

I. A. M. G. NEWS LETTER

The IV General Assembly of the International Association for Mathematical Geology was held in Paris on July 15, 1980, during the XXVI International Geological Congress. Most of this News Letter is devoted to a report of the happenings at the General Assembly.



NEW OFFICERS AND COUNCIL OF IAMG

President

E.H.T. Whitten
Department of Geological Sciences
Northwestern University
Evanston, Illinois 60201 USA

Past-President

D. F. Merriam
Department of Geology
Syracuse University
Syracuse, New York 13210 USA

Vice President

D. G. Hawkins
P.O. Box 31601
Braamfontein, SOUTH AFRICA 2017

Secretary-General

J. C. Davis
Kansas Geological Survey
1930 Avenue A, Campus West
Lawrence, Kansas 66044 USA

Western Treasurer

R. B. McCammon
U. S. Geological Survey
National Center 920
Reston, Virginia 22092 USA

Eastern Treasurer

V. T. Vuchev
Geological Institute
Bulgarian Academy of Sciences
1113 Sofia, BULGARIA

New Council Members

R. J. Howarth (U.K.)
A. C. Cook (Australia)
A. B. Vistelius (U.S.S.R.)
F. N. Sadooni (Iraq)
N. Nishiwaki (Japan)

In addition, Iskender Djafarov has been appointed Councillor for Special Projects, representing the host country (U.S.S.R.) for the next General Assembly, to be held in conjunction with the XXVII International Geological Congress in Moscow in 1984. The retiring Council has also appointed new editors for the two Association publications:

Editor of MATHEMATICAL GEOLOGY

T. A. Jones
Exxon Prod. Res. Co.
P.O. Box 2189
Houston, TX 77001 USA

Editor of COMPUTERS & GEOSCIENCES

J. M. Cubitt
Poroperm Laboratories Ltd.
Chester St.
Saltney, Chester CH4 8RD
ENGLAND



INTERNATIONAL STATISTICAL INSTITUTE

Geoffrey Hill, outgoing Vice President, reported that because of the statutory affiliation of the IAMG with both the IUGS and the International Statistical Institute (ISI), it has become a convention for the IAMG Vice President to be an ISI member. Liaison with the ISI is maintained through Dr. Fred Leone, Chairman of the Committee on Statistics in the Physical Sciences of the Bernoulli Society for Mathematical Statistics and Probability. Hopefully, joint IAMG-ISI sponsored symposia can be arranged in the future. The ISI abstracts journal "Statistical Theory and Methods Abstracts" will include Earth-science applications, and abstracts of relevant papers in IAMG publications should be submitted. The ISI journal "Computing Reviews" now receives our COMPUTERS & GEOSCIENCES but no reviews have yet appeared in the year this arrangement has been instituted. Volunteer reviewers are being solicited from among IAMG members for "Computing Reviews." Those interested should contact Geof or the new Vice President, Doug Hawkins.

SUMMARY OF WESTERN TREASURER'S REPORT

J. C. Davis, outgoing Western Treasurer, reported that as of July 15, 1980, the total financial assets of IAMG in the West were \$US 26, 913.37. Of this, \$US 11,957.13 are in a US dollar operating account, and the remainder in certificates of deposit yielding 6.75% interest. In addition, the Association has small accounts of 6,029.58 Swiss francs and 122.80 pounds sterling. The Association's total assets on January 1, 1976, were \$US 8,378.84, so the current balance indicates an increase of over 300% since the last General Assembly. The following figures are taken from the 1980 financial statement:

	<u>Debits</u>
Journal subscriptions paid or due	\$11,615.75
President's office (1979 & 1980)	664.00
Secretary-General's office (1979 & 1980)	500.00
Western Treasurer's office (1979 & 1980)	200.00
Eastern Treasurer's office (1980)	300.00
Advertising	250.00
"Insufficient-funds" checks and charges on Canadian checks	178.61
Miscellaneous	352.74
Operating account balance	<u>11,957.13</u>
Total	\$US 26,018.23

	<u>Credits</u>
January 1, 1980, balance	10,014.81
Membership dues (1979 & 1980)	12,116.27
IUGS Grant for 1980	600.00
Royalty: Plenum Publishing Co.	2,337.05
Interest earned	555.10
Cash on hand	<u>395.00</u>
Total	\$US 26,018.23

Of the \$18 membership fee, the Association retains only \$3 in dues; even this small amount is often lost because of the banking charges for processing foreign-currency checks and UNESCO vouchers. Fortunately, the Association receives royalties on all Plenum sales of the Journal. The IAMG currently has about 490 paid members. Felix Chayes, in congratulating the Western Treasurer, noted that he is a member of five scientific societies and the IAMG is the only solvent one! The Treasurer responded that the IAMG is an "amateur society" with no paid staff; the President's, Secretary's,

and Western Treasurer's offices get only minor financial contributions from the Association, and the two editors get some expense money from Plenum and Pergamon; the Kansas Geological Survey has underwritten much of the News Letter and allied expenses. G. de Marsily asked what use would be made of the big balance; the Treasurer cautioned that very rapidly rising postage and printing costs could quickly erode our position; the Association must pursue industrial support for special projects.

SUMMARY OF EASTERN TREASURER'S REPORT

Vaclav Nemeč, outgoing Eastern Treasurer for the past 12 years, reported that the 2,460 Kcs balance on July 20, 1976, had grown to 6,363.10 Kcs by June 30, 1980. A summary of financial activities through the Eastern Treasurer's office follows:

	<u>Debits</u>
1977 Seminar speaker (Agterberg)	2,000.00
1976-1980 Treasurer's office expenses	2,200.00
Miscellaneous expenses	217.80
Balance on hand	<u>6,363.10</u>
Total	Kcs 10,780.90

	<u>Credits</u>
1976 Balance	2,460.90
1973-1976 Membership payments	4,800.00
1977-1978 Membership payments	1,320.00
1977 Registrations, Agterberg seminars	<u>2,200.00</u>
Total	Kcs 10,780.90

The treasurer's expenses consisted mostly of mailing costs and expenses connected with organizing the international section on "Mathematical Methods in Geology" for two of the biennial Mining Pribram Symposia.

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VOLUNTEERS NEEDED

New committees must be appointed by the President within the near future. Incoming President Tim Whitten is anxious to appoint "new faces" to these committees in order to broaden the representation of the Association among all geologic disciplines and geographic regions. Positions on the following committees must be filled: [cont. p. 4]

REPORTS OF THE ASSOCIATION'S EDITORS

Richard McCammon, Editor of MATHEMATICAL GEOLOGY for 1976-1980, submitted a written report on the Journal. In these four years, articles had been published by authors from 36 countries; in addition, special issues contained the proceedings of several significant symposia.

- Vol. 9, no. 3 -- "Standards for Computer Applications in Resource Studies," I.G.C.P. Project 98, symposium held in Leon, Norway, 1976.
- Vol. 9, no. 4 -- "Quantitative Strategy for Exploration," I.G.C. Symposium 116.3, held in Sydney, Australia, 1976.
- Vol. 10, no. 5 -- "Standards for Computer Applications in Resource Studies," I.G.C.P. Project 98, conference held at Taita Hills, Kenya, 1977.
- Vol. 11, no. 2 -- "Predictive Models in the Earth Sciences," IAMG G.S.A. symposium held in Seattle, USA, 1977.
- Vol. 12, no. 4 -- "Advances in Mathematical Geology" Symposium S12.2.4 of the I.G.C., Paris, 1980, and "Assessment of Natural Resources" Symposium S12.3.2, also held as part of I.G.C., Paris, France, 1980.
- Vol. 12, no. 5 -- "Statistics and Earth Sciences--The Challenge of the '80s," and "Statistical Problems in Exploration and Resource Evaluation of Energy Fuels," symposia held as part of the American Statistical Association Annual Meeting, Washington, D.C., USA, 1979.

The acceptance rate for manuscripts submitted to the Journal was 83, 73, and 85 percent in 1977, 1978, and 1979, respectively.

As Editor-in-Chief of COMPUTERS & GEOSCIENCES, Dan Merriam reported that the first issue appeared in 1975; the journal aimed at rapid publication of computer programs in widely used languages. In 1976 agreement was reached with Geocom Programs (London) to merge publication efforts and to take over their backlog of manuscripts which was published as Vol. 3, no. 2 in 1977. Since 1975, an annual average of 46 manuscripts have been submitted and an average of 35 articles published, together with a total of 41 book reviews. As special issues, proceedings of five symposia were published:

Vol. 2, no. 1 -- CAI in Geology, 1976.

Vol. 2, no. 3 -- Capture, Management, and Display of Geological Data, with Special Emphasis on Energy and Mineral Resources, 1976.

Vol. 3, no. 3 -- Computer Software for Geoscience, 1977.

Vol. 4, no. 3 -- Quantitative Stratigraphic Correlation, 1978.

Vol. 6, no. 2 -- Mathematical Models in the Earth Sciences, 1980.

The current backlog of manuscripts is about 12-18 months. There is a critical need to increase the number of subscriptions to libraries and individuals, as the journal is economically marginal. Richard Howarth mentioned reviewing an increasing number of manuscripts by oceanographers and planetary scientists; the Membership Committee should be alerted to this interest and all non-members submitting papers should be sent membership forms, which, as Felix Chayes pointed out, is common practice with many societies.

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BY-LAW CHANGES

The IV General Assembly considered five proposed changes to the By-Laws of the IAMG.

By-Law 7: was reviewed and left unchanged:

"Not more than two Ordinary Members, and, in all, five voting members of the Council, shall be from the same country. This by-law shall be reviewed every four years by the General Assembly."

By-Law 12: After some discussion it was agreed to add the underlined phrase to the old by-law, which now reads: "A regional organization may be formed if the membership for the region deems it desirable, conforms to the Statutes and By-Laws of the Association, and submits a report to the Secretary-General annually. This by-law shall be reviewed every four years by the General Assembly."

During the discussion, it was pointed out that it had previously been agreed that each regional group can have a page a year in the IAMG News Letter. Dr. H. Chaves said many in Brazil join their local group, but they are unprepared to join IAMG because of the difficulty of

sending dues out of the country. It was suggested that the new IAMG President look into the problems of regional groups and their affiliations with different societies.



By-Law 20: This by-law defines the William Christian Krumbein Award. As Bill Krumbein died in August, 1979, the proposal to change the word "Award" to "Medal" (in three places in the by-law) was approved.

By-Law 22: This proposed by-law would establish an award named in honor of Andrew B. Vistelius, to be presented to deserving younger members of the Association. After much discussion and parliamentary maneuvering, it was discovered that Soviet law forbids the naming of awards after living persons. Further parliamentary maneuvering then ensued, with several proposals and counter-proposals being offered from the floor. Eventually, the by-law was amended and passed, establishing the "President's Prize." The by-law reads "The President shall appoint a committee each year consisting of five members of the Association including two officers or Council members (the President acting as chairman ex officio) to accept nominations for the President's Prize for exceptional contributions of mathematics to geology. Conditions of the Prize include (1) the nominee shall have made through publication an original and outstanding contribution to the application of mathematics to the geological sciences, and (2) the nominee shall be 35 years or younger at time of nomination. No more than one Prize shall be given in any one year, although the Prize may be shared by more than one person (if each meets the conditions). The Prize will be considered as recognition by the Association as a token of appreciation and the recipient will be so honored."

By-Law 23: The following new by-law was proposed, discussed, and accepted by the General Assembly: "The Association recognizes the principle of human rights as a fundamental requisite for the achievement of mutual understanding among people and promotes the unrestricted flow of ideas by word and image."

EVERYTHING IS BIGGER AND BETTER!...including 1981 Dues

Unfortunately, the ravages of inflation have again touched our Association, necessitating an increase in membership dues for 1981. All of this increase is for greater printing and mailing costs of the journals. The new 1981 membership dues are



\$US 20.00 with a subscription to MATHEMATICAL GEOLOGY



\$US 33.00 with a subscription to COMPUTERS & GEOSCIENCES



\$US 50.00 with subscriptions to both journals.

Also, remember that 1981 dues should be sent to the new Western Treasurer, Dick McCammon!

Dr. Richard B. McCammon, IAMG
Office of the Western Treasurer,
c/o U.S. Geological Survey,
National Center 920,
Reston, Virginia 22092 USA.

Please do NOT send dues, subscription complaints, or changes of address to the Kansas Geological Survey, where the retired, former Western Treasurer is basking in the relative serenity of the Secretary-General's office!



[VOLUNTEERS...]

- (1) The W. C. Krumbein Medal committee
- (2) The President's Prize committee
- (3) Best Paper Award committee for MATHEMATICAL GEOLOGY
- (4) Best Paper Award committee for COMPUTERS & GEOSCIENCES
- (5) Membership committee
- (6) Finance committee
- (7) Education committee
- (8) Committee on Comp. Aided Instruct.
- (9) Projects committee

Committees (1)-(4) are reappointed annually; remaining committees continue 4 years, although appointments may be for shorter periods. Please contact Tim Whitten and volunteer your services!

AN EDITORIAL

At the General Assembly, the nature of the Association's election procedure was discussed at great length. A particularly controversial aspect is the current practice of nominating a single slate of official candidates for each office. Although the opportunity exists for the making of nominations from the floor of the Assembly, and members can "write in" and vote for alternative candidates, for all practical purposes those nominated are guaranteed of election.

The fielding of a single slate of official candidates is widely practiced by other scientific societies. While such a procedure certainly is less than democratic, it has arisen for very practical reasons. It is extremely difficult to get qualified persons to agree to serve as officers of these societies. The duties are demanding, and the rewards intangible at best. The tolerance (and support) of the officer's employer is essential. For these reasons, several persons contacted by the IAMG Nominating Committee refused to stand for election to Association offices. Considerable arm-twisting was necessary to field the slate of candidates which was finally presented to the membership for approval. The task of finding additional volunteers to submit for a competitive election would have been extremely onerous.

There is only one alternative to the present procedure. More individual members of the Association must be willing to assume an active role in the affairs of the organization. This means not only speaking up at the General Assembly every four years, but also volunteering for service on committees, assisting in editorial reviewing, and contributing to the meetings and publications of the Association. Election to office means more than getting one's name listed on the journal masthead. It means answering correspondence, dealing with publishers and banks, and constantly trying to wheedle cooperation and enthusiasm out of the membership. It means committee meetings, reports (both to be read and to be written), and other sometimes stultifying activities conducted for the good of the Association.

The affairs of the IAMG may appear to be conducted by a closed circle. This small group, however, is far from an Old Boy's club; rather, it is the residuum of the membership that has over the years demonstrated a determination to make the Association a success and that are willing to work to this end. Others are welcome to this group at any time. All you have to do is speak up and pitch in!

C&G BEST PAPER AWARD

The 1979 Best Paper Award winners for COMPUTERS & GEOSCIENCES have been announced. It was a tie between F. P. Agterberg ("Algorithm to estimate the frequency values of rose diagrams for boundaries of map features") and P. H. A. Sneath ("Numerical taxonomy and automated identification: Some implications for geology"). Congratulations! Fritz is a two-time winner of the C&G award. Each author will receive a year's subscription to the journal.



EVENTS OF INTEREST

Dec. 15-19, 1980

International Training Course in the Handling of Experimental Geoscience Data, Valbonne, France. Contact Secretariat, 51 Boulevard de Montmorency, 75016 Paris, France.

Jan. 9-10, 1981

9th Geochautauqua: Climate Models and the Past; Role of Oceans on Geochemical Cycles; Natural Resource Discovery and Models, University of Miami. Contact J. R. Southam, Rosenstiel School of Marine and Atmospheric Science, 4600 Rickenbacker Causeway, Miami, Florida 33149 USA.

Feb. 9 - Mar. 6, 1981

Remote Sensing: Digital Image Processing, Flagstaff, Arizona, USA. Contact Chief, International Geology, U.S. Geological Survey, MS 917, National Center, Reston, Virginia 22092 USA.

May 31 - June 3, 1981

Computer Applications to Petroleum Geology, San Francisco, California, USA. Part of the annual meeting of the American Association of Petroleum Geologists. Contact C. F. Inglehart, AMOCO Production Co., P.O. Box 3092, Houston, Texas 77001 USA.

Aug. 10-12, 1981

Statistical Problems in the Geosciences, Detroit, Michigan, USA. Joint session of Sect. on Physical and Engineering Sci., Am. Statistical Soc. Abstracts due March 15. Contact John Kork, USGS, Bldg. 25, MS 937, Denver Fed. Ctr., Denver, CO 80225 USA.



The IAMG Council, old and new, photographed on the balcony of the Palais des Congrès, Paris. (l. to r.) V. Nemec, retiring Eastern Treasurer; F. Agterberg, retiring Council member; J. C. Davis, retiring Western Treasurer, new Secretary-General; E.H.T. Whitten, retiring Secretary-General, new President; D. F. Merriam, retiring President; V. Vuchev, new Eastern Treasurer; G. Hill, retiring Vice President.

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