IAMG General Assembly
22 August 2004, 17:30 in the evening
Room 33 of Fortress Dabasso, Florence, Italy

In opening remarks, Vaclav Nemec noted that this meeting occurs on anniversary of IAMG's founding in 1968.

President Graeme Bonham-Carter gave an overview of the agenda for this assembly.

We usually have a council meeting in conjunction with the General Assembly, but the meetings were difficult to schedule and expensive. At the General Secretary's suggestion, we're foregoing the council meeting. Instead we will give a summary of the officer's reports here at the General Assembly**. (Note from Secretary General Gowtay Crawford: These reports are appended to the minutes for completeness).**

This assembly will mark the end of the current council's term.

Summary of President's report:

The IAMG constitution has been the basis for the good operation of the organization. Occasionally it needs to be updated and we'll propose a minor statute change and ask for a vote.

Keeping track of membership had become a huge task for the treasurer. Consequently, we contracted with a management company (in 2001) to run the IAMG office and maintain the membership roll. This office is functioning very well.

Two years ago, we decoupled membership from journal subscriptions. This opened up membership to those with fewer resources, as the dues are now $10. Even so, membership has fallen slightly.

The current council continued the student grant and distinguished lecturer programs. The core programs (awards, annual conferences) are going well.

The annual conferences are professionally and financially successful. The 2005 conference will be in Toronto, and the 2006 conference in Liege. We're open to proposals for 2007.

While we'll provide a summary of the officer reports verbally, the complete reports will be on the web site.

Summary of Vice President's report:

The VP traditionally is the liaison with other statistical organizations. For example, the IAMG sponsored a session at the Joint Statistical Meetings in Toronto two weeks ago and will likely sponsor a session at the International Statistical Institute meeting in April 2005 in Sydney.

Summary of Secretary General's report:

The Secretary General's activities have been exemplary, including timely submission of reports to IUGS. IUGS provides funds for people with fewer resources to attend IAMG conferences. IAMG is sponsoring a Russian attendee to this conference.

The Secretary believes in succinct reports, which may not reflect the extent of her activities. I assure you she has been very busy.

Summary of Treasurer's report:

IAMG assets total near $750,000. Subscription royalties are the primary source of income. So far, the trend towards electronic publishing has not adversely affected IAMG. The organization could survive on the return on investment from current assets.

Membership is down somewhat. We've noticed that during an International Geological Congress year, there is less incentive to join IAMG.

Summary of Awards Committee report:

Heinz Berger is chair. Committee currently uses a point system to determine awards. Heinz proposes the following changes:

- Use a rank system instead of a point system.
- Encourage more nominations, especially from Russia and China.
- Publish on the web site an example of a good nomination.

Summary of Publications Committee report:

Michael Hohn is chair.

Mathematical Geology is in good shape. Editor Ed Sharp received 75 submissions last year and published 50.

Kluwer refused to publish a paper from Iran, citing restrictions on dealing with certain nations. Instead, the paper was published in *Computers & Geosciences*.

Elsevier (publisher) reports *Computers & Geosciences* is now accessed by over 1800 libraries. Kathryn MacKinnon is retiring as the editor at Elsevier, which will be a great loss.

Natural Resources Research editor Dan Merriam reports that he is not getting enough manuscripts. This may be attributable to the perception that the journal is not widely read.

The monograph series is edited by Joanne deGraffenreid. Most recently, the series featured articles by Vera Pawlowsky Glahn and Ricardo Olea. In work is a series by the late P.J. Lee on estimating petroleum resources.

Summary of Distinguished Lecturer committee report:

Chair Alec Desbarats reports the lectures are going well. We'll have reports from the first three distinguished lecturers a bit later.

Summary of Student Grants committee report:

Chair is Tim Coburn.
- 2002 had 3 winners.
- 2004 had 4 winners
- 2005 has 9 applications: 3 from US, 2 from china, 1 from Spain, 2 from Russia, 1 from India.

We'll now hear from our distinguished lecturers.

John Davis:

Honored to be chosen as the first distinguished lecturer. Made six trips, which extended beyond a year, and gave multiple presentations on each trip.

Started in May 2003 in northern Germany.

In September 2003, gave several presentations in conjunction with attendance at the IAMG conference in Portsmouth, including the GeoComputation meeting in Southampton. Then lectured at the University of Girona and the CoData'03 Workshop on compositional data.

In February 2004, was invited by a student to lecture at the University of Southern Illinois-Carbondale. Lecture went well, and students wanted to start an IAMG chapter.

In May 2004, lectured at the Montanuniversität-Leoben, the Austrian school of mines. Lecture was well promoted to other universities.

In June 2004, lectured at the University of Ottawa and the Canadian Geological Survey.

John advised that organizing academic schedules is very difficult. He also advocated that intense workshops should supplement IAMG's annual meetings. Finally, he suggested IAMG promote more student chapters.

President Bonham-Carter noted that the student chapter at Illinois-Cabondale is now a reality. The IAMG Council felt the expenditure of resources to create the chapter was justified.

Now hear from second distinguished lecturer.

Frits Agterberg:

Also honored to be chosen. He is still in the middle of his term. The following subjects of 5 lectures were presented last year in Portsmouth:

- Geology & Mathematics has been presented 8 times.
- GIS-based Mineral Mapping – 4 times
- Block Normal & Parieto Distributions – 4 times, including twice at math departments
- Geological time Scale – 2 times
- Quantitative Stratigraphy – 2 times

Started series in February 2004 in Nigeria, then lectured at University of Ottawa.

Had extended tour of southern hemisphere starting in late February. The program scheduled in China was cancelled due to the SARS outbreak, so Dr. Agterberg went to New Zealand. While there, he consulted on a new geological time scale for New Zealand.

Next went to Australia, where the audiences were very interested in fractals and GIS applications. Made stops in Queensland and Western Australia.

Next went to South Africa and lectured at University of Cape Town and University of Witwatersrand.

Then to Rio de Janeiro, where he was hosted by Hermani Chavez and presented a 30 hour course and three evening lectures in one week.

This trip finished in May, and he'll resume in September at the University of Southern Illinois and Purdue.

Dr. Agterberg's final trip as distinguished lecturer will be from 5 October to 15 December in Europe. In the UK, he'll be hosted by John Cubitt and will speak in Northern Ireland and at Aberdeen and Birmingham. Then Heinz Berger will host him at the Free University of Berlin, Richard Sinding-Larsen will host him in Oslo and at the Norwegian Technical National University in Trondheim, Vera Pawlowsky-Glahn will host him at the University of Girona in Spain, then to Nancy in France, and finally to The Netherlands where Gerd Jan Weltje will host him at Delft Technical University.

President Bonham-Carter noted that IAMG is not just doling out distinguished lecturer status to old pals: It's a properly nominated program and there is obviously a lot of time and effort involved.

Next hear from our new distinguished lecturer.

Larry Drew:

He proposes to include six lectures:

- Regional Geochemistry – Baselines for Complex Geological Terranes.
- Hydrologic Significance of Association between Well-Yield Variography and structures in fractured Bedrock Aquifers
- Oil & Gas Discovery Process Modeling & What is a Field Size Distribution

- Mineral Deposits – Grades to Tonnages to Economic Filters
- Ecocentrism & anthropocentrism – Are they end members in environmentalism or not?
- From Bayan Obo to Muruntan to Porphyry Copper Deposits

He has several large sets of data and many statistical programs. Gathering data is no longer an issue. Dr. Drew believes we've lost sight of the scientific method when large data sets are involved. Does IAMG have responsibility to address this problem? Should IAMG have a short course to reemphasize what Sir Ronald Fisher proposed regarding confidence interval, F test, T test, and normal distributions? He may develop a seventh lecture based on these questions.

Dr. Drew proposed beginning the lectures in Central Europe: Bulgaria, Romania, Slovakia, Hungary, Poland, and Russia, and finishing in Norway.

President Bonham-Carter noted that IAMG had two best paper awards this past year.

For *Mathematical Geology*, the winning authors were J.A. Vargas-Guzman and Roussos Dimitrakopoulos for their paper "Successive non-parametric estimation of conditional distributions."

For *Computers & Geosciences*, the author was Hongzing Liu for his paper "Derivation of surface topography and terrain parameters from single satellite image using shape-from-shading technique."

Normally, our constitution and statutes serve us well, but the advent of e-mail has led us to propose a modification to one section.

Secretary General Gotway Crawford:

When looking for procedures and guidleines for IAMG business, we look to the IAMG constitution. Occasionally, it must be updated to reflect changed in current procedures. The changes we must consider now would specify that electronic voting is permitted and would make better use of the management contractor.

In general, the change would:
- Replace chairman with chair to avoid gender bias,
- Require that candidates for office be identified by November so that their biographies could appear in the IAMG newsletter before the spring vote, and
- Relax the requirement that voting occur in conjunction with the General Assembly. We have been holding elections by mail for years.

Vera Pawlowsky Glahn: Does this mean nominations would not be permitted from the floor at the general assembly?

Graeme Bonham-Carter: Yes, because the votes would have already been cast.

Dave Collins: Not to be too pedantic, but we should specify Northern Hemisphere spring.

Ute Herzfeld:

Instead of specifying November and spring, why not say “so many months before the election”?

After a discussion, the proposed change was modified to read “nominations must be submitted no later than nine months prior to an ordinary general assembly.” Sections on chair and voting by e-mail were unchanged.

Thus, after this discussion, the changes to Statute III, Article 11 are as follows:

Current: Statute III, Article 11.

"At least one (1) year before an ordinary meeting of the General Assembly, the Council shall appoint a Nominating Commission of which the President or a Council Member designated by the President, shall be the nonvoting chairman. The Nominating Commission shall consist of five (5) individual members of the IAMG in addition to the chairman; no currently serving elected officer may be a voting member of the Nominating Commission. The Nominating Commission shall report its list of candidates to the Council by mail at least four (4) months before the General Assembly meeting at which the election is to be held. Additional nominations for the Council may be made from the floor of the General Assembly."

Proposed Change:

"At least one (1) year before an ordinary meeting of the General Assembly, the Council shall appoint a Nominating Commission of which the President or a Council Member designated by the President, shall be the nonvoting **chair**. The Nominating Commission shall consist of five (5) individual members of the IAMG in addition to the chair; no currently serving elected officer may be a voting member of the Nominating Commission. The Nominating Commission shall report its list of candidates to the Council **no later than 9 months prior to an ordinary General Assembly. The voting will be conducted by mail among all IAMG members in good standing 3 months prior to the ordinary General Assembly.**

The motion to accept the proposed changes carried with no “nay” votes.

President Bonham-Carter asked if there was any other business?

Helmut Meyer: I received the voting code late.

Ute Herzfeld: Since the dues are now so low, would it be possible to pay for several years at once to reduce the chances of membership expiring?

We should send get well cards to Walter Schwartzecker and Dan Merriam.

Another member proposed that IAMG use out of work geologists to manage the administrative office.

Ute Herzfeld: Geologists may not have administrative skills.

Dan Tetzlaff: It's also less than a full time job.

Graeme Bonham-Carter: Would also negate the advantage of having a permanent address for the organization as the holder of the position changes. Also, these are properly issues for the incoming council.

Since this meeting marks the end of the term of the current council, I'll announce the results of the election for the new council.

We received 157 votes: 154 by e-mail and 3 by mail. I won't announce the votes for each nominee, but everyone received substantial support.

- President - Frits Agterberg
- Vice President - Nick Fisher
- Treasurer - Gina Ross
- Secretary - Clayton Deutsch

Councillors are:
- Antonella Buccianti
- Qiuming Cheng
- Roussos Dimitrakopoulos
- Brigitte Doligez
- Ian Jackson
- Maria Pereira

Felix Gradstein has been voted IGC councilor contingent on the next IGC being held in Norway.

There was no further business and (now Past) President Bonham-Carter adjourned the meeting at 19:25.

Respectfully Submitted,

Carol A. Gotway Crawford
IAMG Secretary General, 2000-2004
September 30, 2004.

President's Report.
General Assembly at IGC, Florence, August 22, 2004.

Highlights of the 2000-2004 Council.

In 2002, a Membership Commission chaired by Ricardo Olea recommended changes to our membership categories—changes that were implemented in modifications to our By-Laws at a special General Assembly in Berlin. This decoupled membership from journal subscriptions, and instituted a small annual membership payment of $10.

In late 2002, a contract was signed for office services with Events & Management, a company in Kingston, Ontario, Canada. E&M now looks after our membership dues, manages the subscriptions to our three journals (and deals directly with the publishers over problems that often arise), circulates our Newsletter and has sends out blanket e-mails from time to time. The 'office' now provides the Treasurer and President monthly statements about membership, and financial accounts related to membership, journals, and the sale of items such as memoirs and CDs. These services have changed IAMG into a more professionally managed body. Prior to the hiring of E&M the Treasurer was greatly stretched to deal with these important but time-consuming matters, whereas now the Treasurer can focus on the important task of managing IAMG's money. E&M organized our first electronic ballot—the ballot for the new council. E&M is also directly involved in managing the logistics for IAMG 2005 in Toronto. The annual dues paid by members offsets some of the cost of maintaining the professionally managed office.

The 2000-2004 Council has implemented two initiatives that were set up during the previous Council: the Student Grant and Distinguished Lecturer programs. It is perhaps early days to assess the impact of these two activities, but they are both under way, and there is every indication that they are working well.

The Student Grant Committee chaired by Tim Coburn conducted competitions for grants in 2001 and 2002, and the 2003 competition has been completed, although the final results have not yet been announced. This program has certainly raised awareness amongst students about the Association, judging by the large number of applications each year for grants. Perhaps as a result of this awareness, a proposal was received to start a Student Chapter at the University of Southern Illinois at Carbondale—an idea that Council has voted to accept, hoping that this will be the start of a wider involvement of students in IAMG affairs.

Alex Desbarats has chaired the Distinguished Lecturer Committee, also in its third year of operation. The first lecturer, John Davis, was succeeded by Frits Agterberg as the second lecturer. Both John and Frits have done sterling work on their tours. John focused on North America and Europe. Frits went on an extensive southern hemisphere tour, and plans a visit to China. The latest news is that Larry Drew has accepted the position of our third Distinguished Lecturer. We will hear more about the Distinguished Lecturer tours later in this meeting.

Meanwhile, our core programs (Awards, Publications, Conferences) continue to flourish. Our system of awards continues to recognize excellence in our profession. Our publications are I believe in a healthy state, and they continue to generate a significant annual income that supports several of our activities. And over the past four years we have had some memorable conferences: Cancun, Berlin and Portsmouth have all been financially and scientifically successful. The 2005 conference will be held on the campus of the University of Toronto, and will be chaired by Qiuming Cheng. The 2006 conference will be at the Université de Liège in Belgium, chaired by Eric Pirard. It is not too early to make proposals for the 2007 conference.

It would be nice to report that we have a growing membership, and that we were attracting large numbers of new members, particularly students. However, our numbers remain about the same, with a core of long-term members and a fluctuating number of members who come and go. Despite our modest numbers, access to our journals is I suspect at an all time high, thanks to electronic access through libraries, and we continue to get excellent attendance at our conferences.

In summary, this Council has made one significant innovation—namely the start of a professionally managed office—has steered two new programs that I think will prove to be valuable to the growth and vitality of the Association, and maintained our existing programs in a healthy state. We are now ready to turn over responsibilities to the incoming Council and wish them well.

Graeme Bonham-Carter
August 22, 2004

Vice President's report
IAMG 2004 – Florence, August 2004
(Frits Agterberg)

The duties of the IAMG Vice President include maintaining and promoting contacts with statistical societies, especially the International Statistical Institute (ISI) and the American Statistical Association (ASA).

A topic-contributed session entitled "Environmental Applications of Mathematical Geology" co-sponsored by the IAMG and the Section on Statistics and the Environment of the American Statistical Association was held on Wednesday, August 11th, 8:30 – 10:20am, during JSM 2004 in Toronto, Canada. It was organized by your Vice President and chaired by Abdel H. El-Shaarawi, Environment Canada. The program consisted of oral presentations of the following five papers:

"Revisiting the Join-Count Statistics to assess spatial association without assuming first-order homogeneity" – Sandos Kabos, Eotnos Lorand University, Hungary; Ferenc Csillag, University of Toronto.

"Spatial-temporal frequency analysis of run-off and groundwater in the Greater Toronto Area, Canada" – Qiuming Cheng, York University/China University of Geosciences.

"Estimation of background and threshold in applied geochemistry" – Robert G. Garrett, Geological Survey of Canada; Peter Filzmoser, Vienna University of Technology; Clemens Reimann, Geological Survey of Norway.

"Spatial distribution of metals in the environment around a copper smelter in western Quebec, Canada" – Graeme Bonham-Carter, Geological Survey of Canada.

"Conditional independence testing in the Weights-of-Evidence method" – Frederik P. Agterberg, Geological Survey of Canada.

These oral presentations were followed by a floor discussion. JSM (the Joint Statistical Meetings) is the largest gathering of statisticians held in North America. This 5-day event is held jointly with the American Statistical Association, the International Biometric Society (ENAR and WQNAR), the Institute of Mathematical Statistics, and the Statistical Society of Canada. Attended by over 4000 people, activities of the meeting include oral presentations, panel sessions, poster presentations, continuing education courses, exhibit hall, and networking opportunities. IAMG Secretary General Carol Gotway Crawford as 2004 Program Chair for ASA's Section on Statistics and the Environment (ENVR) has helped to arrange that our IAMG-cosponsored topic-contributed session was held in Toronto. In a letter to our President dated 1 June 2004, the IAMG has been invited to participate in a competition for an invited session at JSM 2005, the next Joint Statistical Meetings to be held in Minneapolis, August 7-11, 2005.

IAMG-sponsored Symposium G – 13.03 on "New Applications of Mathematical Statistics in the Earth Sciences" co-chaired by Frits Agterberg and Carol Gotway Crawford is being held during

the 32nd International Geological Congress in Florence. Focus is on the interface between geo-science and mathematical statistics. Papers and posters to be presented deal with geo-science applications of newly developed concepts and methods of mathematical statistics and other fields of applied mathematics. In the past, geologists have helped to create new fields of research for mathematical statisticians. In turn, theoretical developments by mathematical statisticians have provided us with useful new tools. Topics of special interest to geologists include spatial statistics, analysis of closed number systems, quantitative stratigraphy and statistics of directional features. Additionally, the past two decades have seen new developments of fractals, multifractals and chaos theory. Applications of these non-linear developments in geo-science also are included as topics for papers in this symposium.

The 55th Biennial Session of the international Statistical Institute will be held in Sydney, Australia, April 5-12, 2005. Incoming IAMG Vice President Nick Fisher is Vice Chair and Statistical Society of Australia representative for this meeting. During the past eight years, the IAMG has regularly co-sponsored Invited Paper Meetings (IPMs) at the biennial ISI Sessions of which the last one was held in Berlin, August 2003. It can be anticipated that ISI-IAMG cooperation will be continued in future.

At the request of the President I have looked after the updating of IAMG brochure. It was revamped by the Ottawa-based company “Accurate Design”. They printed 6,000 copies in January 2004 and also produced 12 copies of a poster using the same elements as are contained in the brochure. Total cost was close to $2000. The brochures and posters are available for distribution at the IAMG Office in Kingston. The pdf of the new brochure can be downloaded from the IAMG website. It will also be possible to download and print off copies of the poster.

IAMG Secretary General's Report
Carol A. Gotway Crawford
August 11, 2004

I have only one item to report for this year. Attached below is a report from John Whalley, IAMG 2003 conference organizer, on the scientists sponsored by the 2003 grant from the IUGS. Unfortunately, the IUGS did not award IAMG a grant for 2004. However, this is not uncommon. The IUGS usually honors our grant request about 50% of the time.

IUGS support for attendance at conference

Received from IUGS *via* IAMG	2000.00USD
Sterling equivalent received at bank	1194.94GBP

The IAMG2003 Organising Committee resolved to use these funds to contribute 200GBP towards the travel and subsistance costs of six delegates. In addition, delegates in receipt of this suppport had their registration fees waived, support worth a further 195GBP per delegate. The cost of this additonal support was met from general conference funds.

Recipients

Name	Institution	Title of contribution(s)
Dr E. Bardeeva	Institute of Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry of Russian Academy of Sciences, Moscow, Russia	E.G. Bardeeva, N G Patyk-Kara, A.V. Veselovsky, T.M. Makhanova. Integrated estimation of placer deposits of Russia on the base of GIS technology.
Prof G Bardossy	Hungarian Academy of Sciences, Budapest, Hungary	G. Bardossy, J.Fodor, F. Frigyesi. Application of fuzzy sets and fuzzy logic to the disposal of radioactive waste. G. Bardossy, J.Fodor. Geological reasoning and the problem of uncertainty.
Dr A. Diblasi	Universidad Nacional de Cuyo,Cricyt Mendoza, Argentina	A. Diblasi. Generalized additive approach to model large scale variation
Dr S Kotov	Institute of Precambrian Geology, St.Petersburg, Russia	S. Kotov, J Harff. Greenlandic Ice and Baltic Sea Sediments as Record Tapes of Climate Conditions (comparative analysis of dynamical features during Holocene) S. Kotov. Prediction of Non-Linear Systems Behavior using Climatic and Earthquake Data Examples

Name	Institution	Title of contribution(s)
Dr K Lobanov Dr I. Tchijova	Institute of Geology of Ore Deposits, Petrography, Mineralogy and Geochemistry of Russian Academy of Sciences, Moscow, Russia	I.Tchijova, K.Lobanov. Logic-informative analysis of petrophysical diagrams for simulation of precambrian tectonic structures of baltic shield I.A.Tchijova, R.S.Polyakov. Computer-aided system of analog searching as applied to the gold deposits
Dr L Mastov	Pacific Oceanological Institute, Vladivostok, Russia	Basic logical principles for analysis and synthesis of geological models

Geoff Bohling
30 July 2004

Treasurer's Report, IGC 2004

I have attached copies of a year-to-date cash flow summary for 2004, the 2003 annual financial review, and the first pages of the latest statements for our US Bancorp and SmithBarney, along with membership reports from Events & Management for June 2004, June 2003, and November 2003. Our current net assets are something like . . .

US Bank (Lawrence) checking	$56,900	(30 July 2004)
Chase (Rochester) checking	$18,000	(June 2004)
US Bancorp Investments	$557,200	(30 June 2004)
SmithBarney Investments	$110,700	(27 June 2004)
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TOTAL	$742,800	

Net assets have been steadily growing over the past several years:

Date	Net Assets
31 Dec 1999	$543,229
31 Dec 2000	$589,396
31 Dec 2001	$600,987
31 Dec 2002	$632,409
31 Dec 2003	$679,614

Our royalties from non-member (institutional) subscriptions to the journals have also increased, mostly:

Non-member subscription royalties (print and electronic)

Year	C&G	MG	NRR	Total
1999	$41,879	$14,315	$0	$56,914
2000	$42,696	$14,541	$0	$57,237
2001	$43,676	$12,041	$0	$55,717
2002	$46,368	$14,259	$0	$60,627
2003	$50,514	$16,981	$0	$67,495

Royalties from the previous year's non-member subscriptions constitute our basic operating budget for a given year, so it is definitely nice to see these numbers increase. How long can it last?

Membership and Member subscriptions

Year	Members	C&G*	MG	NRR
1997	?	285	430	115
1998	?	290	401	87
1999	585	316	468	102
2000	586	296	434	95
2001	570	289	433	90
2002	558	307	417	80
2003	544	234	324	71
2004 (June)	410	151	237	45

*regular, student, and electronic combined

As can be seen from comparing the June 2004 membership report to the June 2003 report, we seem to be heading for a considerable drop in membership this year. Since we make no money on member subscriptions and the $10 membership fee can be considered to go toward covering some of E&M's printing, postage, and payment processing expenses, a decline in membership really has no direct financial impact, but it is certainly not something we want to see. If current trends continue, we could become immensely wealthy on a dollars per member basis, but I don't think that is the intended goal of the association.

I've enjoyed working with the current officers and council and wish I could be in Florence for the official passing of the baton. Best of luck to the new team!

Cash Flow

1/1/2004 Through 7/30/2004

Category Description	1/1/2004-7/30/2004
INFLOWS	
Annual Meeting Proceeds (2003)	4,063.15
Royalties	
Computers & Geosciences (Elsevier)	50,513.65
Mathematical Geology (Kluwer)	16,980.83
Monographs (Oxford)	48.05
TOTAL Royalties	67,542.53
TOTAL INFLOWS	**71,605.68**
OUTFLOWS	
Accounting Services	2,815.00
Awards	
Krumbein Travel Support	1,908.00
TOTAL Awards	1,908.00
Bank Charge	41.00
Computer	64.37
Distinguished Lecturer	
F. P. Agterberg	1,078.19
John Davis	3,457.71
TOTAL Distinguished Lecturer	4,535.90
E&M Management Expenses	2,721.39
E&M Management Fees	4,625.00
Meeting Support (non-IAMG)	
Baltic-8	2,300.00
TOTAL Meeting Support (non-IAMG)	2,300.00
Promotion & Booths	
Booth Expenses	1,691.27
Booth Travel Support	860.00
Brochures, Ads	3,100.86
TOTAL Promotion & Booths	5,652.13
Webmaster Expenses	289.00
TOTAL OUTFLOWS	**24,951.79**
OVERALL TOTAL	**46,653.89**

INTERNATIONAL ASSOCIATION
FOR MATHEMATICAL GEOLOGY

Financial Statements

For the years ended December 31, 2003 and 2002

INTERNATIONAL ASSOCIATION FOR MATHEMATICAL GEOLOGY

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LOWENTHAL SINGLETON WEBB & WILSON
PROFESSIONAL ASSOCIATION

CERTIFIED PUBLIC ACCOUNTANTS

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Grant A. Huddin, CPA
Mary A. LeGresley, CPA

Members of American Institute
and Kansas Society of
Certified Public Accountants

ACCOUNTANT'S REVIEW REPORT

Officers and Council
International Association for Mathematical Geology

We have reviewed the accompanying statements of assets, liabilities and net assets - modified cash basis of International Association for Mathematical Geology (a not-for-profit association) as of December 31, 2003 and 2002, and the related statements of revenues collected, expenses paid and changes in net assets - modified cash basis for the year then ended, in accordance with Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants. All information included in these financial statements is the representation of the Association's management.

A review consists principally of inquiries of Association personnel and analytical procedures applied to financial data. It is substantially less in scope than an audit in accordance with auditing standards generally accepted in the United States of America, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

Based on our reviews, we are not aware of any material modifications that should be made to the accompanying financial statements in order for them to be in conformity with the modified cash basis of accounting as described in Note 1.

Lowenthal, Singleton, Webb & Wilson

Professional Association
July 22, 2004

INTERNATIONAL ASSOCIATION FOR MATHEMATICAL GEOLOGY

STATEMENT OF ASSETS, LIABILITIES AND NET ASSETS - MODIFIED CASH BASIS
As of December 31, 2003 and 2002

ASSETS

	2003	2002
CURRENT ASSETS		
Cash and cash equivalents	$ 100,403	$ 208,306
INVESTMENTS	579,211	424,103
Total Assets	$ 679,614	$ 632,409

NET ASSETS

NET ASSETS		
Unrestricted	679,614	632,409
Total Net Assets	$ 679,614	$ 632,409

See accompanying notes to the financial statements
and accountant's review report.

INTERNATIONAL ASSOCIATION FOR MATHEMATICAL GEOLOGY

STATEMENT OF REVENUES COLLECTED, EXPENSES PAID
AND CHANGES IN NET ASSETS - MODIFIED CASH BASIS
For the Years Ended December 31, 2003 and 2002

	2003	2002
REVENUES		
Membership and subscriptions	$ 39,638	$ 41,754
Royalties	60,627	56,397
Investment return	30,419	9,972
Other income	1,000	2,069
Total Revenues	131,684	110,192
EXPENSES		
Member and publication	42,637	49,328
Grants and awards	11,000	5,060
Conferences, meetings, and travel - net	17,411	12,838
Website and computer	3,301	721
Accounting	2,760	2,670
Contracted services	6,030	6,435
Investment expense	1,340	1,718
Total Expenses	84,479	78,770
CHANGES IN NET ASSETS	47,205	31,422
NET ASSETS, beginning	632,409	600,987
NET ASSETS, ending	$ 679,614	$ 632,409

See accompanying notes to the financial statements
and accountant's review report.

INTERNATIONAL ASSOCIATION FOR MATHEMATICAL GEOLOGY

NOTES TO FINANCIAL STATEMENTS
For the Years Ended December 31, 2003 and 2002

Note 1 - Summary of Significant Accounting Policies

The accounting policies described below have been followed on a consistent basis.

Nature of Activities

International Association for Mathematical Geology is a not-for-profit organization established on August 22, 1968 to promote international cooperation in the application and use of mathematics in geological research and technology.

Basis of Accounting

The Association prepares its financial statements on the modified cash basis method of accounting. This modified cash basis differs from accounting principles generally accepted in the United States of America since revenues are recognized when collected rather than when earned, and expenses are recognized when paid rather than when the obligation is incurred. Generally, noncash transactions are not recognized in the financial statements, but the Association has elected to record its noncash unrealized gains and losses on its investments in the statement of revenues collected, expenses paid and changes in net assets - modified cash basis. This exception is a departure from the cash basis of accounting, but is in accordance with accounting principles generally accepted in the United States of America.

Basis of Presentation

The Association reports information regarding its financial position and activities according to three classes of net assets; unrestricted net assets, temporarily restricted net assets, and permanently restricted net assets.

Use of Estimates

The preparation of financial statements requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Cash Equivalents

The Association considers all highly liquid debt instruments with a maturity of three months or less to be cash equivalents.

Investments

In accordance with accounting principles generally accepted in the United States of America, investments in marketable securities with readily determinable fair values and all investments in debt securities are reported at their fair value in the statement of financial position. Unrealized gains and losses are included in the change in net assets.

Contributions

Contributions received by the Association are recorded as unrestricted, temporarily restricted, or permanently restricted support depending on the existence or nature of any donor restrictions.

As of the financial statement date, there are no contributions on which restrictions, permanent or temporary, have been imposed.

INTERNATIONAL ASSOCIATION FOR MATHEMATICAL GEOLOGY

NOTES TO FINANCIAL STATEMENTS
For the Years Ended December 31, 2003 and 2002

Note 1 - Summary of Significant Accounting Policies (Continued)

Income Taxes

The organization is exempt from federal income tax under section 501(c)(3) of the Internal Revenue Code and from state income tax under applicable state law.

Note 2 - Investments

The Association's investments consist of marketable securities that are valued at fair market value. Investments are presented in the financial statements in the aggregate.

	December 31, 2003		December 31, 2002	
	Cost	Market	Cost	Market
Government and Gov't Backed Securities	$ 82,140	$ 86,103	$ 99,274	$ 107,227
Mutual Funds	552,991	493,108	388,159	316,876
	$ 635,131	$ 579,211	$ 487,433	$ 424,103

The following schedule summarizes the investment return and its classification in the statement of activities for the years ended:

	December 31, 2003	December 31, 2002
Interest income	$ 329	$ 1,648
Dividend income	16,815	16,667
OID income	5,866	6,743
Unrealized gains [losses]	7,409	[11,592]
Realized gains [losses]	-	[3,494]
Total investment return	$ 30,419	$ 9,972

Note 3 - Concentration of Credit Risk

Financial accounting standards require disclosure of information about financial instruments with off balance sheet risk and financial instruments with concentrations of credit risk.

Financial instruments which potentially subject the Association to concentrations of credit risk consist principally of cash and cash equivalents. The Association places its cash and cash equivalents with financial institutions and investment brokers. The Association does not have any bank depository accounts with balances in excess of FDIC depository insurance coverage. Investments with investment brokers are not covered by FDIC depository insurance coverage and are, therefore, exposed to credit risk to the extent of the cash and cash equivalents deposited in these accounts. The Association's credit exposure was $77,922 and $135,626 as of December 31, 2003 and 2002, respectively.

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Five Star Service Guaranteed

Investments, Inc.

YOUR FINANCIAL CONSULTANT IS: KIPP NOE

For Questions Call: Local 785-865-0277
Toll Free 800-888-4700

Account Statement May 29, 2004 through June 30, 2004

Account # 25536865

INTL ASSN FOR MATHEMATICAL
GEOLOGY
GEOFFREY BOHLING

Account Valuation

	Last Period	This Period
Cash/Cash Equivalents		
Money Markets	34,307.63	34,952.82
Uninvested Cash	0.00	479.38
Mutual Funds	433,073.26	435,249.15
Bonds/Fixed Income		
Mortgage-Backed Securities	86,499.75	86,523.24
Total	**553,880.64**	**557,204.59**

Income Summary

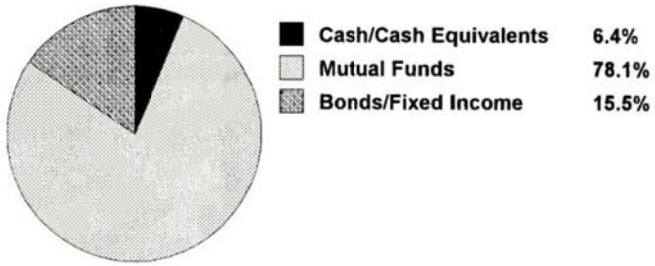
	This Period	Year-To-Date
Taxable Income	1,124.57	7,199.66
Total Income	**1,124.57**	**7,199.66**

Activity Summary

	This Period
Total Securities Purchased	0.00
Total Securities Sold	0.00
Income Received	1,124.57
Matured Bonds	0.00

Portfolio Allocation

Portfolio Allocation on June 30, 2004



News You Can Use

On-Line Investment Balances

You can now view your U.S. Bancorp Investments, Inc. investment balances on-line through U.S. Bank Internet Banking. Learn more at usbank.com/internetbanking.

SMITH BARNEY
citigroup

Ref: 00018557 00120042

Client Statement
March 29 - June 27, 2004

628F040772134000018557 304177AB01 PCAFO039A
INT ASSC MATMTCL GLGY
GEOFFREY C. BOHLING, TREASURER
1937 HILLVIEW ROAD
LAWRENCE KS 66046-2653

Account number 628-21340-11 077

Your Broker/Dealer is
CITIGROUP GLOBAL MKTS INC.
Your Financial Consultant
JOHN YUN
7272 WISCONSIN AVE
4TH FLOOR
BETHESDA MD 20814
301-657-6346
www.smithbarney.com

Branch: 800-455-6622

Account value

	Last period	This period	%
Money fund	$ 50,595.05	**$ 50,658.22**	45.75
Accrued money fund dividends	9.73	**10.07**	.01
Mutual funds	61,262.63	**60,051.90**	54.24
Total value	**$ 111,867.41**	**$ 110,720.19**	**100.00**
Total value (excluding accrued interest)	**$ 111,857.68**	**$ 110,710.12**	

Earnings summary

	This period		This year	
	Taxable	Non-taxable	Taxable	Non-taxable
Other dividends	$ 663.22	$ 0.00	$ 1,319.27	$ 0.00
Money fund earnings	63.17	0.00	118.27	0.00
Total	**$ 726.39**	**$ 0.00**	**$ 1,437.54**	**$ 0.00**

Gain/loss summary

	This period	This year
Unrealized gain or (loss)	($ 6,565.42)	*Not applicable*

Cash, money fund, bank deposits

	This period
Opening balance	**$ 50,595.05**
Securities bought and other subtractions	(663.22)
Securities sold and other additions	0.00
Dividends credited	663.22
Money fund earnings reinvested	63.17
Closing balance	**$ 50,658.22**

A free credit balance in any securities account may be paid to you on demand. Although properly accounted for on our books and records, these funds may be used for our business purposes.

Portfolio summary

	This period	This year
Beginning total value (excl. accr. int.)	**$ 111,857.68**	**$ 110,970.73**
Net security deposits/withdrawals	0.00	0.00
Net cash deposits/withdrawals	0.00	0.00
Beginning value net of deposits/withdrawals	**111,857.68**	**110,970.73**
Total income	726.39	1,437.54
Asset appreciation	(1,873.95)	(1,698.15)
Total value as of 6/25/2004(excl.accr.int.)	**$ 110,710.12**	**$ 110,710.12**
Total return	**($ 1,147.56)**	**($ 260.61)**

International Association for Mathematical Geology
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Fax: (613) 531-0626
Email: office@iamg.org

Administrative Office
4 Cataraqui Street, Suite 310
Kingston ON K7K 1Z7
Canada

IAMG Membership Report

June 30, 2004

Membership Type	Renewed	New	Reinstated*	Total Paid	Not Renewed**
Ordinary – no subscription	66	17	0	83	23
Ordinary – with subscription	280	18	10	308	148
Subtotal – Ordinary Members	**346**	**35**	**10**	**391**	**171**
Student – no subscription	3	4	—	7	3
Student – with subscription	5	6	1	12	12
Subtotal – Student Members	**8**	**10**	**1**	**19**	**15**
Institutional	0	0	0	0	—
Grand Total	**354**	**45**	**11**	**410**	

** former member did not pay 2003 – rejoined in 2004*

*** paid 2003 not paid for 2004*

Donations	
# Members' Donations Received	**USD Amount Donated**
20	$429.00

Subscriptions Renewed	# Subscriptions
Mathematical Geology	237
Computers & Geosciences Regular	109
Computers & Geosciences Student	6
Computers & Geosciences Electronic	36
Natural Resources Research	45

Monograph Orders	# Orders
# 3 Geostatistical Glossary & Multilingual Dictionary	2
# 5 Computers in Geology: 25 Years of Progress	2
# 6 Modern Spatiotemporal Geostatistics	9
#7 Geostatistical Analysis of Compositional Data	18

CD Orders	# CD's Ordered
Portsmouth 2003 Proceedings	39
Berlin 2002 Proceedings	11
Cancun 2001 Proceedings	7
Computers & Geosciences Sliver CD: 25 years of Computer code	14

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Kingston ON K7K 1Z7
Canada

IAMG Membership Report
June 30, 2003

Membership Type	Renewed	New	Reinstated*	Total Paid	Not Renewed**
Ordinary – no subscription	55	18	—	73	—
Ordinary – with subscription	376	30	20	426	113
Subtotal – Ordinary Members	**431**	**48**	**20**	**499**	**113**
Student – no subscription	2	3	—	5	—
Student – with subscription	11	5	0	16	1
Subtotal – Student Members	**13**	**8**	**0**	**21**	**1**
Institutional	0	0	0	0	—
Grand Total	**444**	**56**	**20**	**520**	**114**

** former member did not pay 2002 – rejoined in 2003*
*** paid 2002 not paid for 2003*

Donations

# Members' Donations Received	USD Amount Donated
26	$435.75

Subscriptions Renewed

	# Subscriptions
Mathematical Geology	313
Computers & Geosciences Regular	156
Computers & Geosciences Student	7
Computers & Geosciences Electronic	64
Natural Resources Research	70

Monograph Orders

	# Orders
# 2 Oil & Gas Forecasting	0
# 3 Geostatistical Glossary & Multilingual Dictionary	3
# 5 Computers in Geology: 25 Years of Progress	4
# 6 Modern Spatiotemporal Geostatistics	13

CD Orders

	# Orders
Proceedings IAMG'2002	62
Proceedings IAMG'2001	28
Computers & Geosciences Silver CD: 25 Years of Computer Code	23

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Administrative Office
4 Cataraqui Street, Suite 310
Kingston ON K7K 1Z7
Canada

IAMG Membership Report

November 30, 2003

Membership Type	Renewed	New	Reinstated*	Total Paid	Not Renewed**
Ordinary – no subscription	55	23	—	78	—
Ordinary – with subscription	385	36	20	441	111
Subtotal – Ordinary Members	**440**	**59**	**20**	**519**	**111**
Student – no subscription	2	5	—	7	—
Student – with subscription	11	7	0	18	1
Subtotal – Student Members	**13**	**12**	**0**	**25**	**1**
Institutional	0	0	0	0	—
Grand Total	**453**	**71**	**20**	**544**	**112**

** former member did not pay 2002 – rejoined in 2003*
*** paid 2002 not paid for 2003*

Donations	
# Members' Donations Received	**USD Amount Donated**
28	$435.75

Subscriptions Renewed	# Subscriptions
Mathematical Geology	324
Computers & Geosciences Regular	159
Computers & Geosciences Student	8
Computers & Geosciences Electronic	67
Natural Resources Research	71

Monograph Orders	# Orders
# 2 Oil & Gas Forecasting	0
# 3 Geostatistical Glossary & Multilingual Dictionary	3
# 5 Computers in Geology: 25 Years of Progress	4
# 6 Modern Spatiotemporal Geostatistics	13

CD Orders	# CD's Ordered
Berlin 2002 Proceedings	64
Cancun 2001 Proceedings	31
Computers & Geosciences Sliver CD: 25 years of Computer code	25

Publications Committee Report
2004

Mathematical Geology

Submissions during 2004 are running behind what they should and at the moment the numbers are similar to those in 2001. An additional 5 articles have been submitted as part of a special issue in honor of Michael David. As in previous years, time from receipt of a manuscript to time of publication is about one year.

The number of papers to be published in 2004 is similar to that of previous years:

	1999	2000	2001	2002	2003	2004
Papers	46	47	44	50	50	45
Book Reviews	8	9	6	9	8	9
Letters to Editor	1	3	2	0	3	1
Assoc. Announcements	6	1	3	3	2	1
Notes	0	0	1	0	1	0
Teacher's Aides	0	0	3	0	0	0
Submissions	75	87	54	74*	75*	31!

* excluding special issues.

! period January through June.

The scientific content of the journal is determined entirely by the nature of the manuscripts submitted. For example, no teacher's aides or notes have been published because there were no submissions. At the present time the editor is publishing all manuscripts that pass review. For the editor to exercise any direction over the scientific content of the journal under the current page agreement, annual submissions would need to reach at least 90 per year.

With the November issue, the publication schedule for the journal should again be on time after lagging by about 3 months over the past year. This was accomplished with the help of a graduate assistant from the school of library and information science. The assistant has now left for a full time job and I will be seeking another assistant as a replacement in September.

Kluwer has now moved to a system where notice of proofs is sent out by e-mail and the authors can download their proofs as PDF files. They are then expected to return any corrections by fax. Last year at the publications committee meeting in Portsmouth, the issue of on-line submissions was discussed. An on-line submission system for Mathematical Geology was inaugurated on the 16th of June. However, the editor is currently using the system only for authors in remote locations. It is expected that it will be a year before the system is fully implemented. As of necessity there will be a period in which the old paper system must be meshed with the new online system.

One problem encountered early this past spring was the threat by the U.S. Treasury Department to prosecute anyone editing or publishing scientific manuscripts from certain countries. As a result, one manuscript in proof was pulled by Kluwer. While this threat has now been relaxed, it still remains a possibility.

W. Edwin Sharp, Editor-in-Chief
Mathematical Geology

Computers & Geosciences

Volume 29 (2003) contained 10 issues, a total of 1307 pages, 115 regular articles, 7 short notes and 2 book reviews. Number 3 was a special issue on the topical but technical subject of "Reactive Transport Modeling in the Geosciences", edited by Lauren Browning and William Murphy. Of the 122 papers published in volume 29, 71 (58%) were accompanied by code that was made available for public access on the IAMG server. The number of papers submitted in 2003 was over 200, up from about 180 in 2002. The rejection rate was about 35%.

The Impact Factor published by ISI for 2002 was 0.52, and for 2003 was 0.709, I think the best ever. However, I have no idea how significant this is—we may come crashing down again next year (see attached figure)! Elsevier publishes a report annually on the most frequently downloaded articles—the paper by Alan Witten (University of Oklahoma) entitled "Geophysica: MATLAB-based software for the simulation, display and processing of near-surface geophysical data" was first for 2002-2003, and it so happened that this paper was selected independently as Best Paper for 2002. The statistics on code downloads developed by our Webmaster Eric Grunsky also showed that this was a popular code. The Best Paper for 2003 was by Hongxing Liu (Texas A&M) for his paper entitled ''Derivation of surface topography and terrain parameters from single satellite image using shape-from-shading technique'', which appeared in volume 29, number 10, pages 1229-1239.

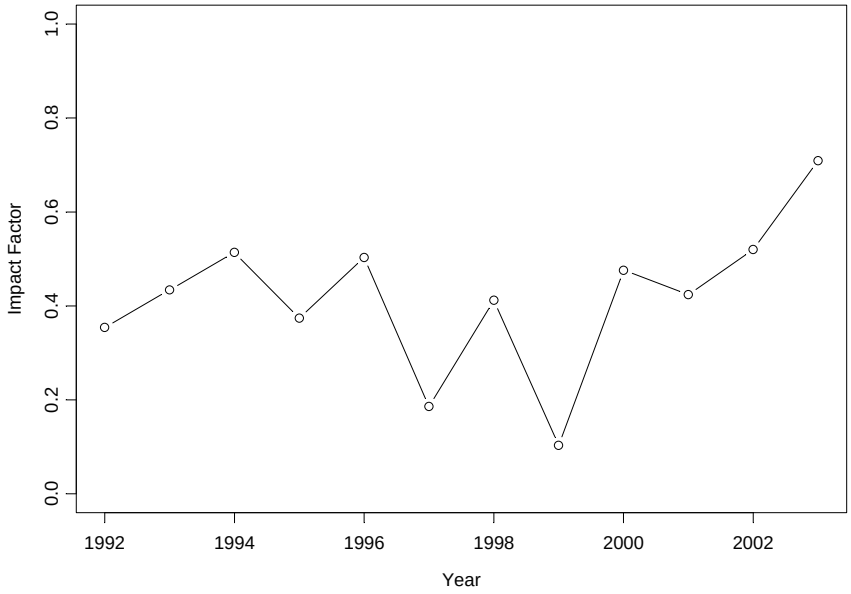
Elsevier reports that nearly 2000 libraries have electronic access to the journal. This represents a substantial improvement in access to the journal over the earlier years of print-only, and may be responsible for the increase in the number of submitted articles. The average number of code downloads from the IAMG server is about 5,000 per month.

The journal has now moved to a fully electronic system for manuscript submission via the Elsevier Author Gateway. This cuts down on mailing costs and volume of paper, but is not without its problems. Kathryn MacKinnon is retiring as Managing Editor this month, and is being succeeded by Jean Hubay. Kathryn has done a terrific job, and will be sorely missed. She is moving on to a challenging career as an ordained church minister, and we wish her every success. Eric Grunsky is the new Deputy Editor, Tom Jones Book Review Editor, and Roussos Dimitrakopoulos is now an Associate Editor.

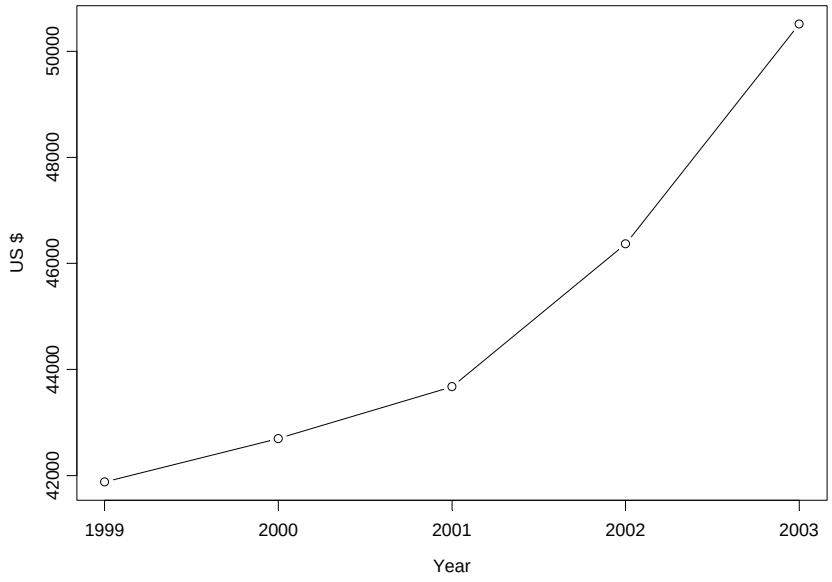
Now in its 30th year of publication, the journal will shortly have a new contract between IAMG and Elsevier. Last year, the journal generated $50,514 in royalties for the Association, and the attached figure indicates a healthy growth in excess of inflation.

Graeme Bonham-Carter, Editor-in-Chief
Computers & Geosciences

Impact Factor, Computers & Geosciences



Royalty Payments, Computers & Geosciences



Natural Resources Research

At present I have only six manuscripts in hand - two of which will be rejected and possibly a third. My next deadline is in only seven weeks. To my knowledge I have had maybe six paper by AAPG members submitted (as part of a symposium). We definitely need to have their support. Rejection rate varies from year to year but ranges from about 21 to 38%.

Year	Volume	Manuscripts Submitted	Manuscripts Published
2001	10	42	20
2002	11	28	24
2003	12	24	24
2004	13	15+	17[+]

[+]as of 3 August 2004

It may be we are getting rejects from journals such as AAPG Bulletin and Basin Research (I think they are our main competition). We are getting a lot of manuscripts from overseas or at least by foreign authors. My coeditors (JMG and C&G) are good to direct manuscripts to NRR that are appropriate and publishable. It may be our scope is too broad, but there is a problem than needs to be resolved. I would guess the NRR distribution is not large, however, some of our recent papers have received considerable attention (that helps our image).

Encourage your colleagues and friends to submit papers for consideration and please do so yourselves.

Daniel F. Merriam, Editor-in-Chief
Natural Resources Research

IAMG Studies In Mathematical Geology (SMG)

Jo Anne DeGraffenreid (USA), Editor.
Associate Editors: Thomas A. Jones (USA), Heinz Burger (FRG).

The most recent monograph in the Oxford University Press series "IAMG Studies in Mathematical Geology," ***Geostatistical Analysis Of Compositional Data*** by Vera Pawlowsky-Glahn and R.A. Olea, 2004, appeared in early May. Both authors report they are pleased by the quality and appearance of the 181-page volume. At my insistence, the cover of SMG No. 7 was done in the style of the original five SMG monographs: dark buckram [volumes seem to range from black to navy to (most recently) dark blue] with the title, etc. and IAMG logo in gold. I have also requested that future reprints of SMG No. 6, ***Modern Spatiotemporal Geostatistics*** by G. Christakos, 2000, be done in this style (the "Millennium-look" (?) of George's title with its saddle-brown, smooth "leather" cover and copper-tone printing was a great shock!).

Although copy for SMG No. 7 shipped to Oxford on 5 June 2003 was camera-ready, it took them almost a year to publish the volume. Oxford seems to have an amazing turn-over in personnel in their editorial and production staff, which accounts for much of the delay. Apparently they decided to make amends by providing a very generous number of personal copies to the authors and to the editor, as well. The copies I have received will be used for display, etc. at IAMG meetings and appropriate other conferences; I will appreciate suggestions from the Council about how to make the best use of the unexpected windfall (about 15 copies).

In response to my request for information about sales, current in-print numbers, and plans for reprinting SMG numbers, Oxford Assistant Editor John Rauschenberg reports that No. 2 ***Oil And Gas Forecasting*** (currently out of stock) has sold 642 copies, "lifetime" (since 1990); ***Geostatistical Glossary And Multilingual Dictionary*** (in stock) has sold 795 copies "lifetime" (since 1991); No. 5 ***Computers In Geology*** (in stock) has sold 644 copies "lifetime" (since 1993); ***Modern Spatiotemporal Geostatistics*** (in stock) has sold 830 copies to date (appeared in 2000); and since May 2004, ***Geostatistical Analysis Of Compositional Data*** (in stock) has sold 222 copies. Mr. Rauschenberg has inquired about reprint plans for the out-of-stock book (SMG No. 2) but as of now has received no answer from the Oxford "marketing folks."

During the period since the last "Studies in Mathematical Geology" report (August 2003–July 2004), I have received inquiries about two possible "monographs" for inclusion in the series. Both inquiries dealt with collections of papers, one of which might better be described as a Festschrift and was deemed inappropriate in terms of what Oxford expects and is willing to publish. After initial discussions about the other tentative proposal, the ball has stalled in the court of the group who suggested the topic.

After receipt on May 8, 2004, of a release from the author's estate, work is underway on the manuscript described in last year's report: the unpublished work on statistical methods for estimating petroleum resources written by the late P.J. Lee during his tenure at National Cheng Kung University in Taiwan. John Rauschenberg is optimistic about the project and said to submit the proposal and draft directly to Earth Science Editor Cliff Mills, "…since he's the official editor for this series, and will need to pursue approval to publish a new book in it. But it sounds like it will be a great topic!"

Jo Anne DeGraffenreid, Editor
IAMG Studies in Mathematical Geology

Report from the Awards Committee

Members of the Awards Committee are Qiuming Cheng (Canada), Stephen Henley (UK), Andre Journel (USA), Hugh Rollinson (UK), Heinz Burger (Germany, chair). The committee has posted a call for nominations for the Vistelius Award and Felix Chayes Prize 2005 in the IAMG newsletter No. 68, June 2004.

In 2004 the Awards Committee had to evaluate the proposals for the Krumbein Medal and the Griffiths Teaching Award. There were four nominations for the Krumbein Medal (winner: R. Olea) and three nominations for the Griffiths Award (winner: R. Schuenemeyer). Details about the evaluation procedure are given in IAMG Newsletter No. 68, p. 4.

The corresponding laudatios for the award winners were given by F. Agterberg and L. Drew (see IAMG Newsletter No. 68, p. 4 ff). According to our rules the laudatios will also be published on the IAMG website and additionally in Mathematical Geology and Computers and Geosciences.

The main (internal) problem of the evaluation procedure is that numerical scores in the range from 1-10 must be given to each candidate. Not all Committee members can take the time to read the proposals so carefully that they can judge with such a fine scale. Instead of 10-scale scores the preferred evaluation method was ranking (1=best, etc.). Therefore also the numerical scores were transformed into ranks and the winner was determined by the lowest sum of ranks from all committee members. This decision – which is not according to our Bylaws – was confirmed by the IAMG president.

Conclusion: The guidelines should be changed so that the evaluation can be based on ranks instead of numerical scores on a 1 to 10 scale.

During the last years we had about 10 nominations for the Krumbein Medal and 3-4 nominations for each other award. This year we had only four nominations for the highest IAMG award! At the moment call for nominations are published in the IAMG newsletter and the IAMG president has sent a memo to all IAMG members by e-mail. Both versions contained all necessary details about the nomination procedure.

In the preceding Awards Report I've stated: A high number of qualified candidates is a prerequisite for assuring meritorious winners. Experience has shown that personal contacts to heads of research groups, institutes etc. are the best way to increase the number of suitable nominations. Especially IAMG Council members and other interested IAMG members are encouraged to activate their own contacts with respect to this task.

Obviously this is not sufficient to increase the number of nominations.

Special efforts will be necessary to encourage non-English-speaking people to send nominations. "Not just the preparation of candidates' proposals – though with the way in which our system operates at present I'm sure this does bias the process" (S. Henley by e-mail). There is no simple solution but "Possibly one partial solution would be deliberately to select members of the awards

committee to provide broader geographic and linguistic coverage – say one each from North America/Western Europe, former USSR, Eastern Asia, Africa/Latin America" (S. Henley).

It would also be helpful to publish an example of a "good" proposal on the IAMG website.
H. Burger

Chair, IAMG Awards Committee

Report of the IAMG Distinguished Lecturer Committee

IAMG General Assembly

Sunday, August 22nd 2004, University of Florence, Italy

Alexandre J. Desbarats, Committee Chair

- The IAMG Distinguished Lecturer Series committee approved by council ballot on October 22nd 2001 currently consists of Alexandre Desbarats (Geological Survey of Canada), Jianping Chen (China University of Geosciences), Natalya Hunter-Williams (Geological Survey of Ireland), Sean McKenna (Sandia National Laboratories) and Graeme Bonham-Carter (ex-officio). This will be the last report from the present committee since its term is about to end. Sean McKenna has indicated that he would be prepared to take over the chair subject to council approval. Alexandre Desbarats is willing to stay on as a member in order to assist with the transition to a new committee.
- The lecture tours by John Davis, the first IAMG (2003) Distinguished Lecturer, have concluded. John's detailed final report is attached herewith. It contains several recommendations that an incoming committee might wish to consider.
- After a highly successful tour of geoscience institutions in the southern hemisphere this past winter (publicized in the June newsletter), Frits Agterberg, the 2004 DL, is now preparing what is shaping up to be an equally intense and productive tour of seven institutions in Europe this fall. A detailed interim report on Frits' activities is provided in attachment.
- As announced in the IAMG June 2004 newsletter, Dr. Lawrence J. Drew of the United States Geological Survey will be next DL lecturer. The DL committee believes that Larry will be an outstanding and enthusiastic ambassador for the IAMG and an engaging speaker with appeal to a wide range of geoscientist audiences.
- Dr. Drew will be introduced as the IAMG 2005 Distinguished Lecturer at the meeting in Florence. If able to attend, he will provide outlines of the talks that he has prepared for the lecture series. A list of these proposed lectures is attached herewith.
- A call for nominations for the 2006 Distinguished Lecturer was published in the June 2004 Newsletter. It will be repeated on the IAMG web site. Deadline for nominations is March 31st 2005.

Final Report of the First IAMG Distinguished Lecture Series
By
John C. Davis, 2003 Distinguished Lecturer

The initial IAMG Distinguished Lecture Series tour was conducted during May 2003, starting with a three-day visit to the Bundesanstalt für Geowissenschaften und Rohstoff (BGR), the German federal geological survey in Hanover, Germany, where I was hosted by Dr. Sönke Rehder. Two presentations were made at the BGR, "Geochemical Data and How to Map It" and "Geological Hazard Prediction: Landslides—not Tornados—in Kansas??" In addition, I conducted a seminar for the Group Geochemische Informationstechnologie, B4.14, on analysis and display of geochemical data. I also had the opportunity to meet with Prof. Friedrich-Wilhelm Wellmer, President of the BGR, and an IAMG member, to discuss the promotion of mathematical geology in Germany.

I next made a one-day stop at the Institut für Ostseeforschungs (IOW), the Baltic Sea research institute in Warnemünde, near Rostock. My host was Prof. Jan Harff, chief of the marine geology section of the Institute. I gave the lecture, "Geological Hazard Prediction: Landslides—not Tornados—in Kansas??" and met briefly with scientists collaborating on a joint NSF-DAAD project on the Holocene climate of the Baltic region.

The final stop of this northern Germany tour was the University of Greifswald, where my host was Prof. Maria Schafmeister, head of the Department of Geology. During my three-day visit, I presented the two lectures, "Geochemical Data and How to Map It," and "Geological Hazard Prediction: Landslides—not Tornados—in Kansas??" I also was honored at a barbeque sponsored by the geology graduate students, and taken by the students on a tour of their "secret" hangout in the catacombs underneath the Geology Building! Unfortunately, my tour in Greifswald ended on a sad note when the University received notice from the Education Ministry in Berlin that the Geology Department was to be merged with Geography as part of an austerity move.

My travel expenses for the north German tour were defrayed by a grant from another source, so this series of lectures were given at no cost to the IAMG.

The next Distinguished Lecture was given in early September at the time of the IAMG'03 Annual Meeting in Portsmouth, England, at the GeoComputation Conference, which was held concurrently at the University of Southampton. My lecture, "Geological Hazard Prediction: Landslides—not Tornados—in Kansas??" was originally scheduled for an evening presentation at the Ordinance Survey in Southampton. At the last minute my host, Prof. Peter Atkinson of the University of Southampton Department of Geography, asked me to substitute for the conference Keynote speaker who was forced to cancel his travel. As a result, I opened the GeoComputation Conference to an audience of approximately 200 geographers and cartographers, mostly from the UK and Western Europe, who were largely unaware of the IAMG and the fact that its conference being held only 20 miles to the south! In addition to whatever entertainment value I provided in my Keynote presentation, I was able to point out the numerous advantages of joining the IAMG to a group of scientists having many interests in common with our membership.

Because I was able to deliver my lecture at Southampton while attending the IAMG Annual Conference, no travel expenses were charged to the Distinguished Lecturer Series fund.

My third set of lectures was also delivered in conjunction with a conference, the CoData'03 Workshop in October at the University of Girona, Spain, where my host was Dr. Santiago Thió-Henestrosa of the Department of Mathematics. The workshop attendees consisted of an interdisciplinary group of about 50 scientists and mathematicians actively working on compositional data, mostly for geological and environmental applications. I provided the second Keynote speech, "Geochemical Data and How to Map It," at the workshop. I gave a second lecture, "Geological Hazard Prediction: Landslides—not Tornados—in Kansas??" at an evening session at the Faculty of Science where I was hosted by Prof. David Brusi, Dean of the Faculty of Science. In spite of a torrential rain, approximately 80 students and faculty, mostly representing the Centre de Geologia i Cartogafia Ambiental, were in attendance.

I was extremely impressed with the CoData'03 Workshop, and strongly recommend that the IAMG consider sponsoring other small, tightly focused workshops in the future. Attendance at such specialized meetings may be limited compared to IAMG annual conferences, but because all the participants are active in the workshop topic, every session was fully attended throughout the day. Conversations and exchanges during breaks were animated and productive; I learned of plans for several collaborative projects that were established during this meeting. The challenge would be to identify other topics in the same dynamic state of early development as compositional data analysis, and which promise to be important in the future of mathematical geology

In February of 2004, I gave a series of lectures at the University of Southern Illinois in Carbondale, in response to an invitation from a student group headed by Mr. Abani Samal, a graduate student in the Environmental Resources and Policy Program. My official host was Prof. Steve Esling, Chairman of the Department of Geology; my visit was cosponsored by the International Water Resources Association (IWRA) which is headquartered on the SIU campus. I presented "Classical Statistics for Geological Problems: Regulation, Monitoring, and Other Nasty Tasks," in a department seminar program, and "Geological Hazard Prediction: Landslides—Not tornados—In Kansas??" in an evening program in the SIU Union, followed by a "pizza evening" with students and faculty associated with the IWRA. The Geology Department arranged consultations with faculty and students to discuss research programs where statistics could be useful, and how the IAMG could be of service. I'm very pleased that, as an outgrowth of my visit, students at SIU have applied for recognition as a "student chapter" of the IAMG.

My last trip abroad was in March 2004, to the Montanuniversität-Leoben, the Austrian school of mines, where my official host was Prof. Fritz Ebner, chairman of the Department of Geology and now head of the School of Earth Sciences. Prof. Ebner had extensively advertised my lecture series, so there were students and faculty in attendance from the Universities of Salzburg and Graz, in Austria, and from the University of Zagreb in Croatia. As part of the Distinguished Lecture series, I presented the evening talk, "Alternatives for an Unpopular Business: Decision-making in the Mining and Mineral Industry," which was introduced by Prof. Wolfhard Wegscheider, Rector of the University. Another evening presentation was "Computing Risk for Oil Prospects: Even a Little Operator can Use Big Tools!" introduced by Prof. Karl Millahn,

chairman of the Geophysics Department. During the day, I conducted a class on geostatistics for students in the combined departments of Geology and Petroleum Engineering, and presented several lectures in the Distinguished Lecture series, including "Geological Hazard Prediction: Landslides—Not Tornados—In Kansas??", "Classical Statistics for Geological Problems: Regulation, Monitoring, and Other Nasty Tasks", and "Geochemical Data and How to Map It: Looking for Minerals—Finding the Environment."

The final trip that I took as the first IAMG Distinguished Lecturer was to Ottawa, Canada, in June, 2004. My official host was Dr. Graeme Bonham-Carter of the Geological Survey of Canada, although Dr. Chang-jo Chung of the GSC looked after every detail of my visit and graciously shared his weekend with me at his lakeside cabin in the Canadian woods. I presented the lecture, "Geochemical Data and How to Map It: Looking for Minerals—Finding the Environment" in the Geology Department of the University of Ottawa to an audience of graduate students and faculty. At the Geological Survey of Canada, I gave the lecture, "Geological Hazard Prediction: Landslides—Not tornados—In Kansas??", an especially appropriate topic because I am collaborating with Dr. Chung on a study of statistical models for landslide prediction.

My tenure as IAMG Distinguished Lecturer was a most enjoyable experience, and I appreciate the IAMG making this opportunity available to me. As a result of my experiences as the first D. L., I have a few comments and four recommendations that may make the tours of subsequent lecturers both more enjoyable and efficient.

I. I strongly recommend that the D. L.'s not be designated by year but by sequence number, or to given no temporal designation at all. The reason for this is that a calendar year does not allow sufficient time in which to organize a tour schedule, especially if the D. L. is a faculty member and has constraints on his or her time. Most potential hosts are academic institutions with preset calendars having limited times during which lectures can be offered. Coordinating these times with the academic calendars of the D. L.'s home institution is very tricky, and most likely must be done a year in advance. Although I received several "feelers" about lectures from several academic institutions in the United States, I was not able to arrange presentations at mutually acceptable times.

II. I was very impressed by the enthusiasm and productivity of participants in the CoData'03 Workshop that I attended and urge the IAMG to encourage such specialized meetings on narrowly focused topics in the future. If properly supported, I believe these meetings have the potential to advance our discipline in many areas.

III. Although the emphasis in the D. L. program is on visits to academic institutions and on lectures to students, possibly the most rewarding effort in the short term (in terms of promotion of the IAMG) is through presentations to professional organizations and agencies. There, the Distinguished Lecturer makes contact with individuals who are most likely to become members of the Association and to contribute to its activities once they become aware of the benefits of membership.

IV. When a group of enthusiastic students is identified, they should be encouraged to affiliate formally or informally with the Association. The future members of the organization will be drawn from the ranks of these students.

In conclusion, I wish to thank the International Association for Mathematical Geology for its support, and for the honor it extended by appointing me the Association's first Distinguished Lecturer.

Sincerely,

John C. Davis

The following announcement, issued at the beginning of the Distinguished Lecture program, gave short descriptions of the lectures offered in the inaugural series of Distinguished Lectures of the International Association for Mathematical Geology.

IAMG Distinguished Lecturer Series

Dr. John C. Davis of the Kansas Geological Survey is the IAMG's 2002 Distinguished Lecturer. He will be familiar to many as the author of the classic text "Statistics and Data Analysis in Geology," released in its 3rd. edition in 2002. Institutions interested in hosting a lecture by Dr. Davis are invited to submit a proposal to Alexandre Desbarats, chair of the IAMG Distinguished Lecturer Committee (desbarat@NRCan.gc.ca) or directly to Dr. Davis (john.davis5@mchsi.com). The IAMG will fund the speaker's travel expenses to the extent allowed by the D.L. series budget. However, host institutions will be expected to contribute toward the speaker's meals and accommodation as their resources permit. Dr. Davis has prepared a selection of talks suitable for a variety of earth science audiences and technical levels.

1. Computing Risk for Oil Prospects: Even a Little Operator can Use Big Tools!

This presentation is on the quantitative evaluation of petroleum prospects. It is based on research conducted by Dr. Davis at the KGS since 1973, and which has resulted in two books, two industry-training programs, an academic course, and numerous publications. Most of the examples in the presentation use data on oil exploration in Kansas, although additional material is drawn from his cooperative research on regionalization conducted with Prof. Jan Harff of the Institute for Baltic Research in Germany. This presentation would be of interest to those concerned with improving the state-of-the-practice in prospect evaluation and resource estimation.

2. Geological Hazard Prediction: Landslides—Not Tornados—In Kansas??

This presentation draws on recent research conducted by Dr. Davis in cooperation with Dr. Greg Ohlmacher on risk assessment applied to landslides. This research project in northeastern Kansas is still underway in cooperation with Dr. Chang-jo Chung of the Geological Survey of Canada. Presentations of the mathematical theory behind the risk assessment procedure have been given

at various Annual Conferences of the IAMG and an additional presentation will be made at the IGC in Florence, Italy, in Fall 2004.

3. Geochemical Data and How to Map It: Looking for Minerals—Finding the Environment

The topic of this presentation is the analysis of multiple geological properties. It is based on material from several sources, but mostly on the work done by Dr. Davis during his tenure as a Fulbright Senior Fellow in Austria. This material consists of geochemical data produced for the Geochemical Atlas of the Austrian Republic, for which the KGS provided mapping software solutions and advice on statistical analyses. Additional examples are drawn from grain-size data from the Baltic Sea provided by the Institute for Baltic Research. These data are used to illustrate discussions on the issue of closure and the application of multivariate statistical methods such as canonical analysis.

4. Classical Statistics for Geological Problems: Regulation, Monitoring, and Other Nasty Tasks

The role of classical statistics in the analysis of geologic data is the subject of this presentation which is based on KGS experience in quality control and analysis of variance applied to water level measurements in the High Plains Aquifer of western Kansas. The presentation also describes applications of regression and time-series analysis to climate data.

5. Alternatives for an Unpopular Business: Decision-making in the Mining and Mineral Industry

This presentation describes the use of probabilistic modeling in the mineral industry. It addresses the possible costs of societal decisions that may adversely affect mining, and how financial models incorporating alternative actions can be used as management decision tools. Although these risk-based methodologies are not commonly used in the mining industry, they are widely applied in petroleum exploration and are discussed in the book, "Computing Risk for Oil Prospects", co-authored by Dr. Davis.

Frits Agerterberg, 2004 IAMG Distinguished Lecturer
Report on
Southern Hemisphere DL Tour and Planned European Tour

From February 23 to May 5, Frits Agterberg as second IAMG/DL visited New Zealand, Australia, South Africa, and Brazil, respectively. He met and had discussions with numerous geologists, geostatisticians and mathematicians. Special thanks are due to Roger Cooper, Roussos Dimitrakopoulos, Christien Thiart, and Hernani Chaves for invaluable help in composing the itinerary. Other generous hospitality was received from Mike Hills, Tom Blenkinsop, Margie Scott, Mike Dentith, Danie Krige, Maarten De Wit, and Gordon Cooper. A detailed list of lectures and short courses conducted is given below. Copies of the updated IAMG brochure were widely distributed. Frits was accompanied enthusiastically by his wife Codien.

At the Institute for Geological and Nuclear Sciences in Lower Hutt, New Zealand, he performed calculations and helped to complete the article "Uncertainty Intervals for New Zealand Stage Boundaries and Durations" (Appendix to Chapter 1) by F.P. Agterberg and R.A. Cooper (with contributions from J.S. Crampton) to be published in the forthcoming New Zealand time scale book edited by Roger Cooper.

The IAMG has paid about US$ 6,000 for international airline travel. Additionally, national organizations provided approximately US$ 15,000 for accommodation, meals and to cover other expenses. Major financial support from the Institute for Geological and Nuclear Sciences (New Zealand), the W.H. Bryan Mining Geology Research Centre at the University of Queensland (Brisbane, Australia), Cape Town University (South Africa), and Rio de Janeiro State University (Brazil) is gratefully acknowledged. Generous hospitality also was provided by University of Waikato, James Cook University, and University of the Witwatersrand.

Plans for future DL travel include trips to China and Europe later this year. Lectures at the China University of Geosciences in Beijing and Wuhan are currently being scheduled, as well as visits to the Free University of Berlin, University of Oslo, NTN University of Trondheim, University of Girona, and a short course at Delft Technical University in the Netherlands. Other organizations interested in a DL visit this year (or early 2005) should contact Alec Desbarats, IAMG Distinguished Lecturer Committee Chair, or Frits Agterberg directly.

List of Southern Hemisphere IAMG/DL Lectures:

March 3 - University of Waikato, Earth Sciences Department, Hamilton, New Zealand: "Past and Future of Mathematical Geology" (about 20 staff and graduate students).

March 19 - New Zealand Institute for Nuclear and Geological Sciences (NIWA Geology Group and Victoria University Wellington School of Earth Science), Lower Hutt, New Zealand: "The New Global geological Time Scale – Background and Methods used in Calibration and Uncertainty Estimation" (about 30 professionals and students).

March 23 – James Cook University, School of Earth Sciences, Townsville, Queensland: “Fractal and Multifractal Modeling in the Earth Sciences” (about 10 graduate students).

March 25 – Australian Institute of Mining and Metallurgy, Townsville, Queensland: “Weights-of-Evidence and Logistic Modeling in Mineral Potential Mapping” (about 50 professionals).

March 31 – Geological Society of Australia and the Australian Institute of Geoscientists, Brisbane, Queensland: “Past and Future of Quantitative Geology” (about 50 professionals).

April 8 – University of Western Australia, Earth Sciences Department, Perth, Western Australia: “The 2004 Geological Time Scale” (about 40 staff and students).

April 8 – University of Western Australia, Mathematics Department, Perth, Western Australia: “The Lognormal Distribution in Geology” (about 10 staff and students).

April 19 – Cape Town University, Earth Sciences Department, Cape Town, South Africa: “The 2004 Geological Time Scale” (about 40 staff and students).

April 20 – Cape Town University, Statistics Department, Cape Town, South Africa: “Lognormal and Pareto Distributions in Geology” (about 20 staff and students).

April 22 – University of the Witwatersrand, Earth Sciences Department, and South African Geophysical Association, Johannesburg, South Africa : “Geostatistical Distribution of Orebodies” (about 40 professionals).

April 26-28 – State University of Rio de Janeiro, Faculty of Geology, Department of Stratigraphy and Paleontology, Rio de Janeiro, Brazil: Short Course on Geomathematics, Fractals and Mineral Potential Mapping (6 participants).

April 27 – GIMAB, Federal University of Rio de Janeiro, Brazil: “3-Dimensional Geological Maps and 2004 Geological Time Scale” (about 15 professionals).

April 29-30 – State University of Rio de Janeiro, Faculty of Geology, Department of Stratigraphy and Paleontology, Rio de Janeiro, Brazil: Short Course on Time Scales and Quantitative Stratigraphy (7 participants).

April 29 – PETROBRAS, Rio de Janeiro, Brazil: “Past and Future of Mathematical Geology” (about 40 professionals).

In addition to those given during his southern hemisphere tour, Dr. Agterberg has presented the following lectures:

1. February 4-11: Quantitative Stratigraphy Short Course for Nigerian oil industry personnel, Lagos, Nigeria; discussions with University of Lagos staff (travel expenses paid by hosts).

2. February 12: Lecture at University of Ottawa on “Geomathematics of the 2004 Geological Time Scale and other Applications”.

Planned lectures for the 2004 fall semester include:

3. September 28-30: Lectures at University of Illinois, Carbondale, Illinois, U.S.
4. October 5-December 15: European lecture tour (in advanced planning stage). Approximate schedule is to visit (a) U.K. (approximately October 10-18) for lectures at universities in Aberdeen and Birmingham (John Cubitt, coordinator); (b) Germany (October 20-23) for lecturing at Free University of Berlin (Heinz Burger, coordinator); (c) Norway-1 (October 24-30): NTN University of Trondheim (Richard Sinding-Larsen, host); (d) Norway-2 (November 1-12): University of Oslo (Felix Gradstein, host); (e) Spain (November 17-December 3): University of Girona and Istituto Jaume Almera in Barcelona (Vera Pawlowsky-Glahn, coordinator); (f) the Netherlands (December 6-10): Short Course at Delft University of Technology (Gert Jan Weltje, coordinator).

Dates and places for European lecture tour are approximate. Frits and his wife Codien plan to travel Ottawa-Amsterdam return by plane and use Eurail and Brit Rail passes for train travel within Europe. A DL lecturing visit to Wuhan and Beijing in China originally planned for 2004 was postponed and is now tentatively scheduled for early 2005.

Lawrence J. Drew, IAMG 2005 Distinguished Lecturer

Proposed Lectures

1. Regional Geochemistry—Baselines for Complex Geological Terranes

The application of GIS and Statistical/Graphical methods to establish baseline regional geochemical signatures for complex geological terranes. The State of South Carolina comprises multiple geological terranes that range from high-rank metamorphic and igneous rocks to volcanic rock with ore bodies to Tertiary sediments. These terranes occur in many geomorphic land forms—upland, fall zones, incised sedimentary sections, and the coastal plain. The goal is to unravel a complex puzzle.

2. Hydrologic Significance of the Association Between Well-Yield Variography and Structures in Fractured Bedrock Aquifers

A surprising result has been recently obtained —the structural characteristics of fractured bedrock aquifers are directly associated with patterns in variogram maps and directional variograms. Variogram mapping on nets of initial yields of water wells decodes complex underlying tectonic information in the bedrock.

3. Oil and Gas Discovery Process Modeling

Based on research published in several books and many papers, a summary of the importance of discovery process model to forecasting undiscovered oil and gas is presented. What is a field-size distribution?

4. Mineral Deposits—Grades to Tonnages to Economic Filters

Why do we use such terms as “mineral deposit” and “mineral occurrence”? The answer lies somewhere in the nexus among mineral deposit models, grade and tonnage models, and the metric for the probabilities for mineral-deposit occurrence.

5. Ecocentrism and Anthropocentrism—Are They End Members in Environmentalism or Not?

This lecture is based on over 30 columns and papers written on the environmentalism associated with the production of raw materials with some microeconomics thrown in.

6. From Bayan Obo to Muruntau to Porphyry Copper Deposits

It began with two super-giant mineral deposits, one in China and the other in Uzbekistan, and then continued with tectonics and structural geology. The author will tell the tale of his interlude into economic geology beginning with these two super-giant mineral deposits and then on to research in the occurrence of ore bodies through the eye of a tectonicist and structural geologist.