

IGS NEWS

NEWSLETTER OF THE INTERNATIONAL GEOTEXTILE SOCIETY

VOLUME 2 NO 1

JUNE 1986

Leadership and Membership

by
J.P. Giroud
President of the IGS

Leadership and membership: two key words I used to summarize the program I presented before the General Assembly held in April in Vienna.

Leadership is my responsibility since I have had the honor of being elected to continue the immense task undertaken by Past President Schaerer. No time has been wasted. At the Council meeting following the General Assembly, nine task groups were formed, each under the responsibility of a Council member, and I have sent a detailed scope of work to all of them. These task groups are the embryos of full-fledged committees to be formally appointed at the next Council meeting in January 1987. While one of the task groups is presently working to develop more benefits that members, individual as well as corporate, will derive from the IGS, it is essential to strive for growth of the membership.

Membership is the responsibility of each and every IGS member. We now have 400 members. We must have 1000 members by 1987. In every country, existing IGS members should get together to organize activities, which will attract new members. Following the example of Japan and the USA, chapters should be formed in countries such as France, UK, Canada, the Netherlands, Germany, etc. which are in the mainstream of geotextile applications. IGS membership should grow and chapters should also be formed in countries such as Brazil, Australia, China, India, etc. which are promising markets for geotextiles, geomembranes and other geosynthetics. I have contacted a dozen countries to encourage the formation of chapters, but it is you, the members of IGS, who must undertake this task.

The Vienna Conference was an impressive success, as was the General Assembly of the IGS. The Conference demonstrated to the engineering community that geosynthetic engineering has become a discipline in its own right. The General Assembly showed that the IGS was the heart of this discipline. I now urge you to engineer the future growth of our society and thereby establish a strong basis for the growth of our discipline.

Third International Conference on Geotextiles Vienna—1986

The 3rd International Conference on Geotextiles held in Vienna, 7-11 April 1986 proved to be an enormous success. The conference attracted an audience of approximately 850 as well as 180 accompanying persons giving a total attendance of 1030 people from 47 countries. The 134 papers presented at the conference dealt with a very broad range of topics with particular emphasis on the selection, testing and use of geotextiles, geomembranes and related products.

The conference was opened by the Minister of Public Works of Austria, Dr. H. Übeleis, the President of I.G.S., Mr. Ch. Schaerer and the Chairman of the conference organizing committee Professor H. Brandl. The opening session included two invited keynote papers, one by Dr. J.P. Giroud and one by Professor R. Floss.

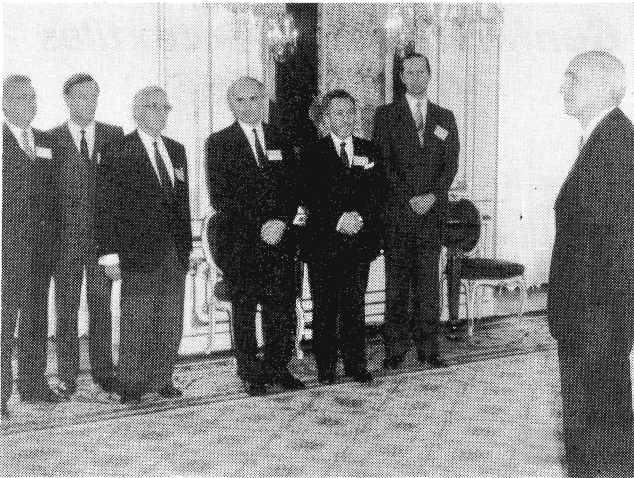


Opening Session—IIIrd International Conference on Geotextiles—Vienna, April 7, 1986.

Recognition of the importance of geotextiles and related products by the Austrian government was evident. In particular, the I.G.S. council and the conference organizing committee were honored by a lunchtime reception with the Federal President of the Republic of Austria, Dr. R. Kirchschräger at his office in the Hofburg Palace on April 10.

Conference attendees were warmly welcomed to Vienna and an excellent social program was organized. Of special note was the Heurigen Wine Festival held at Neustift am Walde hosted by Chemie Linz and a farewell banquet in the City Hall of Vienna hosted by the Mayor and Governor of Vienna.

More information concerning the Third International Conference will appear in the next newsletter.



Reception of the I.G.S. Council and Conference organizing committee by the Federal President of the Republic of Austria, Dr. R. Kirchschräger. From left to right: Mr. G. Massenaux, Dr. J.P. Giroud, Mr. Ch. Schaerer, Dr. H. Schneider, Dr. F. Narbeshuber, Professor H. Brandl and Dr. R. Kirchschräger.

Society Activity

The International Geotextile Society truly came of age with the holding of its General Assembly in Vienna during the Third International Conference. The assembly was attended by over 250 members. The manner in which the society had been formed following the exploratory meeting in Las Vegas was reported on by Charles Schaerer, the first President of the society. He must be congratulated on his leadership, in taking an idea from Las Vegas and producing a new, yet firmly established society in time for the Vienna meeting. Elections were held for council members and officers and a full listing of the new council is given later in the newsletter. Our secretary, Guy Massenaux, is also to be congratulated on his masterful organization of the meeting and the difficult balloting process.

In addition to the General Assembly, two council meetings were held in Vienna and the following decisions were made at these various meetings:

- (1) The budget (in \$US) for 1986 provides for \$33,000 income of which \$18,000 is from memberships. Budgeted expenditures of \$US 29,500 include Travel (\$6000), Meetings (\$1500), Secretariat (\$7500), Secretarial Support (\$1000), Newsletter (\$3000), Standards Committee (\$2500), IGS Booth for Vienna Conference (\$2500), Promotion of IGS (\$2000), other activities (\$3500).
- (2) The Membership fee is to remain at \$US 30 for 1986 and 1987 and will increase to \$US 40 for 1988. Corporate Membership is to remain at \$US 1000.
- (3) The General Assembly adopted amendments to the bylaws extending the scope of I.G.S. to Geotextiles, Geomembranes and related products.
- (4) A chapter of I.G.S. is being established in the United States of America.
- (5) The Geosynthetics '87 conference sponsored by I.F.A.I. will be organized in New Orleans (24-26 February, 1987) under the auspices of I.G.S.
- (6) The IVth International Conference on Geotextiles will be organized in The Netherlands from 27 May - 1 June, 1990.
- (7) The Vth International Conference on Geotextiles will be held in 1994.
- (8) A compilation of existing geotextile test standards put together by the I.G.S. Committee on Standards will be available in July through the I.G.S. Secretary in Brussels for a cost of \$US 60 for I.G.S. members and \$US 90 for non-members of I.G.S.
- (9) R.K. Rowe was appointed Editor of the I.G.S. Newsletter.
- (10) Various task forces have been established by the I.G.S. Council. These task forces will become committees which will report to the next I.G.S. ordinary general assembly. The committees and member(s) of Council in charge of these committees are:
 Bylaw revisions E. Leflaive
 Terminology E. Leflaive
 Promotion S. Warner
 Standards C. van den Berg
 Education P. Jarrett
 Conferences P. Sembenelli
 Research A. Arman
 Publications K. van Harten
 'Benefits to members' B. Myles
- (11) The next Council meeting will be held in the U.S. in January, 1987.
- (12) It was reported that after the Vienna conference, the I.G.S. membership consisted of 405 Individual and 21 Corporate members from 37 countries.

Members of the Council of IGS

A list of the present members of the council of IGS together with their addresses is presented below. Should you have any questions concerning society operation or suggestions for society development please feel free to

contact any or all of the members. The new members of council (elected at the General Assembly, April 8, 1986) are denoted by (*). The new officers are denoted by (**). The term of office is from 1986 to 1990 for new appointments.

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Geotextiles in Australia, New Zealand and South East Asia

by
Chris Lawson

AUSTRALIA

While natural fibres had been suggested as a reinforcement medium for asphalt as early as the 1930's, in the modern context, geotextiles first came to Australia in the late 1960's brought about by recent (at that time) American experience with geotextiles in marine structures. Geotextiles were confined to sporadic use in marine works until the early 1970's when several large European nonwoven manufacturers began to actively promote the wider conventional applications of geotextiles.

By 1980 many geotextile products were available and considerable confusion existed in the engineering community due chiefly to claims and counter claims by manufacturers as to the relative merits of particular products.

In 1983 a Geotextiles Standards Committee was formed under the auspices of the Standards Association of Australia with the purpose of selecting and evaluating geotextile test methods and, in the future, drafting a suitable code-of-practice for geotextiles. From the beginning it was recognised that considerable education of the engineering community would be required if the goals of the Geotextile Standards Committee were to be met. It was resolved that this education process fell outside the responsibility of the Standards Association of Australia and hence, during 1985 a group was formed to investigate the feasibility of establishing an Australian Geotextile Society (to be affiliated with IGS) with the main aim of promoting the use of geotextiles on a technical level throughout the Australian engineering community.

NEW ZEALAND

The history of geotextile use and development in New Zealand has closely paralleled that of Australia, however, New Zealand are to be credited with the first independent study in the region on geotextile use, carried out by the Ministry of Works during the late 1970's. The results of this study were used as the basis for geotextile selection by the New Zealand government during the early 1980's.

There is considerable interest in geotextiles in New Zealand. This is evidenced by a large attendance at a two day conference on geotextiles held in August 1985 at the University of Canterbury.

SOUTH EAST ASIA

Geotextiles first came to South East Asia in the early 1970's when Japanese contractors began tendering for reclamation contracts in Singapore. Since then Malaysia (1976), Hong Kong (1977), Indonesia (1977), Papua New Guinea (1977), Thailand (1978), Philippines (1979), Taiwan (1980), and Peoples Republic of China (1980) have all gained extensive experience with geotextiles.

There is considerable interest in geotextiles in the South East Asian engineering community because it is generally recognised that geotextiles have the potential to provide cost effective solutions in many of South East Asia's problematic geotechnical areas.

Several symposia on geotextiles have been held in the region over the last four years. All have been well attended and much interest has been shown.



Editorial Request

The value of a newsletter lies not only in the basic articles but in the presentation of useful and up-to-date information. To assist in gathering information for this newsletter, a group of regional correspondents have been formed. We ask all members to provide information that they feel will be of interest to other members, either directly to the editor or to a regional correspondent in their area. Such information would include:

- Calls for Papers
- Announcements of Conferences and Short Courses
- Lists of Recent Publications and Proceedings
- Items for the Calendar of Events
- Interesting Photographs
- Unique Uses of Geotextiles or Geomembranes
- Cartoons
- Letters of Opinion, etc.

Please do not hesitate to provide information because you feel everybody must know of it already. If we hear of something two or three times that does not hurt us. What hurts us is if all three of the people think that someone else will tell us and then we never find out!

The editorial deadline for the next edition of the newsletter is 1 September 1986 but you do not have to wait until then, act now and send your information to:

Dr. R. Kerry Rowe
Editor, IGS Newsletter
Geotechnical Research Centre
University of Western Ontario
LONDON, ONTARIO N6A 5B9
CANADA

Information Sources

"Geotextiles and Geomembranes in Civil Engineering"

Editor: R. Veldhuijzen Van Zanten

Publisher: Balkema, 1986

The major part of this book is concerned with the application of geotextiles in bank and bed protection, construction and drainage. Production technology, properties and testing of geotextiles, and the designing of the geotextile-element in a structure are dealt with in detail.

"Designing With Geosynthetics"

Author: Robert M. Koerner

Publisher, Prentice-Hall, 1986

This book deals with the use of geosynthetics for a very wide range of uses. Design is emphasized throughout the book and is highlighted by many worked examples.

"Polyfelt TS—Design and Practice"

Publisher: Chemie Linz, Austria

This design manual deals with the design specification and use of needle punched polypropylene continuous filament non-woven geotextiles in Civil Engineering applications. It is available from: Chemie Linz AG, Department CCS, St. Peterstr. 25, A-4020 Linz, Austria

"Engineering Manual For Geotextile Applications"

Author: M.A. Pais

This manual provides relevant information on geotextiles and compiles manufacturer product data in the form of a product selection guide. It is available from: M.A. Pais, 121 Indiana Lane, Williamsburg, VA, U.S.A.

Two new booklets from the French Geotextile and Geomembrane Society

The French Geotextile and Geomembrane Society (C.F.G.G.) has issued two new booklets in the series of technical recommendations for the use of geotextiles:

—Recommandations pour l'emploi des géotextiles dans les ouvrages de drainage et de filtration (Drainage and filtration)

—Recommandations pour l'emploi des géotextiles dans les voies ferrées (railroads)

The first booklet comments on the drain and filter functions of geotextiles, analyses the parameters to be taken into account in design, gives practical advice for fieldwork and the design criteria to select the geotextile and particularly the filtration criteria.

The booklet on the use of geotextiles in railroads analyses the functions of geotextiles in railroad construction and maintenance for different types of soil, traffic and maintenance policies and gives the geotextile specifications to adopt in different situations.

They are available from: C.F.G.G., B.P. 79, 92105 Boulogne-Billancourt Cedex, France.

Geotextiles Used to Improve Concrete Quality

by

Professor Masami Fukuoka

When concrete is placed in conventional steel or plywood forms, water and air accumulate in the concrete near the forms giving rise to cavities in the final concrete surface. Deterioration of the concrete is initiated at the location of these defects. It is expected that the service life of this concrete could be increased by a factor of three if these surface defects were minimized.

Mr. Shigekazu Horiie of Kumagae Gumi Co. has invented a technique for greatly improving the surface quality of placed concrete by using a concrete form which has 3 to 6 mm diameter holes at regular intervals to allow the escape of water and air from the concrete. To prevent the loss of concrete through these holes, a sheet of nonwoven geotextile is placed on the inside of the concrete form. The amount of water which escapes through the geotextile and porous formwork is five times as much as that which escapes through conventional formwork. This new technique has been successfully used in the construction of the Asaseishigawa concrete gravity dam and the Tomari Nuclear Power Plant in Japan.



Geomembranes to Line the Kuriyama Reservoir in Japan

by

Professor Masami Fukuoka

Kuriyama Reservoir is the upper reservoir of the Imaichi Hydro-electric Power Plant which is part of a pump storage scheme operated by the Tokyo Electric Power Co. The reservoir is located in an area where approximately 10 m of semi-consolidated tuff breccia with a permeability of 10^{-6} m/s overlies pervious, jointed andesite. Estimates of water loss through these materials ranged from 20,000 to 30,000 m³/day. To minimize water losses, the reservoir is to be lined using 18 ha of 1.5 mm thick PVC geomembrane. Steep side slopes are to be lined using a concrete lining over 6.3 ha and a gum asphalt lining over 5.6 ha. This lining work will commence in May, 1986.

Standards on Geomembrane Testing

The European Community has established in 1985 two working groups on standards for waterproofing membranes, both in construction and civil engineering (geomembranes). The first meeting was held in Berlin in 1985. One working group (TC 116) is on bituminous products, the other (TC 117) on synthetic materials.

IVth International Conference on Geotextiles

The Netherlands Geotextile Society will be the host of the IVth Conference to be held in The Hague from 27 May to 1 June 1990. The Chairman of the conference organizing committee is Professor K. van Harten. More details will be forthcoming in subsequent Newsletters.

CALENDAR OF EVENTS

Short Course: Reinforced Soil-Mechanics and Design

University of Oxford, England
7-9 July, 1986

Contact: M. Brown
Department for External Studies
1 Wellington Square
Oxford, OX1 2JA; UK

39th Canadian Geotechnical Conference

"In-situ Testing and Field Behaviour"

Ottawa, Canada
27-30 August, 1986

Contact: G. Bauer
Department of Civil Engineering
Carleton University
Ottawa K1S 5B6, Canada

Short Course: Designing with Geosynthetics

Washington DC:	4-5 September 1986
Atlanta GA:	17-18 September 1986
Raleigh NC:	23-24 September 1986
Dallas TX:	8-9 October 1986
Houston TX:	14-15 October 1986
San Francisco CA:	29-30 October 1986
Los Angeles CA:	3-4 November 1986
Chicago IL:	19-20 November 1986
St. Louis MO:	24-25 November 1986

Contact: P. Koerner (215/543-3213)
533 East Springfield Road
Springfield PA 19064, USA

Reinforced Soil Prediction Symposium

King's College, London, England
17-18 September, 1986

Contact: R. Bassett
Department of Civil Engineering
King's College
London, WC2R 2LS, UK

8th Danube-European Conference on Soil Mechanics and Foundation Engineering

Nürnberg, Germany
24-28 September 1986

Contact: Deutsche Gesellschaft für
Erd- und Grundbau
Kronprinzenstr. 35 a
D-4300 Essen
Germany

Workshop on Long Term Behaviour of Geotextiles

Paris, France
4-6 November, 1986

Contact: Secretariat General of Rilem
12, rue Brancion
75737 Paris Cedex 15, France

Second Italian Symposium on Geotextiles

Roma, 14 November, 1986
Pomezia, 15 November, 1986

Contact: Tecno Consult Veneta
Viale della Repubblica, 19
I-31050 Villorba (TV)
Italy

Geotextile and Geomembrane Short Course

Paris, France
9-11 December, 1986

Contact: E.N.P.C.
Direction de la Formation Continue
28, rue des Saints-Peres
75007 Paris, France

Geosynthetics '87

New Orleans, Louisiana, USA
24-26 February 1987

The first national conference on geotextiles and geomembranes organized under the auspices of the I.G.S.

Contact: IFAI
345 Cedar Building
St. Paul, Minnesota 55101, USA

RILEM Conference

"From Material Science to Material Engineering"
Paris, France

7-11 September, 1987
Contact: RILEM General Secretariat
12 rue Brancion
75737 Paris Cedex 15, France

PUBLICATIONS ON GEOTEXTILES AND GEOMEMBRANES—1986

ASTM Geotechnical Testing Journal

Hryciw, R.D., Cornet, J.-M. and Dowding, C.H. (1985). "Geotextile filters for a large liquefaction tank," Vol. 8, No. 3, Sept., pp. 137-139.

Suits, L.D., Carroll, R.G. and Christopher, B.R. (1985). "ASTM geotextile committee testing update," Vol. 8, No. 4, Dec., pp. 191-198.

Canadian Geotechnical Journal

Rowe, R.K. and Soderman, K.L. (1985). "An approximate method for estimating the stability of geotextile-reinforced embankments," Vol. 22, No. 3, August, pp. 392-398.

Civil Engineering (ASCE)

Fowler, J. (1985). "Building on muck," Vol. 55, No. 5, May, pp. 67-69.

Robison, R. (1985). "Engineering with fabric," Vol. 55, No. 12, Dec., pp. 52-55.

Civil Engineering (UK)

Degerlund, C. (1985). "Geotextiles—development, research and design," pp. 30, 32, 36, 48, May.

Degerlund, C. (1985). "Geotextiles—application and use," pp. 22, 24, 27, 28, July.

Geotextiles and Geomembranes

Yamauchi, H. and Kitamori, I. (1985). "Improvement of soft ground bearing capacity using synthetic meshes," Vol. 2, No. 1, pp. 3-22.

Leflaive, E. (1985). "Geotextiles: Their rationale and future," Vol. 2, No. 1, pp. 23-30.

Ingold, T.S. (1985). "A theoretical and laboratory investigation of alternating flow filtration criteria for woven structures," Vol. 2, No. 1, pp. 31-45.

Heerten, G. and Wittmann, L. (1985). "Filtration properties of geotextile and mineral filters related to river and canal bank protection," Vol. 2, No. 1, pp. 47-63.

Mlynarek, J. (1985). "Hydraulic conductivity and pore sizes of nonwoven filter fabrics," Vol. 2, No. 1, pp. 65-77.

Jewell, R.A. (1985). "Material properties for the design of geotextile reinforced slopes," Vol. 2, No. 2, pp. 83-109.

Mitchell, D.H. (1985). "Geomembrane compatibility tests using uranium acid leachate," Vol. 2, No. 2, pp. 111-127.

Giroud, J.P., Arman, A., Bell, J.R. (1985). (with the cooperation of Koerner, R.M. and Milligan, V.). "Geotextiles in geotechnical engineering practice and research," Vol. 2, No. 3, pp. 185-242. Foreword by de Mello, V.F.B., pp. 181-183.

Rowe, R.K. and Soderman, K.L. (1985). "Geotextile reinforcement of embankments on peat," Vol. 2, No. 4, pp. 277-298.

Martin, J.P. and Koerner, R.M. (1985). "Geotechnical design considerations for geomembrane lined slopes: Slope stability," Vol. 2, No. 4, pp. 299-321.

Smoltczyk, U. and Malcharek, K. (1985). "Slope protection by membrane structures," Vol. 2, No. 4, pp. 323-336.

Floss, R. (1985). "Geotextiles in soil mechanics and foundation engineering: A report on the First German Symposium on Geotextiles," Vol. 2, No. 4, pp. 337-355.

Rankilor, P.R. (1985). "The specification and use of geotextile fin drains," Vol. 2, No. 2, pp. 129-149.

Achermann, A. (1985). "The application and manufacture of woven geotextiles," Vol. 2, No. 2, pp. 151-168.

Lewandowski, J.B. and Mlynarek, J. (1985). "Analytical determination of intrinsic permeability of synthetic nonwoven filter fabrics," Vol. 2, No. 2, pp. 169-176.

Idrotecnica

Cancelli, A., Cazzuffi, D., Della Luna, G. (1985). "Aspetti idraulici e geotecnici incontrati nella costruzione di un tronco del canale navigabile Milano-Cremona-Po su terreno torboso," n. 2, marzo-aprile, pp. 85-98.

Water Power and Dam Construction

Schaerer, C. "Comment—Geotextiles: a new challenge for the geotechnical profession," Vol. 37, No. 12, pp. 8-10.

Bertachi, P. and Cazzuffi, D. "Geotextile filters for embankment dams," Vol. 37, No. 12, pp. 11-18.

Timblin, L.O. "The use of geomembranes for emergency spillways," Vol. 37, No. 12, pp. 19-21.



The International Geotextile Society was formed with the following objectives:

- (1) to collect, evaluate and disseminate knowledge on all matters relevant to geotextiles;
- (2) to improve communication and understanding regarding geotextiles and their applications;
- (3) to promote advancement of the state of the art of geotextiles and their applications;
- (4) to encourage through its members the harmonization of geotextile test methods, equipment and criteria.

ACTIVITIES OF IGS

- promotion of seminars, symposia and conferences
- publishing or sponsoring of papers, books or journals
- maintaining reference collections related to the objectives
- publishing a semi-annual Newsletter
- establishing liaison with other groups or bodies which could have an interest in geotextiles and their applications
- encourage research and development in Industry, Universities, Laboratories and other organizations
- encourage academic institutions to provide courses on geotextiles and their applications
- afford recognition of achievement in the advancement of the science and practical use of geotextiles
- establishment of international technical committees on topics of importance. Committees are already established on Symbols and Terminology, Standards and Specifications, Publications and Education, Geomembranes

MEMBERSHIP APPLICATION

Membership of the Society is open to Individuals or Corporations "... engaged in, or associated with, the research, development, teaching, design, manufacture or use of geotextile products or systems and their applications, or otherwise interested in such matters".

The annual fee for membership is (US) \$30 for Individual Members and (US) \$1000 for Corporate Members.

The following application form may be used to apply for membership and sent to:

Mr. Guy Massenaux
 Secretary, IGS
 c/o EDANA
 51 Avenue des Cerisiers
 B-1040 Brussels
 BELGIUM

OR

Mr. P.E. Stevenson
 Treasurer, IGS
 c/o Burlington Industrial Fabrics Co.
 3330 West Friendly Avenue
 Greensboro, North Carolina
 27410 U.S.A.

INDIVIDUAL MEMBER ()

CORPORATE MEMBER ()

NAME.....

ADDRESS.....

CITY..... COUNTRY.....

TELEPHONE..... TELEX.....

ELIGIBILITY (i.e. evidence of suitable connection with geotextiles)

The applicant hereby agrees to pay the appropriate fee.

SIGNATURE..... DATE.....

* A copy of the byelaws is available upon request.

IGS NEWS Published by the International Geotextile Society.
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