

INTERNATIONAL NEWSLETTER 2: AUTUMN 1991

INTERNATIONAL ASSOCIATION OF STRUCTURAL/TECTONIC GEOLOGISTS (IASTG) PROGRESS REPORT JUNE 1991

IASTG membership

Eight months from the launch of the IASTG, the membership stands at 456 (counted on 25 June 1991). The geographical breakdown is as follows. I have grouped some countries together, but any country not mentioned has no members enrolled yet.

United States	112
Canada	28
Brazil	4
Jamaica, Costa Rica, Mexico, Venezuela	5
Great Britain and Ireland	60
The Netherlands	27
Switzerland	17
France	16
Spain	15
Germany	14
Norway, Sweden, Finland, Denmark	10
Italy	7
Austria	5
Belgium	4
Turkey	5
Egypt, Iran, Morocco	5
Bulgaria	1
Poland	7
U.S.S.R.	12
India, Bangladesh	19
South Korea, Sri Lanka, Thailand	4
China	31
Japan	18
Australia, New Zealand	17
Nigeria	5
Tanzania	1
South Africa	7

Of the 456 forms received, 380 were copies of the form in the launch article in the *Journal of Structural Geology* (Vol. 12, No. 8, 1990), 49 from the form reproduced in the GSA Structural Geology and Tectonics Division Newsletter (March 1991), and 27 from the form reproduced in Episodes (Vol. 13, No. 3). More than 95% of all the members wish to go into a Directory.

The Directory—final call for members

The IASTG Directory will be a booklet of names (in alphabetical order), addresses, telephone and fax numbers, with the research descriptions members provided. The first Directory is planned to be produced at the end of this year, subject to having sufficient in the IASTG Fund to underwrite its production costs. Details about the Directory, its cost to members, and how it can be obtained, will appear in the next newsletter (Newsletter 3: Spring 1992). It is intended to keep the price as low as possible; I am currently looking into the best way to recover costs without losing significant sums of money in bank charges and currency exchanges.

Those who have already enrolled for the IASTG, and have said 'yes' to go into the Directory, will be included automatically. For those who missed the earlier articles, or who have not yet got round to sending in an IASTG Membership Form, this is a 'last call' for the Directory. You can use any of the earlier forms, but an updated form is reproduced at the end of this Newsletter, for convenience. *Please do not send in another form, if you have done so already, and have received your IA membership number. Your membership will remain, without any need of renewal, unless you write in to cancel or change it.*

Affiliation with the IUGS

It was reported in Newsletter 1, and has been borne out by the subsequent membership, that there is overwhelming support in favour of 'IUGS Affiliation'. The vote was 92–93% in favour, and less than 4% definitely against. With the support of Ray Price, I wrote to Robin Brett (Secretary-General, International Union of Geological Sciences) in March, asking for IUGS consideration of 'Affiliated Status'. He replied expressing encouragement, and reported that this would be considered at the IUGS Executive Committee next January. If approved, it would be ratified at IGC Kyoto in August 1992. I have agreed to send Dr Brett a full report on the IASTG at the end of the year, ready for this meeting.

Sponsorship: the IASTG Fund

It was one of the initial proposals that there would be no individual subscription for membership of the IASTG. Instead, sponsorship would be sought from groups and corporations to establish an 'IASTG Fund' to cover on-going secretarial and running expenses. The importance of sponsorship funding, rather than levying membership dues, may not have come across as clearly as intended, in some of the launch publicity.

Approaches for sponsorship have been made to the main national structural/tectonic research groups, and some have already made donations (see below). Requests for sponsorship were sent to key people in oil/mining companies, with varying responses so far.

A savings account was opened on 5 February, entitled 'IASTG Fund'. It is administered jointly by me, and by Ernie Rutter who agreed to act as Honorary Treasurer. Current donors are acknowledged below, and a financial report for 1991 will appear in the next Newsletter. *Organizations or individuals who wish to contribute to the IASTG in its formative years may send a cheque (any currency, any amount) made out to 'IASTG Fund'. Their donation will be acknowledged, with thanks.*

Costs and expenses

The costs of setting up the IASTG are briefly as follows. The original article and the newsletters have been pro-

duced by the *Journal of Structural Geology*, Pergamon Press, at no cost to the IASTG. The facility to create a directory and generate letters of acknowledgement have come from hardware and software that I use in my *JSG* editorial office. Postage costs to the 456 members acknowledged so far have been covered by *JSG* expenses, because all new members have been sent a special IASTG Member offer to subscribe to *JSG*.

The invisible cost of the IASTG, so far, has been my time. To date, all the secretarial tasks of creating the membership database, replying to members, approaching the IUGS for affiliated status, and corresponding with potential donor organizations and groups, have been done (by me) at no cost. However, it looks probable from sponsorship received in recent weeks that some of the secretarial work can soon be delegated, and paid for out of the IASTG Fund. But my intention is to leave as much of the sponsorship as possible to accrue interest for the future, and to be available to underwrite production of the IASTG Directory.

IASTG donors, June 1991

The following organizations are thanked (in order of arrival) for their donations to the 'IASTG Fund', which have helped to found this fledgling International Association. An asterisk indicates those who expressed an intention to donate on an annual basis, and the rest are one-off donations.

Tectonic Studies Group of Britain
Tectonic Research Group of Japan*
Carpentaria Exploration, Australia*
Shell Research (KSEPL), The Netherlands
Maxwell Communications (U.K.)
British Petroleum (U.K.)
Shell Expro (U.K.)
Conoco (U.K.)
Structural & Tectonic Division, Geological Association of Canada*

IASTG Backing Committee: P. Bankwitz (Germany), K. Birkenmajer (Poland), J.-P. Burg (France), R. Butler (U.K.), M. P. Coward (U.K.), G. A. Davis (U.S.A.), S. K. Ghosh (India), P. L. Hancock (U.K.), X. Ma (China), W. D. Means (U.S.A.), G. Mitra (U.S.A.), C. W. Passchier (Netherlands), R. A. Price (Canada), T. Shimamoto (Japan), J. Tullis (U.S.A.), T. Uemura (Japan), E. Wallbrecher (Austria), K. Weber (Germany), P. F. Williams (Canada).

Susan H. Treagus
Department of Geology, Manchester University
Manchester M13 9PL, U.K.

MECHANICAL MODELLING OF CRUSTAL STRUCTURES. SIGNIFICANCE FOR PETROLEUM EXPLORATION

11–13 May 1992; Rennes, France
Convenors: P. R. Cobbold and J.-P. Brun

This meeting will consider both numerical and experimental modelling of structures produced by deformation, at any scale, from that of the entire basin to that of the local trap. The aims are: (1) to discuss the results of modelling; (2) to compare them with real examples; and (3) to assess the usefulness of the modelling techniques to petroleum exploration. The meeting will consist of lectures, posters, workshops, a short course on scale model-

ling and a variety of experiments run in the Experimental Tectonics Laboratory at Rennes. It will be followed by a 4-day field trip to southeastern France (Rhône Valley and Pyrenees). Publication of a conference volume is being negotiated.

Further Information: P. R. Cobbold and J.-P. Brun (Modelling Conference), Institut de Géologie, Université de Rennes, 35042 Rennes Cédex, France. Fax: 99 28 67 80.

29th INTERNATIONAL GEOLOGICAL CONGRESS

24 August–3 September 1992; Kyoto, Japan

The 29th International Congress will be hosting many symposia relevant to structural geology and tectonics, of lecture and poster sessions. The various symposia are listed below, together with the symposium number, and the convenors in parentheses. In addition, there will be an evening workshop followed by a party, when structural/tectonic geologists can get together informally.

Any individual can present up to two papers or posters at the IGC. Invitation letters can be issued by the convenors, if these are convenient for participants applying for travel funds.

Multidisciplinary Symposia

I-3-23 *Tectonic Evolution of the Western Pacific and Asian Continent* (T. Hilde, G. Kimura, S. Lallemond, K. Tamaki)

I-3-24 *Tectonic Evolution of the Tethyan and Adjacent Areas* (J. Dercourt, A. H. F. Robertson, A. M. C. Sengor, T. Tokuoka)

I-3-25 *Continental and Back-arc Rifting: Mechanisms, Extension Structures and Implications for Plate Dynamics* (P. Morgan, T. Seno, R. S. White, A. Yamaji)

I-3-29 *Tectonic Processes in Metamorphic Belts* (J. P. Platt, S. R. Wallis, T. Watanabe)

I-3-30 *Beyond Plate Tectonics: a New Framework of Orogenesis* (P. F. Hoffman, A. Taira, L. Zonenshain)

I-3-31 *Deep Crustal Structures of Orogenic Belts and Continents: Seismic and Geological Profiles* (L. D. Brown, D. J. Ellis, M. Komatsu, T. Yoshii)

I-3-32 *Microstructural Analyses of Naturally and Experimentally Deformed Rocks and Minerals* (K. Fujino, S. M. Schmid, M. Toriumi, C. J. L. Wilson)

I-3-33 *Experimental Determination of Physical Properties of Rocks* (S. Karato, T. Kurita)

I-3-34 *Fracture Mechanics of Rock and Ice* (M. Ohnaka, T.-F. Wong)

I-3-35 *Fabrics, Rheology and Mechanical Behavior of Faults and Plate Boundaries* (E. H. Rutter, T. Shimamoto, R. H. Sibson)

I-3-56 *Tectonics and Sedimentation Along Strike-slip Faults* (H. Kato, A. G. Sylvester)

Structural Geology and Tectonics

6-1 *Accretion and Subduction Tectonics* (Y. Isozaki, J. C. Moore, Y. Saito)

6-2 *Collision Tectonics and the Evolution of Suture Zones* (M. P. Coward, P. Le Fort, H. Sakai)

6-4 *Mud Diapirs, Tectonic Melanges and Olistostromes in Subduction Zones* (D. S. Cowan, Y. Ogawa)

6-5 *Mechanisms of Folding and Faulting* (T. Ito, P. J. Hudleston, S. H. Treagus)

6-6 *Rheological and Structural Aspects of Deformed and Metamorphosed Rocks* (I. Hara, T. Masuda, A. Nicolas, R. H. Vernon)

6-8 *Theoretical and Experimental Approaches to Rock Deformation* (S. H. Kirby, C. J. Spiers, T. Takeshita)

6-9 *Poster The Global Geosciences Transect Program* (H. J. Goetze, G. Kimura, M. Kono)

6-10 *Poster Geology and Tectonics of Island Arcs* (K. Amano, P. Huchon, K. Otsuki)

6-11 *Poster Synthetic Continental Mapping and Artificially Intelligent Earth Science Information* (M. De Wit, S. Maruyama)

Workshop: Future Perspectives in Structural Geology (P. L. Hancock, H. Ui)

Information

Second Circular: 29th IGC, P.O. Box 65, Tsukuba, Ibaraki 305, Japan. Fax: 81 298 54 3629.

Abstract deadline: 1 December 1991

Symposia: T. Shimamoto, Scientific Program Committee of 29th IGC, Representative for Structural Geology and Tectonics, Earthquake Research Institute, University of Tokyo, Bunkyo-Ku, Tokyo, 113 Japan.

TECTONIC STUDIES GROUP, U.K.

Forthcoming meetings

Magmatism and the Causes of Continental Break-up: 3–4 October 1991; *Burlington House, London*

Contact: B. Storey, British Antarctic Survey, High Cross, Madingley Road, Cambridge CB3 0ET, U.K.

Fractals in Structural Geology and Seismology: 26 October 1991; *Bristol University*

Contact: P. L. Hancock, Department of Geology, University of Bristol, Bristol BS8 1RJ, U.K.

Annual Meeting: 16–18 December 1991; *Edinburgh University*

This will dovetail with BSRG (18–20 December, Edinburgh) with a shared session on 18 December on sedimentation and tectonics.

Contact: John Underhill, Department of Geology and Geophysics, University of Edinburgh, West Mains Road, Edinburgh, U.K. Abstract deadline 18 October 1991.

Structural Geology and Mechanics of Volcanoes and Subvolcanic Intrusions: 13 May 1992; *Liverpool University*

A joint meeting with the Volcanic Studies Group, and followed by a field trip to Ardnamurchan.

Contact: S. Day, Department of Earth Sciences, University of Liverpool, Liverpool L69 3BX, U.K. Fax: 051 794 5170.

Neotectonics: 16–17 June 1992; *Burlington House, London*

A joint meeting with the Quaternary Research Association and the INQUA Neotectonics commission.

Contact: L. A. Owen, Department of Geography and Geology, RNBNC, University of London, Egham, Surrey TX20 0EX, U.K. Fax: 0784 72836.

Annual Meeting 1992; provisionally *Southampton University*

For general information on TSG, consult *Geoscientist* (formerly *Geol. Soc. [London] Newsletter*), or contact Dave Prior, TSG Secretary, Department of Earth Sciences, University of Liverpool, P.O. Box 147, Liverpool L69 3BX, U.K.

CANADIAN TECTONIC STUDIES GROUP

The annual meeting of the Structural Geology and Tectonics Division of the Geological Association of Canada was held on 28 May 1991. After a review of their financial situation, the members present agreed to become a 'supporting member' of the International Association of Structural/Tectonic Geologists, and to grant \$1 per member per year to the IASTG. This support would be reviewed periodically.

The Division agreed to sponsor a special session entitled *Ductile and Brittle Faulting in the Northern Appalachians* at the Wolfville 1992 GAC, and an associated field trip. Division sponsorship of proposals for the 1993 GAC at Edmonton were also discussed.

Forthcoming meetings

Annual Meeting, Canadian Tectonic Group: 18–20 October 1991; *Magog, Quebec*

Note the change of date from earlier information. Contact Normand Goulet, Sciences de la Terre, Université du Québec à Montréal, Canada H3C 3P8. Fax: 514 987 7749.

GAC Division-sponsored Field Trip: Strain History of the Meguma Group in the Lunenburg and Ecum Secum Areas, Nova Scotia; 27–29 May 1992

The excursion, led by Jack Henderson, Tom Wright and Mariette Henderson, will examine fabric elements which elucidate the Acadian strain history, and quantify the incremental and total strain in the Cambrian–Ordovician Meguma Group. For more details contact Jack Henderson, Geological Survey of Canada, 601 Booth St, Ottawa, Ontario, Canada K1A 0E8. Fax: 613 995 9273.

For further information on Canadian activities, consult *The Main Thrust*, Newsletter of the SG&T Division of GAC, or contact Philippe Erdmer, Division Secretary, Dept Geology, University of Alberta, Edmonton, AB, Canada T6G 2E3. Fax: 492 2030.

SPECIALIST GROUP IN TECTONICS AND STRUCTURAL GEOLOGY, AUSTRALIA

Forthcoming meetings

SGTSG Meeting: Cratonic Margins Structural and Tectonic Processes: 30 September–4 October 1991; *Perth and Margaret River*

This field conference will integrate the research from margins of cratons with the tectonic and structural implications for basin development. Symposia, poster sessions and excursions will be directed at both sedimentary and basement tectonics. Pre- and post-conference excursions are planned to Darling Fault/Pinjarra Orogen, Albany-Fraser Orogen, Pilbarra Craton, and Kalgoorlie ore deposits.

Structural Control on Mineralization: 9–12 October 1991; *Kalgoorlie*

For further information on both these conferences, and on SGTSG in general, contact John Baxter, Chairman

SGTSG, Continental Resource Management, P.O. Box 3079, Rivervale, W.A. 6103, Australia. Fax: 09 470 3956.

STRUCTURAL GEOLOGY AND TECTONICS DIVISION, GSA

The 1990 GSA meeting at Dallas hosted two special events: a symposium *Salt Tectonics*, organized by Mark Cloos, Martin Jackson and Dan Worrall; and a theme session *Frictional Melting Processes*, organized by Jerry Magloughlin. Full reports on these appear in the SGT Division Newsletter (March 1991). A collection of papers arising from the Frictional Melting theme session will be published in *Tectonophysics* late in 1991, edited by J. Magloughlin and J. Spray.

Forthcoming meetings

GSA Annual Meeting: 21–24 October 1991; San Diego, California

The theme of the 1991 meeting is Global Perspective, with the program built around symposia, theme and discipline sessions. The SGT Division will host a symposium on *Strike-slip Faults* (primary contact Art Sylvester), and a *Short Course* by Carol Simpson and Declan De Paor titled *Deformation and Kinematics of High Strain Zones*. For further information on all GSA Meetings, and the two special events above, contact Meetings Department, GSA, P.O. Box 9140, Boulder, CO 80301, U.S.A.

GSA Annual Meeting: 26–29 October 1992; Cincinnati. Information, as above.

Information for the SGT Division Newsletters to Editors Greg Davis/Scott Paterson, Department of Geological Sciences, University of Southern California, Los Angeles, CA 90989-0740, U.S.A. Fax: 213 740 8801.

THE WORK OF THE COMMISSION ON TECTONICS (COMTEC)

The Commission on Tectonics (COMTEC) is one of the 13 Commissions of the International Union of Geological Sciences (IUGS). The six functions of COMTEC are: (1) advising IUGS and other international scientific bodies about structural and tectonic matters; (2) publicising the importance to mankind of structural geology and tectonics; (3) organizing field-training workshops for geologists from Developing Countries; (4) stimulating the widespread use of computers in structural geology and tectonics; (5) promoting rheological studies via a Subcommission on the Rheological Behaviour of Rocks; and (6) promoting the use of a common nomenclature via the Subcommission on Tectonic Nomenclature. Current membership of the Commission is 18, drawn from 12 nations. The Chairman is Jean Dercourt of the University of Pierre et Marie Curie in Paris: the Secretary-General is Paul Hancock of the University of Bristol.

How some of the broad aims of the Commission are translated into reality can be illustrated by reporting on some of the work done during the last 3 years and by outlining the Commission's plans for the future. Two outstandingly successful field-training workshops have been held in the last three years. The first, in 1988, was a transect across the Western Himalayas in Pakistan, mainly following the Karakorum Highway. This 10-day traverse from the Salt Ranges near Jhelum, via the Kohis-

tan island arc and the Nanga Parbat massif, to the Eurasian block north of Chalt on the Hunza River, was directed by Mike Coward of Imperial College, London, and attended by geologists from at least 10 nations. The second field workshop was an Andean transect organized by Victor Ramos of the University of Buenos Aires. In November 1990, participants from nine nations travelled from Mendoza in Argentina to Valparaiso in Chile. Emphasis during the traverse was given to thrust tectonics and active faulting. Because a workshop planned for 1991 in the Tien-shan of the U.S.S.R. had to be cancelled, John Cosgrove of Imperial College has agreed to lead a short substitute field-workshop on Inversion Tectonics in SW England. This workshop will be attended by geologists from the Developing World who are currently on leave at institutions in Britain or France.

Under the guidance of Henry Charlesworth of the University of Alberta in Edmonton, the benefits of using microcomputers in the field were successfully demonstrated at a 3-day workshop held in Johns Hopkins University, Baltimore, 7–9 July 1989. A second workshop on the same theme is scheduled to be held in Barcelona in September 1991. The Subcommission on the Rheological Behaviour of Rocks, under the Chair of Carol Simpson of Johns Hopkins and the Secretaryship of Simon Hanmer of the Geological Survey of Canada in Ottawa, is planning to hold on-site training workshops in the Developing World. At these workshops, research workers from the Developed and Developing World will work alongside each other on projects of long-term and general interest to the Subcommission. The principal task of the Subcommission on Tectonic Nomenclature, under the Chair of Paul Hancock and the Secretaryship of Wes Gibbons of the University of Wales in Cardiff, is to prepare a book that discusses new concepts in structural geology and tectonics, and gives particular emphasis to some of the new terminology that has emerged as these subjects have grown. The book is also being written keeping in mind the needs of readers in the Developing World who do not always have a nearby well-stocked library or the ability to buy expensive text books.

Ways in which members of the Commission attempt to generate interest in their subject and publicise the activities of COMTEC are by publishing books and articles arising from its work. Most notable of these is *Field Geology of High-grade Gneiss Terrains* by C. W. Passchier, J. S. Myers and A. Kröner (a past Secretary-General of COMTEC), published by Springer-Verlag for as little as U.S. \$18. In addition to this, H. A. K. Charlesworth, V. Ramos and P. L. Hancock have written several articles that have been published in, or submitted to, *Episodes*, *Journal of Structural Geology* and the *Journal of South American Earth Sciences*. COMTEC also sponsors selected research meetings and symposia, such as some of those at the 28th International Geological Congress (IGC) in Washington and the forthcoming 29th IGC in Kyoto. 'Tethyan Paleomaps and their Global Frame' held in Paris in December 1990 was co-sponsored by COMTEC.

A COMTEC-sponsored event during 1992 at the 29th IGC in Kyoto will be a workshop on 'Future perspectives in structural geology and tectonics'. This workshop is open to all who would like to contribute to a debate about where we should be going. The formal session will be followed by a party. Although the workshop is provisionally scheduled for Monday the 24th of August, the first day of the IGC, we hope to be able to hold it slightly later in the Congress. Please come to the workshop and let us know your thoughts.

P. L. Hancock
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INFORMATION RECEIVED

(1) *The Geological Production Association Yuzhkazgeologie* (U.S.S.R.) has published an Atlas of South Kazakhstan maps. It contains recent information on the geology and particularly the mineral deposits of this territory. This association can also arrange excursions for visitors. If interested, contact: Dr Oleg A. Fedorenko, Furmanov Str. 110, 480077 Alma-Ata Kaz. SSR, U.S.S.R. Telex: 251286 ALMAZ.

(2) *Deep Structure of the Alps* is a combined special publication of the Société Géologique de France, the Société Géologique Suisse and the Societa Geologica Italianae, and combines the results of NFP 20 (Deep Geological Structure of Switzerland) with ECORS and CROP. For information, contact P. Heitzmann, Service hydrologique et géologique national, 3003 Bern, Switzerland. Fax: 41 31 61 99 81.

FINAL NOTE

The purpose of this Newsletter is to communicate news about activities in structural geology and tectonics from all over the world. While much of this news may be found by searching regional newsletters, the intention of our Newsletter is to bring it to *one* place, where a significant proportion of structural/tectonic geologists are likely to see it. However, there will be many IASTG members who do not have access to the *Journal of Structural Geology*, for various reasons. Although I shall try to keep a small

number of newsletter reprints to send to contacts in parts of the world where *JSG* is not available, I am not able to mail the newsletter to many individuals, as this would incur considerable costs in time and money. I should therefore like to invite *JSG* readers and recipients of newsletter reprints to copy the newsletter to colleagues and contacts who may have difficulty obtaining *JSG*. I hope that through publication in *JSG* plus the efforts of internationally minded individuals, we can together achieve a good worldwide circulation of news.

The *International Newsletter* is for everyone. It will provide: (1) regular 'slots' for established national groups to report their activities (past and future); (2) conference organizers with a worldwide means of communicating their 'first circulars'; (3) a forum for one-off reports (such as the COMTEC report above); and (4) space for 'calls for exchange' of information between researchers on particular topics. Please send information, articles and suggestions to me at any time. Conference information should be sent as early as possible, and include the abstract deadline date, to be of most use.

The next Newsletter will be Spring 1992, with a closing date for contributions of 15 December 1991. At present, the newsletters are twice-yearly (called Spring and Autumn), and will work with deadlines for material of *mid-June* and *mid-December*. Apologies to those of you in the southern hemisphere!

Susan H. Treagus *Newsletter Editor*
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Manchester M13 9PL, U.K.
Fax: 44 61 275 3947.

INTERNATIONAL ASSOCIATION OF STRUCTURAL/TECTONIC GEOLOGISTS

IASTG MEMBERSHIP FORM

Last name: _____ Title (e.g. Prof., Dr, Mr, etc.): _____

First names, or initials: _____

Address: _____

Telephone number: _____

Fax number: _____

E mail (if applicable): _____

Research interests and areas of study (up to 20 words): _____

IASTG MEMBERSHIP DIRECTORY

Do you grant permission for the above details to be published in the Membership Directory that will be available for purchase?

Yes/No

Signed _____

Date _____

Please return all forms to:

Dr S. H. Treagus
IASTG Membership
Department of Geology
University of Manchester
Manchester M13 9PL, U.K.

Fax: 44 61 275 3947

You will receive a Membership Receipt in due course.

Please photocopy this form and circulate it freely.