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IGS NEWS



NEWSLETTER OF THE INTERNATIONAL GEOSYNTHETICS SOCIETY

Dedicated to the scientific and engineering development of geotextiles, geomembranes, related products, and associated technologies

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JULY 1997



The Sixth International Conference on Geosynthetics

by R. M. Koerner, Conference Chair



The organization of an international conference in any area is difficult and the 6th International Conference on Geosynthetics (6IGC) is no exception. Fortunately, we have had many conferences to build upon, along with many individuals who have given many hours with (hopefully) many more to come before the actual conference which is scheduled for 25-29 March 1998 in Atlanta, Georgia, USA.

Clearly, the heart of the technical area and conference is the technical program. Professor Kerry Rowe of the University of Western Ontario, Canada, is the Technical Review Committee Chair. His committee has received about 360 abstracts, and will eventually accept approximately 160 papers for publication and presentation. All published papers will be peer-reviewed. His Technical Committee consists of:

Barry Christopher, Consultant, USA
Hiroshi Miki, Ministry of Construction, Japan
Jochen Müller-Rochholz, Laboratory for Construction Materials, Germany
Piero Sembenelli, Consultant, Italy

This group is being ably aided by conference managers Danette Fettig and Jeanne McGovern of the Industrial Fabrics Association International (IFAI), USA.

The technical sessions will be augmented by three panel sessions which will be interactive in addressing users questions within the general focus areas of environmental, trans-

portation, geotechnical, and hydraulic engineering. Further, there will be eighteen workshops on hot-topic areas which correctly or incorrectly utilize, or could utilize, geosynthetics. Details of the technical sessions and workshops will be reported in the next issue of the IGS News.

Clearly, a technical conference is synonymous with an exposition. We hope that the exposition accompanying the 6IGC will be the best ever. With an anticipated 2000 attendees it should be an event no organization involved in geosynthetics will want to miss. To reserve exposition space and receive information contact Chris Kohn or Steve Schnaser of IFAI at 1 (800) 639 5042 or 1 (612) 225 6942.

While the above structure may appear to be finalized, the program still has some flexibility. However, we must know your needs and desires now so as to make appropriate accommodations. Dr. J.P. Giroud is the Chair of the International Advisory Board and has worked with the IGS chapters over the past 18 months incorporating most of their desires. Yet, we continue to solicit your inquiries and comments. If you have comments or suggestions on how to make the 6IGC the best ever, please contact Danette Fettig, the Conference Secretary-General at IFAI, 1801 County Road BW, Roseville, MN 55113-4061, USA in this regard. She may be reached at Tel.: 1 (612) 222 2508; email: dfettig@northernnet.com; or Fax: 1 (612) 222 8214.

In closing this open invitation to all readers of the IGS

IN THIS EDITION:

- First IGS President Schaerer Passes Away p2
- Candidates for IGS Positions p3
- Brazilian Chapter of the IGS p4
- NAGS Regional Seminar p4
- IGS Awards Nominations Extended p7

- 7IGC to be held in Nice, France p8
- IGS Chapter Reports p8
- Professor Training Course p12
- Calendar of Events p14

Visit the IGS Website at <http://igs.rmc.ca>

News, we ask you to consider the opportunities that 6IGC has to offer your spouse, friend, or colleague. The 6IGC will offer full and complete companion's programs that will be active every hour of the conference with a bevy of interesting and lively activities. Details are forthcoming...but please plan accordingly.

The Organizing Committee for the 6th International Con-

ference on Geosynthetics is:

R.M. Koerner - Conference Chair
R. K. Rowe - Technical Committee Chair
J. P. Giroud - International Advisory Board Chair
B. R. Christopher - Intermediary to the North American Geosynthetics Society
S. M. Warner - Intermediary to IFAI

President's Message *by Professor C.J.F.P. Jones*

Flooding in many parts of the world is a common occurrence. This summer has seen some of the worst flooding in living memory in Europe. Large areas of Poland and Germany have been flooded, resulting in loss of life and major environmental and economic damage. Noticeable in the attempts to stem the flood waters in Germany and Poland has been the use of the simple sand bag. On the one hand, this is a clear illustration of the usefulness of geosynthetics, but also a demonstration of how vulnerable we are to natural catastrophes and how ill-equipped to deal with major events. Things could be different.

The June/July edition of Geotechnical Fabrics Report reported on the proposed use of geotextile tubes in flood control by the US Corps of Engineers (see related article in IGS News, vol. 12, no. 3). In concept, the Corps of Engineers' proposal is a great sand bag, but one involving the application of

modern geosynthetics technology.

The absence of geotextiles in emergency events has been the subject of recent debate. One of the reasons quoted by James Racin of Caltrans, USA, for the non-use of geosynthetics technology in emergency situations is the lack of training and knowledge. The floods in Europe are a grim reminder of the importance of education and the relevance of the IGS mission with respect to education.

On a happier note, the arrangements for the Sixth International Conference on Geosynthetics in Atlanta next year are well advanced (see related article p1). A preview of the technical presentations on the state of practice and the state of the art promises that this will be a major event. I hope as many members as possible will come to Atlanta, GA, USA in March 1998.

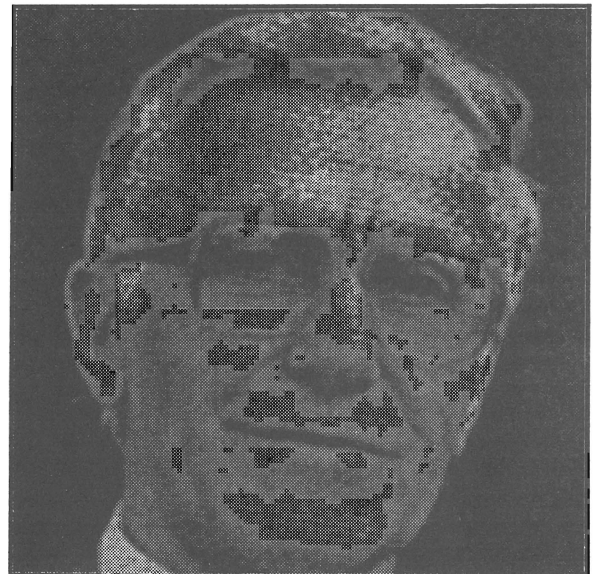
Past President Schaerer Passes Away *by D. Elton, Editor*

Charles Schaerer, the first President of the IGS, passed away on 9 July 1997 after a long illness. He was 82 years old.

Mr. Schaerer was born in Zurich, Switzerland. He graduated from the Swiss Federal Institute of Technology in 1938 and was connected with this prestigious institute for much of his career. His career was primarily concerned with the construction of hydroelectric projects throughout the world and especially of the earth and rockfill dams associated with such projects. For many years he was the Head of the Soil Mechanics Institute of S.F.I.T. He was a founding member of the Swiss National Society for Soil and Rock Mechanics, serving as its President from 1962 to 1965. He was made an honorary member of that Society in 1980. He was the first President of the Swiss Association of Geotextile Specialists. He served as the first President of the IGS from 1983 to 1986, and was made an Honorary Member in 1987. He was married to Erica and they have raised three children. As a true Swiss, he was multilingual, speaking French, German, Spanish, and English and quoted as his hobbies hiking, skiing, and collecting art.

The IGS was indeed fortunate to have so active and experienced a person to guide its first footsteps. His remarkable

personality, modesty and sense of duty remain as examples to many. He will be missed greatly by personal and professional colleagues.



Charles Schaerer, First President of the IGS

Candidates for IGS President, Vice President and the IGS Council

Postal Ballots to be Mailed in September 1997

The IGS members who have submitted their nominations for President, Vice President and Council by the deadline of 31 July 1997 are listed below.

There is one candidate for President: Professor Richard J. Bathurst.

There are two candidates for IGS Vice President: Mr. Daniele Cazzuffi and Mr. Chris Lawson.

The IGS President and Vice President will be elected at the Ordinary General Assembly to be held during the 6th International Conference on Geosynthetics in Atlanta, Georgia, USA, 25-29 March 1998.

There are twelve declared candidates for the eight available positions on the IGS Council. The eight Council positions will be filled using a postal ballot scheduled for September 1997.

Candidates for the IGS Council are:

Dr. James G. Collin (USA)
Mr. Stephen P. Corbet (UK)
Dr. Philippe Delmas (France)
Miss Danette Fettig (USA)
Prof. Jean-Pierre Gourc (France)
Dr. Georg Heerten (Germany)
Dr. Eun-Soo Lee (Korea)
Dr. Ennio M. Palmeira (Brazil)
Mr. Pietro Rimoldi (Italy)
Mr. Som Sarkar (India)
Mr. Peter E. Stevenson (USA)
Prof. Fumio Tatsuoka (Japan)

Biographical sketches of the Council candidates will be included with the postal ballot for review by the membership before voting.

Geosynthetics '99 to Have Exciting New Format

by Rick Thomas and Martha Barnes, NAGS

In response to feedback from Geosynthetics '97 participants, the Organizing Committee for Geosynthetics '99 (27 April-1 May 1999 in Boston, MA, USA) is revamping its already successful conference. The most exciting new element is a two-track format designed to bridge the gap between practical/exhibitor interests and theoretical/technical interests.

Organizing Chair Rick Thiel laid the groundwork for changes by providing a detailed vision for the conference. Under the theme, "Specifying Geosynthetics and Developing Design Details", the committee has created a forum for the industry's seasoned practitioners to provide conference attendees with examples of what does and does not work when finalizing a design and building a project.

The conference will have two tracks. The first is a new outlet for papers on specifying geosynthetics and developing design details. Abstracts stemming from experience in observing and executing construction projects, (e.g., contractors, installers, owners, engineers, technicians or regulators) are encouraged (no equations necessary; photos and practical guidance viewed positively). Abstracts will be reviewed based on the value of the field experience, rather than on theoretical discussions.

The second track will feature such traditional conference topics as materials issues, research, development and industry

questions. Authors will be asked to identify which track they wish to submit papers to. All papers in both tracks will be peer-reviewed and eligible for the North American Geosynthetics Society (NAGS) Awards of Excellence program. Track 1 and 2 session papers will be published in separate companion volumes.

The Organizing Committee includes an equal number of representatives from the two conference organizers: NAGS and the Industrial Fabrics Association International (IFAI). Its members are Rick Thiel, Rick Thomas, Richard Bathurst, Mark Marienfeld, Janice Hall, Larry Well, John Paulson, Danette Fettig and Martha Barnes. NAGS is responsible for the technical sessions. Rick Thomas, Conference Technical Chair, will lead this effort by ensuring that all committee members and session leaders are NAGS members who agree to uphold the society's high standards of excellence.

Other conference enhancements include making each day's first session of general interest and free to all participants. The NAGS Awards of Excellence banquet also is being revamped to make it more entertaining and less formal.

For more information, contact the Geosynthetics '99 Technical Committee, c/o IFAI, 1801 W. County Rd. BW, Roseville, MN 55113-4061 USA; Tel.: 1 (612) 225 6944; Fax: 1 (612) 631 9334; email: jlmcgovern@ifai.com.

The Brazilian Chapter of IGS

by Dr. Ennio Palmeira, President of the Brazilian Chapter

The use of geosynthetics in Brazil dates back to the early 1970s, mainly in works involving drainage, filtration and soil reinforcement. Since the mid-1980s, a great increase in the interest and acceptance of geosynthetics has been observed in Brazil. This interest has led to a great number of works using geosynthetics and to more universities and research institutions studying the use of such materials in different applications.

In 1983 the Brazilian Society of Soil Mechanics and Geotechnical Engineering formed a Brazilian Commission on Geosynthetics to study and spread the rational use of geosynthetics in civil and environmental works.

The commission has made significant contributions to the development of geosynthetics use in Brazil. Two national symposia on the subject have been held. Another is planned for 1999. However, this contribution has been restricted to Brazil. Only a limited interaction with foreign professionals and institutions has been accomplished. Therefore, Brazilian professionals involved with geosynthetics have felt the need for a greater exchange with the international community. The International Geosynthetics Society is undoubtedly the proper channel for this exchange.

As a consequence of the above, and with the encouragement of the IGS Officers, the decision to form an IGS Chapter was a natural choice. It is with great satisfaction that we announce the formation of the Brazilian Chapter. The objectives of the chapter are to spread and consolidate the geosynthetics discipline in Brazil and to interact with our neighbor countries. It is also the aim of the chapter to maintain a fruitful interaction with the Brazilian Commission on Geosynthetics and the Brazilian Society of Soil Mechanics and Geotechnical Engineering. Several activities related to geosynthetics are being planned for the near future. The elected officers of the chapter for the 1997-1999 term are:

- President: Prof. Ennio M. Palmeira, University of Brasilia, Department of Civil Engineering, FT, 70910-900 Brasilia, DF, Brazil, Tel.: 55-61-273 7313; Fax: 55-61-273 4644; email: palmeira@guarany.cpd.unb.br
- Vice Presidents: Prof. Delma Vidal (CTA-ITA) and Prof. Mauricio Ehrlich (Coppe/UFRJ)
- Secretary: Demetrius G. Guimaraes, Rhodia-Ster, Rua Antonio das Chagas 945, Chacara Santo Antonio, 04714-001 Sao Paulo, SP, Brazil, Tel.: 55-11-536 1577; Fax: 55-11-247 2597
- Treasurer: Dr. Mauricio Abramento (IPT).

NAGS Regional Seminar a Big Success

by Martha Barnes, NAGS Managing Director

The North American Geosynthetics Society (NAGS) recently instituted a great series of regional seminars. The idea was to pair the international expertise of a NAGS Past President with the accessibility of the society's local members. Robert M. Koerner of the Philadelphia-based Geosynthetic Research Institute led the first seminar, "Landfill Applications of Geosynthetics," held 23 April in Woburn, MA, USA. The format of the day-long inaugural seminar met with approval from the roughly 50 participants at the course, many of whom had never been to a NAGS/IFAI (Industrial Fabrics Association International) conference.

Using this new format, a typical seminar will begin with a lecture from one of the society's Past Presidents, followed by an afternoon panel discussion by local experts that focuses on regional projects. "It's a great format," commented one attendee, "We had professors, designers and regulators in the same room working together."

After Dr. Koerner discussed the recent developments in the use of geosynthetic materials in landfill applications, including principles and practical applications, local engineers provided examples to reinforce the theory. The afternoon speakers were Mike Oakland and Jim Laurila, Camp Dresser and McKee, Cambridge, MA; Richard Telgener, Haley and

Aldrich, Bedford, NH; Alan Kirschner, Cushing, Goings and Kirschner, Middleboro, MA; Warren Cohn, Synthetic Industries Inc., Chattanooga, TN; and Allen Marr, GeoTesting Express, Boxborough, MA. The seminar concluded with a panel discussion that included all the speakers.

NAGS thanks the corporate sponsors that make it possible to keep the cost of the seminars low. The April seminar, for example, was sponsored by American Excelsior, Arlington, TX; GeoTesting Express; Colloid Environmental Technologies Co., Arlington Heights, IL; Solmax Geosynthetics Inc., New Hartford, NY; Jennian Enterprises, Melrose, MA; North American Green, Evansville, IN; and Synthetic Industries, Inc. Representatives from the sponsoring companies also displayed materials and answered participants' questions.

Similar seminars are planned for other North American locations, featuring Past Presidents Joe Fluet, Bob Holtz, Barry Christopher and Jay Beech. Tentative locations include Houston, Seattle, Montreal and Toronto. For more information, please call Martha Barnes, NAGS Managing Director, at 1 (612) 225 6943 or email nags@ifai.com. Special thanks are due Allen Marr and his staff at GeoTesting Express for their help coordinating the April seminar.

Summary of the IGS Council Meeting Minutes

10 March 1997, Long Beach, CA, USA

The meeting was called to order by President Jones at 8:20 AM. The nineteen members present included President Jones, Vice President Bathurst, Past President Rowe, Treasurer Voskamp, Secretary Stevenson, Council members Akagi, Chung, Varma, Paul, Cazzuffi, Lafleur, Rimoldi, Fukuoka, Tatsuoka, Scuero, Gourc, Lawson, Holtz, Christopher, Karunaratne and Collin.

The minutes from the Maastricht meeting were reviewed, amended and approved. Copies of the principle issue held over from Maastricht, the Code of Ethics, were distributed to the Council. After review, the code was approved by the Council for publication on the IGS Web site, in the IGS News, the IGS Directory and IGS Handbook. An amendment to the bylaws to reference the Code will be drafted. Other matters arising from the Maastricht minutes included a decision to publish the Policy on Honorary Membership in the IGS News and on the Web. The Handbook will be edited during the summer officers meeting 9,10,11 August by Bathurst and Stevenson.

The Secretary reported the membership to be: 1630 members, 115 students, 71 corporate members and 2 benefactors. A proposal was adopted to modify the report to give a three year history.

A recruiting campaign focusing on students was reviewed and a plan was discussed to improve the benefits offered to the students. A recruiting campaign focused on the 158 educators who are members of the Society will be conducted by the Secretary. The educators on the Council formed an ad hoc group to compare notes and draft recommendations.

Candidates for the 1998 election include 1 presidential candidate, 2 vice presidential candidates, and 12 individuals standing for the 8 Council seats. The March and July issues of the IGS News will have articles on the election, and the postal ballot will be conducted from September through December 1997.

Professor G. Raymond was nominated as election officer. The Japanese Chapter notified the Council that the membership in Japan were not informed of the election deadline due to late distribution of the IGS News. A decision was taken to allow late nominations by any member. The March issue of IGS News will publish the known candidate biographies and announce the deadline extension, until 31 July 1997, of the deadline for nominations. The Secretary will write to the Chapter presidents informing them of the extension, advising them that they should inform their membership of the extension.

The policy of IGS distribution of documents was

amended. Documents, such as the Directory will automatically be bulk shipped to Chapters for distribution to their members. The Chapter will be reimbursed for expected out of pocket expenses (postage). The Chapter can apply for reimbursement of any excess expenditures they incur. A letter of explanation with suggestions for distribution (e.g. meetings) and the history of the IGS publication process will accompany the shipments.

A proposal to draft an article in the Handbook defining the concept of peer review was discussed and agreed. This will be drafted by Rowe and Bathurst. The article will also be published on the Web.

The EuroGeo 2 conference in the year 2000 is planned as follows: a reception on Saturday evening, tours on Sunday; overlap with SAIE during the week; the Mercer lecture will be included; a football match on Tuesday; and a social on Wednesday. Some competition for hotel space with attendees of SAIE is expected. The exhibition is adjacent to but separate from SAIE. A final bulletin for Geosynthetics '97 Asia was distributed by Mr. Varma. Several IGS Council members plan to attend.

Other pending conferences and Council members who have established contact include: XI Asian Conference ISSMFE (J.-P. Gourc), GEOENG 2000 (K. Rowe), PIARC, the Secretary.

The issue of address corrections for the Directory was discussed. Change of address cards are included in each copy and additional forms will be forwarded to the Chapters. The membership is encouraged to make every effort to advise the Secretary of the IGS and their Chapter of changes.

The Treasurer's report presented a preliminary budget and performance report for 1996 and a budget for 1997. Treasurer Voskamp will present these items in a separate article in the IGS News.

A formal meeting of Chapter officers and the officers of the IGS will be held during the 6th International Conference in Atlanta. The purpose is to provide a forum to communicate issues and problems.

A similar event will be held for the Corporate membership during the 6IGC. The social event is meant to express appreciation to the corporate membership and for the fostering of informal discussions.

Mr. Jim Paul, Chair of the Education Committee, will draft a plan for the distribution of the several education tools developed by the IGS. Materials include the videos, the Mercer lecture, keynote lectures and other items. The key prob-

lem is the enormous demands on a volunteer's time and resources. Council member Jim Collin will coordinate the acquisition of the materials of the FHWA course on Geosynthetics awarded to the IGS for distribution to the membership.

The Asian Activities Committee has been formed on the model of the European Activities Committee. Chaired by C. Lawson, a plan will be formed and published at the 6IGC in March 1998.

The first printing of the revised catalog of geomembrane standards is complete. It will be shipped to the Chapters for distribution to the membership. A plan to produce a catalog of geotextile standards was adopted. Publication by January 1998 is planned.

The announcement of the call for nominations for IGS Awards has been published in the IGS News. Awards will be presented at the 6IGC in Atlanta in March 1998.

Past President Rowe reported on the 6IGC conference schedule. Post conference tours and accompanying person events are being organized; abstracts have been reviewed and evaluated; a distinguished panel comprised of the reviewers; distribution of paper acceptances is expected to be immediate; deadline for papers is 1 July 1997; all good papers will be published and all papers must be a minimum of four pages. They can be drafted in four, six or any amount of pages required to make the point. Papers in excess of four pages may be allowed if the reviewers agree.

Philippe Delmas presented the French Chapter's candidacy for the Seventh International Conference to be held in Nice, 2002. A summary: the CFG (French Chapter of the IGS) are the proposers; Nice has good air travel and excellent

appointments and is a bridge between Europe, the East and Africa; the CFG has a good track record in organizing conferences; the CFG has published a number of standards; has experienced good conference participation; has a certification program; and conducts short courses and promotes research. The conference objective is 1000 attendees, 40% non-IGS, with 50 countries represented. The CFG has strong support from sister organizations, a good organizing committee and advisory board. The facilities appear excellent. Fees are in concert with IGS guidelines. All special lectures to be published. The Council's guidance include: all papers must be fully refereed, and no post-conference volume to be published. The officers recommendation for approval was adopted by the Council.

Professor Tatsuoka distributed a position report on the Design Methodologies Committee. Among major points are references to the literature which illustrates that creep in geosynthetics is very low in situ. The conclusion is that creep should not be a concern in geosynthetic applications.

The Secretary will write to the Chapters encouraging the submission of nominations for candidates to receive copies of the IGS Bibliography.

A new member is entitled to a benefits package when joining the IGS. A discussion ensued as to mode of distribution, and point of issuance. The Secretary will write to Chapters informing them of a plan to distribute sets to the Chapter for distribution and requesting agreement.

The next meeting will be for the Officers of the IGS on 9-11 August in Toronto and Kingston, Ontario, Canada.

reported by P.E. Stevenson, Secretary, IGS

Student Paper Awards at Geosynthetics '97

by Prof. Andre L. Rollin, P.Eng.

The Industrial Fabrics Association International (IFAI) and the North American Geosynthetics Society (NAGS) have solicited student papers on topics related to geosynthetics in civil, geotechnical or environmental engineering. The authors must be full-time graduate students enrolled at a North American University. This event was organized for the second time. One student author from the top five student papers was given an expenses-paid trip to attend Geosynthetics '97, Long Beach, CA, USA, in March 1997, for presentation and final judging at a student papers session.

The best papers were selected based on the quality of the paper, originality, content relevant to the use of geosynthetics in civil and environmental engineering and the author's presentation at Geosynthetics '97. The members of the reviewing committees were: Robert Denis, Vice President, Solmax Geosynthetics; Daniele Cazzuffi, ENEL, Milano, Italy; Ron Frobels, President, R.K. Frobels & Assoc.; Jean-Pierre Gourc, Professor, Grenoble University; Grace Hsuan, Professor, Drexel University; Bob Koerner, Professor, GRI,

Drexel University; Andre Rollin, Solmers International, Quebec; and David Suits, Department of Transportation, New York State.

The authors of the best five papers were: Jean-Francois Berard, the winner of the award, Ecole Polytechnique, Montreal, Canada (Evaluation of Needle-Punched Geosynthetic Clay Liners' Internal Friction); Richard Brachman, University of Western Ontario, Canada (Hoop Compression Testing of HDPE Leachate Collection Pipe); Jie Han, Georgia Institute of Technology, Atlanta, USA (A Strain-Softening Constitutive Law for Smooth Geomembrane/Sand Interfaces); Wei F. Lee, University of Washington, Seattle, USA (Numerical Analysis of Instrumentation of a Geosynthetic Reinforced Wall); Fabienne Montgrain, University of Sherbrooke, Quebec, Canada (Migration of a Contaminant Through Three Landfill Liner Scenarios Designs).

To best describe the feeling and the experience of the

participating students, Fabienne Montgrain, now working for Solmers International, wrote the following: "Geosynthetics always attracted me for their 'simplicity' and moreover, for their wide range of applications. In 1996, I did a Master's degree in geoenvironmental engineering at the University of Sherbrooke (Quebec, Canada). I became the first student at my school to gain membership in NAGS. Upon receiving the invitation to participate in the Student Paper Award session of Geosynthetics '97, I considered myself having few chances to win but decided to submit a paper. My subject was simulation results of landfill liner scenarios with different liner types (clay liner versus composite liner). The next thing I knew, I was part of the five finalists invited to present their papers at Geosynthetics '97 - I just couldn't believe it! I always thought that only PhD students could be finalists! And there I was, taking the flight from Montreal to Los Angeles, leaving that freezing temperature for beautiful and nice weather. How happy I felt to get such a chance!

"Two days after my arrival, I presented my paper. I was not only the first speaker to present, but the only woman finalist. Anxious and excited at the same time, I presented my paper, in my second language, and it came out just great! Afterwards, I attended other presentations at different

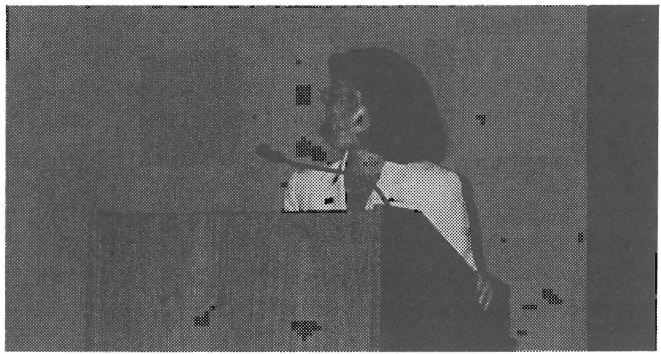


Mr. J.-F. Berard, winner of the NAGS Student Paper Competition.

sessions. I probably learned more in that convention than in any other place. During that time, I had the chance to meet many interesting people such as Dr. Rollin and Dr. Grace Hsuan who introduced me to many other researchers and professional consultants. All of them were very nice and enthusiastically showed me different aspects of their actual projects and careers. As a matter of fact, this convention gave me excellent opportunities to meet many potential employers from many countries - people that I would probably not have the chance to meet otherwise. It was simply incredible! Three weeks later, a consulting firm specializing in geosynthetics hired me. To all students I say: 'Get involved more in this world of endless possibilities!'"

This great opportunity can be experienced by many other students in conjunction with Geosynthetics '99 to be held in Boston, MA, USA (see related article on p3). The number of entrants can be increased if potential student authors are encouraged by their thesis directors and by other faculty. This year, the authors of four of the best student papers, including the winner, were full time graduate students enrolled in a Master's degree program.

*reported by Dr. Andre Rollin
Solmers International*



Dr. Grace Hsuan, co-chair of the Student Paper Session.

IGS Awards Nominations Sought for the Period 1994-1997 (deadline for nominations extended to 1 October 1997) (deadline for submissions 1 December 1997)

Purpose

IGS Awards will be granted in 1998 to individuals or groups of individuals who have made an outstanding contribution to the development and use of geotextiles, geomembranes, related products or associated technologies through their scientific and technological achievements. Awards will be made for the recognition of achievements completed and/or the validity of which has been demonstrated during a four year period preceding the year of the award (i.e. 1994 through 1997 inclusive).

Types of awards

There are two awards:

- The Young IGS Member Award for IGS members who are less than 36 years of age on 31 December 1997
- The IGS Award (regardless of age).

A maximum of five IGS Awards will be granted. Each award will consist of a specially commissioned medal and a diploma. The awards will be presented at the IGS Ordinary General Assembly to be held during the 6th International Conference on Geosynthetics, 25-29 March 1998 in Atlanta, Georgia, USA.

The winning entries will also be featured at the IGS booth at any conference held under the auspices of the IGS and will be publicized in the IGS News, in special press releases, on the IGS Web home page, and in other publications.

Candidates

All candidates must be members of the IGS. All members of the IGS are eligible with the exception of the President of the IGS and the members of the Awards Committee.

In the case of a group submission to the Young IGS Member Award all members of the group must satisfy the age requirement. Any individual or group that is a candidate for the Young IGS Member Award is automatically considered for both award categories (unless requested otherwise by the candidate). However, a candidate may only receive one award for the 1994-97 period.

Nominations

Nominations of candidates should be typed in English on plain paper (not letterhead) and submitted to the IGS Secretariat at the address on p15.

The nomination must include: a clear statement of the contribution of the candidate that is to be considered (e.g. if a product, provide a clear definition of the product; if a paper(s) or book, give a full reference of the paper(s)/book; if a report, give a full reference to the report; if a construction method, give a clear description of the method and any references, etc.). Include a statement indicating the originality and significance of the candidate's contribution to the discipline (i.e. in the field of geotextiles, geomembranes, related products and associated technologies).

Nominations may be made by any IGS member other than members of the Awards Committee. Under the IGS Awards rules, any IGS member can nominate himself/herself for any award.

The Publications Committee, Education Committee, Corporate Members Committee and IGS Chapters are invited to make nominations. Candidates who have been nominated will be contacted by the IGS Secretary. Candidates will be asked to agree to stand for an award and will be required to submit materials on their candidacy as outlined in the IGS Awards Rules and Procedures. All nominations and award entries will be treated with the strictest confidence by the IGS Secretary and the Awards Committee.

IGS Awards Committee

The Awards Committee will comprise five regular members including the Chair (all members will be selected by the IGS President from a list approved by the IGS Council). The members will be selected so as to represent a broad cross-section of geosynthetic-related technologies and experience. The Secretary of the IGS will attend all meetings of the Awards Committee as an observer and coordinator.

Further Information

Contact the IGS Secretary (p15) for the complete IGS Awards rules.

7IGC To Be Held In 2002

At the meeting held in March 1997, in Long Beach, CA, USA, the IGS Council approved a location and organizing body for the Seventh International Conference on Geosynthetics (7IGC). The French Chapter of the IGS (CFG) will sponsor the 7IGC in Nice, France in 2002.

The history of the IGC conferences is as follows:

First IGC, Paris, France 1977
Second IGC, Las Vegas, USA 1982
Third IGC, Vienna, Austria 1986
Fourth IGC, The Hague, The Netherlands 1990
Fifth IGC, Singapore, Singapore 1994
Sixth IGC, Atlanta, USA 1998
Seventh IGC, Nice, France 2002.

Philippe Delmas presented the French Chapter's bid to

hold the Seventh International Conference on Geosynthetics, in Nice, France in 2002. The CFG has experience organizing conferences and has had good attendance and participation. The CFG has strong support from sister organizations to hold the 7IGC. In addition, Nice has very good international travel access and is easily accessible from Europe, the East and Africa.

The conference objective is 1000 attendees with 40% from outside the IGS. The conference proceedings will include all special lectures and refereed papers.

The IGS Council encourages all members to mark their calendars and to encourage their colleagues to do the same. The 7IGC promises to be a productive and useful conference.

reported by D. Elton, Editor

IGS Chapter Reports

Chinese Chapter

This report covers the main activities of the Chinese Chapter in the last two years.

1. The 4th National Conference on

Geosynthetics was held in Shanghai on 16-20 Jun 1996. 310 people attended the conference and participated in the technical sessions. Five theme reports and three special lectures were delivered. One hundred other papers were included in the proceedings.

2. The First China International Exhibition & Symposium on Geosynthetics (China - Geosynthetics '96) was held in Shanghai, China, on 19-22 Jun 1996. It was hosted by four organizations. The symposium had 49 exhibitors and 150 attendees. 31 papers were included in

the proceedings.

3. An important design specification for the geotechnical application of plastic band drains was compiled.
4. The testing specifications for plastic band drains were compiled.
5. Compiled a draft "Test Standard for Geotextiles and Geomembranes".
6. The "Manual for the Engineering Applications of Geosynthetics" compiled and published by CTAG in 1994 has sold out. A revised version is under re-consideration.
7. There are three people who will join as new members.

reported by Can Wen Yang, President Chinese Chapter, IGS

Dutch Chapter (IGSN)

Activities in 1996

1. General Assembly of NGO/IGSN, held in Gouda 3 Apr 1996.
2. A second course on the use of geosynthetics was given during the first university semester in 1996, intended for Dutch polytechnic students. The course was attended by 20 students. At a seminar in June the results of a joint NIL/NGO research project of welding geomembranes were presented.
3. The first European Geosynthetics Conference, EuroGeo1, was organized and held 31 Sep - 2 Oct 1996.
4. A seminar about biologically degradable geosynthetics was held in Delft on 19 Nov 1996.

Planned activities

With participation of the NGO, a seminar on soil protection will be held in May 1997.

Publications

1. Six NGO newsletters were published and sent to all ISGN members.

2. An English translation of the Dutch CUR/NGO handbook on uses of geosynthetics, used by many Technical Colleges, was published. This book, "Geosynthetics in Civil Engineering," has been published by A.A. Balkema/Rotterdam/Brookfield.

3. As a result of the joint NIL/NGO research project on welding geomembranes, recommendations for welding of the same type of geomembranes by a hot element or an extruder were presented. The research project on welding different types of geomembranes to each other is continuing.

4. A CUR/NGO report on the use of geosynthetics in strengthening river dikes was published in Dec 1996.

Future Activities

In conjunction with manufacturers, consultants, distributors and users, the NGO is trying to establish an advisory center for the use of geomembranes.

Membership and Officers

The Dutch chapter started in 1996 with 132 members

President: Koos A.G. Mouw
Vice President: Wim Voskamp
Secretary General: Peter Mazure
Treasurer: Hans van Marie

*submitted by: Peter Mazure
Secretary of ISGN*

German Chapter

At the moment there are 70 members of the German IGS Chapter as part of the 223 members of the FS-KGEO ("Fachsektion Kunststoffe in der Geotechnik").

The FS-KGEO and the IGS chapter have distributed two circulars to inform the members about conferences, abstract deadlines and actual publications.

The last national conference of the FS-KGEO covering its general meeting was held in Munich, March 1995. The proceedings (in German) are available

at: Deutsche Gesellschaft für Geotechnik e.V. (DGGT), 52, Hohenzollernstr. 52 - 45128 Essen, Germany. The fifth national conference (FS-KGEO '97) was held on 4-5 Mar 1996, in Munich, combined with special lectures for students and geosynthetic newcomers. About 300 participants were present. There will be 25 papers published in the summer of 1997. A general meeting of the German IGS Chapter was held.

The FS-KGEO was present at the national soil mechanics conference of the DGGT ("Baugrundtagung") in Sep 1996 with three articles.

The German IGS Chapter was represented at EuroGeo 1 in Maastricht, The Netherlands, by presentation of a special session "Stressing of geosynthetics during installation and construction on site." Dr. Floss gave an invited lecture "Relevance of the European Conference and the Development of Geosynthetics Engineering", which is expected to be published in the IGS News. There was a special Chapter presentation.

*reported by
Univ.-Prof. Dr.-Ing R. Floss
Head of German Chapter*

Italian Chapter (AGI-IGS)

Activities

1. Organization of a technical visit to the Special Materials and Geosynthetic laboratory of ENEL Spa-CRIS in Milano, with an attendance of 38 people (see related article, vol. 12, no. 2, July 1996).
2. Organization of a technical visit to Bovilla dam in Terana, Albania, with an attendance of 13 people (see related article, vol. 12, no. 3, Nov 1996).
3. Prepared the bid for organizing EuroGeo 2 in the year 2000 in Italy.
4. Collaboration (through AGI-IGS Council Members) on the publication of the Italian Directory of Geosynthetics (1996) printed by BE-MA and circulated to all EuroGeo 1 and 10th Italian Conference on Geosynthetics participants.

5. Organization of the 10th Italian Conference on Geosynthetics (Bologna, 16 Oct 1996) with the support of the Bologna Engineers Association and BolognaFiere. The conference was devoted to the Italian experience in the frame of the European Union, with the oral presentation of 12 papers and one introductory lecture (by D. Cazzuffi and M. Maugeri).

6. Planned visits in Central Italy to soil stabilization and reinforced structure construction sites.

Membership and Officers

Corporate Members: 2

Individual Members: 128

Student Members: 3

President: Sandro Martinetti

Vice Presidents: Daniele Cazzuffi and Piero Sembenelli

Secretary-Treasurer: Sergio Di Maio

Council Members: Ezio Baldovin, Alessandro Ghinelli, Ruggiero Jappelli, Pietro Rimoldi, Leonardo Sarti, Alberto Scuero

New elections are planned in March 1997 to replace four officers.

*reported by Daniele Cazzuffi
Vice President of the Italian Chapter*

Korean Chapter (KC-IGS) (1996/1997)

1. Seminars

The 1996 annual Geosynthetics Conference was held 3 Dec 1996, in Seoul, Korea, through the joint organization of

KC-IGS and KGS (Korean Geotechnical Society). Professor T. Akagi, from Toyo University in Japan was the invited Keynote Lecturer. His paper was "Current Use and Prospect of Geosynthetics in Japan". Total attendance was 162 - 104 members, 33 student members, and 25 non-members. Ten papers were presented at this conference. Three were on soil reinforcement, two on geoenvironmental applications, three on soft soil improvement, and two on case histories of EPS. The titles are:

- Bearing Capacity of Reinforced Ground with Different Relative Densities
- Bearing Capacity of Strip Footing on Geogrid-Reinforced Slopes
- Analyses of Geosynthetic-Reinforced Soil Retaining wall Stability System and Three-Dimensional Behavior
- Construction and Design of Sanitary Landfill Using Geosynthetics
- Study on the Chemical Resistance of the Waste Landfill Liner
- Study on the Applicability of Various Types of Geotextile Pack Drain Method
- Evaluation of Plastic-Board Considering In-Situ Conditions
- A Study on the Vacuum Consolidation Method by Cylindrical Drain
- The EPS Construction Method for the Safety of the Abutment
- Evaluation and Application of Vertical Wall System Using EPS Blocks in Roadway Enlargement

A special seminar on the application of

XPS (Extruded Polystyrene) in civil engineering fields was held on 3 Jul 1996 in Seoul, Korea.

2. Technical trips

KC-IGS organized two technical trips to visit construction sites - a PTC (Pack Twist Check) drain method on 23 Oct 1996, and a reinforced earth wall with panel facings on 23 Nov 1996.

3. Research

KC-IGS is conducting research on "Geosynthetics Design & Construction Guidelines" supported by the Ministry of Construction, Korea. The project will last from 1996 to 1997.

4. Planned Events

'97 Geosynthetics Conference will be held in Nov 1997, in Seoul, Korea.

The workshop "Geosynthetics Applications in Various Fields", will be held in Seoul, Korea in 1997.

Technical trips to visit the construction sites of civil structures reinforced with geosynthetics will be made in April and August 1997.

5. Membership

Individual members: 41

Corporate members: 1

6. The IGS videotapes on Landfills and Transportation Applications are greatly appreciated by the Chapter.

*reported by Prof. Eun Chul Shin
University of Incheon
and Byung-Hee Kang
Korean Chapter President*

Updates for the 1998 IGS Directory Sought

Compilation of the 1998 IGS Directory is underway. Members are asked to notify the IGS Secretary (see p15) of address changes by 1 November 1997 in order to have their current information posted in the 1998 IGS Directory. Please include the correct address, phone and fax numbers and email address, and other pertinent information. The Directory is created from information supplied by members or their Chapters.

Additions, such as new members, and revisions or corrections of the IGS database are essential to insure the Directory is accurate and complete. Accuracy is required since the same database generates mailing lists for the IGS News,

postal ballots and every direct communication between the society and its members.

It is very important that the Directory be accurate so that the member receives the IGS News and correspondence in a timely fashion. Chapters, corporate and individual members can assist the IGS in maintaining accurate information by periodic review of their IGS records and prompt communication with the IGS Secretary when corrections and additions to the IGS database must be made.

*contributed by P.E. Stevenson
Secretary, IGS*

CORPORATE PROFILES

The IGS Council has decided that in each issue of the IGS News, up to three Corporate Members will be allocated space to allow them to introduce their company or association and present their achievements. The criteria for selection of corporate profiles were described in IGS News, v4, no. 2, p7. Alternatively, you can get details by writing to the Editor. There is no charge for having a corporate profile published; it is a benefit of corporate membership.

Colas

by Bernard Breul

Chief, Research and Development
and François Chaignon, Colétanche

The COLAS group employs 28,300 people (900 of them in continental France). Thirty-two percent of the group's total sales of 16.5 billion French francs (tax not included) is earned from exports. It operates in three economic fields: 86% in roads, 10% in civil engineering and 4% in building construction. Colas has 120 centers in France, grouped under 11 regional subsidiaries. The company is firmly established in Africa, in French overseas departments and territories, and in North America.

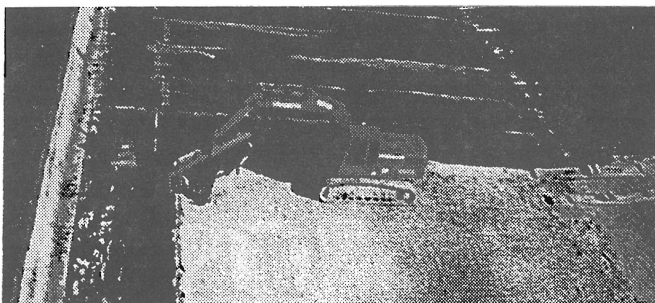
Colétanche is a geomembrane produced industrially in France. The entire chain from manufacturing to laying installation is controlled by COLAS. Colétanche NTP is a combination of a reinforcement embedded in a nonwoven geotextile with a special hydrocarbonated binder from Shell. It comes in five types: NTP 1, NTP 2, NTP 3, NTP 4, and NTP ES. These geomembranes are available in different thicknesses from 3.3 to 5.6 mm.

Colétanche has been providing optimal solutions to environmental and hydraulic problems for 20 years. This product is primarily used as a reliable, durable solution to waste storage. 110,000m² of it was laid at the Manche radioactive waste storage center near the English Channel, where Colétanche was selected amid intense competition with a number of other types of geomembranes.

For more information, please contact:

Colas
7, Place René Clair
92065 BOULOGNE-BILLANCOURT CEDEX, France
Tel.:(33) (1) 47 61 75 80; Telex: 633 244
Fax: (33) (1) 47 61 74 72

Colas has been an IGS Corporate Member since 1996.



A large landfill installation in France.

AGRU

Alois Gruber GmbH

by Mrs. Renate Machner

In 1961 Alois Gruber, the owner of a metal-working company called AGRU, decided to start producing plastic pipes. Since that time, AGRU has grown at a rapid rate and has become a main supplier for liners, concrete protective liners, but also for the semiconductor industries using high purity PVDF, ECTFE and PP piping systems. Today more than 17,000 tons of polymer are processed by AGRU each year

AGRU, located in Bad Hall, Austria, is 300 person firm with customers in 80 countries. AGRU has production, sales and marketing in the United States and joint ventures in Thailand, Korea, and Singapore and has a 50% share in AGRU-FRANK located in Germany.

Products:

- pipes, fittings and semi finished products out of PE, PP, PVDF, and ECTFE
- double containment piping systems out of PE, PP, or PVDF
- concrete protective liners out of PE, PP, PVDF, or ECTFE
- environmental system with PE-liners, degassing and drainage systems for sealing sites, cut-offs around landfills, sealing concrete structures, storage basins, and spill containment.

For more information, please contact:

in the USA: AGRU AMERICA Inc., 300 West Davis, Suite 520 Conroe, TX 77305 Tel.: 1 (409) 539 2478; Fax: 1 (409) 539 6162
or: AGRU Alois Gruber GmbH, Ing. Pesendorfer Str. 31, A-4540 Bad Hall, Austria. Tel.: 43/7258/4811-0; Fax: 43/7258/3863

AGRU has been an IGS Corporate Member since 1996.



AGRU offices.

Professor Training Course for Geosynthetics a Success!

The US National Science Foundation and the Industrial Fabrics Association International have recently conducted the fourth Professor Training Course for Geosynthetics at Auburn University, AL, USA. The five-day, expenses-paid course was attended by thirty-seven invited university professors. The attendees received detailed training to assist in teaching and designing with geosynthetics. The professors were able to take the teaching materials, generic samples, and the knowledge gained back to their own university classrooms.

The course provided university professors with instructional materials to assist them in teaching civil engineering students about geosynthetics. Geosynthetics have applications in many areas of geotechnical, environmental, and transportation engineering. The course notes were arranged topically so that each professor could build upon his existing class notes on a specific area.

Seven instructors addressed the attendees and provided notes: Dr. R.J. Bathurst, of the Royal Military College of Canada, Dr. S. Adanur, Auburn University, Dr. R. Holtz, University of Washington, Dr. J. Bowders, University of Missouri-Columbia, Dr. D. Elton, Auburn University, Mr. R. Berg, and Dr. R. Koerner, Geosynthetic Institute at Drexel University.

The course included demonstrations in a geotextile manufacture and testing laboratory and construction of a demonstration modular block wall.

The attendees received a large box of many instructional and technical materials. The primary teaching material was the participant notebook. Each instructor prepared an extensive outline, notes, and references specifically designed for

this course. Attendees received design manuals, generic product samples, a computer program, over 150 slides, three videos, the Geosynthetics Bibliography (vol. I and II), and the compendium of ASTM Geosynthetics Test Standards.

The course was funded primarily by the National Science Foundation Division of Undergraduate Education and the IFAI Geotextile Division. Mr. Joe Luna, of Akzo-Nobel, directed the efforts as head of the IFAI Geotextile Division Education Committee. Other sponsors were the Erosion Control and Technology Council (ECTC), the PVC Geomembrane Institute (PGI), the North American Geosynthetics Society (NAGS) and the Geosynthetic Institute.

For information on the 1998 NSF/IFAI Professor Training Course for Geosynthetics, please contact:

Dr. David J. Elton
Dept. of Civil Engineering
Auburn University, AL USA 36849-5337
Tel.: 1 (334) 844-6285; Fax: 1 (334) 844 6290
email: elton@eng.auburn.edu



Professors on the demonstration modular block wall.

Geosynthetics Asia '97 - Asian Regional Conference 26-29 November 1997, Bangalore, India

The Committee for International Geosynthetics Society (India) (CIGSI) and the Central Board of Irrigation and Power (CBIP) take great pleasure in extending a cordial invitation to institutions and individuals interested in geosynthetics to participate in "Geosynthetics Asia '97 - Asian Regional Conference" from 26-29 November 1997 in Bangalore, India. The conference is organized under the auspices of the International Geosynthetics Society (IGS) and in association with the Asian Society for Environmental Geotechnology (ASEG). This regional conference will herald the establishment of the Asian Regional Committee of the

International Geosynthetics Society.

Along with Geosynthetics Asia '97, an exhibition is also organized from 26-29 November 1997 in Hotel Ashok, Bangalore.

More than seventy-five papers, covering the following topics, will be presented by renowned experts from India and other countries including Algeria, Australia, France, Germany, Greece, Italy, Korea, Romania, Singapore, UK, and the USA. All six chapters of the IGS in the Asian Region were requested to contribute and present chapter reports on developments

in geosynthetics in their countries.

The Japanese, Korean, and Southeast Asian Chapters, as well as the Indian Chapter, have agreed to contribute, present and discuss the chapter reports during the conference.

For further details please contact:

C.V.J. Varma
Member Secretary
Central Board of Irrigation and Power
Malcha Marg, Chanakyapuri
New Delhi- 110 021
INDIA

Tel.: 91 11 611 5984
91 11 611 6567
Fax: 91 11 611 6347
email: cbip@giasd101.vsnl.net.in

Interested persons may contact:

Fax: 91 11 686 2037

A preconference short course on "Geosynthetics: New Horizons", is also organized for 25 Nov 1997, along with an exhibition on "Geo Horizons '97 - One Stop Source".

Dr. G. Venkatappa Rao
Professor and Head
Department of Civil Engineering
Indian Institute of Technology
Hauz Khas, New Delhi 110 016
INDIA

Tel.: 91 11 685 7754 (Office)
91 11 685 6043 (Home)

There is no registration fee for participation in the preconference short course and it is open to academics and interested engineers who are registered for the conference. However, the number of participants is limited to eighty and will be decided on a first come - first served basis.

Geotextiles and Geomembranes **an Official Journal of the IGS**

Geotextiles and Geomembranes is entering its 15th volume in 1997. Several special issues are planned including: "Geosynthetic Landfill Liners", and "Field Performance of Geosynthetics and Geosynthetic Related Systems".

Elsevier is providing two new services: Contents Direct which delivers the contents page of every issue of *Geotextiles and Geomembranes* directly to your PC, two to four weeks before publication. To subscribe, send your request to Cdsubs@elsevier.co.uk - be sure to include your full name and address AND your email address. ESToC - our Table of Contents service provides details on contents from January 1995 onwards, with search facilities and links to other publications in our catalogue: <http://www.elsevier.nl/locate/estoc/>.

Geotextiles and Geomembranes has its own Web page, containing full information about the journal, including Aims and Scope, Editorial details, and Notes for Authors: <http://www.elsevier.nl/locate/geotexmem/>.

Volume 15 of *Geotextiles and Geomembranes* is being published in 1997 and will comprise 6 issues. The full subscription price for 1997 is UK280, US\$454 or Dfl728. Individual members of the IGS may subscribe at an 80% discount, i.e. UK56, US\$91, Dfl146. Corporate members of the IGS may subscribe at a 50% discount, i.e. UK140, US\$227, Dfl364. Reduced subscriptions are available directly from the publisher and may be paid for by check or credit card to:

Subscriptions Department
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UK
Fax: +44 (0) 1865 843911

IGS members are reminded that **to take advantage of this discount they must inform Elsevier Science that they are members of the IGS**. Free sample copies of the journal may be requested from Mrs. E. Phillips, Marketing Services, at the same postal address shown above.

Submit technical contributions to:

Dr. Nigel W. M. John
Department of Civil Engineering
Queen Mary & Westfield College
University of London
Mile End Road
London, E1 4NS
UK

Instructions for authors are available from Dr. Nigel John. Alternatively, they can be found on the Elsevier Website at: <http://www.elsevier.nl/locate/geotexmem/>.

Geosynthetics International **an Official Journal of the IGS**

Geosynthetics International is an official journal of the IGS. Consequently, each issue of *Geosynthetics International* is published with the IGS logo on the cover.

In recognition of the adoption of *Geosynthetics International* by the IGS, the Industrial Fabrics Association International (IFAI), publisher of *Geosynthetics International*, has introduced a special reduced subscription rate for individual IGS members. For individual IGS Members the rate is now US\$99 per six issues with the standard rate of US\$225 applying to non-IGS Members, IGS Corporate Members and other

corporations or institutions. A special rate of US\$125 / 6 issues is available for university libraries. IGS members are encouraged to use *Geosynthetics International* as an outlet for their technical papers and thus contribute toward the continuing success of this high quality publication.

A special issue on "Liquid Migration Control Using Geosynthetic Liner Systems" is in press at the time of this newsletter. A second special issue on "Geosynthetics in Earthquake Engineering" is currently in preparation and will appear early in 1998.

Papers should be work not published in full elsewhere and should be sent to any of the following:

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St. Albans, AL1 3ES, UK
Tel.: 44-1727-842433 Fax: 44-1727-845266

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Chairman of the Editorial Board,
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Boca Raton, FL 33487 USA
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For subscriptions, contact:

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IFAI
1801 County Road BW
Roseville, MN 55113-4061, USA
Tel.: 1 (612) 222 2508; Fax: 1 (612) 222 8215

Visit the Geosynthetics International Website at:
<http://geo.rmc.ca/gi> .



Calendar of Events



Recontres '97

Reims, France, 8 - 9 Oct 1997
Contact: Rencontres '97, BP 100, 9, rue Marcel Paul - 95873
Bezons Cedex, FRANCE
Tel.: 01 34 23 57 92 Fax: 01 34 23 53 64

Sardinia '97 Sixth International Landfill Symposium

Cagliari, Italy 13-17 Oct 1997
Contact: Anne Farmer, CISA-Environmental Sanitary
Engineering Centre, Via Marengo 34-09123 Cagliari, ITALY
Tel.: 39/70-271652 Fax: 39/70-271371

50th Canadian Geotechnical Conference

Ottawa, Ontario, Canada 20 - 22 Oct 1997
Contact: Dr. G. E. Bauer, 1125 Colonel By Drive, Carleton
University, Ottawa, Ontario K1S 5B6
Tel.: 1 613 520 5658, Fax: 1 613 520 5682
email: gunther_bauer@carleton.ca

Second Shanghai International Techtexile Exhibition & Conference (SITEC)

Shanghai, China, 3-5 Nov 1997
Contact: Eileen Tan at Miller Freeman Pte Ltd, 100 Beach
Road
#26-00 Shaw Towers, Singapore 189702
Tel.: 65-294-3366 Fax: 65-299-9782

Industrial Fabric & Equipment Exposition

Nashville, TN, USA, 12-14 Nov 1997
Contact: IFAI, 1801 County Road BW
Roseville, MN 55113-4061, USA
Tel.: 1 (800) 225 4324 Fax: 1 (612) 222 8215
email: generalinfo@ifai.com Website: www.ifai.com

Geosynthetics Asia '97 - Asian Regional Conference

Bangalore, India 26-29 Nov 1997
Contact: C.V.J. Varma, c/o Central Board of Irrigation and
Power, Plot No. 4, Industrial Area Malcha Marg
Chanakyapuri, New Delhi, INDIA 110021
Tel.: 91 11 3015984/3016567 Fax: 91 11 3016347
email: cbip@cbipdel.uunet.in

Eleventh Annual GRI Conference

Philadelphia, PA, USA 9-10 Dec 1997
Contact: Marilyn Ashley, Geosynthetic Research Institute,
Drexel University, West Wing-Rush Building, Philadelphia,
PA 19104, USA
Tel.: 1 (215) 895 2343 Fax: 1 (215) 895 1437
email: marilyn.ashley@coe.drexel.edu

Sixth International Conference on Geosynthetics

Atlanta, Georgia, USA 25-29 Mar 1998
Contact: Danette Fettig, IFAI, 1801 County Road BW
Roseville, MN 55113-4061, USA
Tel.: 1 (612) 222 2508 Fax: 1 (612) 222 8215
email: dfettig@northernnet.com

World Road Association (PIARC)

Granada, Spain, 11-13 Nov 1998
Contact: Asociacion Tecnica de Carreteras
C/ Monte Esquinza, 24, 28010 Madrid, Spain
Tel.: 34 (1) 308 23 18 Fax: 34 (1) 308 23 19
<http://www.piarc.inrets.fr>

Note: Items in bold print are organized under the auspices of the IGS or with the support of the IGS.

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The IGS News is published three times per year. Material for publication should be submitted to the Editor or one of the Associate Editors by 16 Feb, 16 Jun, 16 Oct for the Mar, Jul and Nov issues respectively. Short articles and/or good quality photos (with a caption) are always **very welcome**.

The IGS Council

Elected in 1996: T. Akagi (Japan); B.R. Christopher (USA); H-S. Chung (Korea); C. Lawson (Malaysia); J. Lafleur (Canada); J. Paul (United Kingdom); A.M. Scuero (Italy); C.V.J. Varma (India). Elected in 1994: D. Cazzuffi (Italy); J. Collin (USA); J-P. Gourc (France); R. Holtz (USA); G. Heerten (Germany); P. Rimoldi (Italy); F. Tatsuoka (Japan); W. Voskamp (The Netherlands). Co-opted in 1994: G.P. Karunaratne (Australia); P.E. Stevenson (USA). Co-opted in 1992: M. Fukuoka (Japan). The IGS Council includes the five IGS Officers serving for the period 1994-98.

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email: igspete@aol.com

Corporate Members of the IGS

AFPG - Switzerland (1996)
AGRU Alois Gruber GmbH - Austria (1996)
Akzo-Nobel Geosynthetics B.V. - Netherlands (1986)
Amoco Fabrics and Fibers Co. - USA (1987)
Armater S.A. - France (1996)
Asahi Chemical Industry Co. Ltd. - Japan (1984)
Association Suisse Des Professionnels De Geotextiles (Aspg/Svg) - Switzerland (1984)
Belton Industries Inc. - USA (1989)
Bidim Geosynthetics - France (1984)
C.I. Kasei Co., Ltd. - Japan (1992)
Cetco - USA (1992)
Colas Group, The - France (1996)
C.A.R.P.I. Italia S.r.l. - Italy (1996)
Dae Han Industrial Material Co., Ltd. - Korea (1994)
Daito Kogyo Co., Ltd. - Japan (1992)
Tele Textiles AS - Norway (1995)
Don & Low Ltd. - UK (1984)
Du Pont De Nemours Int. S.A. - Switzerland (1984)
E & S Engineering Co., Ltd. - Korea (1997)
Engtex AB - Sweden (1995)
Fibertex A/S - Denmark (1984)
Fiti Testing and Research Institute - Korea (1997)
Fritz Landolt Ag - Switzerland (1985)
Geofabrics Ltd. - UK (1995)
Geofelt GmbH - Austria (1996)
Geotextiles (M) Sdn Berhad - Malaysia (1991)
Geotechnics Holland B.V. - Netherlands (1991)
Geotop Corporation - Japan (1994)
Golden-Pow Co., Ltd. - Korea (1996)
GSE Lining Technology, Inc. - USA (1988)
HL-Weinerberger Manufacturing (S) Pte Ltd. - Singapore (1994)
Hong Kong Geosynthetics - Hong Kong (1996)
Huesker Synthetic GmbH & Co. - Germany (1987)
Industrial Fabrics Association International (IFAI) - USA (1985)
Japan Spunbond - Japan (1984)
Kajima Corporation - Japan (1985)

Kumagai Gumi Co., Ltd. - Japan (1987)
Kuraray Co., Ltd. - Japan (1989)
Maeda Corporation - Japan (1988)
Maeda Kosen Co., Ltd. - Japan (1992)
Mecaroute S.A. - France (1996)
Mitsubishi Kagaku Sanshi Corporation - Japan (1992)
Mitsui Petrochemical Industrial Products Ltd. - Japan (1992)
Naue Fasertechnik GmbH & Co. KG - Germany (1987)
National Seal Company - USA (1992)
Netlon Ltd. - UK (1989)
Ten Cate Nicolon B.V. - Netherlands (1984)
Nippon Zeon Co., Ltd. - Japan (1992)
Nittoc Construction Co., Ltd. - Japan (1994)
Obayashi Corporation - Japan (1988)
Officine Maccaferri S.P.A. - Italy (1997)
Okasan Kogyo Co., Ltd. - Japan (1984)
Pavco S.A. - Colombia (1991)
Polyfelt GmbH - Austria (1984)
Poly-Flex, Inc. - USA (1996)
Presto Products - USA (1996)
Rhodia-ster Fipack S.A. - Brazil (1994)
Shimizu Corporation - Japan (1990)
Solmax International, Inc. - Canada (1997)
Sotrap S.A. - France (1996)
Steel Dragon Enterprise Co. Ltd. - Taiwan (1996)
Synthetic Industries Inc. - USA (1991)
SVUG - Czech Republic (1993)
Taiyo Kogyo Corporation (Sun) - Japan (1991)
Taiyo Kogyo Co. Ltd. (Ocean) - Japan (1996)
Tanaka Co., Ltd. - Japan (1993)
Tenax SpA - Italy (1991)
Terram Ltd. - UK (1988)
Thai Nam Plastic Public Co., Ltd. - Thailand (1994)
The Tensar Corporation - USA (1989)
The Reinforced Earth Co. - USA (1989)
The Zenitaka Corporation - Japan (1992)
Tokyu Construction Co., Ltd. - Japan (1984)
UCO Technical Fabrics N.V. - Belgium (1985)
note: date is earliest year of continuous membership

The International Geosynthetics Society



OBJECTIVES OF THE IGS

The International Geosynthetics Society was formed with the following objectives:

- to collect, evaluate and disseminate knowledge on all matters relevant to geotextiles, geomembranes, related products and associated technologies;
- to improve communication and understanding regarding geotextiles, geomembranes, related products, and associated technologies as well as their applications;
- to promote advancement of the state of the art of geotextiles, geomembranes, related products, and associated technologies;
- to encourage through its members the harmonization of test methods, equipment and criteria for geotextiles, geomembranes, related products and associated technologies.

WHY BECOME A MEMBER OF THE IGS?

First, to contribute to the development of our profession.

By becoming a member of the International Geosynthetics Society you can:

- help support the aims of the IGS, especially the development of geotextiles, geomembranes, related products and associated technologies.
- contribute to the advancement of the art and science of geotextiles, geomembranes and related products, and associated technologies.
- participate in a forum for designers, manufacturers, and users, where new ideas can be exchanged and contacts improved.

Second, to enjoy the benefits.

The following benefits are available now to all IGS members:

- A directory of members, the IGS DIRECTORY, published every year, with addresses, telephone, email and fax numbers.
- Newsletter, IGS NEWS, published three times a year.
- Reduced purchase price on all documents published by the IGS.
- Reduced registration fee and preferential treatment at all conferences organized under the auspices of the IGS.
- Reduced subscription fee for IGS endorsed journals.
- A central system for ordering selected publications.
- Possibility of earning an IGS award.

IGS MEMBERSHIP APPLICATION

Membership of the International Geosynthetics Society (IGS) is open to individuals or corporations "...engaged in, or associated with, the research, development, teaching, design, manufacture or use of geotextiles, geomembranes, and related products or systems and their applications, or otherwise interested in such matters". The annual fee for membership is US\$45 for individuals and US\$1000 for corporate members. Individuals of corporations who voluntarily contribute a minimum of US\$200 annually to the Society, in excess of their membership dues, will be mentioned in the IGS Directory in a separate list as benefactors.

Attach card or fill in your address as you wish it to appear in the next IGS Directory

Title (circle one): Mr. Ms. Dr. Prof. Other _____

First Name _____ LAST NAME _____

Company _____

Address _____

City _____ Province/State _____

Postal Code/ZIP _____ Country _____

Telephone _____

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Send this completed form to:

IGS Secretariat
P.O. Box 347
Easley, SC 29641-0347
USA

email: IGSSEC@AOL.COM
Tel.: 1 (864) 855-0504
Fax: 1 (864) 859-1698

- **Eligibility** (i.e. connection with geotextiles, geomembranes, related products and associated technologies)

PAYMENT

Membership fee schedule: Individual US\$45 Corporate US\$1000 Benefactors contribution (at least US\$200)

Mode of Payment:

Check enclosed

Draft sent to: Credit Suisse
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Zurich, Switzerland
Account no. 110525-02 USD

Credit Card (circle one) MasterCard/Visa American Express

Account no.: _____

Expiration date: _____

Signature: _____

Name on card: _____

Date: _____

Authorized signature: _____

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