

IGS NEWS

NEWSLETTER OF THE INTERNATIONAL GEOTEXTILE SOCIETY

VOLUME 6 NO 1

MARCH 1990

An Open Letter from The President of the IGS

Dear 1000th Member:

As President of the IGS, I am very pleased to welcome you aboard. First, I want to thank you personally because, by joining the IGS, you have fulfilled one of my goals which is to have more than 1000 members.

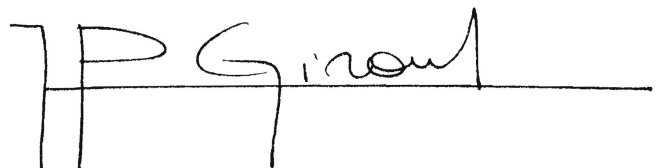
I also want to congratulate you because you have joined a professional society that is respected worldwide for its achievements and for its ethical and professional standards. I am sure you were impressed by the Directory you received when joining; I am sure you are impressed by the quality of this newsletter; and I am sure you will be impressed by the list of achievements you will find on the next page.

Discovering the IGS as it is today may lead you to believe that it has been well established for many decades. I want you to know that if the IGS is so well-established today, it is the result of very hard work: during the IGS' six years of existence, the Council met twelve times in various places worldwide and most members were present at each meeting; and, during these six years, the Officers met twenty-three times to prepare Council meetings or implement Council's decisions. I want you to know that without the monumental amount of work volunteered by the IGS Secretary, and without his competence in handling international affairs, the IGS would not be what it is today and would not have been so firmly established on the right track for the future. Others, also, such as the IGS Treasurer and Committee Chairmen, have dedicated a significant fraction of their time to the IGS and should be commended for that. I also want you to know that, during these six years, I have done my best for the IGS: summarizing it in one number, I have worked the equivalent of one year full-time for the IGS. Today, the IGS is very pleased and proud to bring you the result of these efforts.

In return, the IGS needs your active support. I do not mean that you actually need to work for the IGS: only a limited number of members can have a function in the IGS structure. However, I do mean we need more from you than simply paying your annual dues; I mean we need you to interact with other members and with those who are in charge of the IGS. It is important for our discipline that IGS members attend the various meetings and conferences, whether local or international, to exchange ideas and information. It is important that during these gatherings you take any opportunity to share your views with those who are in charge of the IGS. I want to make sure that the IGS will meet your expectations of a pre-eminent professional society, and I want you to be proud of the IGS: this can only result from an interactive process between you and the IGS leadership. To that end, I invite you to be present with me at the next IGS General Assembly where we will elect the next President of the IGS as well as Council members, and where we will make many important decisions which will shape the life of the IGS for the four years to come.

I am looking forward to seeing you in The Hague.

Sincerely yours,



J-P Giroud
President of the IGS

IGS Achievements : April 1986 - March 1990

1. Membership

- Individual membership: from 400 to more than 1000.
- Corporate membership: from 21 in April 1986 to 34 at the end of 1989.
- Benefactors: from one in 1986 to five in 1989.
- Two honorary members were appointed by the Council: Mr. Ch. Schaerer, Past President of the IGS, and Professor M. Fukuoka, Chairman of the Japanese Chapter.
- Formation of four Chapters: North America, U.K., Southeast Asia and India.
- The President of the IGS visited all five Chapters and made technical presentations as well as speeches on behalf of the IGS.
- As approved by the IGS Council, a significant portion of the individual dues will be reverted to Chapters starting in 1990.
- Student membership is being incorporated into the bylaws.

2. Bylaws and Policies of the IGS

- The IGS bylaws have been thoroughly revised
- Standard bylaws for Chapters have been adopted.
- Guidelines for Chapters have been amended several times.
- Guidelines for International Conferences and guidelines for National and Regional Conferences have been amended several times.
- Guidelines for events supported by the IGS have been prepared.
- Guidelines to prevent commercialism in papers published in cooperation with the IGS have been prepared.
- A document describing benefits to members has been prepared.
- A document describing IGS Awards has been prepared.
- A guidance document on IGS News, the IGS newsletter, has been prepared.
- All IGS regulations (bylaws, rules, guidelines, etc.) have been compiled in a 90-page book, which will be an invaluable tool for the administration of the IGS in years to come.

3. Publications and Information of Members

- In 1986, a new editor was appointed for IGS News, and in 1988 IGS News was increased in size to 12 pages.
- An editorial board was appointed for IGS News and has reviewed every issue. The quality of IGS News has been acknowledged by other professional societies.
- The President has written an editorial in nine issues of IGS News, and the Treasurer in one issue.
- A summary of Council meetings and other society activities has been published in IGS News by the Secretary on a regular basis.
- "Geotextiles and Geomembranes" has become the official journal of the IGS, with reduced subscription rates for IGS members.
- The IGS Directory has been published on a regular basis in 1986, 1987, 1988, and 1989. The quality of the presentation of the IGS Directory, as well as the completeness of the information provided, is remarkable.
- The inventory of geotextile testing standards, first published in 1986, has been updated and upgraded and is now available as a book or on diskette.
- A special form for ordering IGS publications has been prepared and widely circulated.

4. Conferences

- The IGS is actively monitoring the preparation of the 4th International Conference on Geotextiles, Geomembranes and Related Products, to be held in The Hague (The Netherlands).
- The procedure for selecting the venue of international conferences has been reviewed. It was decided to exclude Europe for the venue of the 5th International Conference to be held in 1994. This difficult decision was made by the Council to broaden the international base of the IGS, and finally, at the end of a long process, Singapore was selected.
- The IGS has cooperated with the organizers of eight conferences which were held with IGS support or under its auspices: RILEM in St. Remy (France), Geosynthetics '87 in New Orleans (U.S.A.), and Post-Vienna Conference in Singapore, K GEO 88 in Hamburg (Germany), First Indian Geotextile Conference in Bombay (India), IS Kyushu 88 in Fukuoka (Japan), Geosynthetics '89 in San Diego (U.S.A.), and the Conference on Reflective Cracking in Pavement, in Liege (Belgium).

5. Organization of the Society

- Council meetings have taken place on a timely basis in carefully selected locations: Vienna (Austria), Tampa (U.S.A.), The Hague (The Netherlands), Greenville (U.S.A.), Tokyo (Japan), Brussels (Belgium), and Atlanta (U.S.A.). Two Council meetings will take place in The Hague.
- Eighteen Officers meetings have taken place in nine different locations: Milan, Atlanta, Tampa, Brussels, The Hague, London (Ontario), Greenville, Tokyo and Paris.
- Council meetings have been thorough and prepared in a timely manner. Chairmen or secretaries of Chapters have been informed of Council meeting agendas.
- A vote was taken at the appropriate time (April 1988) for the renewal of seven seats on the Council.
- The General Assembly that will take place in The Hague (30 May 1990) has been meticulously prepared and appropriate information published in IGS NEWS.
- Dues have been collected on time. A computerized accounting system has been set up by the IGS Treasurer. The accounts have been audited.
- The Secretariat in Brussels operates efficiently to provide information on the Society and sell publications.
- A Corporate Members Committee has been formed and has begun work on a number of activities.

6. Life of the Society

- The first IGS Awards Committee was appointed under the chairmanship of IGS Past-President Ch. Schaerer. Recipients of the IGS Award and the Young IGS Member Achievement Award for the 1988-89 period were selected. As a result of the highly ethical procedure adopted by the Award Committee and the reputation of the IGS, the international prestige of the IGS Awards is already widely acknowledged.
- IGS Council members attended a reception in Greenville (U.S.A.), in Tokyo (Japan), and in Atlanta (U.S.A.), where they met with local members.
- A seminar was organized in Tokyo in 1988 where all of the speakers were IGS Council members.
- The President of the IGS delivered a closing address at the

3rd International Conference in Vienna, and he will deliver an opening address at the Fourth International Conference in The Hague.

- The President of the IGS delivered addresses at conferences in New Orleans (1987), Singapore (1987), Fukuoka (1988), Bombay (1988), San Diego (1989), and Liege (1989). The President also delivered keynote lectures at the inaugural meeting of the U.K. Chapter in London (1987), the 10th anniversary meeting of the French Committee on Geotextiles and Geomembranes (1988), and the 30th anniversary of the Venezuelan Society of Soil Mechanics in Caracas (1988). Similarly, the past-president of the IGS delivered a keynote address at the Conference on "Advanced Technologies in the Field of Transport Construction" held in Bulgaria (1987).
- The President of the IGS sent messages which were read during the opening sessions of conferences in China, Japan, Italy and Germany.

7. Promotion and Related Activities

- Forms for membership application have been upgraded and widely circulated, together with a letter from the President.
- Brochures in English, French, German and Italian have been printed and widely circulated.
- Announcements regarding the IGS have been published in various journals and magazines (Geotextiles and Geomembranes, Geotechnical Fabrics Report, ASCE News, Geotechnical News, etc.).

- The President of the IGS has prepared introductory articles for special issues on geotextiles and geomembranes in magazines (such as Civil Engineering (U.K.), Water Power and Dam Construction), as well as an editorial in "Geotextiles and Geomembranes".
- The President of the IGS officially represented the IGS at the inauguration of the new president of Clemson University, South Carolina, a university well known for its textile department.

8. Professional Activities

- Appropriate action has been taken to ensure the free use of the words geotextile, geomembrane, and related terms, which was threatened by commercial interests.
- Several IGS Council members are actively working in committees belonging to other international societies or organizations, such as ISO (International Organization for Standardization), ISSMFE (International Society for Soil Mechanics and Foundation Engineering) and RILEM (Réunion Internationale de Laboratoires d'Essais de Matériaux).
- The IGS has cooperated with the ISSMFE to co-sponsor conferences held in Singapore (1987), Fukuoka, Japan (1988), and Bombay, India (1988). The IGS is presently cooperating with the ISSMFE to establish a biennial lecture on geosynthetics.

4th International Conference **Geosynthetics: Reliable, Durable, Effective** **The Hague - 28 May - 1 June 1990**

The 4th International conference is almost here and by now you should have received Bulletin No. 2 with full details. A brief summary is given below.

The conference will be preceded by a number of social events on Monday morning, May 28 (including sightseeing tours of The Hague and a soccer match), and will begin in earnest at 4 p.m. with an opening address "Geotextiles in Geotechnics" to be given by Prof. A. Verruijt of Delft University. This will be followed by an address by the President of the IGS, Dr. J-P Giroud.

Each of the three "scientific days" will start with a plenary keynote session. The keynote speakers are: Dr. R.A. Jewell (U.K.) "Strength and deformation in reinforced soil design"; Dr. J.P. Gourc (France) "The soil particle, the water and the fiber, a fruitful interaction now controlled"; Dr. R.M. Koerner (U.S.A.) "Geosynthetics in waste containment".

The Paper Selection Committee has selected over 130 papers from 31 countries for presentation in the simultaneous and poster sessions. The papers are grouped by twelve newly defined themes: Steep Slopes and Walls; Embankments on Soft Soil; Unpaved Roads & Railroads; Drainage Filtration; Canals, Reservoirs & Dams; Waste Disposal; Properties Testing; Durability & Creep; Mechanical Damage; Miscellaneous Tests; and Special Applications.

The farewell party on Thursday night will offer an excellent opportunity for meeting old friends and making new ones.



For partners, the "Accompanying Persons Programme" is at least as attractive as the scientific programme with highlights including visits to a Dutch Flower auction and nursery, the old cities of Delft and Gouda, and a special exposition commemorating van Gogh.

If you have not received your copy of Bulletin No.2 please contact:

G. den Hoedt, Secretary General,
c/o Holland Organizing Centre,
16 Lange Voorhout, 2514 EE The Hague,
The Netherlands
Phone: 31.70.365 7850
FAX: 31.70.361 4846

Society Activity

IGS Council Meeting

by
Dr. G. Massenaux,
Secretary of the IGS

A meeting of the IGS Council was held in Atlanta, Georgia, U.S.A. on 11-12 November 1989 at which 18 Council members were present (See Photo). Prior to the meeting, each Council member received a 203-page booklet sent by President Giroud in preparation for discussion at Atlanta. The following topics were discussed and/or decided upon:

1) Amendments to IGS Bylaws

The Council reviewed, discussed and approved a series of amendments to the IGS bylaws (see separate article - Ed.). These are now ready to be submitted to the upcoming General Assembly of the IGS membership in The Hague on 30 May 1990. If approved by the General Assembly, these bylaws will immediately come into force.

The proposed amendments deal with:

- some cleaning-up of the text of the bylaws;
- student membership in IGS;
- the election of the Vice-President, Treasurer and Secretary of IGS by the Council from the elected Council members (this change is necessary because the election of all officers by the General Assembly is unmanageable); and
- the limitation of the term of office of the President and the Vice-President to one single term; while removing the limitation on the re-election of other Officers and Council members.

2) Organization of the General Assembly

The agenda and procedure for the General Assembly to be held in The Hague were discussed and approved.

As can be seen from the centre pages of this issue of IGS News, a special effort is being made to ensure that the membership be informed concerning the next General Assembly.

3) 5th International Conference on Geotextiles, Geomembrane and Related Products - Venue

This conference will take place in 1994, i.e. four years after The Hague Conference. Two proposed venues had been submitted to the Council; Toronto and Singapore. After a long discussion Council decided (by secret ballot) to select Singapore by a majority 10 votes against 7 for Canada (one Council member removed himself from the voting to avoid any conflict of interest).

4) Financial Matters

The Treasurer presented an invoicing plan for the next accounting year as well as the present state of finance (budget performance).

Income is ahead of that budgeted, due to a sizable increase in the number of corporate members and individual members (mainly in the U.S.A., Japan and China), and to the contributions of more benefactors.

Proposals relating to future membership fees were also discussed. These proposals will be submitted to the General Assembly to be held in The Hague.

5) IGS Awards and Other Recognition

Council agreed to make minor amendments to the IGS Awards Rules and discussed means of promoting the Awards.

The possibility of allocating a plaque for services to IGS was agreed.

A number of guidelines for Chapter Awards, where applicable, were devised.

6) Other events

Matters relating to the organization of other events (e.g. Danube Conference, Post-Hague Conferences, Calendar of Events, Local Activities, etc.) were discussed and will be finalized at the next Council meeting.

The Council agreed that the "Geosynthetics 91" Conference to be held in Atlanta, U.S.A. would be organized "under the auspices" of IGS.

7) Committee Activities

The activities of all IGS Committees were reviewed. Special attention was paid to the Corporate Committee and the Standards Committee.

The "Corporate Committee" (Chairman H. Schneider) met on 26 September 1989 with 12 companies attending. A programme of activities was agreed upon and will begin by focussing on the production of a promotion brochure for geotextiles. The next meeting will be held on 28 May 1990.

The "Standards Committee" (Chairman J.M. Rigo) has finalized its book on standards for geotextiles. It is presently being reviewed and will be ready for sale at the 4th International Conference.

Another book on standards for geomembranes is being prepared. It will cover both methods specific to geomembranes as well as test methods currently being used, or applicable, to these materials.



The IGS Council Members at the Atlanta meeting:
Standing, left to right: Dr. A. Arman, Mr. H. Schneider, Mr. S. Warner, Mr. P. Sembenelli, Prof. M. Fukuoka, Mr. J. Perfetti, Prof. R.K. Rowe, Mr.E. Leflaive, Mr. P. Rankilor
Seated, left to right: Prof. K. van Harten, Dr. G. Massenaux, Dr. J-P Giroud, Mr. P. Stevenson, Mr. Ch. Schaefer.

8) Chapters

There are presently five IGS Chapters: Japan, NAGS (U.S.A. and Canada), U.K., South East Asia (Malaysia, Singapore, Thailand, Indonesia and Hong Kong) and India. A report on their activities is published in this issue of IGS News.

9) Other IGS Matters

Letterhead - A modified IGS letterhead was approved. It will include the following sentence, in small characters under "International Geotextile Society"; 'dedicated to the scientific and engineering development of geotextiles, geomembranes

and related products.'

Guidelines for the Chapters' letterhead were also agreed.

Measures were taken to ensure that IGS will be properly presented at the 4th International Conference and at the Exhibition.

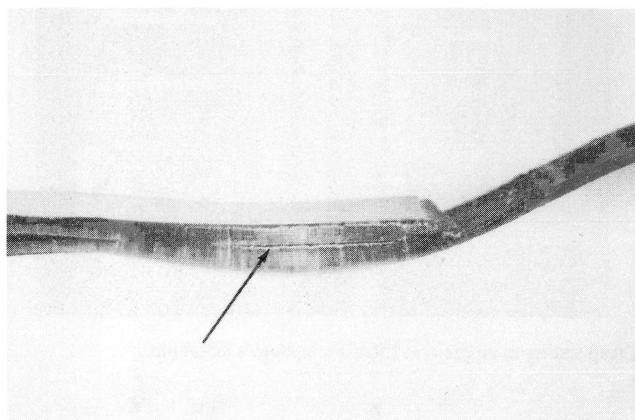
The date for the last Council meeting to be held under Dr. J-P Giroud as President was set for 26 May 1990 in The Hague.

The following Council meeting, to be chaired by the new IGS President, will be held on 31 May 1990, 7:00 a.m. If the bylaw amendments have been approved, it will have to elect the Vice-President, Treasurer and Secretary of IGS.

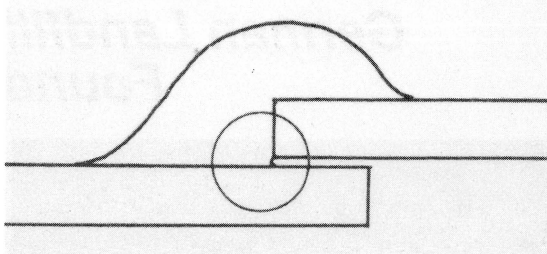
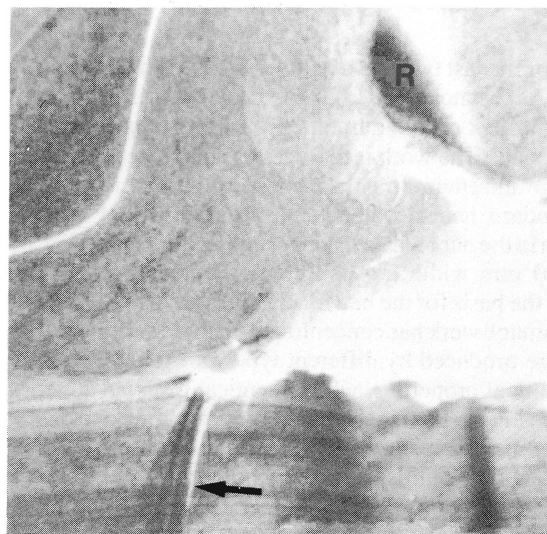
News of Members

"A picture is worth a thousand words"

Geosyntec of Boyton Beach, U.S.A. has been studying the performance of seams in geomembrane liners. The following two photographs tell the story:



How would one detect, by conventional methods, the lack-of-fusion defect in the centre of the seam cross-section? It is probable that no conventional method would identify the presence of the defect. Only techniques such as the ultrasonic "shadow" method and thermography would do so. (Courtesy of Dr. I. Peggs)



A microtome cross-section, approximately 12 μm thick, of an extruded fillet seam in a polyethylene geomembrane. The sketch shows the location of the area shown in the photomicrograph (x 400). The dark area R is residual stress which actually initiated a crack along the edge of the top geomembrane at a section a short distance away from that shown. Crazing (arrowed) has been initiated at the tip of the notch between the deposited extrudate and the top of the bottom geomembrane. (Courtesy of Dr. I. Peggs)

Willibey joins Amoco

Amoco Fabrics and Fibers Company (U.S.A.) has announced the addition of Gary Willibey to its Research and Development Center as Geotextile Engineer. Willibey has a B.S. degree in Civil Engineering from Purdue University and an MBA from Georgia State University. In addition, he has extensive experience of applications in the geosynthetics field. Willibey will work closely with both the wovens and nonwovens groups at Amoco's Research and Development Center to improve current products and develop new products for civil engineering applications. He will also be responsible for representing Amoco in the various civil engineering trade associations.

Arman Joins Woodward Clyde

Dr. Ara Arman has resigned as Director of the Transportation Research Centre of the Louisiana State University to take up a position as Senior Consultant and Division Manager for Waste and Pollution Control Design, Water Resources and Coastal Sciences with Woodward Clyde Consultants in Baton Rouge, U.S.A. Arman, who has been active in the geosynthetics community for many years is currently a member of the IGS Council and Chairman of the IGS Committee on Research.

Gundle Announces New Product

Gundle Lining Systems, Houston, U.S.A. has announced that it is now manufacturing Fabri-Net, a geotextile fabric heat-bonded to either one or both sides of a drainage net, forming one composite drainage system. This composite allows one-step installation of drainage for primary leachate collection, particularly when soil particles must be prevented from clogging the drainage flow channels. When combined with appropriate textured geomembranes, slope stability can be increased because the Fabri-Net grips the textured surface providing a high coefficient of friction. The product is currently available in 1.8 m wide rolls.

Polyfelt Announces Geotextile Capacity Expansion in 1990

The Management of Polyfelt GesmbH, Austria, has approved a 50 percent increase in production in 1990. According to a company spokesperson, Polyfelt GesmbH has enjoyed strong demand for its nonwoven range of polypropylene continuous fiber, needlepunched geotextiles during the last few years. Capacity was doubled in 1984 by means of the construction of a second full line in Linz, Austria, and the resources of the two Linz based lines were supplemented in 1987 when Polyfelt Inc., Alabama, U.S.A. came on stream adding 50 percent to Polyfelt's world capacity.

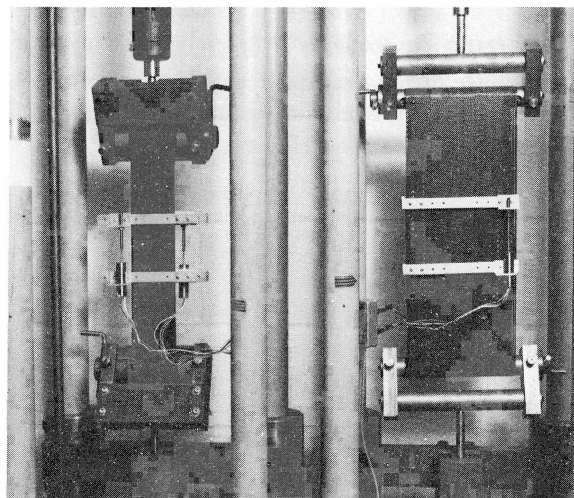
ERA Technology Leads Durability Study

For the last two and a half years Dr. John H. Greenwood of ERA Technology (U.K.) has been coordinating a multi-client project on the durability of high strength geotextiles under load. The work is divided into three areas: creep, site damage and environmental resistance. Long-term creep tests at standard and elevated temperatures, two of which are shown in the photo, have been set up. Textiles are tested at 200 and 50 mm width and the creep methodology developed forms the basis for the new British Standard 6906 Part 5. The site damage work has concentrated on the identification of the damage produced by different types of fill and its effect on mechanical properties, while chemical tests have identified the changes in mechanical properties expected from environments typical of U.K. soil conditions. Some of the results will be published at the 4th International Conference on Geotextiles and Geomembranes in The Hague. The work will provide the basis for safety factors and design codes.

Seminar on Geosynthetic Lining Systems

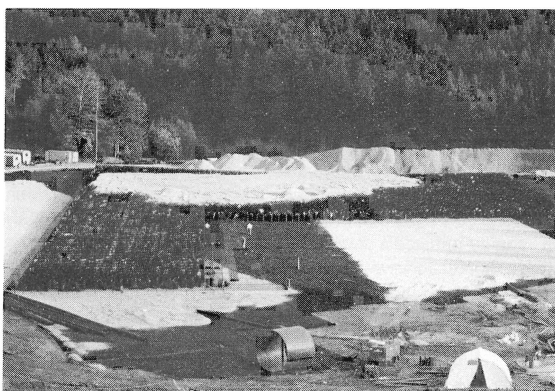
The founders of GeoServices, J.E. Fluet, Jr. and J-P Giroud, will present a seminar on "Geosynthetic Lining Systems" from 8:00 to 14:00 on Monday, 28 May 1990, the first day of the 4th International Conference on Geotextiles, Geomembranes and Related Products at the Hague. The seminar will be held at the Congress Center.

The main focus will be a state-of-the art presentation of lining system design and construction. Jason Consultants of Geneva, Switzerland, will contribute up-to-date information about world markets for geosynthetic lining systems.



Creep testing in progress at ERA Technology's laboratory.

German Landfill Site Extension Exploits Foundation Mattress



Geocell mattress being used to support a landfill.

The district of Miesbach, south east of Munich, is extending its central domestic landfill site at Hausham by using a 50,000 m² area currently occupied by a lagoon containing mine waste. This has been deposited over a long period as a result of coal mining operations in the area and is characterized by different plasticity levels between the upper and lower layers. The lower layer of minestone waste has an undrained cohesion, c_u , of 15 kPa and the upper 4 to 5 m thick layer of sludge has a c_u of 2 kPa.

The consulting engineers, Kling Consultants of Krumbach, had to develop an economical foundation which would allow the landfill to be placed on this soft subsoil without creating instability in either the foundation or the lagoon's dam. Any materials used in the foundation also needed to be inert to the aggressive leachates. Consultation with the Institute for Foundation Engineering and Soil Mechanics at the Technical University in Munich led to the specification of a Geocell Mattress.

The Geocell is a 1 m deep, three-dimensional, cellular system fabricated on site using 'Tensor' SR and SS geogrids which are manufactured from HDPE and PP by Netlon Limited in the U.K. When filled with soil, this mattress is intended to provide a stiff, elastic platform to support the landfill.

The main contractor (Strabag of Munich) and sub-contractor (Colcrete-Friedrich von Essen-Bau, Rastede) commenced installation of the 40,000 m² Geocell in October 1989. Work should be completed by early Spring of 1990. The supplier of the geogrid used in the cell construction is Naue-Fasertechnik, Lubbecke, who are Netlon's distributors in Germany.

(Reported by Mr. R. Whalley)

Call to the General Assembly of the IGS

A General Assembly of the IGS is being called for Wednesday, 30 May 1990 at 16:00 hours in The Netherlands Congress Centre, van Gogh Hall, in The Hague (The Netherlands).

All IGS members who have paid their fee for 1990 are invited to attend. IGS members who cannot attend may give proxy to another IGS member. (A proxy form is enclosed with this issue of IGS News).

The proposed Agenda for the General Assembly is printed below.

Third General Assembly The Hague (The Netherlands) 30 May 1990, 16:00 hrs. Proposed Agenda

1. Welcome to members of IGS - Quorum (President)
2. Approval of minutes of the 2nd General Assembly (Secretary) - VOTE
3. Presentation of the procedure for the General Assembly and appointment of poll tellers (Secretary)
4. Address and report of the President of IGS
5. Report of the Secretary of IGS
6. Report of the Treasurer of IGS - VOTE
7. Approval of Society's Activities - VOTE
8. Proposed amendments to the Bylaws (President) - VOTE
9. Elections
10. Proposed subscription fee (Treasurer) - VOTE
11. Appointment of auditors (Treasurer) - VOTE
12. Selection of date for the 6th International Conference on Geotextiles, Geomembranes and Related Products (President) - VOTE
13. Selection of date and location for the next General Assembly (Secretary) - VOTE
14. Any other business (President)
15. Closing remarks (President)

Instructions to the Attendees of the IGS General Assembly

1. The IGS General Assembly will take place at the Convention Center, The Hague (The Netherlands) on 30 May 1990 at 16:00 hours.
2. Only IGS members, who have paid their fee for 1990 may attend and vote.
3. Payments must reach the U.S. account of the Treasurer or the Credit Suisse Bank Account No. 110525-02 in Zurich, Switzerland not later than 20 May 1990. Fee payment can also be made at the IGS registration desk on 28 and 29 May. No payment will be accepted on the day of the General Assembly. Anyone who has not paid membership fees by 29 May 1990 at 18:00 hours will not be authorized to vote or to give proxy at the General Assembly.
4. The proposed agenda for the IGS General Assembly is included in this IGS News. Members who want to suggest new items to the agenda of the General Assembly may do so by writing either to the President of the IGS, or, to the Secretary. Latest deadline: 30 April 1990 (art. 7.02.03 of the IGS bylaws). New items can still be suggested from the floor at the General Assembly itself, subject to approval of the delegates. However, for organizational reasons, this is not advised.
5. Minutes of the preceding General Assembly are available on request from the IGS Secretariat (see item 2 of the proposed agenda). A summary is printed in this issue of IGS News.
6. It is noted that amendments to the bylaws must be adopted by a two-thirds majority of the votes of the members present or represented at the General Assembly.
7. **An IGS member who has paid his/her membership fee for 1990, and who is unable to attend, may delegate another IGS member as his/her proxy to attend and vote at the IGS Assembly. A model of the proxy form is printed in this issue of IGS News.**
8. When in The Hague, any IGS member who intends to attend the General Assembly is requested to come on 28 or 29 May to the IGS registration desk in The Hague Convention Center. There he/she will be registered and will receive the IGS DELEGATE PACKAGE. Members who have proxy(ies) will receive as many additional packages as they have proxies.
9. The IGS delegate package will be distributed to IGS members (who have paid their IGS fee for 1990) between 10:00 and 18:00 hours on 28 and 29 May.
10. Only delegates with **their delegate package** will have access to the IGS General Assembly. **Delegates who have proxies** must obtain packages for their proxies as well (e.g. if Mrs. X has 3 proxies she should obtain 4 packages).

Summary of the Minutes of the 2nd General Assembly of the IGS Hofburg Palace - Vienna, Austria - 8 April 1986

1. The President, Mr. Ch. Schaerer, declared the 2nd General Assembly open and the Secretary, Dr. G. Massenaux, reviewed the Agenda and procedures.
2. The President (Mr. Ch. Schaerer), Secretary (Dr. G. Massenaux), and Treasurer (Mr. P.E. Stevenson) presented their reports and invited questions.
3. Amendments to the Bylaws of the IGS were approved as proposed.
4. The Vice-President, Dr. J-P Giroud, reported on the activities of the various committees (Standards, Terminology, Education and Publication, and Geomembranes).
5. A report on the activities of the Japanese Chapter was presented by Prof. M. Fukuoka. The Assembly was informed of the pending formation of a North American Chapter.
6. The 1986 budget and 1987 proforma budget were presented for information.
7. The General Assembly voted to increase the IGS membership fee from US\$30 to US\$40 for individual members, starting in 1989.
8. Two proposals to host the 4th International Conference were presented to the General Assembly (from Canada and The Netherlands). After a secret ballot of the General Assembly, The Netherlands was selected to host the 4th International Conference.
9. The Assembly accepted the proposal to hold the 5th International Conference in 1994.
10. An election was held for nine seats on Council and for officer positions. The following officers were elected: President, J-P Giroud; Vice-President, K. van Harten; Secretary, G. Massenaux; and Treasurer, P.E. Stevenson.
11. It was agreed to hold the 3rd General Assembly at the 4th International Conference (in The Hague) in 1990.
12. Messrs H. Schneider and B. Myles were elected as auditors of the IGS.

Editors note:

This summary was prepared from detailed minutes which are available, upon request, from the Secretary, Dr. G. Massenaux.

Candidates for Officers or Council Members of the IGS

The following list of candidates for Officers and/or Council members of the IGS have been received by the Secretary of the IGS, subsequent to the call for candidates published in the November 1989 issue of IGS News.

Further candidacies can be submitted by writing to the IGS Secretary prior to 10 May 1990. (Candidacies can also be received from the floor on the day of the General Assembly, however, this would complicate proceedings and is not recommended).

The names of all candidates will be incorporated in the ballot forms which will be available at the General Assembly,

and their statements will be incorporated in the documents included in the delegate package.

In their letter to the IGS Secretary, candidates are requested to provide a short statement as follows:

First Line: Name and Country
Second Line: Candidate to (indicate President, Vice-President, Secretary, Treasurer, and/or Council member). Then, a 10 line maximum single spaced text giving a summary of the candidate's professional career, and, particularly in the case of candidate officers, indicating why he/she is a candidate.

Results of the Call for Candidates issued in the November 1989 IGS Newsletter

The following candidacies were received at the IGS Secretariat by 31 January 1990.

• For President of IGS

Candidates: Etienne Leflaive (France)
R. Kerry Rowe (Canada)

• For Vice-President of IGS

Candidates: Ara Arman (U.S.A.)
David J. Price (U.S.A.)
Peter E. Stevenson (U.S.A.)

• For Treasurer of IGS

Candidates: David J. Price (U.S.A.)
Peter E. Stevenson (U.S.A.)

• For Secretary of IGS

Candidates: None

- For members of Council of IGS

<p>Candidates:</p> <p>Ara Arman (U.S.A.) Ryan E. Berg (U.S.A.) Danicle Cazzuffi (Italy) Daniel Fayoux (Belgium) Yadu Nath Mallah (India) Jnanendra Nath Mandal (India) Ian D. Peggs (U.S.A.)</p>	<p>Jacques Perfetti (France) David J. Price (U.S.A.) Salem D. Ramaswamy (Singapore) Jean-Marie Rigo (Belgium) Peter E. Stevenson (U.S.A.) Wim Voskamp (Netherlands)</p>
--	--

Summaries of the Candidates

Editors Note: The following items are printed exactly as received from the Secretary of the IGS. They have not been edited.

For President of IGS

E. Leflaive (France)

Three Officers of IGS are not seeking re-election. To offer the best guarantee for the future of IGS, a new team has to be brought together. I am a candidate for President, looking forward to setting up an efficient, managing group.

The goal of IGS for the next four years, as I see it, while maintaining and developing the international strength of the Society, should be to mobilize its energies so that, worldwide, all authorities, engineers and the public at large become more and more strongly and clearly aware that geosynthetics bring powerful new solutions to the vital questions of development and environment. My reasons to be a candidate are my dedication to geosynthetics during the past 20 years, both in government and business, and my international experience.

R. Kerry Rowe (Canada)

As Editor of the IGS News since 1986, a member of the IGS Council, NAGS, ISO and various national committees on geosynthetics, and as an individual very active in research, teaching and consulting, I have a strong background in the activities of the Society.

As President, it would be my objective to (a) encourage the international development and growth of the IGS, especially through the formation and growth of Chapters; (b) to "reach out" to those who are not presently well educated in the use of geotextiles, geomembranes and related products; (c) to encourage more local activities of the IGS; (d) to foster relationships between the IGS and other relevant Societies, and (e) to maintain the current standard of activities such as the Newsletter and Conferences.

Ara Arman (U.S.A.)

Ara Arman has served as Professor and Chairman of Civil Engineering, as Associate Dean of the College of Engineering and as the Director of Transportation Research Centre of the Louisiana State University from 1963 until 1990. He recently joined Woodward-Clyde Consultants in Baton Rouge, Louisiana, as Senior Consultant and Division Manager for Hazardous Waste Design, Coastal Sciences and Water Resources. He has been chairman of technical committees of the ASCE and TRB and Secretary of ISSMFE Technical Committee on Geosynthetics. He has served as a member of the IGS Council since its inception. He is chairman of the IGS Committee on Research, and Vice-Chairman of IGS Awards Committee. He has conducted research on geosynthetics since 1977.

Ara Arman has experience in serving on international technical committees and he is thoroughly familiar with the operation of the IGS. He is desirous to avail his experience to the IGS Council and to work for the continual growth of IGS as its Vice-President.

David J. Price (U.S.A.)

Holds Bachelor and Master Degrees in Business Administration. Active within the Geosynthetics industry since 1984, holding management positions within Exxon Chemical's Geosynthetic Group from 1984-1988, and as President of Polyfelt North America from 1988 - present.

For Vice-President of IGS

Experienced in worldwide technical marketing and applications of geosynthetics. Extensive personal contact with leading geosynthetic organizations and individuals.

Member and active participant in the Industrial Fabrics Association's Geosynthetic Committee, ASTM, and INDIA. Supported international standards development through the joint sponsorship of the 1st United States meeting of the ISO Geotextile Working Group.

As Vice President, will utilize leadership and communication skills and international experience to achieve growth and recognition for our industry and its members.

Peter E. Stevenson (U.S.A.)

Manager of geotextile businesses in the United States for ten years. Chair or membership in various industry associations including INDA, IFAI, TF 25, ASTM. Currently a member of the Board of Directors of IFAI and Treasurer of the IGS.

It is my hope and my intent that my candidacy for election to the Office of Vice-President will permit me to continue to contribute to the growth of both the Society and the industry.

For Treasurer of IGS

David J. Price (U.S.A.)

Holds Bachelor and Master Degrees in Business Administration. Active within the Geosynthetics Industry since 1984, holding management positions within Exxon Chemical's Geosynthetic Group from 1984-1988, and as President of Polyfelt North America from 1988 - present.

Experienced in worldwide technical marketing and applications of geosynthetics. Extensive personal contact with leading geosynthetic organizations and individuals.

Member and active participant in the Industrial Fabrics Association's Geosynthetic Committee, ASTM, and INDA.

Supported international standards' development through the joint sponsorship of the 1st United States meeting of the ISO Geotextile Working Group.

As a Treasurer, will utilize leadership and communication skills and international experience to achieve growth and recognition for our industry and its members.

Peter E. Stevenson (U.S.A.)

Manager of geotextile businesses in the United States for ten years. Chair or membership in various industry associations including INDA, IFAI, TF 25, ASTM. Currently a member of the Board of Directors of IFAI and Treasurer of the IGS.

It is my hope and my intent that my candidacy for election to the Office of Treasurer will permit me to continue to contribute to the growth of both the Society and the industry.

For Membership of the IGS Council

Ara Arman (U.S.A.)

Ara Arman has served as Professor of Civil Engineering, as Chairman of the Department of Civil Engineering, as Associate Dean of the College of Engineering and as the Director of Louisiana Transportation Research Centre of the Louisiana State University from 1963 until 1990. He recently joined Woodward-Clyde Consultants in Baton Rouge, Louisiana, as Senior Consultant and Division Manager for Hazardous Waste Design, Coastal Sciences and Water Resources. He has been chairman of technical committees of the ASCE and TRB. He has served as a member of the IGS Council since its inception. He is presently chairman of the IGS Committee on Research, and Vice-Chairman of IGS Awards Committee. He has conducted research on geosynthetics since 1977. He has about 70 publications on geotechnical engineering. He has been an active member of IGS. He has served two terms as the secretary of the ISSMFE Technical Committee on Geosynthetics.

Ryan E. Berg (U.S.A.)

I am a geotechnical/structural engineer and have been utilizing geosynthetics in the design of earthen structures over ten years. As a Council member, I would be committed to promoting the state-of-practice and advancing the state-of-the-art of geosynthetic use. This would include applications for geotextiles, geomembranes, and related products, test methods and equipment, design methodologies, codes of practice, soil-geosynthetic interaction mechanisms. Furthermore, I would be committed to attending all Council meetings throughout my tenure.

Daniele Cazzuffi (Italy)

After a degree in Civil Engineering (Politecnico di Milano, 1979) and a postdegree course in Geotechnical Engineering (University of Padova, 1981), Mr. Cazzuffi joined the Research Centre on Hydraulics and Structures (CRIS) of the Italian Electricity Board (ENEL). He has been involved in research and design programs regarding the use of geotextiles, geomembranes and related products, including bituminated materials, in many practical applications inside ENEL. Mr. Cazzuffi is an active member of many different international technical committees such as ISO (TC38-SC21), RILEM (TC103), ISSMFE (TC9), ICOLD (Materials for Hill Dams), etc. He is also chairman of WG12 (Reinforced Vegetative Bank Protections) of PIANC (Permanent International Commission on Navigational Congresses).

Daniel Fayoux (Belgium)

Civil engineer (Ecole Supérieure des Travaux Publics - Paris) 1964-1985, Engineering in the CEMAGREF, Soil Mechanics and Civil Engineering Division (France). Earth dam construction and responsible for the research on geotextiles and geomembranes for their application in earth dams.

1985-1987, Projects manager, SOLVAY, Direction Centrales Transformation (Belgium); development of geomembranes.

Since 1987, technical manager for civil engineering, PLAVINA, SOLVAY GROUP. Responsible for the PVC geomembrane activities in the Group.

Vice-chairman of the French Committee on geotextiles between 1978 and 1985, about 40 papers on dams geotextiles and geomembranes.

Yadu Nath Mallah (India)

Yadu Nath Mallah, B. Text. (Delhi), M.Sc. Text. (Leeds), P.G.D. (BA), F.T.A. (India), C.Text., F.T.I. (Manchester), E.Engg., F.I.E., M.I.M.A. is Chief Production Executive with Porritts & Spencer (Asia) Ltd., Faridabad, India.

He is a member of the International Governing Council of the Textile Institute, Manchester and of a number of international and national societies.

He has been Professor and Head of the Department at the Technological Institute of Textiles, Bhiwani, and a consultant. He has written books on "Weaving Technology", published in 1980. Has published papers and delivered lectures in conferences and seminars.

He is a visiting professor and research guide for post-graduate degree in textiles in India and is widely travelled.

Jnanendra Nath Mandal (India)

Dr. J.N. Mandal graduated in Civil Engineering from Bengal Engineering College, Calcutta University in First Class in 1974. He obtained M. Tech. and Ph.D. degrees on Reinforced Soils from Indian Institute of Textiles (IIT) Kharagpur in 1977 and 1981, respectively. In 1984, he obtained D.Sc. in M.I.T.

Dr. Mandal joined the IIT Bombay as Assistant Professor in 1984. He has been working in the field of geosynthetics for the last thirteen years. He has published about seventy papers. He developed a Geosynthetics testing laboratory and offered a course on Reinforced Soil and Geotextiles in 1985 at IIT, Bombay.

He was the organizing secretary for the First Indian Geotextiles Conference in 1988. He is a member of the Editorial Board of the International Journal of Geotextiles and Geomembranes.

Ian D. Peggs (U.S.A.)

Materials scientist, with 10 years of polymer experience: 6 years development of polymer engineering division in a consulting company and 4 years as president/founder of geosynthetics testing laboratory with clients in 13 countries. Committee experience, national/international professional societies; founded chapter of Society of Plastics Engineers; convener of geotextile durability working group in International Organization for Standardization (ISO); active member ASTM geosynthetics committee (chaired workshops and a conference). Identified new durability problems, developed test methods adopted by standards committee and defined seam test specifications adopted by the industry. The Council needs a member with polymer expertise. International travel to clients and conferences will allow me to attend Council meetings.

Jacques Perfetti (France)

Born 13/5/1942 - Head of geotextile research and development, Rhone-Poulenc. Chemist, University Doctorate in Civil Engineering. Founder member of the French Geotextiles Committee, and Vice-President from 1978 - 1983. Today Council member. French expert advisor to ISO on spunbonded nonwoven fabrics and Chairman ISO TC38/SC21 WG1 geotextile - Terminology Group. French expert advisor to GEN.T189. Has participated in international working groups on geotextiles such as RILEM, PIANC and ICOLD. Author or co-author of numerous publications, one of which, on mechanical problems serves as a basis for the so-called "wide-strip" method of traction.

David J. Price (U.S.A.)

Holds Bachelor and Master Degrees in Business Administration. Active within the Geosynthetics Industry since 1984, holding management positions within Exxon Chemical's Geosynthetic Group from 1984-1988, and as President of Polyfelt North America from 1988 - present.

Experienced in worldwide technical marketing and applications of geosynthetics. Extensive personal contact with leading geosynthetic organizations and individuals.

Member and active participant in the Industrial Fabrics Association's Geosynthetic Committee, ASTM, and INDA.

Supported international standards development through the joint sponsorship of the 1st United States meeting of the ISO Geotextile Working Group.

As a Council member, will utilize leadership and communication skills and international experience to achieve growth and recognition for our industry and its members.

Salem D. Ramaswamy (Singapore)

Dr. S.D. Ramaswamy is an Associate Professor at the National University of Singapore. He has been actively involved in research and consultancy in the areas of geotechnics and materials for over 20 years. He has a large number of publications, a few international awards and a geotechnical patent.

He is a fellow of the American Society of Civil Engineering and Institutions of Engineers of India and Singapore.

Dr. Ramaswamy has been the chairman of several successfully organized conferences, including the post-Vienna Conference on Geotextiles 1987, both held in Singapore.

He is a founder president and the present president of the Southeast Asia Chapter of the International Geotextile Society and is actively involved in guiding the organization of the Fifth International Conference on Geotextiles and Geomembranes scheduled to be held in Singapore in 1994.

Jean-Marie Rigo (Belgium)

Civil engineer, Ph.D., Mr. D.A. (materials chemistry) Professor of nonmetallic materials at the Civil Engineering Institute (State University Liege, Belgium). 70 publications mostly related to geotextiles and geomembranes.

Activities related to geotextiles and geomembranes; chairman of the CEN/TC 189 on Geotextiles, secretary of the RILEM TC 47-SM on Geotextiles and Geomembranes, convener of the ISO TC 38 - SC 21 - WG3 on Mechanical Characterization of geotextiles, chairman of the RILEM TC 97 - GCR related to the use of geotextiles in retarding the reflective cracking in roads, chairman of the RILEM TC 103-MHG related to the identification and performance testing on geomembranes, member of the Council of the IGS.

I confirm my wish to participate in the work of the IGS Council in the coming years. This is the reason why I present my candidacy for election to the IGS Council.

Peter E. Stevenson (U.S.A.)

Manager of geotextile businesses in the United States for ten years. Chair or membership in various industry associations including INDA, IFAI, TF 25, ASTM. Currently a member of the Board of Directors of IFAI and Treasurer of the IGS.

It is my hope and my intent that my candidacy for re-election to the Council will permit me to continue to contribute to the growth of both the Society and the industry.

Wim Voskamp (Netherlands)

After receiving a civil engineering degree (Msc) at Delft University he

joined an international construction company. Since 1980 he is working for Akzo Industrial Systems bv, presently in charge of the business group geotechnics which specialize in soil reinforcement and vertical drainage.

During his work he gained a lot of experience in the application of geotextiles, was actively involved in the promotion and design with products in Europe and the far east and published papers on geotextiles.

W. Voskamp is a Board member of The Netherlands Geotextile Organization and a member of the scientific committee of the 4th International Conference on Geotextiles, The Hague, 1990.

His candidacy is supported by The Netherlands Geotextile Organization as the Dutch candidate.

1990 General Assembly: Amendments to the Bylaws

On 30 May 1990 the General Assembly of the IGS will vote on a number of proposed amendments to the IGS Bylaws. These amendments do not, in any way, alter the objectives of the Society as established by the existing Bylaws. Their purpose is:

1. to create a student membership, which had not been envisaged when the society was formed;
2. to clarify the present bylaws and remove ambiguous wording in some paragraphs which could lead to controversy;
3. to introduce some modifications to the election of Officers and Council members in order to:
 - make the conditions of eligibility to Council and to Officer positions similar to what is found in International Societies of a similar nature;
 - simplify and clarify the election process taking place during General Assemblies.

The Council's study of the Bylaws and preparation of amendments started immediately after the Vienna Conference as indicated by Dr. Giroud in his program when he was elected President of the IGS. The amendments have been developed by specially appointed Council members who reported to the Council. The Council discussed these matters at length at several meetings and finally approved the amendments for submission to a vote of the Third General Assembly.

The proposed amendments are presented at the end of this article. The following comments provide the rationale for changes to specific items and are grouped according to the reasons for the changes.

3.01.04, 6.01.01, 6.01.03 and second paragraph of 8.02.01

These amendments deal with the creation of a student membership (for full-time students). The idea is to create a membership for students with a lower fee than other members. These student members will receive the Newsletter, be able to join IGS activities and will be eligible for awards. However, student members will have no voting rights. No mention is made of the fee for students in the proposed amendments since the paragraph of the bylaws dealing with fees is applicable to all categories of members and indicates that the fees are decided upon by the General Assembly. It is understood that the fee for students will be only a fraction of the regular member fee and will be intended to cover the direct cost of their membership (primarily the cost of the IGS News).

7.01.01, 7.02.01, first paragraph of 8.02.01, 8.02.03, 8.02.05

These amendments aim at more clearly distinguishing between Ordinary and Extraordinary General Assemblies, and between Ordinary General Assemblies held during International Conferences and Ordinary General Assemblies which may take place at other periods. The proper wording has been chosen in each case. These amendments do not

change, in any way, the roles of these General Assemblies as they were envisaged when the Bylaws were first written.

7.03.04, 8.03.05

These changes are required because the wording of the original Bylaws was not clear. The purpose of the new wording is to:

1. make it clear that in the case of a tied vote, the Presiding Officer of a General Assembly or of a Council meeting, may decide that his/her vote is the deciding vote, but also to make it clear that he/she can decide that it is not a deciding vote.
2. make it clear that the Presiding Officer's vote cannot be a deciding vote in the case of a secret ballot, since his/her vote is secret.

8.02.01 (third paragraph), 9.02.01, 9.02.03

According to the Bylaws written in 1983, when the Society was established, all Officers and Council members can be elected in one given office for two consecutive terms and not more than two consecutive terms (each term being of four years, International Conferences being held every fourth year). This is not usual practice in similar International Societies.

The proposed changes allow a more frequent renewal of key policy positions (i.e. the President and Vice-President) while at the same time providing stability and continuity by allowing the Secretary General, the Treasurer and other Council members to be re-elected for as many terms as the General Assembly chooses to re-elect them.

This is particularly important for the positions of Secretary and Treasurer, since it is not desirable for the Society to be forced to change the Secretary and/or the Treasurer if those acting in these offices, which are of a more operational nature, have been efficient and are willing to continue to serve.

Therefore, it is proposed to limit an individual to one term of office as President and Vice-President (except in the extraordinary case of an election in the course of a normal term, in which case they can be re-elected for the next normal term) and to impose no limitation for other positions. (Note that a Vice-President can be elected to a term as President immediately following his/her term as Vice-President but may not be elected to two consecutive terms as Vice-President).

Following the above modifications, it is also proposed that only the President and Council members be elected as such by the General Assembly. The Vice-President, Secretary and Treasurer would be elected by the Council from amongst the elected Council members. This is to avoid having too many successive elections during the General Assembly, with the possibility, in the case of several successive elections,

of having candidates move from one office to another as the election process takes place, since this could lead to confusion and be extremely time consuming.

Since it is useful for members voting at a General Assembly to know, when electing Council members, who may become Vice-President, Secretary and Treasurer, candidacies to these offices shall be announced at the same

time as the candidacies to Council. Candidacies to these three offices may come from candidates seeking election to Council and from Council members previously elected and not submitted to re-election at that particular General Assembly.

7.02.01, 7.03.03, 8.04.03

These amendments are only changes in wording and will be necessary to ensure consistency with the proposed amendments described above (if they are adopted).

Proposed Amendments to the IGS Bylaws

The following itemizes the proposed amendments, denoted by "new". The relevant existing bylaw is denoted by "old".

a) Amendments deriving from creating a "student membership"

3.01.04

New paragraph

(New) - Individual members will be either regular members, honorary members or student members.

6.01.01

(Old) - Individual and Honorary members have one vote.

(New) - Regular members and honorary members have one vote.

6.01.03

New paragraph

(New) Student members have no voting right.

See also new 8.02.01

b) Other amendments

7.01.01

(Old) - A general assembly shall be held periodically, at a time and place decided by the previous General Assembly, or, in its absence, by the Council. A General Assembly shall be held concurrently with each International Conference.

(New) - An Ordinary General Assembly shall be held periodically, at a time and place decided by the previous Ordinary General Assembly, or, in its absence, by Council. An Ordinary General Assembly shall be held concurrently with each International Conference.

7.02.01

(Old) - The business of a General Assembly will include ...

It will include ...

It sets the date and place of the next General Assembly.

It fixes ...

(New) - The business of an Ordinary General Assembly will include ... and the election of the President and Council members, each time the present bylaws call for such election.

It will include ...

It sets the date and place of the next Ordinary General Assembly.

It fixes ..

7.03.03

(Old) - Votes of the General Assembly ... such as electing the officers or members of Council, in which case ...

(New) - Votes of the General Assembly ... such as electing the President or the members of Council, in which case ...

7.03.04

(Old) - Ballots and votes ... In the event of any tie, whether on a show of hands or on a ballot, the Chairman of the meeting shall cast a deciding vote.

(New) - Ballots and votes ... In the event of any tie, whether on a show of hands or in an open ballot, the Chairman [] may decide that the vote he/she has cast is the deciding vote.

8.02.01

(Old) - The Council shall consist of at least 10 and no more than 16 persons elected from the membership, half of which would be elected at each General Assembly meeting and the other half to be elected by ballot on alternate years, all members to serve a term of 4 years.

Each Council member is individually ...

(New) - The Council shall consist of at least 10 and no more than 16 persons elected from the membership, half of which shall be elected at each Ordinary General Assembly held concurrently with an International Conference, the other half to be elected at the midway point between those General Assemblies, either at a General Assembly or by postal ballot.

Each council member is individually ... corporate relationship. Student members are not eligible for election to Council.

Each Council member will serve until the second Council renewal following his/her own election. Council members can be re-elected without limitation of terms.

8.02.03

(Old) - The Council may, at its discretion, co-opt ...

Such co-opted members shall enjoy the same rights as elected members but all co-opted members shall retire or be elected at the next General Assembly.

(New) - The Council may ...

Such co-opted members shall enjoy the same rights as elected members but their term of office shall end at the next Ordinary General Assembly.

8.02.04

(Old) - Members of the Council are not eligible for election to more than two consecutive terms of office.

(New) - Deleted

8.02.05 becomes 8.02.04

(Old) - The newly appointed Officers and Council members shall take office within thirty days following the General Assembly.

(New) - Idem, with "Ordinary General Assembly" instead of "General Assembly".

8.03.05

(Old) - The Presiding Officer (President or Vice-President of the Society) shall cast a deciding vote in the event of any tie on any question at any meeting of the Council.

Voting by ballot shall be used ...

(New) - In the event of any tie vote, whether on a show of hands or in an open ballot, the Presiding Officer may decide that the vote he has cast is the deciding vote.

Voting by secret ballot shall be used ...

8.04.03

(Old) - Emergency meetings may be called ...

(New) - Emergency meetings ... They must be called to elect officer(s) during the period between Ordinary General Assemblies.

election by the Council is held before the end of the International Conference, when applicable.

9.02.01

(Old) - The President, the Vice-President, the Secretary and the Treasurer are elected from the Council by Ordinary General Assembly for a four year term of office. They may serve a maximum of two consecutive terms.

(New) - The President is elected [] by the [] Ordinary General Assembly to serve until the next Ordinary General Assembly held concurrently with an International Conference.
During the Assembly meeting, his/her election is held before the election of other Council members.
Through his/her election, he/she becomes automatically a regular member of the Council as defined under 8.02.01.

9.02.02

New paragraph

(New) - The Vice-President, the Secretary and the Treasurer are elected by the Council from the elected Council members, to serve until the next Ordinary General Assembly held concurrently with an International Conference. This

9.02.03

New paragraph

(New) - The President and Vice-President cannot be elected for two consecutive terms to the same office except if they have been elected by an Extraordinary General Assembly or a Council meeting not held concurrently with an International Conference.
The number of terms that the Treasurer and the Secretary can serve is not limited.

9.02.04

See former paragraph 9.02.02

11.02.02

(Old) - All voting members of a Committee must be members of the Society. All committee members all have the same voting rights.

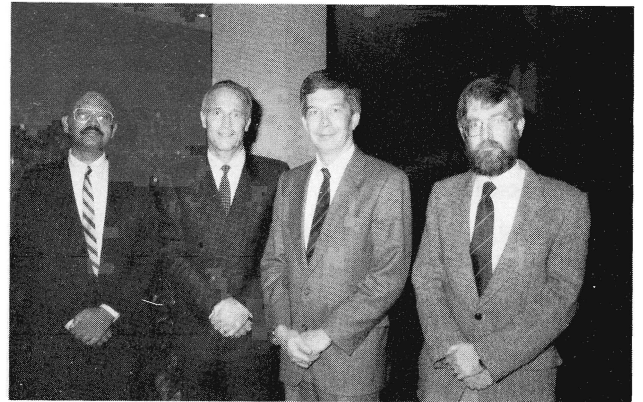
(New) - All voting members ... All voting members have the same voting rights.

Venue for 1994 Conference Selected

The IGS Council has selected Singapore as the location for the 5th International Conference on Geotextiles, Geomembranes and Related Products, to be held in 1994.

Meeting at Atlanta, U.S.A., in November 1989, the Council considered proposals for hosting the conference in both Singapore and Canada. In summarizing the Council's choice of Singapore, IGS President J-P Giroud stated, "After four international conferences in Europe and North America, where geotextiles and geomembranes are well established as indispensable construction materials, the IGS Council is looking toward the future by selecting Singapore for the venue of the 5th International Conference to be held in 1994."

Members of the Singapore conference organizing committee include Professor B. Broms, Professor S.D. Ramaswamy, Dr. P. König, Mr. S. McManus, Mr. R.S. Douglas, Mr. J. Tan and Mr. M. Sim.



Proposals for the 5th International Conference:
Left to right: Mr. R.S. Douglas (Singapore), Dr. J-P Giroud (President - IGS), Mr. S.M. Warner (U.S.A.) and Dr. R. K. Rowe (Canada).

Indian Chapter of IGS 1986-1990

The Indian Group of Geotextiles including the Indian Chapter of International Geotextile Society (IGS) came in formal existence in early 1987 as a follow up to the First National Workshop on Geomembranes and Geofabrics organized in September 1985.

The First Indian Geotextiles Conference was held in Bombay, India, 8-9 December 1988. Organized under the auspices of the International Geotextile Society (IGS) and the International Society for Soil Mechanics and Foundation Engineering (ISSMFE), the conference was attended by nearly 300 delegates from 12 countries. Prof. B. Nag, Director of IIT Bombay, opened the conference and Prof. D.N. Buragohain, Head, Civil Engineering Department, welcomed the delegates. Dr. J-P Giroud, President IGS brought greetings on behalf of the IGS. A total of 61 papers were presented and discussed at the various Technical

Sessions, covering properties and laboratory evaluation, ground restraint/stabilization, reinforced soil slope protection/erosion control, drainage and filters, special applications or problems, and a special session on geojute. A General Assembly meeting for the formation of an Indian Chapter of the International Geotextile Society, was held as part of the Conference activities.

The International Workshop on Geotextiles, held in Bangalore 22-29 November 1989 was attended by about 250 delegates from India and abroad and was inaugurated by the Governor of the State of Karnataka (India). The special publication "Use of Geosynthetics in India, Experiences and Potential - A State-of-the-Art Report" published out by the Central Board of Irrigation and Power was released by the Governor. A total of fifty Technical Papers from India and abroad were presented at the conference.

(Reported by Mr. K.R. Saxena)

1986-1990

North American Geosynthetic Society

Organized in 1987 as a Chapter of the IGS, the North American Geosynthetic Society (NAGS) currently has 190 members including six officers, and is managed by the Industrial Fabric Association International (IFAI) in St. Paul, Minnesota. This article briefly describes current and on-going activities:

1. **Biennial Conference** - Following the highly successful Symposium in New Orleans in 1987, and in San Diego in 1989, the next Conference is slated for Atlanta in 1991. The General Chairman is Dr. Jay Beech of GeoServices and the Technical Committee Chairman is Mr. Barry Christopher of Polyfelt. A call-for-papers has been sent to members, companies, affiliates and various journals for publication.

2. **Awards-of-Excellence** - The inauguration of the NAGS Award in several categories, has been underwritten by a number of manufacturing organizations. The categories are as follows:

- (i) Case Histories
 - (a) geogrid applications
 - (b) geomembrane applications
 - (c) other geosynthetic application
- (ii) Research - Geosynthetics
- (iii) Grand Award

The Chairman of the selection committee is Mr. Robert Carroll of Tensar.

3. **Seminar Series** - For the even numbered years beginning in 1990 a series of topical seminars will be presented. The "Use of Geosynthetics in Waste Containment" series will be presented in six cities and will consist of an overview lecture by NAGS followed by selected speakers from the Geomembrane and Geotextile Divisions of IFAI. An exposition and social hour will conclude each day's activities. Dates and cities are: 6 April - Boston; 13 April - Milwaukee; 20 April - Seattle; 27 April - Edmonton; 4 May - Toronto; 11 May - Montreal.

Arrangements are being handled by Ms. Laurie Honnigford of IFAI (see Calendar of Events).

4. **Student Chapters** - Affectionately known as SNAGS, there are chapters at The University of Western Ontario, Drexel University, Cornell University and the University of Washington and student affiliates at The University of California, Berkeley. Another 3 to 6 universities appear poised for formation. Dues are nominal, activities are self-generated and a free subscription of Geotechnical Fabrics Report is sent to each student. Dr. Kerry Rowe of The University of Western Ontario is the Vice-President responsible for this activity.

5. **Membership Committee** - Mr. Joel Sprague of Hoechst Celanese is Chairman and a number of programmes are being formulated. The seminars mentioned earlier should be helpful in this regard.

6. **Liaison Committee** - Dr. Robert Holtz of the University of Washington is working with the American Society of Civil Engineers, Transportation Research Board, Canadian Geotextile Society, the International Geotextile Society and other organizations to see that communications are open and duplication of effort is avoided.

7. **Outreach Efforts** - A regular column in the Geotechnical Fabrics Report (published 6 times per year) by the NAGS President (Dr. Robert Koerner) is intended to reach the community that uses or intends to use geosynthetics.

8. **Treasury Committee** - Mr. John Paulson of Exxon is Chairman of the Treasury which is quite solvent.

9. **IGS Interaction** - There has been a considerable amount of interaction between the IGS and NAGS. For example, Dr. Giroud made presentations on behalf of the IGS at the two NAGS conferences (New Orleans, 1987; San Diego, 1989) and the San Diego conference generated many new members for the IGS.

In summary, NAGS is a viable and active chapter of the IGS with members and officers focussed on seeing the credible and cost effective use of geosynthetics in geotechnical engineering, transportation engineering, environmental engineering, and related fields of endeavour.

(Reported by Dr. R.M. Koerner, President of NAGS)

Southeast Asia Chapter of the IGS

The birth of the Southeast Asia Chapter (SEA Chapter) of the International Geotextile Society had its beginnings in a "Seminar on Geotextiles" organized in Singapore in 1985. The seminar was chaired by A/Prof. S.D. Ramaswamy. Key individuals at this Seminar grouped together with a view to forming a Geotextiles Society in the area.

This core group then organized the Post-Vienna Conference on Geotextiles in October 1987 which turned out to be an enormous success with 173 delegates from 20 countries attending a 3 day conference which had 14 display booths.

Dr. Giroud, as Guest of Honour, opened the conference which was supported by the IGS and the International Society for Soil Mechanics and Foundation Engineering. During the

conference, a meeting was held between the IGS Council members present and the SEA representatives, to discuss the formation of the proposed SEA Chapter. Individuals present at the Conference voted for the formation of a Chapter based in Singapore.

On 16 April 1988, the IGS unanimously approved the formation of a SEA Chapter of the IGS. The Protem Council of the Chapter comprised: Prof. B.B. Broms; A/Prof. S.D. Ramaswamy; Dr. Peter Koenig; Mr. Selwyn McManus; Mr. R.S. Douglas; Mr. Michael K.C. Sim; and Mr. John Tan.

On 1 December 1988, the Protem Council notified the IGS of its intention to host the 5th International Conference on Geotextiles, Geomembranes and Related Products to be held in 1994.

On 12 June 1989, the Chapter was given official approval by the authorities in Singapore. In July 1989, the Chapter presented a proposal for the 5th International Conference.

As part of its first activity after registration, the Chapter co-sponsored the Symposium on Geotextiles and Geofibres organized by the Institution of Engineers in Malaysia (1-2 August 1989). All members of the Protem Council attended the Symposium as an opportunity to mingle and promote membership to the Chapter. A/Prof. Ramaswamy held a briefing session for some IGS members and non-members in the area to encourage them to join the Chapter and the IGS.

The SEA Chapter was represented by Mr. R.S. Douglas at an IGS Council Meeting in Atlanta on 11-12 November 1989 where he made a presentation for Singapore as a host for the 5th Conference.

The Council selected Singapore as the host of the 5th International Conference bringing the Conference to the eastern hemisphere at an opportune time to meet the needs and challenges of the Asia-Pacific region.

The Inaugural General Meeting of SEA was held on 15 Decemer 1989 where eight individuals were elected to the 1st Council. These included Prof. Bengt B. Broms (Advisor), A/Prof. S.D. Ramaswamy (President), and Mr. R.S. Douglas (General Secretary).

The Chapter now consists of 16 members from Singapore, 8 members from Malaysia and 3 members from Indonesia.

Whilst the period 1990-1994 obviously will involve a great deal of work for the SEA Chapter in preparing for the 5th Conference, other activities will be a membership drive and workshops in the region. The Chapter plans to have a periodic newsletter for which a committee, headed by its second Vice-President, Prof. Karunaratne, has been formed. The first newsletter is expected to be available at the 4th International Conference.

(Reported by Mr. R. S. Douglas
General Secretary, SEA Chapter)

U.K. Section of the IGS

The formation of the United Kingdom Section of IGS (which is the official U.K. Chapter of the IGS) has been a great success, and has provided a National focus for the development and application of geotextiles.

The need for the U.K. Section was recognized by the delegation from the United Kingdom at the Vienna Conference. The fruit of the initial hard work by Bernard Myles, Alan McGown and many others, was the inaugural Annual General Meeting of the U.K. Section in October 1987, addressed by the President of the International Geotextile Society, Dr. J-P Giroud. The torch was passed at this meeting to Peter Rankilor, our first chairman, and an elected committee of six.

Two further Annual General Meetings followed in October 1988 and 1989 with elections at each. The membership numbers just over 80, all of whom are members of the International Geotextile Society.

A top priority has been to organize a practical, useful and informative meetings programme. There are eight meetings a year, four in London and four held regionally (such as Edinburgh, Glasgow, Cardiff, Manchester, Bristol). The London meetings are at the Institution of Civil Engineers, and held in conjunction with the British Geotechnical Society. The regional meetings are organized (whenever possible) in cooperation with the local association of the Institution of Civil Engineers.

The initial theme of the meetings programme was Applications and Practice. Typically there are three speakers, one describing basic design concepts and two presenting case

histories. More general aspects for geotextiles, such as material properties and testing, durability and specifications, are also now being included in the meetings programme. One regional meeting per year provides a forum to consider new products; this year for drainage and filtration.

The typical attendance is 50 to 100 people at a meeting, of which perhaps only 25% are IGS members. This serves well the purpose of IGS to spread the word about geotextiles as widely as possible, but also raises an important issue for local chapters. Many of the 75% non-members in the audiences would gladly join a National group (at a modest fee) but are either not interested, or cannot afford to participate in the activities of the International Geotextile Society. While this trend is predictable, it would be helpful for the International Society to discuss the matter and perhaps guide the chapters on policy. At present the burden falls heavily on the International Geotextile Society members.

In addition to the meetings, emphasis is also placed on organizing at least one site visit per year to view geotextile applications on site. The U.K. Section Committee has co-opted a Research Coordinator (Dr. Milligan) and an Education Coordinator (Dr. Hird), both posts seeking to stimulate useful research and teaching on geotextiles and related products.

The partial refund of membership fee to local chapters and the special student membership price are among the initiatives and decisions of Council very much welcomed by the United Kingdom Chapter and the Chapter is looking forward to a bright and stimulating future.

(Reported by Dr. R.A. Jewell,
Chairman of the U.K. Section)

Summary of Active Research

The IGS Committee on Research has compiled a summary of active research projects relating to geosynthetics. This listing, which is based on information provided by the research directors of the various projects, is available at a cost of \$20 (U.S.) for copying and postage from Ara Arman, Senior

Consultant, Woodward Clyde Consultants, PO Box 66317, Baton Rouge, LA 70896, U.S.A., Phone: 504-291-1873; FAX: 504-293-3616. Please make cheques payable to Woodward Clyde Consultants.

Corporate Profiles

Akzo Industrial System bv

PO Box 9300
6800 SB Arnhem, The Netherlands

Akzo is a worldwide group of companies with operations in 50 countries. Its product range includes chemicals, fibers and polymers, coatings and health care products. Akzo's activities are organized in five divisions.

Under one of these divisions, the fibers and polymers division, comes the independently operated business unit for civil engineering and industrial systems, Akzo Industrial Systems bv, which introduced synthetic materials to civil engineering applications as early as the fifties. At the time Akzo was involved in the development of geosynthetics for the 'Delta works', a mammoth project that had been initiated by the catastrophic flooding of the southwestern part of Holland in 1953. It is partially on account of the know-how gathered in the course of this project that Akzo Industrial Systems bv has become what it is today. On the basis of its expertise with polymers and insight into the application fields of customers, Akzo has developed a number of specialty products that have become widely accepted and now take a prominent position in its activities. Invariably optimizing its know-how of polymers and end uses, Akzo Industrial Systems bv has remained as innovative as it was in the fifties.

Akzo Industrial Systems bv plays an active role in standards organizations such as ISO, CEN and various national standardization committees. Akzo Industrial Systems bv often develops and tests its products in cooperation with independent institutes such as the Technical Universities of Delft, Munchen and Munster, the West German test institutes FMPA and SKZ, and contributes funds to studies conducted at Drexel University (U.S.A.), the University of Oxford (U.K.) and the Central Research Organization (CUR) in Holland.

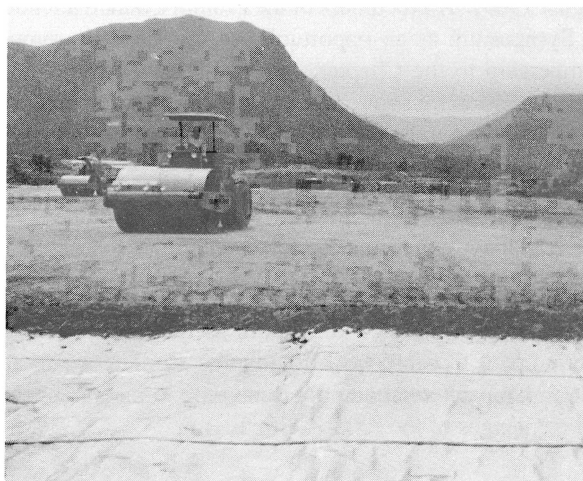


Photo of the New Territories Circular Road Project showing Stabilenka 400 in the foreground; Hong Kong 1987.

Every day, consultants and architects across the world appeal to Akzo Industrial Systems bv for the expertise they need for their specific activities in the field of civil engineering. This is possible due to the unique and extensive network for advice and distribution which Akzo Industrial Systems bv has built up over the years. One example of this form of cooperation is the New Territories Circular Road Project in Hong Kong which was started in 1987 and included the construction of a 6 m high embankment on soft marine clay. To reinforce the base, two layers of Stabilenka 400 were installed (see Photo).

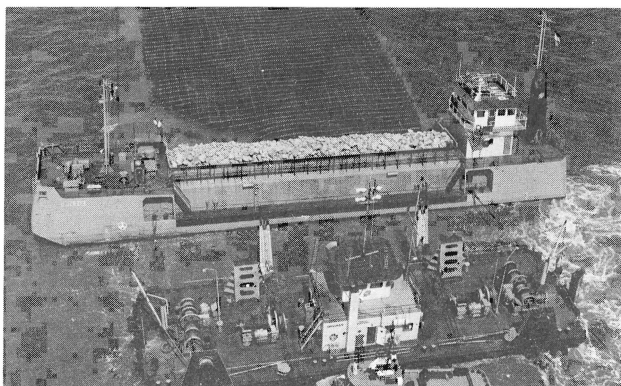
Akzo Industrial Systems bv has its headquarters in Arnhem, The Netherlands. The U.S. part of Akzo Industrial Systems bv is based in Ashville (North Carolina).

UCO - Geotextiles and Geomembranes

by

Frank Donckers

Weverslaan 15, B - 9100 Lokeren, Belgium



A heavy UCO Standard Grade Geotextile has been specially developed for use in a fascine mattress in the harbour at Zeebrugge where more than 1.3 million square metres were used.

UCO produces a full range of geotextiles made from polypropylene tapes, polyethylene monofilaments or polyester multifilaments and a range of geomembranes made from high density polyethylene. In addition to woven and nonwoven geotextiles, UCO also produces geocomposites.

All UCO products are subjected to a monitoring and testing programme in our own laboratories. Testing is performed in compliance with industrial standards such as those of ASTM (U.S.A.), BS (U.K.), DIN (Germany) and CFGG (France). The consistent quality of our geotextiles reflects the success of this approach.

Research enables us to develop and launch a steady stream of new, high quality materials. Our research provides a sound, efficient and cost-effective solution to a broad range of problems. One of these problems: rodents. The UCO

RATT geotextile was developed to resist attack by mice, rats and beavers.

The understanding of our customers' needs, drawn from our international experience, enables us to develop products which meet precisely the requirements of each and every project. Our experts are available to provide advice, guidance and assistance with projects at any stage from preliminary studies right through to completion of the project.

The UCO geotextile earth retaining screen, for example, provides an excellent solution to the problem of instability on construction sites, caused by saturated sand. Designed to be sunk vertically into the ground using vibration equipment, it

can be installed without any need for local excavation. UCO Standard Grade and High Flow geotextiles have been specially manufactured to the specifications required for this application.

UCO sells the full range of "geosynthetics" worldwide through a network of agents.

As an internationally active company, UCO is a member of a number of organizations, including the International Geotextile Society (IGS), the Dutch Geotextile Organization (NGO), the French Geotextile and Geomembrane Committee (CFGG) and the Belgian Geotextile Organization (Doyen Commission).

Hoechst Celanese Corporation

**by
Dennis B. Wedding
PO Box 5887
Spartanburg SC U.S.A.**

Hoechst Celanese Corporation is the largest and fastest growing subsidiary of the Hoechst Group, a major manufacturer of plastics, pharmaceuticals, chemicals, dyestuffs, and man-made fibers with headquarters in Frankfurt, West Germany. The parent company operates almost 250 companies in 120 countries, employing about 168,000 people. Since its founding in 1863, Hoechst has placed extraordinary emphasis on research and development, providing innovation from research centres around the world.

Hoechst Celanese Corporation (formed by the merger of American Hoechst and Celanese Corporation) and its divisions manufacture products ranging from chemicals and petrochemicals to plastics, fibers, films, pharmaceuticals, dyes, pigments and resins. We also devote considerable resources to research and development — so much so that nearly a quarter of our products did not exist a decade ago.

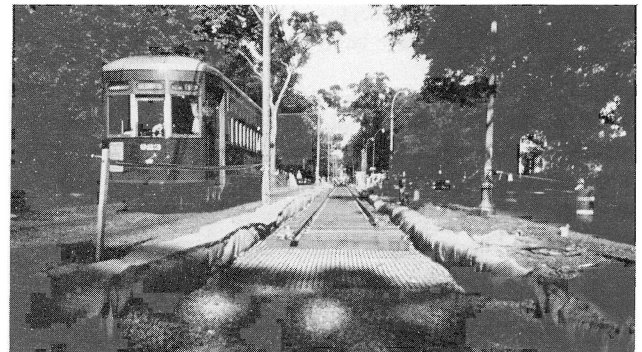
Trevira Spunbond Type 11 Engineering Fabrics for geotextile applications are manufactured in both Bobingen, West Germany by Hoechst AG and in the U.S. at the Hoechst Celanese Corporation plant in Spartanburg, SC.

Trevira Spunbond Type 11 products are 100% continuous filament polyester nonwoven needlepunched geotextiles with masses per unit area ranging from 120 to 550 g/m². They are resistant to freeze-thaw, soil chemicals and ultraviolet light exposure.

Trevira Spunbond nonwoven geotextiles offer excellent performance where the requirement is tensile reinforcement, planar flow, filtration or separation. They are typically used in rail beds, drainage systems, pond liners, retaining walls, and much more.

A couple of examples of recent significant projects using Trevira Spunbond geotextiles follow.

The New Orleans Regional Transit Authority is renovating the St. Charles Avenue streetcars, reconstructing the track, and renovating the Willow Street Barn. As shown in the accompanying photograph, various materials were used in the track reconstruction — approximately 22 kilometres of track. A 25 mm layer of sand was placed after removal of the existing track. Trevira Spunbond was placed on the sand, then covered with a 300 mm layer of granite ballast. After the first 100 mm of ballast were laid down, a geogrid was placed.



Construction of 22 km of track for the New Orleans Regional Transit Authority using Trevira Spunbond.

Track ties are made from an African wood called Azobe. The last step in the process included the placing of the steel track which is being done with a unique fastening system.

The Pennsylvania Department of Transportation (PennDoT) recently placed nearly 400,000 tons of fly ash in a structural fill along Freeway I-279 near Pittsburgh. While the benefits of using fly ash in road construction include high strength and low permeability, the potential of harming the environment also exists. Extensive use of geotextiles has helped to allay environmental concerns about the use of fly ash and lime stabilized scrubber sludge as fill for the East Street Valley Expressway projects. A geotextile-aggregate blanket underdrain spans the full width of the valley for the 360 m length of the fill. The drain consists of 7,200 m³ of gravel sandwiched between 87,000 m² of Trevira Spunbond geotextile.

Any water collected within the fly ash portion is discharged into the blanket drain through 200 mm diameter vertical pipe drains. Filled with PennDoT No.57 stone and placed every 45m, the pipe drains are protected from fly ash intrusion by more Trevira Spunbond geotextile.

Hoechst Celanese Corporation is a Corporate Member of the IGS, and all the technical personnel are individual members.

Japanese Chapter of the IGS

1986-1990

1. Membership

Activities relating to geotextiles started just after the 2nd International Conference on Geotextiles in Las Vegas in 1982. About 10 members who had an interest in geotextiles gathered at the office of the Japanese Society of Soil Mechanics and Foundation Engineering. The Japanese Chapter was established in response to the formation of the IGS in 1983. At that time there were about 30 individual members and one corporate member. The Japanese Chapter was approved by the IGS Council at its meeting in San Francisco in 1985 by which time the number of individual members had increased to 65 and there were 5 corporate members. Membership has continued to grow, and, since the 3rd International Conference in Vienna (1986), the number of individual members has increased from 75 to 120 and the number of corporate members has increased by 100% from 5 to 10.

2. Activities of Committees

Four committees have been working over the past few years:

- Committee on Testing Methods (Chairman: Dr. K. Kutara) which deals with mechanical properties and permeability.
- Committee on Design Methods (Chairman: Dr. Y. Watari) which is concerned with the design of embankments, retaining walls, reclamation, vertical drains, waterfront structures and geogrids.
- Committee on Selection of Materials (Chairman: Dr. T. Yamashita) which deals with the selection of materials for construction.
- Committee on the Japanese Newsletter (Chairman: Dr. K. Makiuchi) which publishes a Japanese Newsletter twice a year.

The Japanese Society of Soil Mechanics and Foundation Engineering is sponsoring the activities of these committees by providing money and office space.

Two publications, the product of these activities, have been issued in the name of the Japanese Society of Soil Mechanics and Foundation Engineering. They are entitled: "Methods of Strengthening Soils" and "Geotextiles".

Committees supported by the Japanese Society of Soil Mechanics and Foundation Engineering have a term of three years. The reports of these committees were published in 1987 and 1990.

3. Conferences, Symposia and Seminars

A symposium on geotextiles has been held every year since 1985. Typically there are about 100 participants and 20 papers. Dr. Giroud attended the symposium in 1985 and Prof. Arman attended in 1989. In addition, the annual conferences of the Japanese Society of Soil Mechanics and Foundation Engineering, the Japanese Society of Civil Engineering and the Japanese Society of Fibres have all had sessions on geotextiles. The members of the Japanese Chapter of the IGS have been active in the organization of these sessions.

Seminars have been held annually in Tokyo and Osaka and have been attended by between 100 and 150 participants. The Japanese Chapter has been active in assisting with the organization of the following international symposia and seminars:

- International Symposium on Geosynthetics, Kyoto (July 1987)
- International Symposium on Soil Reinforcement, IS-Kyushu (October 1988)
- International Seminar on Geotextiles, Tokyo (November 1988)
- International Seminar on Geotextiles, Osaka (November 1989).

The five speakers at the Tokyo Seminar were all members of the IGS Council: Dr. J-P Giroud, President of the IGS; Prof. R. Floss, Dr. E. Leflaive, Prof. J-M. Rigo and Prof. R.K. Rowe.

4. Survey of Geotextiles

A survey of geotextiles was performed by a group of engineers closely related to the Japanese Chapter and supported by the Japanese Government and the Japanese Society of Soil Mechanics and Foundation Engineering. Based on this survey, the amounts of geotextiles used in the world in 1989 are as follows:

Region or Country	Amount in m ² /year	Increase, %
Europe	210,000,000	17
North America	260,000,000	15
Japan	40,000,000	10

(Reported by Professor Masami Fukuoka,
Chairman of the Japanese Chapter)

Specialty Conference to be held in New Orleans

The Geotechnical Engineering Division of the American Society of Civil Engineers is planning a specialty conference on "Grouting, Soil Improvement and Geosynthetics" to be held in New Orleans, Louisiana, 25-28 February 1992 (the week before Mardi Gras). The conference will focus on recent developments in the design and practice of grouting techniques, soil improvement and geosynthetics engineering. Sixteen sessions are planned with topics, chairs, state-of-the-art lectures, etc. already selected for most of the sessions. Session topics will include: reinforcement of foundation soils; stabilized embankments and road layers; in situ slope

stabilization; soil modification and environmental geotechnology (e.g. contaminant-grout interaction, geomembranes, liners); and many other topics.

Authors are invited to submit two copies of abstracts (maximum 500 words) by 1 September 1990 to:

Dr. Ilan Juran, Department of Civil Engineering,
Louisiana State University, Baton Rouge, LA 70803,
U.S.A.
(FAX: 504-388-5990).

Officers of the IGS

Dr. Jean-Pierre Giroud (President)
GeoServices Inc.
1200 S. Federal Highway
Suite 204
Boynton Beach, FL 33435
U.S.A.

Dr. Guy Massenau (Secretary)
EDANA
Avenue des Cerisiers, 51
1040 Brussels
Belgium

Mr. Charles Schaerer (Past-President)
Buchenweg 2
8116 Wuerenlos
Switzerland

Prof. Ir. Koos van Harten (Vice-President)
Mechanical Engineering Department
Technische Universiteit Delft
Postbus 5036
2600 GA Delft
The Netherlands

Mr. Peter E. Stevenson (Treasurer)
Route 4, Box 607
Easley, SC 29640
U.S.A.

Calendar of Events

Geosynthetics in Waste Containment Systems: A series of one-day Seminars organized by NAGS

Boston, U.S.A. - 6 April 1990
Milwaukee, U.S.A. - 13 April 1990
Seattle, U.S.A. - 20 April 1990
Edmonton, Canada - 27 April 1990
Toronto, Canada - 4 May 1990
Montreal, Canada - 11 May 1990
Contact: Secretary General NAGS
c/o IFAI
345 Cedar St., Suite 800
St. Paul, MN 55101 U.S.A.

TRI 60th Annual Conference

Princeton, U.S.A.
2-4 May 1990
Contact: TRI
P.O. Box 625
Princeton, NJ 08542 U.S.A.

4th International Conference on Geotextiles, Geomembranes, and Related Products

The Hague, The Netherlands
27 May-1 June 1990
Contact: G. den Hoedt
c/o Holland Organizing Centre
16 Lange Voorhout
2514 EE The Hague
The Netherlands

Seminar on Geosynthetic Lining System

The Hague, The Netherlands
28 May 1990
Contacts: J-P Giroud
GeoServices, Suite 202
1200 S. Federal Highway
Boynton Beach, FL 33435
U.S.A.

or

James C. Thomson
Jason Consultants S.A.
15 Rue du Cendrier
1211 Geneva 1
Switzerland

INDA - TEC 90

The International Nonwoven Technology Conference
Baltimore, U.S.A.
5-8 June 1990
Contact: Elaine Greten
1001 Winstead Drive, Suite 460
Cary, NC 27513 U.S.A.

Fiber Society 50th Technical Conference

Princeton, U.S.A.
19-23 August 1990
Contact: TRI
P.O. Box 625
Princeton, NJ 08542 U.S.A.

Microbiology in Civil Engineering Conference

Cranfield, U.K.
3-5 September 1990
Contact: Mrs. Mary Northwood
Silsoe College
Silsoe, Bedford MK45 4DT U.K.

International Reinforced Soil Conference

Glasgow, U.K.
10-12 September 1990
Contact: Prof. Alan McGown
Dept. of Civil Engineering
University of Strathclyde
Rottenrow
Glasgow G4 0NG, U.K.

ASCE Specialty Conference Regulation, Performance, Construction and Operation of Waste Containment Systems

San Francisco, U.S.A.
6-7 November 1990
Contact: Dr. R. Bonaparte
GeoServices
5950 Live Oak Parkway
Norcross, GA, 30093, U.S.A.

Geosynthetics 91

Atlanta, U.S.A.
25 February-1 March 1991
Contact: Secretary General NAGS
c/o IFAI
345 Cedar St., Suite 800
St. Paul, MN 55101 U.S.A.

ASCE Specialty Conference Grouting, Soil Improvement & Geosynthetics

New Orleans, U.S.A.
25-28 February 1992
Contact: Dr. I. Juran
Dept. of Civil Engineering
Louisiana State University
Baton Rouge, LA 70803 U.S.A.

Note: Highlighted items are organized under the auspices of or with the support of IGS.

List of Corporate Members of the IGS

ACME STW INC. - U.S.A.
AKZO INDUSTRIAL SYSTEMS B.V. - THE NETHERLANDS
AMOCO FABRICS AND FIBRES CO. - U.S.A.
ASAHI CHEMICAL INDUSTRY CO. LTD. - JAPAN
ASSOCIATE SUISSE DES PROFESSIONNELS DE GEOTEXTILES - SUISSE
(ASPG/SVG) - SWITZERLAND
BELTON INDUSTRIES INC. - U.S.A.
DON & LOW LTD. - U.K.
DU PONT DE NEMOURS INT. S.A. - SWITZERLAND
EXXON CHEMICAL GEOPOLYMER LTD. - U.K.
FIBERTEX APS - DENMARK
FRITZ LANDOLT AG - SWITZERLAND
GUNDLE LINING SYSTEMS, INC. - U.S.A.
HOECHST CELANESE CORPORATION - U.S.A.
HUESKER SYNTHETIC GMBH AND CO. - GERMANY
INDUSTRIAL FABRICS ASSOCIATION INTERNATIONAL (IFAI) - U.S.A.
JAPAN SPUNBOND - JAPAN
KAJIMA CORPORATION - JAPAN

KARL MAYER TEXTILMASCHINENFABRIK GMBH - GERMANY
KUMAGAI GUMI CO. LTD. - JAPAN
KURARAY CO. LTD. - JAPAN
MAEDA CORPORATION - JAPAN
NAUE FASERTECHNIK GMBH - GERMANY
NETLON - U.K.
NICOLON B.V. - THE NETHERLANDS
OHBAYASHI CORPORATION - JAPAN
OKASAN KOGYO CO. LTD. - JAPAN
POLYFELT GMBH - AUSTRIA
RHONE-POULENC FIBRES - FRANCE
TEXSOL - FRANCE
THE TENSAR CORPORATION - U.S.A.
THE REINFORCED EARTH CO. - U.S.A.
TISZAI VEGYI KOMBINAT - HUNGARY
TOKYU CONSTRUCTION CO. - JAPAN
UCO N.V. - BELGIUM

OBJECTIVES OF IGS (*)



The International Geotextile Society was formed with the following objectives:

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

WHY BECOME A MEMBER OF THE IGS?

First, to contribute to the development of our profession

Becoming a member of the International Geotextile Society:

- helps support the aims of the IGS, especially the development of geotextiles, geomembranes, and related products
- contributes to the advancement of the art and science of geotextiles, geomembranes, and related products, as well as their applications
- provides a forum for designers, manufacturers, and users, where new ideas can be exchanged and contacts improved.

Second, to enjoy benefits

The following benefits are available now to all IGS members:

- A directory of members, the IGS DIRECTORY, published every year, with addresses, telephone, telex, and telecopy 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 the journal "Geotextiles and Geomembranes"
- A central system for ordering selected publications
- Possibility of being granted an IGS award.

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 geotextiles, geomembranes and related products or systems and their applications, or otherwise interested in such matters".

The annual fee for membership is (US) \$40 for Individual Members and (US) \$1000 for Corporate Members. Individuals or 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.

Send this completed form to:

Mr. P.E. Stevenson, Treasurer
Route 4, Box 607
Easley, SC 29640
U.S.A.

Telephone (1.803) 855-0504
Telefax: (1.803) 859-1698

In this area, write your address as you wish it to appear in the next IGS Directory (your professional address is recommended, but your personal address is acceptable provided the telephone, telex, and telefax numbers are also your personal numbers).

If the address below is your personal address please check this box

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

First Name: _____ LAST NAME _____

Company, Division, Function (if applicable): _____

Address (Street or Postal Box) _____

City _____ Province/State _____

Postal Code _____ Country _____

Telephone _____ Telex _____ Fax _____

.....

.....

• Membership fee – Individual (US) \$ 40.00

Corporate (US) \$1000.00

• Benefactor's contribution (at least (US) \$200): _____

Mode of payment – A check is enclosed The applicant hereby agrees to pay the above total amount upon receipt of an invoice

SIGNATURE DATE

* A copy of the bylaws is available upon request.

In this area, write a short description of your activities as you wish it to appear under your address in the next IGS Directory (e.g. "Consulting Engineer", or "Salesperson for XYZ Geotextile Company"). If the name of your company already appears in the above address, you need not repeat it in this area.

Eligibility (i.e. connection with geotextiles, geomembranes, or related products):

.....

.....

IGS NEWS Published by the International Geotextile Society.
Editorial Enquiries to Dr. R. Kerry Rowe, Geotechnical Research Centre, The University of Western Ontario,
London, Ontario N6A 5B9, Canada. Telex 064-7134. Phone: (1.519) 661-2126, Fax (1.519) 661-3808