assistance from non-governmental groups.

The concept behind Earth Watch is to provide for an internationally coordinated effort that would link existing and planned national and international efforts so that, in an integrated manner, there would be available an appraisal of the condition of the Earth, ocean, and atmosphere environments and their living resources of concern to man.

For the U.N. Conference, the Woodrow Wilson International Center for Scholars published volumes I and II of *The human environment*. Volume I (171p.) is a selective, annotated bibliography of 900 reports and documents on international environmental problems, and includes a comprehensive list of official papers prepared for the Conference. Volume II (109p.) contains full summaries of official reports on environmental problems and priorities, prepared for the Conference by the more than 70 participating nations, and includes recommendations for national and international action. The set is available at \$5.00 per volume from the Woodrow Wilson International Center for Scholars, Smithsonian Bldg, Washington, D.C. 20560.

CINCINNATI SYMPOSIUM ON ENVIRONMENTAL INFORMATION

The National Environmental Information Symposium: An Agenda for Progress, held in Cincinnati, Ohio, on 24-27 September 1972, was attended by more than 1600 representatives of industry, government, universities, libraries, professional and trade associations, the press, and citizen action groups. The purpose of the symposium, sponsored by the U.S. Environmental Protection Agency (EPA), was to outline and clarify the difficulties of interchanging information in the myriad forms now available, to present the user of environmental information with a review of the services available, their location, accessibility, and cost, and to describe some of the solutions already being formulated.

The program was structured into four categories: scientific and technical; legal, legislative, and regulatory; management and planning; and socio-economic. The information services covered included information and data centers, publications, document services, and referral activities.

Immediately following each session, the audience assembled into five user groups, according to professional or personal interest, for a discussion

and evaluation of the presentation. The symposium organizers will use the feedback from these sessions to develop a summary report distilling user recommendations into "action items" that data generators and managers in both the government and private sectors can act upon to improve their data and information services and products. In addition, the results will be used to plan future symposia to improve environmental data and information services to the user community.

The use of computers and computer networks to disseminate information concerning the problems of the environment was highlighted. There was general agreement that the public does not understand the difference between data and information systems, that too few prospective users have been trained in use and evaluation of information services, and that false expectations cloud prospects of improving the services. Some common themes were that an environmental information network is needed, that referral activities may be the most important current need, and that EPA must do more to provide environmental information in the forms needed by varying user groups.

William D. Ruckelshaus, administrator of EPA, told conferees that we may already have a "substantial part" of the scientific information we need to ensure the protection and preservation of our environment, yet "we don't have timely access to it because retrieval systems are uncoordinated or non-existent". He noted that environmental information is generated by some 75 different sources in the Federal government alone, and more than a dozen Federal agencies play some role in collecting and disseminating this information.

Ruckelshaus said that "information technology is potentially anti-democratic" by stressing the danger that computerized information has a high operational payoff that will reinforce the power of the managerial elite and will tend to broaden the gulf between those who command the new technology and those who cannot. To combat the possibility of information becoming a force for monopoly or special privilege, he urged that scientific data banks be open to all.

He concluded that social requirements will modify the application of technology through monitoring and critical review. He called upon the conferees to "lay the foundations for a continuous dialogue between the producers and managers of environmental data and their fast-growing clientele" looking toward establishment of a broader base of usable information.

One of the presentations at the symposium was a description of RALI (Resource And Land Information), a system being designed by the U.S. Geological Survey to provide land use and resource information. The system was described by W.A. Radlinski, associate director of USGS.

RALI will operate within a functional framework of a national center, several regional centers, and a multitude of local centers. This framework will permit a high degree of interaction with users at all governmental levels.

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RALI will provide information in two broad categories: (1) digitized map data in a grid format for compilation, interpretation, analysis, and display by computer; and (2) detailed coverage of state or local high-density areas for land-use policy and planning.

NEWS NOTES

METRIC CONVERSION CARD

The U.S. National Bureau of Standards has prepared a plastic metric-conversion pocket card which contains the minimum data needed for conversions from customary to metric units and vice versa. The NBS Special Publication 365 sells for 10¢ each, or \$6.25 per 100. Order prepaid from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, or local U.S. Dept of Commerce Field Offices as SD Catalog no. C13.10:35.

Robert McAfee, jr., Editor, *GIS Newsletter*
American Society for Information Science
1140 Connecticut Avenue, N.W.
Washington, D.C. 20036

NATIONAL ENVIRONMENTAL DATA SYSTEM

Congress has sent to the White House a bill establishing a national environmental data system to be administered by the Council on Environmental Quality and including a system of regional and State environmental data centers. The system would be "the central national coordinating facility for the selection, storage, analysis, retrieval, and dissemination of environmental data" from Federal agencies, State and local governments, individuals, and private institutions "in order to provide information needed to support environmental decisions in a timely manner".

GEOSCIENCE INFORMATION IN CZECHOSLOVAKIA

Jiri Hruska of Geofond Praha, State Geological Documentation Center, Prague, is director of a 4 1/2-year project entitled "Automated Information System of Geoscience in Czechoslovakia". The aims of the project are: automation of geologic information (both documents and data); elaboration of a multi-lingual thesaurus (joint project with ICSU/AB); creation of an environmental data bank and "geo-information flow"; coordinated input for indexes, SDI, and retrieval; and establishment of an international information center on geoscience in Prague. The project is sponsored by the Czechoslovak Ministry of Technology and Development.