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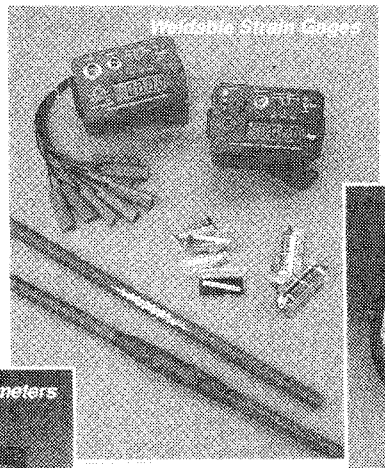
N.Z. GEOMECHANICS NEWS

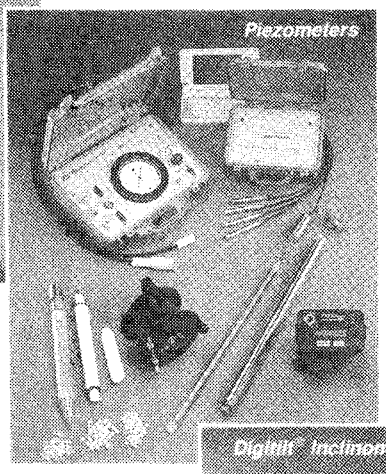
No. 40

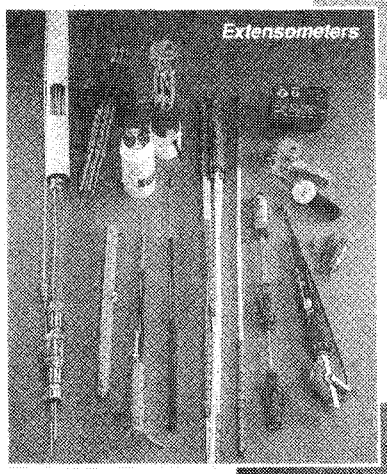
JULY 1990

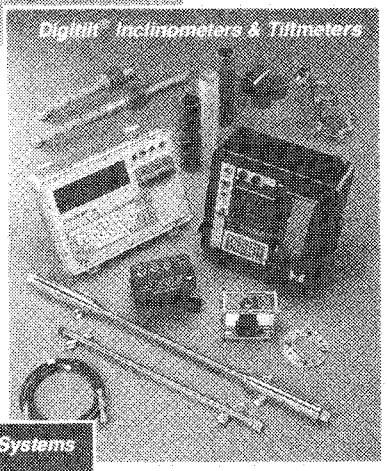
A NEWSLETTER OF THE N.Z. GEOMECHANICS SOCIETY

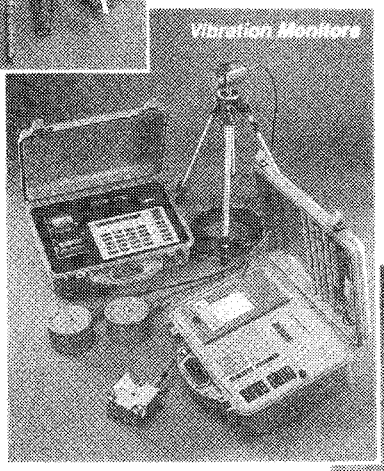
Instrumentation for Soil and Rock

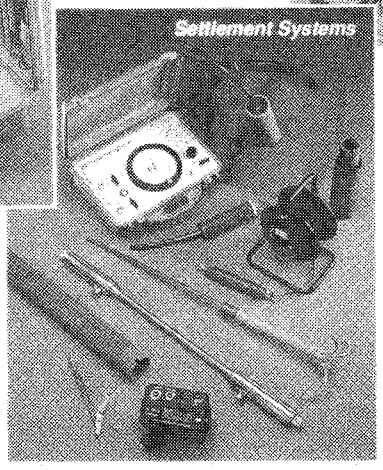












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NZ GEOMECHANICS NEWS
NO. 40, JULY 1990

A NEWSLETTER OF THE NZ GEOMECHANICS SOCIETY

CONTENTS

THIS IS A REGISTERED PUBLICATION

"NZ Geomechanics News" is a newsletter issued to members of the NZ Geomechanics Society. It is designed to keep amembers in touch with recent developments. Authors must be consulted before papers are cited in other publications.

Persons interested in applying for membership of the Society are invited to complete the application form at the back of the newsletter. The basic annual subscription rate is $24.00 and is supplemented according to which of the international societies, namely Soil Mechanics ($11.00), Rock Mechanics ($12.00) or Engineering Geology ($9.00) the members wishes to be affiliated. Members of the Society are required to affiliate to at least one International Society.

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EDITOR'S NOTES

Once again, the Editor has been out of the country for much of the first half of the year and, once again, the mid-year issue of Geomechanics News has suffered a delay. However, this time, contributions have been coming in at an unusual rate. Thanks are due, in particular, to Dick Beetham who has provided material for almost all sections of the journal.

One point of interest which has become more obvious this year, is the number of "international" conferences which are being offered and promoted worldwide. The organising committees have adopted the direct mail approach in earnest. We are getting numerous requests to "... include our bulletin in your News Letter ... and send us a copy for our records..." It seems that NZ Geomechanics News is known and respected far afield. Is this a reflection of our technical content?

Notwithstanding this, readers are reminded that NZ Geomechanics News is a newsletter. I seek contributions of any sort for future editions. The following comments are offered to assist contributors:

- Technical contributions can include any of the following:
  - Technical papers which may, but need not necessarily be of a standard which would be required by the international journals and conferences,
  - Technical notes,
  - Comments on papers published in Geomechanics News,
  - Descriptions of geotechnical projects of special interest.
- General articles for publication may include:
  - Letters to the NZGS,
  - Letters to the Editor,
  - Articles and news of personalities.

Submission of text material in camera-ready format is not necessary though typed copy is encouraged. Diagrams and tables should be of size and quality for direct reproduction. Photographs should be good contrast black and white gloss prints and of a suitable size for mounting to magazine format. Authors and other contributors must be responsible for the integrity of their material and for permissions to publish.

Tim Sinclair
EDITOR

****

REPORT FROM THE MANAGEMENT SECRETARY

1. AUCKLAND GROUNDWATER SYMPOSIUM

Many of our members recently attended the Groundwater Symposium held late in May in Auckland. The conference convenor will produce a full report for Geomechanics News (our editor is always short of articles so I'm sure he will be reminded and/or prompted). The symposium organiser, Dr Matuschka, and his committee deserve special thanks for their efforts. The Management Committee had a great deal of difficulty generating enthusiasm for the project and it was not till Dr Matuschka and his team took over that progress was made. The standard of papers was generally very high but I particularly enjoyed two presentations. Professor Todd's keynote address which discussed the growth of groundwater quality issues in the U.S.A. and Tony Kortegast's paper on his field experiences with investigations and instrumentation.

2. 1990 MANAGEMENT COMMITTEE

Your new 1990 management committee has been elected and officers appointed. They are as follows:

Dave Jennings	Chairman
Chris Graham	Secretary
Dick Beetham	Vice Chairman IAEG, Publications
Colin Newton	Vice Chairman ISSMFE, Treasurer
John Sekula	Vice Chairman ISRM, Auckland liaison
Tim Sinclair	Editor
Don Elder	ANZ Convenor, Christchurch liaison
David Bell	ISL Convenor
Graham Ramsay	Wellington liaison
Vacant	Dunedin liaison
Mark Plested	(subsequently resigned to take up overseas position)

The committee make up is similar to last year and this stability will help during the critical phases of planning the 1992 International Symposium on Landslides and the Australia New Zealand Conference.

3. NEW MEMBERS

We have had a large number of new members since my last report. A warm welcome to:

G. Beattie
L. Cavers
S. Goldwater
A. Orange
G. Roberts
W. Brown
J. Burr
B. Keet,
D. Reedy

4. FUTURE CONFERENCES

Planning for the two 1992 conferences is now well underway and the first bulletin for each of these has been mailed out. It is becoming clear that there will be several high quality presentations at these conferences and I would recommend all members plan on attending.

5. SOUTH AUSTRALIAN GEOMECHANICS SOCIETY

The Queensland State group has established a working party on "Litigation". We registered NZ Geomechanics Society interest in this work and we hope to be able to circulate the findings of this group to our membership.

Wrap up for the winter.

Chris Graham
MANAGEMENT SECRETARY

****

REPORT FROM THE AUSTRALASIAN VICE PRESIDENT FOR ISRM

This report summarises the activities of the International Society for Rock Mechanics since October 1989.

1. Discussion still continues about possible name changes for ISRM. This will be debated at the 1990 Board and Council meetings which are to take place in Mbabane, Swaziland on 8th and 9th September, 1990. Possible new names include International Society for Rock Engineering, or a compromise of International Society for Rock Mechanics and Rock Engineering. Of course, there is strong support for no name change.

2. Two Australasian nominations have been received and put forward for the Rocha Medal.

3. Nominations are being invited for the first Muller Award for the 1991 Aachen Congress. The NZGS Management Committee may be interested in considering a nomination. The Canadian Rock Mechanics Association has nominated Dr Evert Hoek and a letter requesting support has been received. Nominations will be considered in Swaziland in September 1990.

4. The ISRM President has floated a suggestion that regional Vice-Presidents' terms of office should not necessarily correspond to the President's term from one International Congress to the next. Istead, two V-Ps would begin their respective four year term one year after a Congress, two more years after and so on. The argument is that this would provide for much more continuity in the executive of the society. The views of the NZGS on this proposal are sought.

5. A NZGS representative to attend the 1990 Council Meeting in Swaziland in September is required. The secretary should advise the ISRM secretariat of his/her identify.

I.W. Johnston
VICE PRESIDENT FOR AUSTRALIA

****

REPORT FROM THE VICE CHAIRMAN FOR SOIL MECHANICS

IPENZ currently hold a limited number of copies of the ISSMFE membership list. If anyone would like a copy of the list, please contact John Eade at the Institution.

We have received a request from the organising committee for the 13th International Conference SMFE in New Delhi for names of people who could act as chairpersons, co-chairpersons, state-of-the-art speakers and panellists for their five Plenary Sessions and nine themes in parallel sessions. A copy of the sessions and themes is attached.

The ninth Asian Regional Conference (9-13 December 1990) first bulletin has been received. The conference will focus on:

1. Development of Theory and Practice in Geotechnical Engineering.
2. Problematic Soils and their Engineering Behaviour.
3. Soil-structure Interactions and Foundations.
4. Embankments, Excavations and Buried Structures.
5. Natural Hazards and Environmental Geotechnics.
6. Ground Improvement Techniques.

It will be held in Bangkok, Thailand.

The Fourth International Symposium on Land Subsidence first information note has arrived,. The symposium will be held in Houston, Texas, USA during the 12-18 May 1991.

There is to be an International Conference on Geotechnical Engineering for Coastal Development in September 1991 at Yokohama, Japan.

If anyone would like copies of these flyers, please contact the writer.

C.J. Newton
VICE CHAIRMAN, ISSMFE

****

REPORT OF THE VICE CHAIRMAN FOR ENGINEERING GEOLOGY

1. ACTIVITIES OF THE IAEG

The Council of the IAEG met in Washington in July, 1989. The main decisions of this meeting are:

1.1 Because of the drop in value of the US $ against the French Franc over the last few years, the fees have been raised to the following levels in 1990.

Member of National Groups:

- without Bulletin US$5(unchanged)
- with Bulletin US$14(+ US$5)

Individual members US$25

1.2 The book "Engineering Geology of the Earth", published under the auspices of the IAEG is available from the Secretary General's office:

Laboratore Central des Ports et Chaussees
58 Boulevard Lafebure
75732 Paris Cedex 15
FRANCE

The price US$40 or 250 F.F. per copy. For bulk orders from National Groups:

10 to 20 copies	US$30 or 190 F.F.
more than 20	US$20 or 120 F.F. (postage included)

Would anyone wanting a copy please contact me (Dick Beetham, P.O. Box 64, Cromwell) and we may be able to get a bulk discount).

1.3 Special offprints of papers published in Bulletin No.39 by the Commission on "Underground Disposal of Waste", (58 pages) are available from the Secretary General's Office, price US$10 or 62 F.F. per copy - postage inclusive.

1.4 The next Hans Cloos Medal is to be awarded to Prof. W.R. Dearman (U.K.) at the 6th IAEG Congress in Amsterdam (August 6-10, 1990).

1.5 A new Commission on "Protection of Ancient Works, Monuments and Sites" has been created. Prof. Marinos from Greece was elected Chairperson.

1.6 A report on the 10th Commission of the IAEG (on Building stones and ornamental rocks) has been received. Prof. Asher Shadmon is Chairperson. The group is proposing to issue inventories of building stones, including their source and quality.

2. LOCAL ENGINEERING GEOLOGY ACTIVITY

2.1 Registration of Engineering Geologists:

The Management Committee of the Geomechanics Society has set up a sub-committee to look into the question of registration for engineering geologists. The sub-committee has met once and has filed the following report to the Management Committee. Please make your voice heard if you have any comments.

In particular the sub-committee requests that interested members should make their voice heard, fill out the questionnaire at the end of the article, and POST IT OFF.

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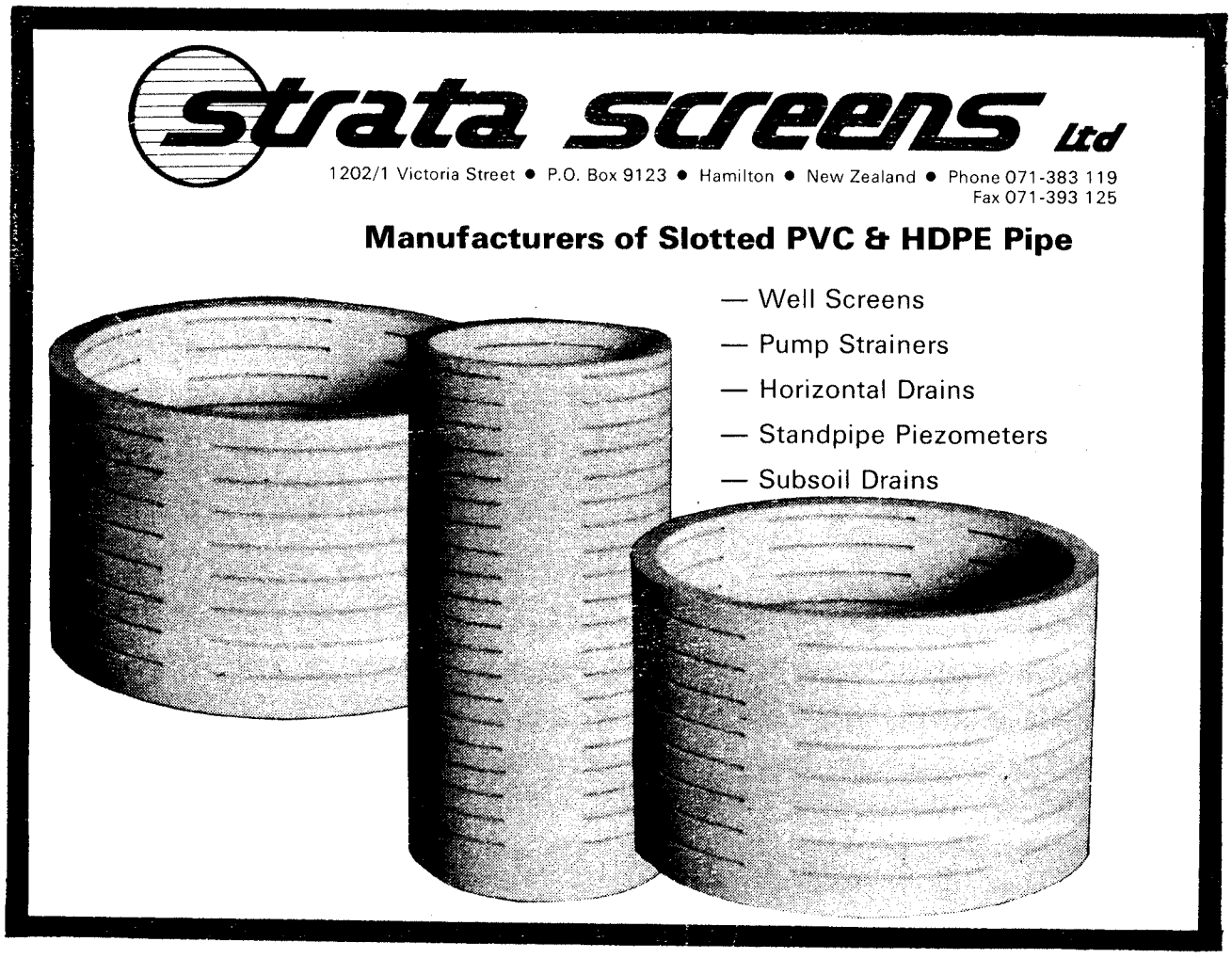

REGISTRATION OF ENGINEERING GEOLOGISTS:

REPORT OF THE SUBCOMMITTEE TO THE MANAGEMENT COMMITTEE OF THE NZGS

1. BACKGROUND

There has been some agitation for many years to achieve a method of professional recognition of (engineering) geologists. This recognition has been equated to the registration requirements that professional engineers have. Geologists in general would expect that such "registration" would apply to a diverse group which includes engineering geologists, mineral geologists, petroleum geologists, hydrogeologists, environmental geologists and geologists dealing with construction materials.

For some years it was thought that the Geological Society of N.Z. would be prepared to act as the body through which a registration of geologists could be carried out. However, some 10 years ago the Geological Society rejected such a proposal and since then there has been an increasing need felt by some professional geologists for official recognition, or registration. The N.Z. Geomechanics Society has had a sub-committee looking into the issue of registration of engineering geologists for some years now. The present sub-committee, over the last year, consists of:

Dick Beetham, (convenor) as Vice Chairman IAEG
David Bell and Sandy Ormiston

This sub-committee has met once and has reached the conclusion that, with the impending repeal of the Engineer's Registration Act, the time is ripe for the engineering geologists group at least (perhaps together with hydrogeologists, environmental geologists and construction materials geologists) to become affiliated to IPENZ through the Geomechanics Society. Other consulting geologists, such as those involved in the minerals industry, are likely to be excluded from the IPENZ registration umbrella.

2. REASONS FOR REGISTRATION

In some countries "registration" of geologists and engineering geologists is mandatory. A requirement for "registration" has been felt by many diverse groups of professionals. This need appears to arise in order to protect the "public" from poor advice and from people practising outside their area of expertise. Very often the "registration" is required by law and a suitably qualified group vets intending members to ensure that they have adequate qualifications and experience. This group may also have the power to penalise members for misdemeanours and generally ensure that professional ethics and standards are maintained.

Cases have arisen recently in the Auckland region where various local authorities have required geological reports to be signed by a Registered Engineer. This can become a ludicrous situation where the signatory engineer may understand very little of the geological report. It also belittles the professional status of the geologist. Because of this situation there has recently been an increasing need felt for "registration" of engineering geologists so that they had equivalent status to registered engineers. Now that there is a definite proposal to repeal the Engineer's Registration Act, the needs of engineering geologists have obviously changed.

3. MECHANICS OF PREFERRED REGISTRATION SYSTEM

At this stage if appears that IPENZ will take over some of the functions of the Engineers Registration Board when the Act is repealed, and will vet the competence of its members, ultimately with the objective of publishing lists of competence of members. In this case there appears to be little reason why closely allied professional geologists, such as engineering geologists, could not be included. However, other professional geologists, such as those working in the minerals industry, may not be able to be included under the IPENZ umbrella. In this case they would probably have to seek alternatives, such as those suggested by Roger Dewhurst (see his letter to the sub-committee). After some discussion, the "registration" sub-committee has made the following recommendation to the Management Committee of the Geomechanics Society (see 4. - Summary).

4. SUMMARY

- It is apparent now that the Engineer's Registration Act will be repealed, most likely this year (1990).
- The IPENZ Council is currently considering "Registration" once the Act is repealed.
- IPENZ has given their unofficial view that Council may be receptive to including engineering geologists under their wing.
- This would have the potential of increasing IPENZ membership by 100, or so.
- The engineering geologists only requirement is that they, as a specialist professional group, should have the same status as engineers.
- The engineering geologists' case would have to be taken to Council via the normal channels, starting with a recommendation from the Geomechanics Society to CEAC.

I hereby move that this process should be set in motion and directed towards Council as quickly as possible.

Dick Beetham
CONVENOR OF SUBCOMMITTEE

****

5. APPENDIX : RELATED CORRESPONDENCE AND NOTICES

5.1 From Roger Dewhurst: M.App.Sc., MIMM, M.Aus.IMM, C.Eng., FGS, Member, Mineral Industry Consultants Association Consulting Geologist :

Dick Beetham
C/o Works Project Services
Private Bag
Cromwell

May 16. 1990

Dear Dick,

Thank you for your fax which has just arrived.

Clearly, if the Engineers Registration Act is repealed the chances of obtaining registration for geologists is nil. We must therefore consider the various options available to geologists. I believe it will be constructive if all or most of those concerned with the issue follow the same general path.

As you are aware I believe that all professional geologists (this does not include all academics or DSIR geologists), and allied professionals for that matter, should shelter under the same umbrella. For me it boils down to the choice of umbrella.

The Geological Society of London (GSL) is about to combine with the Institution of Geologists (IOG). The latter has rigorous entry criteria at least equivalent to IPENZ. Fellows of the GSL will have the opportunity of accreditation to the standards of the IOG. I believe that this will lead to Chartered Geologist status equivalent to Chartered Engineer. This will lead in turn to Euro Geologists just as Chartered Engineers may now become Euro Engineers. Although there are about a dozen GSL members here, mostly academics, I only know of two IOG members, J. Sekula of Auckland and J. Bryant of Alexandra. If geologists all became members of GSL, the appropriately experienced ones becoming accredited, would it carry much weight in this corner of the world?

The professional mineral industry geologists here are mostly members of the Aus.I.M.M. About half a dozen of these are also members of the Mineral Industry Consultants Association (MICA). I am the N.Z. representative on the Board of Management of MICA. I believe that MICA can be persuaded to accommodate engineering geologists. The difficulty may be in pursuading the Aus.I.M.M. to accept, as corporate members, individuals with no mineral industry background. Corporate membership of Aus.I.M.M. is a requirement for membership of MICA. MICA is already here and is pushing the case for its members which include consultants involved with engineering geology and groundwater. MICA has written to all the Regional Councils providing them with Registers of Membership and pointing out the services which MICA members can supply. I append a copy of MICAS's letter to the RCs. MICA has also made submissions on the proposed Resource Management Bill stressing the need for proper professional advice in certain areas.

Possibilities exists for using N.Z. or Australian-based geological societies. I know nothing about the Australian one and I would vehemently oppose the use of the Geological Society of N.Z. as the basis of a professional body. In my opinion the membership lacks a sufficient proportion of professionals. It is dominated by academics. I think that the majority of mineral industry professionals would share my view.

I suppose it might be possible to get a small handful of engineering geologists into IPENZ some time in the distant future, but I cannot visualise IPENZ looking after the interests of the professional geologists at large.

To set up a N.Z. Institution of Geologists is a possibility of sorts. This has been talked about by a handful of individuals for ages. I do not think that the idea is viable. Everybody has got their own ideas and there would never be sufficient agreement to get it off the ground. To get sufficient members for the Institution to have any political clout might require an unacceptably low standard for entry.

In my view there are only two realistic choices, the GSL/IOG or MICA. What is your view?

Yours sincerely,

Roger Dewhurst

5.2 From: Engineers Registration Board
P.O. Box 12-241
Wellington, 1
New Zealand

6 April 1990

Dear Registered Engineer,

You will probably be aware that the Government is about to introduce into the House a Bill to repeal the Engineers Registration Act 1924. It is now likely to take effect from 30 September 1990.

Attached is a copy of a press release issued by the Minister of Commerce dated 3 March 1990. The Chairman of the Board has written to the Minister seeking clarification and amplification of his statement and setting out areas of concern the Board has over the proposed repeal.

If you believe the repeal of the Engineers Registration Act and consequent effects on other Acts and Regulations would significantly affect you, we would be pleased to receive information from you by 27 April 1990. This will help the Board in assessing the consequences of the repeal of the Act and in deciding what sorts of matters ought to be drawn to the attention of the Select Committee considering the repeal bill.

Yours sincerely,

J.M. Prendergast
REGISTRAR

5.3 Media Release: Hon David Butcher, Minister of Commerce

3 March 1990

ENGINEERS REGISTRATION ACT TO BE REPEALED

The Engineers Registration Act 1924 is to be repealed, the Minister of Commerce, the Hon. David Butcher, announced today.

The decision follows a review of the Act as part of the Government's programme to review all statutory regulation of occupations.

"The Government has decided that statutory registration of engineers is not necessary," Mr Butcher said.

"Most consumers of engineering services are from the commercial sector and have adequate resources to make an informed judgement as to the service being offered.

"We are satisfied that adequate safeguards for consumers remain," Mr Butcher said. "Industry standards are maintained by the influence of the Institute of Professional Engineers, and comprehensive health and safety standards now exist to protect the public interest."

Legislation will be introduced later this year to carry out these measures.

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QUESTIONNAIRE

Certification of Engineering Geologists

1. Do you currently work as a practising engineering geologist?
   Yes No

2. Are you employed by a:

University	Consultant Group
SOE	Independent
Government Department	Other
Local Authority	

3. Do you feel there is a need for the formation of a professional body producing certification of Engineering Geologists?
   Yes No

4. Have you had a technical report rejected unless signed by a Registered Engineer? Yes No

5. If certification of Engineering Geologists with IPENZ was available, would you take advantage of it? Yes No

6. Do you think Engineering Geologists should seek professional coverage with other (consulting) geologists (such as mineral geologists) as suggested by Roger Dewhurst?
   Yes No

7. If so, which group or controlling body would you prefer to seek certification with?

8. Why do you consider certification is or is not required?

9. Any other comments on the issue?

Please post your completed forms to:

Dick Beetham
P.O. Box 64
Cromwell

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NOW AVAILABLE

PROCEEDINGS OF:

GROUNDWATER AND SEEPAGE SYMPOSIUM

EDITOR: Trevor Matuschka

ABSTRACT

This publication presents the proceedings of a symposium on 'Groundwater and Seepage' held in Auckland in May 1990. A keynote address 'The Groundwater Quality Industry' by Professor D K Todd, was a feature of the Symposium. Authors presented papers on selected topics including Hydrogeology Review and Solutions to Groundwater Flow Problems, Field Investigations and Interpretations, Construction Dewatering, Seepage Problems in Natural Ground, Embankment Seepage, Groundwater Contamination and Disposal of Wastes by Ground Soakage.

KEY WORDS: Groundwater, Seepage, Hydrogeology, Construction, Engineering

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from *The Secretary, IPENZ*
PO Box 12 241
Wellington

REPORT FROM THE ISSMFE TECHNICAL COMMITTEE ON EARTHQUAKE GEOTECHNICAL ENGINEERING

The principal activity at present of the ISSMFE Technical Committee on Earthquake Geotechnical Engineering is the organisation of a special session at the Rio Conference in August.

The programme is based loosely around the topic "Earthquakes - Influence of Local Conditions on Seismic Response", with emphasis on case histories. At the invitation of the committee's chairman, Professor K. Ishihara, Messrs M.D. Gillon and C.J. Newton are making the New Zealand contribution to the session with a paper entitled "Earthquake Effects on the Matahina Dam, NZ". The proceedings of the Discussion Session will be published as a special volume under the sponsorship of the Japanese Society for Soil Mechanics and Foundation Engineering.

J.B. Berrill
Reader in Civil Engineering
UNIVERSITY OF CANTERBURY

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LOCAL GROUP ACTIVITIES

1. AUCKLAND BRANCH

The Auckland Group of the Geomechanics Society of New Zealand meetings for 1990, their dates, topics and convenors are listed below. All of these meetings are held on a Wednesday evening in Room 1.401 of the Engineering School of the University of Auckland.

Attendees are invited to gather at 5.30pm in the foyer for a social chat prior to the technical session commencing promptly at 6.00pm. The meetings are timed to finish at between 7.00 to 7.30pm after which attendees are welcome to remain for further stimulating discussion at the University Club and possibly dinner.

Reminders are distributed to members prior to each meeting giving further details and noting any changes in timing or venue. Anyone wishing to make formal contributions either to the meetings or the discussions afterwards are requested to contact the appropriate convenor or his assistant.

DATE	TOPIC	CONVENOR	ASSISTANT CONVENOR
4 April	The Loma Prieta Earthquake	L. Wesley (Auckland University)	
20 June	Cone Penetrometer Testing	S. Terzaghi (Murray North Partnership)	S Woodward (Foundation Engineering Ltd)
8 August	Geotechnical Computer Software	J. Ashby (J. Ashby)	C. Freer Tonkin & Taylor Ltd
27 September	Natural Hazards in N.Z.	W. Prebble (Auckland University	G. Farquar (Worley Consultants Ltd)
22 November	Landfill and Associated Groundwater Conditions	S. Ormiston (Carryer & Associates Ltd	N. Fitch (Riley Consultants Ltd)

Auckland Group Convenor
J. Sekula, Beca Group Ltd.

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2. WELLINGTON BRANCH

The only activity since the last newsletter was a joint meeting with NZ-SOLD and a visiting delegation of ten engineers and geologists under the auspices of the US Citizen Ambassador Programme.

The full day meeting was held on 23 March in the IPENZ rooms and included presentations by three members of the delegation. Alan O'Neill spoke on the failure and subsequent reconstruction of the Quail Creek Dike and the use of specialist equipment to create a steep sided deep cut off which was filled with RCC. Roscoe Hungett spoke on communications with respect to underground construction with particular reference to a recent ASCE publication "Avoiding and Resolving Disputes in Underground Construction". Finally James Doody presented a paper on Dam Safety regulatory practice in the State of California where he was formerly (now retired) Chief of the State Department of Water Resources Division of Safety of Dams. This presentation generated considerable discussions on the similarities and differences (mainly in legal responsibilities and requirements) between the US and NZ.

Presentations were made by a number of Works Corporation engineers. Colin Newton discussed the earthquake damage and subsequent repairs of the Matahina Dam. David Ferguson presented a video on current NZ practice in Dam Surveillance. Peter Foster and Murray Gillon then presented discussions on the Clyde dam design and an overview of the reservoir landslide stability assessments for Lake Dunstan, the future Clyde Dam Reservoir.

The meeting was well attended and was an excellent forum for formal and information discussions.

Graham Ramsay
Wellington Coordinator

****

PUBLICATIONS OF THE SOCIETY

The following publications of the Society are available:

(a) From the Secretary, IPENZ, P.O. Box 12-231, Wellington North:

- Proceedings of the Palmerston North Symposium "Geomechanics in Urban Planning", April 1981. Price $20.00
- "Stability of House Sites and Foundations - Advice to Prospective House and Section Owners". (Published for the Earthquake and War Damage Commission). Price $0.50.
- Proceedings of the Third Australia-New Zealand Conference on Geomechanics, Wellington, May 1980. Price $20.00 for the three volume set to members, $30.00 to non-members.
- Proceedings of the Second Australia-New Zealand Conference on Geomechanics, Brisbane, July 1975. Price $25.00
- Proceedings of the Wanganui Symposium "Using Geomechanics in Foundation Engineering", September 1972. Price $8.00 to members, $10.00 to non-members.
- Proceedings of the Alexandra Symposium "Engineering for Dams and Canals", November 1983. Price $40.00 to members, $50.00 to non-members.
- Copies of all back-issues of "New Zealand Geomechanics News", are available to members at a nominal price of 50 cents per copy plus 50 cents post and packaging per order.

Note: To reduce stocks, all the above publications costing over $10.00 will now be sold at 1/2 price - while stocks last!

(b) From Government Bookshops and the Secretary IPENZ:

- "Slope Stability in Urban Development" (DSIR Information Series No. 122). Price $2.00. (Also available from Government Bookshops).

The following publications of the Society have been sold out:

- Proceedings of the Nelson Symposium "Stability of Slopes in natural Ground", 1974.
- Proceedings of the Wellington Workshop "Lateral Earth Pressures and Retaining Wall Design", 1974.
- Proceedings of the Hamilton Symposium "Tunnelling in New Zealand", November 1977.

(c) Newer publications, also available from the Secretary, IPENZ>

- Proceedings of the Hamilton Symposium Piled Foundations for Engineering Structures, September, 1986. Price $20.00 to members, $25.00 to non-members.
- From the Institution of Engineers, Australia, Guidelines for the Provision of Geotechnical Information in Construction Contracts. A 20-page booklet. Price $10.00

Dick Betham
Publications Officer

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FORTHCOMING CONFERENCES

1. SEVENTH INTERNATIONAL CONGRESS ON ROCK MECHANICS, AACHEN, WEST GERMANY, 16-20 SEPTEMBER 1991

CALL FOR PAPERS

Prospective authors who would be interested in preparing a paper for the above congress are invited to submit an abstract of about 300 words (together with names, affiliations, addresses, telephone and fax numbers) to

Associate Professor Ian W. Johnson
ISRM Vice-President for Australasia
Department of Civil Engineering
Monash University
Clayton, Victoria, 3168

Phone (03) 565-4963
Fax (03) 565-4944

A committee of the Australian Geomechanics Society will then select authors who will be invited to prepare a paper for submission for inclusion in the Proceedings. At this stage, the Australian allocation of pages is not known but it is likely that individual papers will be limited to about 5 pages.

Completed papers in camera ready style must be submitted for final review by 31 January 1991. Format paper and guidelines will be supplied to the selected authors.

The themes of the Congress are

1. Rock Mechanics and Environmental Protection
2. Rock Mechanics based on a Reliable Description of Geological Conditions
3. Stability of Rock Slopes
4. Underground Construction in Rock

In addition, one day is to be set aside for workshops on the following topics

1. Drilling of deep bore holes and their stability
2. Stresses in the Earth's crust
3. Dam foundations on rock
4. Construction in regions with recent tectonic movements
5. Rock salt mechanics
6. Computer based methods in rock mechanics and rock engineering

For further information, please contact Ian Johnston at the above address.

2. GEOLOGICAL SOCIETY OF NEW ZEALAND ANNUAL CONFERENCE, NAPIER, 26-30 NOVEMBER 1990

Contact D. C. Mildenhall, P O Box 30-368, Lower Hutt, New Zealand.

3. 1990 ASCE CONVENTION

MEETING THE NEEDS OF SIX BILLION PEOPLE

This year, ASCE's annual convention and exposition will focus on the challenge of "Meeting the Needs of Six Billion People." The convention, which will be held November 5-8, 1990 in San Francisco, will include four days of technical sessions and three days of exhibits and tours.

The convention will open with a plenary session featuring speakers L. Thomas Tobin, Executive Director, California Seismic Safety Commission and David N. Kennedy, Director, Department of Water Resources, State of California. The "icebreaker" cocktail party will be on Monday, November 5th.

A two-day earthquake symposium will focus on lifeline, geotechnical, bridge design and building rehabilitation topics. Other convention highlights include technical sessions on water and waste water, transportation, environmental regulations, flood protection and drought impacts. Non-technical activities include bay cruises and tours of the wine country, redwoods and the City of San Francisco.

The convention is open to ASCE members, students and the public. There is a special-advance-registration rate of $100 for those interested in attending only the two-day earthquake seminar. For more information, including booth rental details, call Maureen Rafferty, ASSCE, (212) 705-7496.

4. "STREMA 90", SEVILLE, SPAIN, 14-16 MAY 1991

CALL FOR PAPERS for International Conference on Structural Studies, Repairs and Maintenance of Historical Buildings.

Enquiries should be sent to:

Audrey Lampard (Conference Secretary)
Computational Mechanics Institute
Wessex Institute of Technology
Ashurst, Southampton, S04 2AA, ENGLAND

Tel (0703) 293223, Fax (0703) 292853.

5. INTERNATIONAL CONFERENCE ON SLOPE STABILITY ENGINEERING - DEVELOPMENTS AND APPLICATIONS, SHANKLIN, ISLE OF WIGHT, 15-19 APRIL 1991

The conference aims to present a "State-of-the-Art" of studies of natural slopes. Further information can be obtained from:

The Conference Office
Institution of Civil Engineers
1-7 Great George Street
Westminster, LONDON, SW1P 3AA.

6. FOURTH INTERNATIONAL SYMPOSIUM ON LAND SUBSIDENCE, HOUSTON, TEXAS, 12-18 MAY 1991

Further information is available from:

Ivan Johnson, Chairman FISOLS
A. Ivan Johnson Inc
7474 Upham Court
Arvada, Colorado 80003 USA.

7. GEO-COAST '91: YOKOHAMA, SEPTEMBER 1991

The International Conference on Geotechnical Engineering for Coastal Development - Theory and Practice on Soft Ground.

Further information available from:

Dr K. Satoh
GEO-COAST '91
Director of Geotechnical Engineering Division
Port and Harbour Research Institute
3-1-1, Nagase, Yokosuka, 239, JAPAN

Tel. (468) 44-5020 Fax (468) 44-4577

8. NINTH ASIAN REGIONAL CONFERENCE ON SMFE, BANGKOK, THAILAND, 9-13 DECEMBER 1991

Further information from:

Prof. A. S. Balasubramaniam
Geotechnical and Transportation Engineering Division
Asian Institute of Technology
GPO Box No. 2754
Bangkok 10501
THAILAND

Fax (66-2) 529 0374

9. CONFERENCE DIARY

1990

September 3-7
Glasgow, UK, 3rd Int. Symp. on Reclamation Treatment and Utilisation of Coal Mining Wastes.

September 3-7
Chengdu, Sichuan, China. International Congress on Tunnel and Underground Works - Today and Future.

September 9-13
Leeds, U.K. 26th Annual Conference of the Engineering Group of the Geological Society.

September 10-12
Glasgow, U.K. International Reinforced Soil Conference.

September 10-12
Royal Swazispa, Swaziland. ISRM International Symposium on Static and Dynamic Considerations in Rock Engineering.

September 11-13
Sydney, Australia. Seventh Australian Tunnelling Conference and Trade Exhibition.

September 18-20
Santander, Spain. Second European Specialty Conference on Numerical Methods in Geotechnical Engineering.

October 2-5
Budapest, Hungary. 9th Danube-European Conference on Soil Mechanics and Foundation Engineering.

October 11-13
Cracow, Poland. 9th National Conference on Soil Mechanics and Foundation Engineering.

October 16-18
Lille, France. International Conference on Underground Crossings for Europe.

October 17-20
Caracas, Venezuela. 3rd South American Congress on Rock Mechanics.

1991

March 11-15
University of Missouri-Rolla, USA. Second International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics.

March 19-21
Paris, France. International Conference on Deep Foundations.

April 7-12
Stresa, Italy. Fourth International Conference on Piling and Deep Foundations.

April 15-19
Isle of Wight, UK. International Conference on Slope Stability Engineering.

May 12-18
Houston, Texas, USA. Fourth International Symposium on Land Subsidence.

May 27-June 1
Florence, Italy. 10th ISSMFE European Regional Conference

June 3-7
Mexico City. Sixth International Conference on Applications of Statistics and Probability in Civil Engineering.

June 10-12
Boulder, Colorado, USA. ASCE Geotechnical Engineering Congress.

June 13-14
Boulder, Colorado, USA. International Conference: Centrifuge '91.

August 26-30
Vina del Mar, Chile. IX Panamerican Conference on Soil Mechanics and Foundation Engineering.

September 9-11
Oslo, Norway. 3rd International Symposium on Field Measurements in Geomechanics.

September 10-12
Beijing, China. Sixth International Symposium on Ground Freezing.

September 16-20
Aachen, FRG. International Congress on Rock Mechanics.

September 23-27
Maseru, Lesotho. 10th ISSMFE African Regional Conference.

December 9-13
Bangkok, Thailand. 9th ISSMFE Asian Regional Conference.

1992

February 3-7
Christchurch, New Zealand. 6th ANZ Conference on Geomechanics.

February 10-14
Christchurch, New Zealand. 6th Int. Sym. on Landslides.

February 25-28
New Orleans, USA. Specialty Conference on Grouting, Soil Improvement and Geosynthetics.

May 10-16
Rostock, GDR. 3rd Baltic Conference on Soil Mechanics and Foundation Engineering.

May 28-31
Aalborg, Denmark, NGM-92. XIth Nordic Geotechnical Meeting

1993

August 23-26
Kingston, Canada. International Congress on Mine Design.

1994

January 5-10
New Delhi, India. XIII International Conference on Soil Mechanics and Foundation Engineering.

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LETTERS TO THE EDITOR

15 June 1990

Dear Sir,

I enclose a request for information on actual performance record of rigid retaining wall during an earthquake. It will be appreciated if the enclosed listing is inserted in a forthcoming Newsletter of your Society.

We appreciate your cooperation.

Sincerely,

Shamsher Prakash
Professor of Civil Engineering

For Listing

At the University of Missouri-Rolla Department of Civil Engineering we are developing a method for designing retaining walls under earthquake loadings, allowing for displacements that result from both sliding and rocking. We would like to test our analytical method using performance records of walls during actual earthquakes. Such performance data is very limited in published literature.

We are, therefore, soliciting information on actual measured or monitored displacements of rigid retaining walls, caused by both sliding and rocking induced by earthquakes. The following information is also needed for each case:

1. Type of soil (boring log at or near site). If any soils investigation report is available, it will be welcome.
2. Recorded ground motion at or near site.
3. Cross-section of the retaining wall.
4. Measured displacements at the base, top, and any other points along the wall. This information is needed to compare the computed sliding and tilting displacements of the wall with the observed displacements.

As a token of appreciation for the above information, we will make available our complete report together with the computer program used to compute the displacements.'

Please contact:

Dr Shamsher Prakash, Professor
Civil Engineering Department
University of Missouri-Rolla
Rolla, Mo. 65401 USA
Tel (314) 341 4489.
Fax (314) 341 4729

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1 May 1990

Dear Sir,

I enclose some material which may be of interest to NZ Geomechanics News. I act as "correspondent" to Tunnelling and Underground Space and periodically receive material which I will send on.

You are probably aware of the Citizen Ambassador Programme visit which took placer in March of this year. A summary of the presentations at the Wellington meeting as attached.

Yours sincerely,

Graham Ramsay
7 Karero Place,
Paramatta.

Attachment 1:

TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY

Tunnelling and Underground Space Technology is an international journal that publishes authoritative articles encompassing the development of new uses of underground space and the results of research into improved, more cost-effective methods for the planning, geo-investigation, design, construction, operation and maintenance of underground and earth-sheltered structures. As the official journal of the International Tunnelling Association, the journal publishes reports of ITA working groups and important papers from major conferences sponsored by the ITA and by other groups devoted to the development and use of the subsurface. Currently, seventeen ITA Member Nations affiliated with *Tunnelling and Underground Space Technology* as Cooperating Organisations enjoy a reciprocal publishing relationship with the journal.

Through the International Tunnelling Association's agreement with Pergamon Press, publisher of the journal, members of national tunnelling organisations can subscribe to *Tunnelling and Underground Space Technology* at substantially reduced rates. The current cost of a one-year, individual subscription to *Tunnelling and Underground Space Technology* at the reduced rate is US$55.00 (DM 107.00, £35.00).

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Attachment 2:

CITIZEN AMBASSADOR PROGRAMME
TECHNICAL DISCUSSION: 23 MARCH 1990, WELLINGTON

Summary of technical presentations:

1. "Matahina Dam : Earthquake Damage and Subsequent Repair", Colin Newton, Senior Engineer, Works Project Services.

2. "Quail Creek Failure", Citizen Ambassador Delegate.

3. "Dam Surveillance for Electricorp Producthon Dams", Dave Ferguson, Dam Surveillance Engineer, Works Project Services.

4. "Reconstruction of Quail Creek", Citizen Ambassador Delegate.

5. "Clyde Dam : Reservoir Stabilisation", Murray Gillon, Senior Design Engineer, Works Project Services

6. "Increased Communications", Citizen Ambassador Delegate.

7. "Clyde Dam : Design Aspects", Peter Foster, Design Engineer, Works Project Services.

8. "Dam Safety", Citizen Ambassador Delegate.

ARTICLES AND TECHNICAL PAPERS

HORIZONTAL SUBGRADE MODULUS

Bruce Horide, Beca Carter Hollings & Ferner Ltd

The aim of this technical note is to discuss aspects of the horizontal subgrade modulus (k_h) with regard to its use for estimating displacement of laterally loaded piles.

The k_h is often given in units of MN/m^3 or lbs/in^3 (pci). However the unit MPa/m is preferred as it reflects the similarity of k_h to a spring constant.

The value of k_h is often assessed from the vertical subgrade modulus (k_v or k). Any k_v values quoted in textbooks need to be converted to k_h (a method is suggested below), with appropriate care wherever the horizontal stiffness is different from the vertical stiffness, as in layered soils.

The k_v is sometimes symbolised k_{sl}, where sl refers to the method of direct measurement in a field "plate bearing test". In this test, a one foot square plate on the ground surface is loaded vertically. A plot of pressure (MPa) against deflection (m) obtains the k_{sl} "spring constant".

To convert from k_v to k_h, Terzaghi (Geotechnique, 1955) suggested the relationship

$$k_h = \frac{k_v}{1.5B}$$ where B is in feet.

This converts to

$$k_h = \frac{k_v}{4.9B}$$ where B is in metres

B = width of the laterally loaded area e.g. pile diameter.

This relationship shows that for a given homogeneous soil, a larger pile diameter requires a lower k_h (This might lead to higher deflection estimates depending on the relative size of the lateral force). Therefore k_h is not necessarily a characteristic of the soil as it depends on the size of the loaded area.

This apparent size-related "softness" was tested by calculating the pressure/deflection ratio for different sizes of loaded areas on an elastic half-space, with all other parameters constant, including elastic modulus and Poisson's ratio, etc. This was carried out with the aid of a computer and the ELSYM5 program. The results confirmed the size-related effect and agreed well with the equations above by Terzaghi.

Wherever an analysis or computer program requires spring constants to be input to reflect soil stiffness around a pile, care must be taken to ascertain which parameter e.g. k_h or k_v is required.

It is noted that if k_h is quoted in textbooks, it might apply only to B = 0.3m (1 foot).

Some examples of subgrade moduli are suggested below for cohesive soil types under "static" loading.

TYPE OF GROUND	VERTICAL SUBGRADE MODULUS k_{sl} (MPa/m)	HORIZONTAL SUBGRADE MODULUS K_h (MPa/m)
Firm clay (C_u = 50 kPa)	12	8 (B = 0.3m)
Stiff clay (C_u = 100 kPa)	25	17 (B = 0.3m) 9 (B = 0.6m)
Hard clay (C_u = 200 kPa)	90	60 (B = 0.3m)
Siltstone (UCS = 1500 kPa)	200	140 (B = 0.3m) 23 (B = 1.8m)

where C_u = undrained shear strength
UCS = unconfined compressive strength
B = pile diameter.

BRUCE HORIDE

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INVESTIGATION AND REMEDIAL WORK ON LANDSLIDES IN THE CROMWELL GORGE

R. D. Beetham, DSIR : Geology and Geophysics, Cromwell

For about a year, a team of some 20 engineering geologists (sometimes more, sometimes less) have been working on intensive landslide investigations in the Cromwell Gorge. Initially most of the work has been directed towards surface and sub-surface investigations (engineering geological mapping, cored drilling, subsurface geophysical investigations, trenching, and investigation adits) with the aim of determining the materials and failure mechanisms of the landslides.

About 40% of the perimeter of Lake Dunstan, formed behind the Clyde Dam, is affected by previous slope instability. All the large landslides of the Cromwell Gorge are formed of schist materials (debris and displaced rock) which can be up to 270m thick. These materials typically contain multiple clayey failure surfaces which in turn tend to pond very complex groundwater systems. According to surface survey monitoring and subsurface inclinometer monitoring, some of the slides are presently stable, while others are slowly creeping. Most of the slides will undergo a small but significant decrease in factor of safety when their toes are flooded by the filling of Lake Dunstan. The objective of the investigations has been to determine the significance of the small reduction in stability and, on the engineering side, whether remedial works may be required to offset this decrease in stability.

Towards the end of last year, Electricorp appointed a Review Panel to advise them on the landslide works. The Panel consists of 4 members, all of whom are international experts. They are James Libby, Bill Swiger and Don Deere from USA and Winfrith Riemer of West Germany. All the Panel are highly experienced in the field of hydro-electric developments and landslides, and all are geotechnical engineers and/or geologists.

So far the Review Panel have visited New Zealand three times for this job. Each visit has lasted several days and two visits have included trips to the site. At the end of each visit the Panel has produced a report which presents their findings. These reports have all been made public by Electricorp. The report from the second visit of the Panel determined that most of the larger landslides in the Gorge were "potentially catastrophic" and would require remedial measures to offset the decreases in stability. The last visit of the Panel has gone a long way towards determining what these remedial measures should be. Subsurface drainage to lower present and post-lake filling water-tables is the favoured option for remedial works, with the drainage largely being achieved by drives and fan drilling from the drives. It is apparent that the work in Cromwell is about to enter an intensive phase of small diameter tunnelling and associated drainage drilling.

DICK BETHAM
Cromwell

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IVAN JOHNSON
CHAIRMAN, FISOLS
A. Ivan Johnson, Inc.
7474 Upham Court
Arvada, CO 80003 USA

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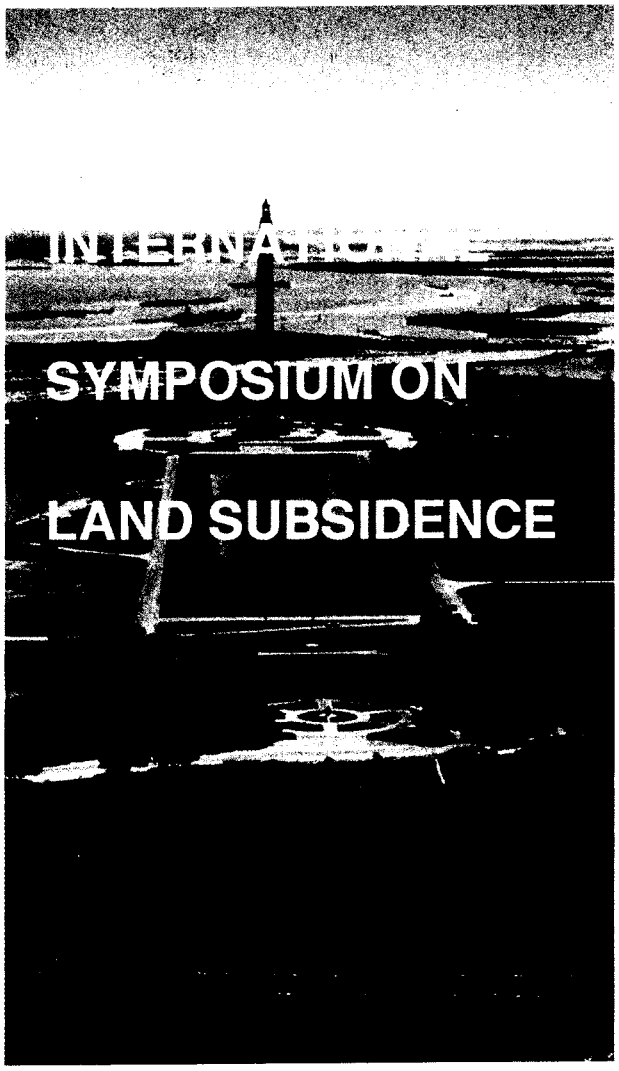
Houston, Texas, USA **12-18 May 1991**



First Information Note **January 1990**

ORGANIZATION AND PURPOSE OF SYMPOSIUM

The Fourth International Symposium on Land Subsidence (FISOLS) will be jointly convened by the International Association of Hydrological Sciences (IAHS), the Commission on Ground Water, and the United Nations Educational, Scientific, and Cultural Organization (UNESCO). The symposium will be cosponsored by the Harris-Galveston (Texas) Coastal Subsidence District (HGCSD), and have cooperation from the United Nations Environment Program (UNEP), the International Association of Hydrogeologists (IAH) and the International Society of Soil Mechanics and Foundation Engineers (ISSMFE). Other cosponsors and cooperators from international and national organizations are under consideration and will be announced in a later information note.

The problems related to land subsidence were among those included in the research subjects recommended for study during UNESCO's International Hydrological Decade (IHD) and later in the continuing International Hydrological Program (IHP). This resulted in organization of the First IAHS/UNESCO jointly sponsored International Symposium on Land Subsidence held in Tokyo, Japan in 1969; Second in Anaheim, California, USA in 1976; and Third in Venice, Italy in 1983. The papers presented in the three earlier symposia are published as IAHS Publications 88-89, 121, and 151.

Because of man's continuing heavy impact on the surface and subsurface environment, it is believed that there has been sufficient new land subsidence occurrence, problems, research, instrumentation, and remedial measure take place since the Third Symposium in 1983 to permit development of an outstanding program in a location of special subsidence interest. Therefore, the purpose of this symposium is to bring together interdisciplinary and international scientists and engineers specializing in fields related to land subsidence to:

- Provide a forum for presenting results of research and practice in the subject.
- Exchange experiences related to cause, effect, control, and remediation of land subsidence.
- Promote technology transfer between the various disciplines and countries represented.
- Evaluate the advance of knowledge taking place on this subject since 1983 and develop guidelines for needed future research.

DATE AND PLACE OF SYMPOSIUM

The symposium will be held during 12-18 May 1991 at Houston, Texas, USA. Session and sleeping rooms have been reserved at the beautiful Doubletree Hotel near the huge Galleria Shopping Mall of Houston. Some sessions and a tour are tentatively planned for the nearby Lyndon B. Johnson

Space Center of the National Aeronautics and Space Administration (NASA).

Houston is an area of outstanding amounts of subsidence and resultant environmental and economic impact. Therefore, during the meeting week short technical tours by bus and boat will tour locations of such interest in the general area of Houston. In addition, an optional guided tour of Mexico City's outstanding subsidence and archaeological sites tentatively is scheduled for three or four days following the close of the symposium. A variety of interesting tourist-type tours in the general area of Houston and Galveston will be available to guests of the participants.

SCOPE OF THE PROGRAM

The technical program for the Symposium will relate primarily to man's activities in changing the natural regime. Oral and poster papers are invited on:

- New case histories or major developments on previously reported projects for a wide variety of subsidence types, such as that due to fluid withdrawal (water, oil, gas); mining of coal, sulphur, and other products; dewatering of organic deposits; application of water (hydrocompaction); sinkhole formation in karstic terrain; and offshore and coastal subsidence.
- Mathematical and engineering theory, analysis, and modeling of subsidence phenomena.
- Subsidence impacts on environmental, social, economic, and legal factors.
- Relation of subsidence to other phenomena, such as earth fissures, coastal storm surges, structural design problems, surface drainage and inland flooding, and inter-relations of subsidence and coastal planning with tectonic movement, sea level-rise, and climate change.
- New techniques and instruments for detecting, measuring, and predicting land subsidence, such as global positioning systems (GPS), remote sensing, geophysics, stress-strain instruments, and precise leveling.
- Techniques for control and remediation of subsidence, including decreasing withdrawal, increasing recharge, fluid injection or grouting.
- Pertinent laboratory studies, including centrifuge modeling.
- Potential other topics.

PARTICIPATION AND PREREGISTRATION

Persons wishing to attend this symposium and its field trips are asked to forward the Provisional Registration Form as soon as possible, by air mail where appropriate. The information in the form will not commit the sender but will be valuable to the Organizing Committee in making more detailed advance arrangements. The final registration fees, hotel information, field-trip details, and other pertinent information will be included in the Second Information Note, which will be sent to everyone returning the Provisional Registration Form.

Poster sessions as well as oral sessions will be an important part of the program. Authors should indicate on the Provisional Registration Form their preference for oral or poster presentation. Both poster and oral presenters will be provided instructions for presentations and for preparation of manuscripts for publication. Following review, papers considered of sufficient quality and pertinence to the subject will be published by IAHS and be available at the symposium.

Exhibits of books and equipment or instruments pertinent to subsidence and related subjects will be considered upon an individual inquiry basis.

CALL FOR ABSTRACTS

Persons wishing to offer an original paper for oral or poster presentation should submit the Provisional Registration Form, an original, and one copy of an abstract by March 18, 1990 to the following address:

Ivan Johnson, Chairman FISOLS
A. Ivan Johnson, Inc.
7474 Upham Court
Arvada, Colorado 80003 USA

The abstract should be an informative text in English of 400-800 words (but not more than one single-spaced typed page), and include authors name, affiliation, and address. Metric units will be required. Abstracts will not be published but used only for selection and development of the program. Following review by an international program committee, authors will be informed in April 1990 whether their paper is accepted or rejected. Final papers to be considered for publication will be due by September 15, 1990 for review and possible change prior to acceptance for publication.

Please send Provisional Registration Forms and requests for additional information on the symposium or on exhibit space to the address shown above.

SYMPOSIUM ORGANIZING COMMITTEE

Ivan Johnson, General Chairman
A. Ivan Johnson, Inc.
Arvada, Colorado USA

Laura Carbognin
National Research Council
Venice, Italy

German Figueroa Vega
Consultant
Mexico, D.F., Mexico

Joseph F. Poland, Chairman Emeritus
U.S. Geological Survey (Retired)
Sacramento, California USA

Soki Yamamoto
Tokyo Seitoku College
Tokyo, Japan

Ronald J. Neighbors
Chairman, Local Arrangements
Harris-Galveston Coastal
Subsidence District
Friendswood, Texas USA

FOURTH INTERNATIONAL SYMPOSIUM ON LAND SUBSIDENCE

12-18 May 1991 Houston, Texas, USA

Provisional Registration Form

Please complete and return this form to:

Ivan Johnson, Chairman, FISOLS, A. Ivan Johnson, Inc., 7474 Upham Court, Arvada, Colorado 80003 USA

Title _____ Initials _____ Surname _____

Organization _____

Address _____

Telephone _____ Telex _____ Fax _____

I am submitting a paper for presentation by: poster ☐ oral ☐ either ☐

I will definitely ☐ attend the Symposium. I would like to receive the next Information Note. ☐

probably ☐ I will be accompanied by _____ persons.

I ☐ We ☐ may be interested in taking the post-symposium tour to Mexico City.

I suggest this Information Note also be sent to:

Name and Title _____ Organization _____

Address _____

INSTITUTION OF CIVIL ENGINEERS

FIRST ANNOUNCEMENT

INTERNATIONAL CONFERENCE

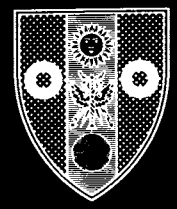
ON

SLOPE STABILITY ENGINEERING – DEVELOPMENTS AND APPLICATIONS

15 – 19 APRIL 1991

to be held at

The Cliff Tops Hotel
Shanklin, Isle of Wight



AIM

The Conference aims to present a "State-of-the-Art" of studies of natural slopes, highlighting recent developments in the subject. It will be of interest to all those professionally involved with the behaviour of natural slopes of soil or rock.

The Conference proceedings will feature papers and short "Technical Notes"; case studies will be particularly welcome.

TOPICS

Mechanics of landslides – recent developments.

Environmental influences – weathering, slopes erosion, ground, water, climate.

Investigation techniques.

Planning aspects of slopes – problems, mapping and zoning.

Investigation techniques – subsurface investigation methods; instrumentation and monitoring.

Coastal slopes – special conditions, particularly the Isle of Wight.

Remedial works – slope stabilization methods.

Prospective authors are invited to submit synopses of their papers (or Notes) in English, 300/400 words in length. The synopses should outline the scope of the paper, the main topics to be discussed, and the conclusions reached.

Synopses should be sent **no later than 1 March 1990** to:

Conference Office
Institution of Civil Engineers
1 – 7 Great George Street
Westminster
London SW1P 3AA

The papers that are selected will be refereed; papers in final draft will be required by 1 August 1990, and the final versions (in camera-ready form) by 1 November 1990.

It is anticipated that papers will be about six pages (approximately 5000 words or equivalent) in length (and two pages for notes).

Pre-prints of the papers will be available prior to the Conference; a bound copy of the proceedings, including discussion will be sent to all delegates following the Conference.

VENUE

The Conference will be held at the Cliff Tops Hotel, Shanklin, in the Isle of Wight. The island is a particularly suitable venue for this Conference since it has a varied geology, and an extensive coastline, with many landslides, including the urban area of Ventnor. All the features of interest are readily accessible from the Conference hotel; these are mainly of a coastal nature, and will be the subject both of a special session of the Conference, and of one or more field excursions within the main Conference programme.

TRAVEL

Recent improvements to the ferry services have made the journey to the Isle of Wight remarkably easy. There are vehicle ferries from Lymington, Southampton and Portsmouth, and high speed passenger ferries from Southampton (hydrofoil) and Portsmouth (hovercraft). In addition, there is a passenger ferry from Portsmouth Harbour which connects both with trains from Waterloo and with the Isle of Wight railway which runs to Shanklin. The combined journey time from Waterloo to the Conference centre may be as little as two and a half hours.

EXHIBITION

There will be a trade exhibition which will accompany the Conference. Further details will be available from the Conference Office.

CO-SPONSORS

Engineering Group of the Geological Society of London

Institution of Civil Engineers (Ground Engineering Group)

South Wight Borough Council

COMMITTEE

Dr Richard Chandler, Imperial College

Dr Geoffrey Walton, Geoffrey Walton Practice

Dr Edward Bromhead, Kingston Polytechnic

Professor James D Geddes, University of Wales College of Cardiff

Mr Robin McInnes, South Wight Borough Council

FURTHER DETAILS

A full programme and registration details will be available in Spring 1990 and may be obtained by completing the attached form.

(cut here)

INTERNATIONAL CONFERENCE ON

SLOPE STABILITY ENGINEERING – DEVELOPMENTS AND APPLICATIONS

(Please tick as appropriate)

☐ Please send me a copy of the programme when available.

☐ I am interested in submitting a paper/Technical Note; synopsis enclosed herewith.

☐ I am interested in exhibiting and would like to receive further details when available.

Name .....

Organisation .....

Address .....

.....

.....

Country .....

Please return to: The Conference Office, Institution of Civil Engineers, 1-7 Great George Street, Westminster, London SW1P 3AA

APPLICATION FOR MEMBERSHIP
of
New Zealand Geomechanics Society

A TECHNICAL GROUP OF THE INSTITUTION OF
PROFESSIONAL ENGINEERS OF NEW ZEALAND

The Secretary
The Institution of Professional Engineers of New Zealand
P O Box 12-241
WELLINGTON

I believe myself to be a proper person to be a member of the N.Z. Geomechanics Society and do hereby promise that, in the event of my admission, I will be governed by the Rules of the Society for the time being in force or as they may hereafter be amended and that I will promote the objects of the Society as far as may be in my power.

I hereby apply for membership of the N.Z. Geomechanics Society and supply the following details:

NAME: _____ (to be set out in full in block letters, surname last) _____

PERMANENT ADDRESS: _____

_____

QUALIFICATIONS AND EXPERIENCE: _____

_____

NAME OF PRESENT EMPLOYER: _____

NATURE OF DUTIES: _____

Affiliation to International Societies: (All members are required to be affiliated to at least one Society, and applicants are to indicate below the Society/ies to which they wish to affiliate).

I wish to affiliate to:

International Society for Soil Mechanics for Foundation Engineering	(ISSMFE)	Yes/No($10.00)
International Society for Rock Mechanics	(ISRM)	Yes/No ($12.00)
International Association of Engineering Geology	(IAEG)	Yes/No ($10.00) (with Bulletin) ($25.00)

SIGNATURE OF APPLICANT: _____

DATE: ____/____ /19 ____

NB: Affiliation Fees are in addition to the basic Geomechanics Society membership fee of $25.00 which is reduced to $21.00 if member of IPENZ.

PLEASE DO NOT SEND FEES WITH THIS APPLICATION. AN ACCOUNT WILL BE SENT ON YOUR ACCEPTANCE INTO THE SOCIETY.

Nomination:

I _____ being a financial member of the N.Z. Geomechanics Society hereby

nominate _____ for

membership of the above Society.

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