



# The Hydrogeologist

NEWSLETTER OF THE HYDROGEOLOGY DIVISION OF THE GEOLOGICAL SOCIETY OF AMERICA AUGUST 1982

## MESSAGE FROM THE CHAIRMAN

Dear Colleagues:

First the good news! The 1982 Annual Meeting will be held in New Orleans; in addition to renewing old friendships and making new friends while becoming informed on what's new in Hydrogeology, Geology, Geochemistry, or whatever, you'll find that New Orleans is still a place for good food and good times. Meeting in New Orleans also makes it feasible to run an updated version of the field trip to the Yucatan Peninsula, Mexico. The trip will be lead by Al Wiedie, Bill Ward, Bill Back, and Bruce Hanshaw. They have new ideas and new areas to show since the premeeting trip before the 1974 Miami Annual Meeting. Although this trip will be heavier on carbonate geology and geochemistry, two nights will be spent near archeological sites of Mayan ruins. New Orleans is convenient also to the geopressured-geothermal research projects that the Department of Energy is conducting. Ray Wallace (USGS), Keith Westhusing (DOE), and Don Bebout (LGS) will lead a one-day post-meeting trip to one of DOE's most advanced research projects on the Gulf Coast.

This Newsletter was put together by the Division's new co-editors, Tom Holzer and Heidi Horten. The Newsletter was typed as camera-ready by Catherine Rieser and Fred Burdette... which is a considerable savings to the Division. Thanks! In the past, the newsletter has been compiled by the Secretary-Treasurer, Claire Davidson, who is stepping down after four years of faithful service. The Chairmen could always depend on her to complete tasks before being aware that they needed doing.

The Birdsall Lecture Series continues to be very well received, and the Division gets more requests for the lecturer's visits than can possibly be fulfilled in any year with the time available to the lecturer and the limited funds from the Division. Pat Domenico (1981 Birdsall Distinguished Lecturer) will present one of his topics on Tuesday, October 19, 1982, at 11:00 a.m., the same day as the Hydrogeology Division Luncheon and Business Meeting. Come hear the lecture and join your friends at the cash bar afterwards. The 1982 Birdsall Distinguished Lecturer will be Dick Parizek.

Now for the bad news! The O.E. Meinzer Award will not be made this year. I know that this will disappoint you as much as it does me. The committee members did not choose to nominate new candidate papers this year, although three papers from last year's panel were renominated. No clear consensus was achieved by those members who voted, so I recommended that no award be made. The rapid proliferation of papers (and hydrogeologists) in recent years limits committee members from reading more than one or two percent of those papers published. And in good conscience, some committee members are reluctant to either nominate or vote upon papers they have not read.

I have asked an ad hoc committee, chaired by George Davis, to evaluate the problem, examine our options, and present their recommendations to the Management Board and Annual Business Meeting of the Division in New Orleans. Please be at the Business Meeting whether you attend the luncheon or not. We would like a discussion of the topic from a broad cross-section of the Division membership.

See you in New Orleans!

Leonard A. Wood, Chairman  
Hydrogeology Division

1982 ANNUAL MEETING AT NEW ORLEANS  
OCTOBER 18-21

Irwin H. Kantrowitz, Joint Technical Program Chairman, has organized an outstanding program. Division-sponsored events and other events of Division interest are:

Wednesday - Sunday, October 13-17

Premeeting Hydrogeology Division Field Trip: **Geology and Hydrogeology of the Carbonate Rocks of the Northeastern Yucatan Peninsula, Mexico.** Al Weidie and Bill Ward, University of New Orleans, New Orleans, LA; Bill Back and Bruce Hanshaw, U.S. Geological Survey, Reston, VA. Limit 70; 5 days; cost \$627; includes air fare. Registration deadline: September 17, 1982.

Sunday, October 17

"At Large" Geochemistry Division Symposium on **The Geochemistry of Radionuclide, Migration/ Retardation.** Conveners: Judith B. Moody and Thomas Wolery. Superdome Room 9, 0800-1700.

**GSA Annual Welcoming Party.** Hyatt Regency Ballroom, 1800 - 2100. Registration desk and exhibits will be open.

Monday, October 18

**Hydrogeology Division Poster Session:** Superdome Room 20, 0800-1200, 12 posters.

**Hydrogeology Division Cocktail Party:** Hyatt Regency Burgundy A, 2100-2300, following the Alumni Cocktail Parties. Meet the Birdsall Lecturer and colleagues. Cash bar.

Tuesday, October 19

**Hydrogeology Division Management Board Meeting:** Hyatt Regency Buena Vista Room, 0830-1030.

**Birdsall Distinguished Lecture: Fluid Pressure Response in Thermal Environments** by Patrick A. Domenico. Hyatt Regency Rooms A, B, C, 1100-1200.

**Hydrogeology Division Luncheon and Business Meeting:** Hyatt Regency Rooms A, B, and C, 1230-1500 (cash bar, 1200-1230). Cost \$13; tickets available by pre-registration or at GSA registration desk up to 24 hours before the luncheon.

**Riverboat Cruise:** On the steamer President. 1930-2230. Cost \$13. Pre-registration recommended.

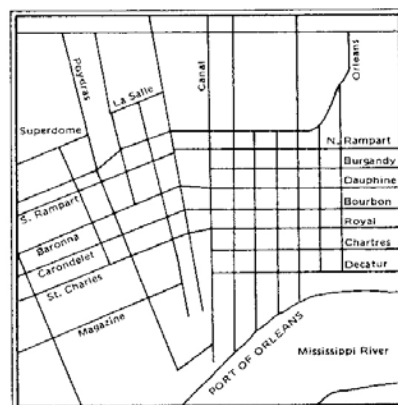
Wednesday, October 20

**Hydrogeology I.** Darwin Knochenmus and Harry E. LeGrand, presiding. Superdome Room 9, 0800-1200. 16 papers, 15 minutes each.

**Hydrogeology II.** Stanley N. Davis and Noel C. Krothe, presiding. Superdome Room 8, 1300-1700. 16 papers, 15 minutes each.

Thursday-Friday, October 21-22

Postmeeting Hydrogeology Division field trip: **Geopressured - Geothermal Energy Resource Appraisal: Hydrogeology and Well Testing Determine Producibility.** Ray Wallace, U.S. Geological Survey, MSTL, MS; Keith Westhusing, U.S. Department of Energy, Bartlesville, OK; Don Bebout, Louisiana Geological Survey, Baton Rouge, LA. Limit 20, 1 1/2 days; cost \$40. Registration deadline: September 17, 1982.



**RICHARD R. PARIZEK**  
**SIXTH BIRDSALL LECTURER**

The 1982 Birdsall Lecturer Committee, consisting of David A. Stephenson (Chairman), Patrick A. Domenico, and Irwin Remson, has named Richard R. Parizek, Department of Geosciences, The Pennsylvania State University, as the Sixth Birdsall Distinguished Lecturer.

Educated at the University of Connecticut and the University of Illinois, Dr. Parizek's research has focused on hydrogeology with emphasis on fracture-trace analysis, limestone hydrogeology, acid-mine drainage, and land-use planning. He is co-developer of the "Living Filter Concept" for land treatment of municipal waste water and sludges by land application techniques.

A complete itinerary has not been established at this time, but it will coincide with the 1982-83 academic year. If you would like your institution to be included in Dr. Parizek's Birdsall Lecture tour, inquiries should be sent to Professor Patrick N. Domenico, Coordinator, Birdsall Lecture Program, Department of Geology, Texas A&M University, College Station, Texas 77843, (713) 845-2451. Transportation expenses are paid by the Division; the host institution pays for the lecturer's local expenses.

The Birdsall Lectures are funded through an endowment from the late John Birdsall, hydrogeologist, to acquaint students with outstanding professionals in the field of hydrogeology. Former recipients of the annual award are Jacob Bear, TECHNION, Israeli Institute of Technology, Haifa, Israel; William Back, USGS, Reston, Virginia; David Stephenson, Woodward-Clyde Consultants, San Francisco, California; Irwin Remson, Stanford University, Stanford, California, and Patrick N. Domenico, University of Illinois, Urbana, Illinois.

**SUMMARY OF FIFTH BIRDSALL LECTURE PROGRAM**

Patrick N. Domenico, the Fifth Birdsall Distinguished Lecturer, reports that he visited 13 universities in November, February, and March, 1981-82: Beloit College at Beloit, University of Akron at Akron, Syracuse University at Syracuse, University of New Hampshire at Durham, Middlebury College at Middlebury, Miami University at Oxford, Old Dominion University at Norfolk, University of North Carolina at Charlotte, University of Georgia at Athens, Georgia Institute of Technology at Atlanta, Florida State University at Tallahassee, University of South Florida at Tampa, and the University of Florida at Gainesville. The visits must have whetted Pat's appetite for traveling. This fall Pat will become an Aggie, moving from the Department of Geology, University of Illinois at Urbana, to the Department of Geology, Texas A&M University at College Station.

The visits each involved two formal presentations and informal discussions with faculty and students. The abstracts of his lectures follow:

**Hydrogeology and Geologic Processes**

In this general lecture, subsurface flow is examined as a geologic agent and not within the more usual context of water supply. In particular, the principles of mass and energy transport that have been so successful in water resource and contaminant transport problems are examined within the context of geologic processes associated with the chemical and thermal evolution of sedimentary basins, with emphasis on the hydrocarbon bearing excess pressure environments.

**Some Preliminary Assessment Techniques in Solid and Radioactive Waste Disposal**

The recent proliferation of environmental protection laws and the need to dispose of both solid and radioactive wastes seems to coincide in time with a corresponding proliferation of complex transport models with a predictive capability for environmental impact. In this lecture, some simple operational models are discussed that have been designed specifically to evaluate the dilution potential for waste sites prior to intensive investigations, and to evaluate the mechanical and fluid pressure response in thermally loaded repository rocks of various kinds.

**NO 1982 MEINZER AWARD**

For the first time since the initial award in 1965 to Jozsef Toth, the O.E. Meinzer Award will not be presented. The 1982 Meinzer Award Panelists, James J. Geraghty (Chairman), Richard L. Cooley, Wayne Pettyjohn, Frank W. Trainer, and Paul A. Witherspoon, did not achieve a clear consensus, and the Division Chairman recommended no award be made. Discussion of the selection process is on the agenda of the 1982 Management Board Business Meeting.

**HIGHLIGHTS OF THE 1981 ANNUAL MEETING AT CINCINNATI**

Paul R. Seaber, Program Chairman, organized a stimulating program for our 1981 Annual Meeting at Cincinnati, Ohio, November 2-5, 1981. Division-sponsored technical sessions and events are summarized in the minutes of the annual business meeting (attendance 60 people) prepared by Claire B. Davidson, 1981 Secretary-Treasurer.



## MINUTES ANNUAL MEETING

### CINCINNATI, 1981

The 1981 Annual Business Meeting of the Hydrogeology Division was called to order by Chairman John Stone at 1330 hours, Tuesday, November 3, 1981, in the Bronze Room A, Stouffer's Cincinnati Towers, Cincinnati, Ohio. Stone introduced the people at the head table: Robert Dingman, Past Chairman; Leonard Wood, First Vice-Chairman, and his wife Annie Wood; David Stephenson, Second Vice-Chairman; Claire Davidson, Secretary-Treasurer; George Davis, Second Vice-Chairman-Elect; Gordon Bennett, Meinzer Award recipient; Paul Seaber, Program Chairman and citationist for the Meinzer Award; Irwin Remson, Fourth Birdsall Distinguished Lecturer; Patrick Domenico, Fifth Birdsall Distinguished Lecturer; and Bruce Hanshaw, GSA Councilor. Stone also introduced John Frye, GSA Executive Director.

Secretary-Treasurer Davidson asked for approval of the minutes of the 1980 Annual Business Meeting as published in the 1981 *The Hydrogeologist*. Keros Cartwright made the motion, and Fran Kohout seconded; the minutes were approved unanimously. Davidson announced that 95 affiliates approved and 5 affiliates disapproved the amendment to the Bylaws to designate membership and responsibilities of the Birdsall Lecturer Committee. The ballot had been mailed to affiliates in September.

The treasurer's report followed. As of September 30, 1981, the Division had a balance of \$12,372.43 in the treasury--\$1,833.06 from dues and \$10,539.37 in the Birdsall fund of which \$10,000 is restricted. The Division has 990 affiliates.

A moment of silence was observed for Joseph B. MacKelduff, an affiliate who passed away during the year.

Chairman Stone announced the results of election of officers. The 1982 Management Board consists of the following: Leonard Wood, Chairman; David Stephenson, First Vice-Chairman; George Davis, Second Vice-Chairman; Secretary-Treasurer Davidson continues in the second year of a two-year term of office; John Stone, Past Chairman, continues as a member of the Management Board. A total of 330 ballots was cast.

Chairman Stone introduced Paul Seaber, citationist for the 1981 O.E. Meinzer Award, who presented the award to Gordon D. Bennett, Chief, Ground-Water Branch, U.S. Geological Survey, for his text "Introduction to Ground-Water Hydraulics, a Programmed Text for Self-Instruction," U.S. Geological Survey, Techniques of Water Resources Investigations, Book 3, Chapter B2, 172 p., 1976. Seaber summarized Bennett's background. After graduation from the University of Notre Dame, he joined the USGS while concurrently working on an MS degree at The Pennsylvania State University and a PhD at Polytechnic Institute of Brooklyn. Bennett's text is based on his lectures on ground-water hydraulics presented to engineers while he was on assignment with the U.S. Agency for International Development (USAID), Lahore, West Pakistan. Seaber noted that the programmed text on the flow of homogeneous fluid through an isotropic, porous medium emphasizes theory rather than application. The basic principles of ground-water hydraulics outlined in the text, their demonstrated uses in developing equations of flow, the formal solutions considered, and the methods of approximate solutions described, clearly advance the science of hydrogeology.

In his acceptance speech, Gordon Bennett expressed his gratitude and appreciation to the Meinzer Committee for designating him the 1981 Meinzer Award recipient. He thanked his wife, his college advisors, Raymond Gutschick and Christopher Crowe, for their help and guidance in his career, and his former USAID supervisors, David Greenman and Maurice Mundorff, for their encouragement and support

of the original lectures from which his text was developed, and finally, his USGS colleagues, Charles Appel, Edward Weeks, Ennio Giusti, and Phyllis Renzetti, for their valuable reviews and suggestions during the preparation of the text for publication. Bennett pointed out that scientists deal in knowledge, and in sharing that knowledge the scientist participates in various well-known mechanisms, such as classroom teaching, seminars, government- and industry-sponsored short courses, presentations at scientific meetings, and publication of books and technical papers. Without this exchange of ideas, he stated, scientific progress would not be possible. In recognition of all scientists who share knowledge and exchange ideas by whatever means, he accepted the award.

Chairman Stone announced that Professor Patrick A. Domenico, Department of Geology, University of Illinois, is the Fifth Birdsall Distinguished Lecturer. Irwin Remson, coordinator for his lecture program, reported that plans were underway for a fall trip through the northeastern United States and a late winter trip probably in the southeast. Domenico will present two lectures--a general lecture on "Hydrogeology and Geologic Processes" and a more specialized lecture on "Some Preliminary Assessment Techniques in Solid and Radioactive Waste Disposal." Stone commented on the outstanding program presented by Irwin Remson as the Fourth Birdsall Distinguished Lecturer, and noted that Remson's lecture had been presented to affiliates before the business meeting.

Bruce Hanshaw, GSA Councilor, Summarized progress on the *Decade of North American Geology (DNAG)* from 1981 to 1990 in celebration of the centennial of the Society in 1988. Twenty-seven volumes on the geology of the North American continent will be published. Hanshaw announced that he had been requested by the DNAG Committee to provide an article giving an overview and perspective on the hydrogeology of North America. The article will be part of a two-volume DNAG synopsis on hydrogeology. Hanshaw outlined plans and requested endorsement by the Division for the two volumes; one is on surface-water hydrology, to be edited by M. Gordon Wolman and Marshall Moss, and the other is on ground-water hydrology to be edited by William Back. Richard Parizek moved that the Division endorse the volumes; Phillip LaMoreaux seconded; the motion passed unanimously.

Paul Seaber, 1981 Program Chairman, reported on Division-sponsored events at the Cincinnati meeting. Seventy-eight presentations on hydrogeology were scheduled. Twenty-four papers, 15 minutes each, were scheduled for two half-day general hydrogeology sessions, and 12 presentations in a half-day poster session. The Division Symposium on "Regional Hydrogeology--Past, Present, and Future" consisted of 11 papers, 20 minutes each. In addition, three half-day symposiums cosponsored or endorsed by the Division were scheduled: *Ground-Water Flow in Karst Systems*, 10 papers, 25 minutes each; *Shales and Subsurface Hydrology*, 10 papers, 20 minutes each; and *Hydrogeology of High Level Nuclear Waste Isolation*, 10 papers, 20 minutes each. Twenty-four participants took the 3 1/2 day field trip on the *Hydrogeology of the Mammoth Cave Region*, led by James Quinlin and Ralph Ewers and cosponsored by the Division and Friends of the Karst. The annual cocktail party was well attended.

Philip LaMoreaux, one of the founders of the Division, briefly summarized its 20-year history and commented on the great interest in the field of hydrogeology as reflected in the growth of the Division from a small group of GSA members to almost a thousand affiliates.

Leonard Wood outlined plans for the 1982 New Orleans Annual Meeting. Irwin Kantrowitz will be program chairman; plans are not finalized for the Division symposium, and suggestions from affiliates are welcome. Fran Kohout, Tom Holzer, and Wood discussed possible symposium topics. Wood said plans are progressing for two Division-sponsored field trips. Bill Back, Bruce Hanshaw, Bill Ward and Al Weidie will lead a four-day trip to the Yucatan Peninsula to study hydrogeology carbonate stratigraphy, Pleistocene reefs, processes of recent carbonate sedimentation and diagenesis, and living coral reefs. This trip will differ from past field trips to the peninsula in that it will be based on Cancun and will focus on the hydrogeology and geochemistry of the east coast of Yucatan. Ray Wallace, Keith Westhusing, and Don Bebout will lead a one-day field trip to a test-well site on the Gulf Coast of Louisiana to study the occurrence of geopressured-geothermal aquifers.

Dave Stephenson requested suggestions and ideas for field trips and a symposium for the 1983 Indianapolis Annual Meeting. Noel Krothe will be Program Chairman. James Quinlan has volunteered to lead again his very successful field trip on the "Hydrogeology of the Mammoth Cave Region, Kentucky". Stephenson also suggested possible symposium topics.

Dave Stephenson moved to amend the Bylaws concerning designation of members of the selection committee of the O. E. Meinzer Award. R. Allan Freeze seconded. Stephenson's proposed amendment to Article V, paragraph 3a of the Bylaws reads as follows:

Selection Committee. The nominees for the award will be selected by a committee appointed by the Chairman of the Division. The committee will consist of five members, each with a tenure of three years. Members will have overlapping terms to provide continuity to the committee. One or two members--as appropriate--will be appointed each year. If possible, three of the five members may be past recipients of the award. The Chairman of the committee will be selected by the Chairman of the Division from among the second or third year members of the committee; he/she shall, insofar as possible, be a past recipient of the award.

After considerable discussion by Eugene Simpson, Keros Cartwright, Grover Emrich, Bruce Hanshaw, Philip LaMoreaux, John Stone, and Robert Dingman concerning the wording and flexibility of the amendment, the motion passed unanimously.

Following the Meinzer Award discussion, R. Allan Freeze, Keros Cartwright and Eugene Simpson raised the question of whether the Award should be given for a scientist's whole body of research rather than a specific paper of that research. Chairman Stone recommended that Chairman-Elect Wood and his Management Board consider the question.

Leonard Wood moved that the wording of the so-called Back amendment to the Bylaws, Birdsall Lecturer Committee, be modified. The proposed modification of sentence four shall read:

The three members nominate the distinguished lecturer for the following year and transmit his name to the Chairman of the Hydrogeology Division for approval.

William Back seconded. The motion passed unanimously after discussion by Back, Bruce Hanshaw, and John Stone.

Chairman Stone discussed the possibility of establishing an appointed position of editor of The Hydrogeologist. He requested that a volunteer contact him or the Chairman-Elect.

Stone announced that a Timetable of duties, events, and deadlines had been prepared by Claire Davidson and Paul Seaber to provide guidelines for officers and committee chairmen of the Division.

Chairman Stone opened the meeting to other business. John Sharp reported that he, William Kelly, and Donald White will convene a Penrose Conference on "Hydrodynamics and Geochemistry of Ore Generation in Sedimentary Environments" in May 1982, Lake of the Ozarks area, Missouri. The Conference will be of interest to hydrogeologists, economic geologists, and geochemists.

Robert Dingman said that architects who are designing a pavillion for the 1984 World's Fair in New Orleans have asked the Water Resources Division, USGS, for ideas that show the relationship between water and man. Dingman asked affiliates to send any suggestions to him, and he would transmit them to the architects.

Tom Holzer suggested that the Division honor the Birdsall Distinguished Lecturers with an appropriate permanent award; for example a certificate.

Chairman Stone thanked the members of the Management Board for their cooperation during 1981, and he also thanked all those people who had contributed to the success of the Cincinnati Annual Meeting. He turned the meeting over to Chairman-Elect Wood, who adjourned the meeting at 1500 hours.

#### 1983 ANNUAL MEETING AT INDIANAPOLIS

The 1983 Annual Meeting will be held October 31-November 3, 1983, at Indianapolis, Indiana. Noel C. Krothe will be Program Chairman for the Hydrogeology Division. He can be reached at Department of Geology, Indiana University, Bloomington, Indiana, 47401 or (812) 335-8197. He welcomes suggestions for technical programs. Noel reports that Dick Powell will lead a field trip to the Lost River area in Indiana.

#### WANTED: SYMPOSIUM CONVENERS AT NATIONAL MEETINGS

Each year the Division is invited by GSA to sponsor a half-day symposium at the Annual Meeting. If you have a topic in hydrogeology of broad interest and are willing to put together a symposium of the caliber demanded by a national meeting, here is your opportunity. Please contact the Chairman or the Secretary-Treasurer of the Division for a copy of "Instructions to Symposia Organizers." Selections are made a year in advance by the Division Management Board at the Annual Meeting. GSA meetings are scheduled for:

1983	Indianapolis
1984	Reno
1985	Boston
1986	San Antonio
1987	Phoenix
1988	Denver

If you are interested in proposing a symposium for the 1983 Indianapolis Annual Meeting, the proposal should be submitted to the Chairman in time for the Division Management Board Meeting on October 19, 1982, in New Orleans. The deadline for receipt of symposium proposals from the Division to the Joint Technical Program Chairman is January 1, 1983.

The Program Chairman for the Division for the 1984 Reno Annual Meeting is Mike Sorey (USGS, Menlo Park, CA). Mike is just beginning to plan the program and would welcome suggestions for symposia.

#### PENROSE CONFERENCE REPORT

##### Hydrodynamics and Geochemistry of Ore Generation in Sedimentary Environments

Jack Sharp reports that on May 23-28, 1982, 75 North American and 4 European scientists met at the Millstone Lodge, Lake of the Ozarks, Missouri, to attend the Penrose Conference, "Hydrodynamics and Geochemistry of Ore Generation in Sedimentary Environments." This conference, convened by William C. Kelly, John H. Sharp, and Donald E. White, brought together hydrogeologists, geochemists, and economic geologists, who were from academia, the mining and petroleum industries, federal and state survey organizations, and foundations. Ernie Ohle gave the "kickoff talk." Succeeding sessions covered the following topics: hydrodynamics in developing sedimentary basins; chemical evolution of basinal brines; chemical mass transfer; diagenesis in sediments and ores; paleohydrology and geochemistry of syngenetic/diagenetic ore deposits; paleohydrology and geochemistry of epigenetic ore deposits; and sedimentary uranium deposits. The conference concluded with a discussion of how each of the three involved disciplines can interact to better understand how, when and where mineral deposits form. The following lines of research were identified as being potentially fruitful: use of various geothermometers, mineralogy, and isotopic parameters to better define paleoflow systems; better consideration of the flow mechanics of variable density fluids; and consideration of the hydraulic and mechanical properties of sediments as a function of varying geochemical environments. Additional data are required in the following areas: detailed descriptions of ore deposits; regional geochemical alteration patterns; fault-controlled flow systems; paleoclimatology; and the kinetics of crystal formation. Furthermore, the early incorporation of hydrologic concepts in studies of mineralization and in mineral exploration programs should be highly beneficial. Financial support for the conference was given by the Society of Economic Geologists, the American Chemical Society, Exxon, Chevron, Phillips, and Getty. St. Joe Minerals sponsored the pre-meeting field trip.

#### DECADE OF NORTH AMERICAN GEOLOGY

Bruce Hanshaw reports that plans are progressing for the two-volume Hydrogeology Division contribution to the Decade of North American Geology (DNAG) 27-volume series to be published by the Geological Society of America in celebration of its centennial in 1988. Bill Back and Paul Seaber are tentatively scheduled to edit a volume on ground-water hydrology; Reds Wolman and Marshall Moss will edit a volume on surface-water hydrology. Plans for the ground-water hydrology volume are to synthesize the ground-water geology of North America. The objective is to systematically describe the basic concepts of ground-water geology as well as comprehensively describe the relation between ground-water occurrence, storage, movement, and geochemistry and the regional stratigraphy, structure, and geologic history of North America. The tentative topical outline for the volume on the surface-water hydrology of North America includes a national water budget, precipitation, natural and modified stream-flow regimes, low and flood flows, channel characteristics and sediment yields, quality of surface water, freshwater lakes, and selected case histories. Plans for both volumes are still being finalized, and the editors would welcome suggestions by Division members. Bruce Hanshaw will compile a summary of both volumes as a chapter in the DNAG volume, *Geology of North America: Summary*.

#### PAUL A. WITHERSPOON VOLUME

*Recent Trends in Hydrogeology*, edited by T. N. Narisimhan, is now available from the Geological Society of America as Special Paper 189. Its cost is \$32. The volume is based on a symposium convened at Berkeley, California, on February 8-9, 1979, to honor Paul A. Witherspoon, Professor of Mineral Engineering at the University of California at Berkeley, on his sixtieth birthday. The objective of the volume, which contains 23 contributions by 29 authors, is to review the important facets of hydrogeology in such a manner that a global picture of hydrogeology is provided. Papers are grouped into 5 aspects including conceptual, measurement, mathematical, regional, and engineering.

## SECTION ACTIVITIES

At the Northeastern/Southeastern Section Meeting, Washington, D.C., March 25-27, 1982, the Division sponsored a panel discussion on **"Deep Disposal Wells-Panic or Panacea"**, convened by Grover Emrich. They also endorsed a symposium on **"Hazardous Waste Problems in the Eastern United States."**

The North-Central and Southeastern Sections are planning a joint meeting in Lexington, Kentucky, in April 1984. The program co-chairmen, Bill Ansich and John Thrailkill, have invited the Hydrogeology Division to sponsor a symposium. If anyone is interested, they should submit a one-page proposal indicating the topic, organizer(s) and sponsorship to either Bill Ansich at Wright State or John Thrailkill at the University of Kentucky. Proposals are due January 1, 1983. In order to receive sponsorship by the Division, the proposal should be submitted first to either Division Section Meeting Representative Keros Cartwright (Illinois Geological Survey) or Paul Seaber (USGS, Tallahassee, FL) by October 19, 1982.

Volunteers are needed for Division Section Representatives for both the Northeastern and South-Central Sections. The principal responsibility of this office is to foster Division activities at section meetings. Contact the Chairman if interested.

## INTERNATIONAL ASSOCIATION OF HYDROGEOLOGISTS

The International Association of Hydrogeologists (IAH) is a scientific and educational, non-profit, international organization established to exchange hydrogeologic information and to advance the science. IAH, which promotes cooperation between scientists who are working on hydrogeologic problems, is affiliated with the International Union of Geological Sciences (IUGS).

As part of their centennial celebration, the University of Arizona at Tucson has offered to host the second State-side IAH International Congress in 1985. Advisory Council member Eugene Simpson has been instrumental in this event, and the United States Chapter looks forward to favorable action of approval from the Advisory Council and ultimately from the international officers. The theme is "Hydrology of Rocks of Low Permeability." By 1985, investigations of several sites should be underway for a "geologic repository" for high-level nuclear wastes--all in rocks of low permeability. The 1985 IAH Congress at Tucson should be at the right place at the right time.

The IAH will accept for membership an individual engaged in hydrogeologic investigations, research, or management. Membership is granted on the basis of scientific qualifications, experience and publications. A membership application can be obtained from Secretary-Treasurer Larry Doyle, 19579 Transhire Road, Gaithersburg, MD 20760. Dues (\$14.00 per year) should be sent with membership application. John Moore is Chairman. Dave Stephenson is Vice-Chairman.

## TREASURER'S REPORT

As of June 30, 1982, the Division had a balance in the treasury of \$3,972.52 from dues and \$10,475.68 in the Birdsell Fund of which \$10,000 is restricted. As of June 30, 1982, the Division had 886 members.

Information regarding The Hydrogeologist can be addressed to:

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San Francisco, CA 94111  
(415) 956-7070

The division is most grateful to Claire B. Davidson who has been serving as both editor and Secretary-Treasurer.

## HYDROGEOLOGY DIVISION

### 1982 Management Board

#### Chairman

Leonard A. Wood, Vienna, Virginia

#### First Vice-Chairman

David A. Stephenson, San Francisco, California

#### Second Vice-Chairman

George H. Davis, Silver Spring, Maryland

#### Secretary-Treasurer

Claire B. Davidson, Reston, Virginia

#### Past-Chairman

John E. Stone, Stillwater, Oklahoma

### 1982 Committees

#### O. E. Meinzer Award Panel

James J. Geraghty, Chairman

Richard L. Cooley

Frank W. Trainer

Wayne Pettyjohn

Paul A. Witherspoon

### Birdsall Lecturer Committee

David A. Stephenson, Chairman

Patrick A. Domenico

Irwin Remson

### Nominating Committee

Paul R. Seaber, Chairman

Robert Bean

Robert N. Farvolden

### Program Chairman and JTPC

Irwin H. Kantrowitz

### Newsletter Editors

Thomas L. Holzer

Heidi Horten

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Cordilleran

Keros Cartwright

North Central

Vacancy

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Joseph S. Rosenshein

Rocky Mountain

Vacancy

South Central

Paul R. Seaber

Southeastern

### Division Liaison to Council

Bruce Hanshaw