WANTED - YOU

AIPG needs quality articles for future *Professional Geologist* issues. Members are encouraged to submit articles or call Headquarters and recommend individuals who should be asked to submit articles. Photographs enhance articles and make great *TPG* covers. Be sure to send photographs when possible with your articles OR send your favorite photograph for consideration as the cover for a future *TPG* issue.

The editorial calendar is:

<table>
<thead>
<tr>
<th>TOPIC</th>
<th>DEADLINE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Geology</td>
<td>October 20, 1991</td>
</tr>
<tr>
<td>Mining Geology</td>
<td>December 1, 1991</td>
</tr>
<tr>
<td>Geologists and Engineers</td>
<td>February 1, 1992</td>
</tr>
<tr>
<td>AIPG Annual Meeting - Lake Tahoe, Nevada</td>
<td>April 1, 1992</td>
</tr>
<tr>
<td>Geoscience Education, Continuing Education and Careers</td>
<td>June 1, 1992</td>
</tr>
<tr>
<td>Government and the Geologist</td>
<td>August 1, 1992</td>
</tr>
<tr>
<td>Geologic Hazards</td>
<td>October 1, 1992</td>
</tr>
<tr>
<td>Petroleum Geology</td>
<td>December 1, 1992</td>
</tr>
</tbody>
</table>

Send your article and/or photograph TODAY to:

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AIPG - Editor  
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For questions or further information call Wendy at (303) 431-0831 M-F 8:00 - 4:00 MDT.
FEATURES

Special Report...International Geologists
International Exploration
Sweden
Europe
Venezuela
United Kingdom
British Columbia
France
Ireland
Italy
Germany

Professional Liability Insurance
The Time Is Now

Taking Action In Washington

Economy Takes Toll on Salaries for Scientists and Engineers

AIPG Accredits Continuing Education

COVER PHOTO - Robert H. Fakundiny, CPG 4977
View to the southeast from national highway northwest of Tbilisi, Georgia in the Kura River Valley. Note fault scarps cutting uplifted and dissected river terraces. Faulted alluvial fans emerging from these, uplifted terraces provide geomorphic evidence of repeated modern tectonic disruption of this part of the Caucasus Mountains. Main axis of Caucasus Mountains lies to the rear of the viewer. Village of Gori sits precariously near the scarp of a major fault. The Kura River bed is devoid of vegetation and contains gigantic (house size) boulders testifying to recent recurrent floods.

DEPARTMENTS

CONSULTANTS' COLUMN

OPINION

FROM WASHINGTON

STATE NET

EXECUTIVE DIRECTOR'S COLUMN

NEW MEMBERS, AFFILIATES & APPLICANTS

MEMBER NEWS
INTERNATIONAL GEOLOGISTS

Hanging glacier above Athabaska Glacier, Jasper National Park, Canadian Rocky Mountains, Province of Alberta, July 1954, Hamilton, W. B. -Courtesy of U.S.G.S.
Do's and Don'ts of International Exploration

Robert O. Russell, President, Akan Oil & Minerals Ltd.,
8 Waterloo Drive S.W., Calgary T3C 3E8, Alberta, CANADA

I have been an active geologist since 1968. Through trial and error I have gained extensive experience in international work.

In Spain we drilled an offshore discovery well in the Casablanca field. Unfortunately we made the fundamental error of terminating the well while still in a porous formation. We had not crossed the oil/water contact and were confused by the lithology. We were in the chemical weathering zone of the Mesozoic unconformity where we recognized a lot of chert, some dolomite and limestone but mostly rocks, we could not assign a name to. Offsetting Rw's were of no help and the porous and fractured lithology was not significantly oil stained as the mud circulation had pushed the oil away from the well bore. Consequently all the companies recommended the well be abandoned except one: Eniiss, the Spanish National Oil Company. There policy was "When in doubt, run casing and test!" It was done and the well came in at 25,000 bopd! The lesson to be learned: Never terminate a wildcat while in porosity. Go down to the first non porous formation and stop, making any oil/water contacts visible!

We drilled the discovery well at Terra Nova, offshore Canada. Again the recommendation was to abandon. This time the sands of interest calculated wet using all the offsetting Rw's. The saving factor was that one log analyst pointed at a single sand much lower in the section and noted the apparent lack of any unconformity separating that sand from the higher sands of interest. As the lower sand was obviously water wet, it was decided to plug that into the calculations and then run an evaluation of the upper sands again. When we returned to the operators' boardroom later that day, the calculated logs were black with ink and the group jubilantly reversed its decision in and the Terra Nova field offshore Newfoundland was developed.

This example and the following example point at a lack of recognition of consistently plotting the mud engineer's salinity readings to be used in log evaluation to establish unconformities. This time we were in the South China Sea drilling the Sampoginta nr 3 well. We had penetrated the Tertiary and had run into thick conglomerates in the Middle Cretaceous at a depth of more than 12,000 feet. They were porous and permeable and had more than 100 ohms resistivity and the log analyst gave us two alternatives: oil or fresh water. As the higher formations had normal salty formation water we refused to believe that crossing the Cretaceous unconformity would bring us in to fresh water formations, so casing was run and the well was tested. The test result was 10,000 ppm water. That was exactly what the mud engineer had measured. It's important to take tests and experts seriously and use their data in log evaluations.

The next example is from the Matanda 1x gas/condensate discovery offshore Cameroon. This time we were drilling in an area of very high temperatures as the bottom hole temperature measurement showed. The log engineer runs his repeats at total depth again with the same result. It was with trepidation we watched the operator's reservoir engineers frantically trying to bring the faulty logs into some kind of logical sequence in order to demonstrate the reservoir calculations at the final meeting. This is only one of many examples in my career, where I have found logs handled in total disregard to hole conditions, tool quality, back ups, etc.

In general I would like to conclude that I find all estimates of the world's oil reserves amusing since they usually disregard the simple fact that the only plays that get drilled are the four point structures. Selling management on an offshore stratigraphic trap is nearly impossible. Personally, I believe that oil will be around a lot longer than has ever been hinted at yet!
Geologists Struggle for Legal Status in Sweden

Gunnar Hultquist, President, Geology Section within SN

Most of the Geologists in Sweden have a university degree with geology as the major subject and three years of education (B.Sc.). However, the university education is now reorganized and the students today study science for four years, three of them geology (M.Sc.).

The title "Geologist" is not protected by law and the profession has no legal standing. So there are no regulations determining who has the right to sign a geological report or to express an opinion.

To become a member of the Geology section within SN (the association of professional geologists) you should have a university degree with geology as your the major subject and work with geology matters. If you are a student you can become an associate member after one year with approved courses in geology. Some of the members are Masters of Engineering, but they then have to work with geology as the main task.

The total number of professional geologists today is 600. Roughly 100 work in the Geological Survey of Sweden (SGU) At our four largest universities about 100 geologists work as senior lecturers and researchers. Around 200 are working in mineral exploration and in the mining industry. The rest of the geologists are employed at central and local authorities, engineering firms, and about 100 as consultants.

Approximately 80 geologists are not working as geologists. Forty of these are unemployed.

There is currently rapid reduction in the number of geologists working in mineral exploration, and an increasing number of geologists working in physical planning and environmental protection and control. The trend is toward consulting and away from other types of employment.

The European Federation of Geologists (EFG) - Promoting Professional Recognition

Richard Fox, President
European Federation of Geologists

After some 11 years, since the EFG was formally inaugurated, the Membership has grown to include 11 different countries, 9 of which are Members of the European Community (EC).

The main objective of the Federation is to represent the geological profession in Europe, and within the EFG the Committee of Geologists of the European Community (CGEC) is the only organization authorized to make representation to the EC and its various bodies.

In representing the geological profession, the EFG Council attempts to safeguard and promote the present and future interest of the geological profession in Europe, including the guarantee of free movement of geologists in Europe with the mutual recognition of their academic and professional qualifications.

Freedom to work anywhere in the EC is a basic right under the 'Treaty of Rome', but for many professionals this right has been restricted because Member States do not generally recognize qualifications gained in other Member States. So-called Sectoral (or Special) Directives have been issued affecting certain professions e.g. Doctors, nurses, veterinary surgeons, pharmacists and architects, but the time-table in trying to achieve such directives can be in excess of 10 years. Hence the General Directive on Mutual Recognition of Qualifications which came into force on January 4, 1991 was seen as a great step forward in assisting the EFG in achieving one of its major aims.

Currently the EFG is promoting the acceptance of the title of "European Geologist" by its Member Bodies, and it is programmed that the administration for this Title will operate through the EFG Member Countries.

The proposals for "European Geologist" are based on a minimum qualification of 3 or 4 years tertiary education in Earth Sciences plus 4 years of professional experience, and endorsement from the European Community has already been received. Together with the Common Code of Professional Ethics ratified by the EFG Members, the Title of European Geologist should go some way towards promoting the geological profession in the Community.

It is anticipated the Membership will increase by the inclusion of Austria, Denmark, Holland, Norway and Switzerland in the foreseeable future, and interest is already being shown by some of the Eastern Bloc Countries like Bulgaria, Czechoslovakia, and Hungary. Thus the representation of the geological profession on the Federation Council is seen in the concept of the Single Market of 1992 and the increasing Membership of the European Community in the years to come.
Geology Well Established in Venezuela

Aníbal R. Martínez, President, Venezuelan Geological Society, Colegio de Ingenieros, Parque Los Cabos, Caracas 1010, Venezuela

Antecedents of a geological nature have in Venezuela as elsewhere occurred even prior to the arrival of Columbus. Hydrocarbons and metals had been discovered and the substances used by the Indians. First documented export, one real barrel full of crude oil, is dated on 30 April 1539; search of elusive gold cities spurred conquest of the territory, early in the 16th century. Ownership of the deposits has been always vested in the Crown or in the Republic. Nicholas Nugent, an honorary member of the London Geological Society, reported in 1811 that great quantities of woody and vegetable bodies rolled down by the vast Orinoco River accumulated in particular places, underwent transformations and chemical changes, and formed natural bitumen. The first summary of the geology of central and eastern Venezuela was published in 1850 by Hermann Karsten.

Geology Schools

An Institute of Geology was established by Decree of the Constitutional President of the Republic on 29 September 1937; instruction started the following year and a Class of 13 graduated in 1942. The Institute was ascribed to the Ministry of Education and teaching was of the highest level; its excellence was recognized in the USA and Europe, as a growing number of Venezuelans went abroad for post-graduate studies. The Institute was later integrated into the Central University of Caracas; currently it is the Geology, Mines and Metallurgy School in the Engineering Department. There is also at Central's Geochemical Institute in the Sciences Department. A Venezuelan Association of Geology, Mining and Petroleum AVGMP was very active on purely professional work from 1948 onwards, but ceased activities in the seventies.

The first class of the Geology School in the Oriente University, then in Puerto La Cruz, now in Ciudad Bolívar, graduated in 1965. Geophysics started in the UCV Caracas in 1968; recently, a Geophysical Department was established in the Simon Bolívar University, also in Caracas. A Geology School opened in 1986 in the Andes University, Merida.

The Geological Society

A group of geologists founded on 14 February 1955 the Venezuelan Geological Society SVG (Sociedad Venezolana de Geólogos). It was the first professional society to establish an affiliation with the College of Engineers.

The purposes of the Society are the advancement of the geological sciences, the dissemination of information, the inspiration of the highest standards of professional conduct amongst its members, the fostering of science and technology and the advancement of the well-being of the members. The SVG can also give advice to the Government on technical matters related to geology and ensure the awareness of the general public on geological processes and risks (seisims, landslides, etc.).

Active Members of the SVG have to be registered engineers with the CIV. Associate Members can be of related professions, accepted by the Executive Board. Corresponding members of the SVG are geologists with foreign residence.

Work of the SVG is done with the help of 8 affiliates (Filiales SVG), on a geographical distribution. Membership exceeds 1200, of which half work in the petroleum industry and one-third in mining. Environmental geology has been actively promoted during the last decade.

The College of Engineers CIV (Colegio de Ingenieros de Venezuela) was established in 1861. The Law for a practicing Engineering, Architecture and related professions (including Geology) was decreed on 24 November 1958.

The Law stipulates that such practice is not an industry (Article 3), that university degrees have to be registered with the College (Art 18), that a person can only practice a certain specialty - which is determined and described by the National Council of Universities and the College - (Arts 6, 9 and 12), that only titles from abroad in a certain specialty not given by universities in the country could be registered with the College (Art 5) and that there should be reciprocity of practice with Venezuelans to register foreign titles (Art 18). The College of Engineers is a public, moral entity (Art 21).

At present, the Venezuelan College of Engineers has 80 000 registered members. Some 30 professional societies and associations are affiliated with it. Charges of misconduct are referred to an Ethical Council (Tribunal Disciplinario), elected by the membership at the same time of the CIV officers; sanctions may entail suspension of practice for up to one year.

Engineers not of Venezuelan nationality, authorized by the College to work professionally as per Article 19 of the Law, are acceptable as Temporary Members, also engineers working in Venezuela under contract with some public enterprise (Art 20). Other categories are Student Members - while at the last two university semesters - and Corresponding Members, foreigners so honored by reason of their individual work and merits.

The Law has been in force since January 1959. By-laws were last amended on 13 August 1984.
Geologists in U.K. Now United

Richard A. Fox

The Society was founded in 1807 and received its Royal Charter in 1825 as The Geological Society of London for the purpose of investigating the mineral structure of the earth. The Society promotes all aspects of geological science by means of meetings, special lectures, discussions, publications and library services as well as courses and excursions.

With the reunification between the Geological Society and the Institution of Geologists in 1990, the Society now fully represents the geological profession in the United Kingdom.

Most of the members of the Society are geologists, geophysicists and other earth scientists employed in Britain or working for British Companies overseas. There are also a number of foreign members, generally domiciled overseas.

The Society has a number of standing Committees of Council which action the aims and objects of the Society, and these include, Education and Training, External Affairs, Disciplinary Appeals Panel, Disciplinary Panel, Fellowship and Validation, Regional Affairs, Promotions, Conservation, and House and Library Committees.

In addition there are ten specialist groups covering a wide range of interests in earth sciences, and these groups hold meetings on a regular basis, including field studies. They play an increasingly important part in the work of the Society with Membership of all groups being open to Fellows of the Society without additional charge.

The Fellowship and Validation Committee is the body responsible for all professional matters relating to establishment and maintenance of procedures as well as the scrutiny and approval of applications. Under the new By-Laws of the Society, all Fellows who were Corporate Members of the Institution of Geologists were deemed to have Validated. By the end of 1990 some 613 Fellows had been Validated and were entitled to style themselves "Chartered Geologists (C. Geol.)."

This Committee has been involved in the discussions with the U.K. Government Department of Trade and Industry over the Society’s inclusion as the recognized body for the “UK Implementing Regulations” for the European Communities (Recognition of Professional Qualifications) Regulations. A European Community General Directive came into force on the 4th January 1991 which applies to any profession which is regulated in some way (e.g. by a State or a professional body) for which at least 3 years education of Higher Education nature, is involved.

Thus, self-regulating bodies like the Geological Society which are recognized in a special form by the State, have formal legal recognition which in the United Kingdom means having a Royal Charter.

Total Membership of the Society for 1990 was 6606, with 6279 normally between 18 and 23 years old, who are attending a full-time course in earth science.

A Fellow who wished to become Validated can make an application to the Fellowship and Validation Committee so long as he/she has an approved academic qualification, and at the time of election has obtained an appropriate period of professional experience of at least 5 years minimum. The application must also be supported by four sponsors who are Fellows of the Society, and must include a report on the training and experience received since first graduating. The candidate is required to submit single copies of a chosen selection of professional documents, and normally there will be a requirement for a professional interview with two or more Validated Fellows of the Society. Candidates must normally be expected to be interviewed in the English language, although in special cases, and by prior arrangement, it is possible to hold interviews in other languages.

Currently in the U.K. there are no legal restrictions for practicing as a Geologist, and the recent acceptance of the title of Chartered Geologist for Validated Fellows of the Society was seen as a great step forward for the profession in setting high standards to protect both the public and the profession for the future.

Employment statistics for geologists in the UK in the last 10 years indicated a strong trend still towards the Oil Companies and Geophysical Contractors, with more seeking overseas postings. There has also been increasing opportunities for jobs in civil engineering (engineering geology), hydrogeology and geotechnical (Planning etc) work. For the future the proliferate environmental legislation both from the European Community and the U.K. Government will result in a steady demand for specialist geological advice in pollution, safety and development control matters.*

British Columbia Grants Professional Registration

Linda E. Thorstad, M.Sc., P.Geo.

The province of British Columbia is the latest Canadian jurisdiction to grant professional registration to geoscientists. Geologists, geochimists and geophysicists alike may apply for registration as professional geoscientists through the Association of Professional Engineers and Geoscientists of British Columbia.

The British Columbia Engineers Act was amended on July 19, 1990 to incorporate geoscientists after almost five years of discussion, debate and presentation to government. In other jurisdictions of Canada recognition has existed for thirty years. The province of Alberta recognized and included geoscientists (Professional Geologists) under the Engineers Act in 1960, the Northwest Territories in 1981 and the province of Newfoundland in 1989. Currently four of ten provinces and two territories in Canada require registration.

In the United States, fifteen states require certification of geoscientists. In Europe, the European Federation of Geology has over 11,500 members in seven countries.

History:

As early as 1962, geoscientists expressed a formal desire for professional recognition in the province of British Columbia; the Association of Professional Engineers of British Columbia submitted a request for amendments to the Act to allow for registration of geoscientists in 1980 and in 1984 incorporated this recommendation as a component of their Annual Brief to Government. During preparation of the 1985 Engineer’s Amendment Act, a similar proposal was submitted. None was successful in bringing about the requested changes.

The Earth Science Task Group grew out of an October 1985 meeting of the “Engineer’s Act Committee and representatives of Geological Groups”. The group consisted of a number of professional engineers and one geoscientist guided by M.A. Wesson, P.Eng., Director of Registration for the Association. The Task Group’s mandate was to establish the level of demand and for professional registration of geoscientists within the Association of Professional Engineers and to consider strategy for the necessary revisions to the Engineers Act, if justified.
A 1986 questionnaire was sent to 1,350 British Columbia members of the Geological Association of Canada (GAC), the Canadian Institute of Mining and Metallurgy (CIM), the Vancouver Mining Exploration Group (MEG), the Vancouver Geotechnical Society, the Vancouver Exploration Geochemistry Group and the Vancouver Geophysical Society. An overwhelming response (557 respondents), indicated that 91% were in favor of professional registration and 83% were in favor of registration under Association of Professional Engineers.

Numerous written and verbal submissions were given to the Ministry of Advanced Education and Job Training in 1988. Bill 23, the 1989 Engineers Amendment Act carried important revisions to disciplinary procedures but did not, due to lack of legislative space, include provisions for registration of professional geoscientists.

Under Bill 27, the Engineers Act was amended in July 1990 to include registration of professional geoscientists. Of almost 2000 geoscientists in the Province the first were formally registered in May of 1991.

The amended act, except for provisions pertaining to prohibition of the practice of geoscience by non members, was proclaimed on August 2, 1990. Remaining sections will be proclaimed in mid 1992.

**Rationale for Registration:**

Professional registration was considered necessary for geoscientists employed in the mining and energy industries of British Columbia to allow them to practice in their own right rather than to rely upon other professionals to assume responsibility and certify their work.

It was considered that public interest would be better served by the licensing and controlled practice of geoscientists whose many areas of practice and expertise are common to those of registered professional engineers. It was also considered critical to establish an equal level of legal responsibility between licensed and unlicensed practitioners in overlapping disciplines.

Standards of practice and professional ethics and disciplinary measures provided impetus for legislation defining an area of practice and prohibiting practice by unlicensed geoscientists.

With staff and facilities in place, education and experience requirements of a similar stature and an overwhelmingly positive response from geoscientists, the Association of Professional Engineers was the most logical umbrella organization through which to achieve professional recognition.

**Registration:**

There are currently three grades of membership including Geoscience (Engineering) Pupils, Geoscientists (Engineers) - In - Training and Registered Members. Students enrolled in geoscience or engineering programs may apply in the first grade. Graduates of approved programs who have successfully completed examinations but do not have sufficient direct work experience may apply in the second grade.

To become a registered member or licensee of the Association of Professional Engineers and Geoscientists, a geoscientist must be a Canadian citizen or permanent resident of Canada and must:

1. be a graduate in applied science, geoscience or engineering from an institute of learning and in a course approved by Council,
2. pass special examinations as set out in the By-Laws,
3. have adequate direct work experience, and,
4. be of good character and repute.

A person who is neither a Canadian citizen nor a permanent resident of Canada who meets the aforementioned criteria and wishes to engage in the temporary practice of geoscience in the province may obtain a license from Council. This license, at Council’s discretion, allows the recipient to engage in a particular work or for a temporary period, or both.

**Code of Ethics:**

Professional Engineers and Geoscientists are bound by a Code of Ethics outlined in the Engineers and Geoscientists Act (as amended 1990) and By-Laws. The code is designed to provide both general statements of the principles of honorable conduct and more specific statements of required standards and prohibited actions.

While other duties are considered as equally important, in general terms, the Code of Ethics *requires* that the professional engineers and geoscientists:

1. be guided by the highest standards of integrity in all professional relations
2. have the proper regard for public safety, health and welfare and consider conduct with respect to these issues paramount.
3. may promote their work and abilities provided that the advertising is accurate, dignified and does not criticize other professional engineers or geoscientists
4. Attempt to promote public knowledge and understanding and decry misrepresentation and misunderstanding of the profession
5. will only express an opinion when qualified
6. will only undertake assignments when qualified
7. will not disclose information given in confidence
8. will attempt to avoid any conflict of interest with their employer or client
9. will uphold the principle of adequate and appropriate compensation
10. will not accept compensation for the same assignment from more than one source without full disclosure
11. will not compete unfairly with other registered members
12. will not attempt to maliciously, falsely, directly or indirectly damage the professional reputation
13. will not associate with any enterprise of questionable character or in conducting unethical practice
14. will give credit where credit is due for work performed
15. will co-operate by exchange of information and experience with others to extend the effectiveness of the profession, and,
16. will observe the rules of professional conduct in the country in which they may practice.

*Summary only - summarized from the By-Laws of the Association of Professional Engineers and Geoscientists of B.C.

**In Summary:**

The need for registration or certification of geoscientists is being recognized and pursued throughout the world. After almost thirty years of documented requests and five years of formalized lobby efforts in the province of British Columbia, the necessary amendments were enacted and legislation passed to admit geoscientists under the umbrella of the Association of Professional Engineers.

British Columbia has approximately 2,000 practicing geoscientists. A "grandfather" clause has been implemented for a period of two years ending December 31, 1992. During this term special admission criteria may apply, on a case by case basis, subject to satisfactory work experience. The geoscientific industry should continue to build upon a solid reputation that has grown from antiquity. Professional registration or certification serves to acknowledge credibility established through hundreds of years of professional practice.*
Geologist - Not a Professional Title in France

F. D. de Larouziere, UFG representant in the EFG Council

There is no actual recognition of the "Geologist" as a professional title in France, despite more than 15 years of continuous efforts to sensibilize Ministries, Politics, Lawyers and Regional Collectivities. At this time, the title is not protected by law. Anyone can work as a geologist, even without any diploma!

Professional Associations in France

The main Professional Association is the <<Union Francaise des Geologues>> (UFG), founded 1965, which groups about 1300 professional geoscientists (geologists + geophysicists). The UFG has been deeply involved in trying to protect the profession, and acting for many years to clarify the "image" of this kind of activity in the national community. Five sections have been created: (1) Environment, (2) Petroleum, (3) Mining, (4) Geophysics, and (5) Research and Teaching. A regional group (Marseille-Provence) is very active in southeast France.

The UFG is one of the National Associations which were founding members of the European Federation of Geologists (EFG) in 1980, during the 26th International Geological Congress (IGC, Paris).

There are many other groups mixing scientific and professional roles, in which members range from 100 to 300. The "Association des Geologues du Sud-Est" (AGSE), "du Sud-Ouest" (AGSO), "du Bassin de Paris" (AGBP), etc... are some examples of these mostly regional groups.

Scientific Groups

In the scientific domain, the leadership is held by the Société Géologique de France (SGF), founded 1830; during the past 10 years or so, the SGF have organized numerous meetings or symposia on professional matters (water resources, environmental geology, nuclear or chemical wastes, roads, dams or railways for high-speed train (TGV) construction, ...). The present tendency is to develop closer links with the UFG.

There are specific scientific groups for oil and gas ("Association Francaise des Techniciens du Pétrole", AFTP), water (French section of the International Association of Hydrogeologists IAH), or civil engineering ("Comité Français de Géologie de l'Ingénieur" CFGI) activities, but they are not deeply involved in professional matters, and the members are always less than 500.

All these associations and groups, UFG included, are more or less headed by the "Comité National Français de Géologie" (CNFG). The role of this Institution is to select the representation of geologists or geological associations from France in all International Organizations (UNESCO, UNO, IUGS, ...), or during International Congresses as IGC. It also provides funding for these activities.

Irish Geologists Still Missing Legal Recognition

Loreto Farrell, Irish Association for Economic Geology

In Ireland the title of "geologist" has no legal status. There are no Irish Geological Associations with a professional membership category. A minority of Irish geologists are however members of the Institution of Mining and Metallurgy and The Geological Society both of which are United Kingdom based and have professional membership status. The Irish Association for Economic Geology is the Association which represents the majority of geologists in Ireland. To be eligible for full membership in the Association, a candidate must abide by the general principles and code of conduct as set out in the Constitution and fulfill the following requirements:

- Any person engaged in the practice or teaching of economic geology may apply to become a Member, provided he/she holds a degree in geoscience from a College of acceptable academic standards.
- Any person who is and has been continuously engaged in mineral and petroleum/gas exploration or closely related work for a minimum of five years may apply to be a member.
- Any applicant for Membership must be approved by the Executive Council as being suitable for membership.

The Irish Association for Economic Geology which was founded in 1973 represents approximately 80% of all geologists working in industry, the universities and in the state sector within Ireland. Membership for the current year stands at 313 of which 2 are honorary, 169 are full, 71 are overseas and 38 are student members. There is no professional membership category. However the Association intends to introduce such a category at its next Annual, General Meeting which will be held in December 1991. Upon the introduction of the professional membership category the Association will enter into negotiations with Government departments and the Irish and London Stock Exchanges to have all relevant geological government and stock exchange reports "signed off" by a professional geologist as defined under the status of our Association.

The objectives of the Irish Association for Economic Geology are:

1. To advance the science and practice of Mineral Exploration, Mining Geology and Petroleum Geology in Ireland.
2. To provide information regarding Mineral Exploration and Production, Oil and Gas Exploration and Production, and to act on behalf of its members in all matters of general concern to the industry.
3. To encourage and assist in the education and employment of geologists and geoscientists in Ireland.
4. To promote an interchange of ideas and information relevant to economic geology, and to organize field excursions and regular meetings for the presentation and discussion of papers.

A 10-person Council runs the Association on a voluntary basis. Regular activities include lecture meetings (many given by invited overseas speakers) and an annual weekend course. Lecture meetings are held at least once per month. At least one lecture per year is held in every third level college teaching geology in Ireland, this enables the Association to liaise closely with student members and to influence course content in colleges and universities. Field trips at home and abroad are arranged for the membership annually. The Association also organizes field trips in Ireland for geologists from overseas. During 1991 the Association will host field trips for geologists from Spain and Newfoundland.

In the area of education, the Association maintains a standing committee on Education, Research and Employment. In Ireland geologists normally complete a 3-4 year University primary degree course (BSc). The duration of the course is dependent upon the organizing university department. There are 5 University Geology Departments in Ireland: University College Dublin, Cork and Galway. These three are constituent colleges of the National University of Belfast which also grants BSc and post graduate degrees in Geology. Geological Technical diplomas are granted.
upon completion of a 3 year course by the Regional Technical College, Athlone. Environmental Geology diplomas and post primary degree courses can be undertaken in the Regional Technical College, Sligo and at the Ulster University in Coleraine. The majority of primary degree geology graduates, because of poor job opportunities, undertake further post-graduate studies either in Ireland or overseas. In recent years the trend in this area has been for graduates to undertake applied MSc courses rather than MSc and Ph.D. by dissertation courses.

As a result of increasing public awareness of environmental issues the Association is committed to a public education program. The 1991 weekend course entitled “The Environmental Aspects of Exploration and Extraction” was an initial step in this process. The Association will also be publishing a series of information pamphlets, the first one of which will describe mineral exploration techniques. The Association grants aid in conjunction with the Irish American Foundation, a two year MSc. The data compiled during the research period is released to industry by means of reports, lectures to the Association and published papers. The chosen post-graduate with his accrued experience is then available to join the national pool of talent and experience. Every two years the Association, in conjunction with the Geology Department of University College Dublin, organizes a course for all third level students in Ireland, the course is entitled “Techniques and Practices in Mineral Exploration in Ireland” and consists of lectures given by Association members. The Association is represented on the National Committee for Geology. This committee represents all geology departments in Universities, the Geological Surveys and all geological organizations on an island basis. The committee is responsible for coordinating geological activities, formulating policy for and addressing problems experienced by the geological community. The committee is responsible for organizing an annual Irish Geology Day which is aimed at focusing the public’s attention on the importance of geology in everyday life.

The Association is the representative body for Ireland in the European Federation of Geologists. The corporate membership category of the Association was set up to fund its representatives attending EFG Council meetings. The Association will organize the application procedures necessary for geologists wishing to apply for European Geologist status.

The Association maintains an active committee on Employment and Working Conditions. The work of the subcommittee includes membership surveys on conditions of employment, seminars on employment opportunities, discussions with the Confederation of Irish Industry and organizing training courses for unemployed geologists. Current employment prospects for geologists in Ireland are poor. In recent weeks one of our major employers of exploration/development geologists has been forced to make approximately 95% of its staff redundant. The future prospects for majority of those are very bleak indeed as there are no jobs available in this sector. Financial cutbacks in the university and state sector also mean that job opportunities in these areas are non-existent. However, with increasing public awareness of environmental issues the Association is of the opinion there will be opportunities for environmental geologists in the future in both the state and private sectors. This increased emphasis on environmental geology is now reflected in the type of post-graduate courses being chosen by geologists upon completion of their primary degrees. During 1992 it is likely that a major zinc prospect at Galmoy in Co. Kilkenny will be granted a state mining lease, thus providing job opportunities. A further major Zn prospect adjacent to the Galmoy prospect is currently being explored and it is likely that an application for a state mining lease will be lodged for the prospect within the next two years. Again, this should provide job opportunities for geologists.

The Irish Association for Economic Geology has taken public stands over the years on various issues affecting the minerals industry in Ireland, and has played an independent role in the debate on Ireland’s natural resources.

In collaboration with the Institution of Mining and Metallurgy, the Association hosted an international symposium "Prospecting in Areas of Glaciated Terrain" in Dublin in 1979. It also organized an international meeting in Wexford entitled "Mineral Exploration in Ireland: Progress and Development 1971 - 1981". During 1984 the Association organized a major international conference in Ireland, which included a number of industrial and field excursions and attracted a worldwide audience. A volume which included the extended proceedings of that meeting was published in 1986. In September 1990 the Association organized a highly successful international conference in Galway entitled "The Irish Minerals Industry - A Review of the Decade". The proceedings of this meeting will be published in October 1991.

The Association also published the following:

"Mineral Exploration in Ireland" (1979)

"Prospecting in Areas of Glaciated Terrain Excursion Handbook" (1979)


"Lower Carboniferous Lithostratigraphy for the Irish Midland" by M.E. Philcock (1984)

The Association produces a quarterly newsletter for its members and since 1985 it has published an Annual Review. The review includes abstracts from the year’s lecture meetings and the weekend course and also contains articles relating to the development of economic geology either in or relevant to Ireland.

We in the IAEG are pressing ahead with the introduction of the professional category of membership and are endeavoring to forge links with our Euro-MPs in order that our members may be seen to have both credibility and professional status.

---

Practical Approaches to Ground-Water Hydrology and Contamination

September 30 - October 4, 1991

School of Geology, Oklahoma State University. One-week course designed for professionals who are responsible for making decisions that have an effect on ground water, but who have little or no training in hydrology. Contact Cathy Southwick, Program Coordinator, 105 Noble Research Center, Stillwater, OK 74078-0451.

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Geologic Profession Protected by Law - Italy

The geologic profession in Italy is regulated by special laws:

- **Professional rates** (1971).

L’O.N.G. was founded in May 1968 and unites all of the Italian professional geologists. Also, a geologist must be enrolled in O.N.G. to practice in the profession. Consequently O.N.G., under the auspices of the Minister of Peace and Justice, exercises the functions of tutelage of the profession, regulates contentions among the members through deontological norms and promotes public and cultural initiative in order to better the profession.

As of today, the number of members enrolled are 7872 divided in Normal Roll 6924, and Special List 948. The Special List is reserved for public employees who are restricted from certain activities like many government employees world wide.

The Law of November 1990 divided the Order of Geologists into regional orders which are sustained by regional Councils.

The National Council operates to enhance the profession by coordinat- ing the activities of the regional Councils. Upon request from the Minister of Peace and Justice the Council may express its opinion on proposals for laws, regulations etc. which concern the geologic profession.

Over 16,000 Geologists in Germany

Germany has over 16,000 geologists, geophysicists, and mineralogists in the newly united country. The profession is legally recognized and all three categories require a university degree specializing in the desired field.

All of the geologic professions in Germany are administered by the "Bundesverband Deutscher Geologen" (BDG). This is the only professional organization for these three professional groups in the country. Independent or freelancing geologists are also governed by the BDG.

Membership in BDG is open to geologists geophysicists and mineralogists employed by industry or self-employed. Requirements for a full membership are a university degree in one of the three fields, and 3 years practical experience. Student members and "junior members" are available options. The BDG has 1,850 members. Since August 1, 1991, companies may also join.

The employment situation is declining in all fields except in environmental geology (engineering geology, hydrogeology). Including students, there are approximately 16,000 geologists, geophysicists and mineralogists in the united Germany.

International Symposium on Ground Water Issues
Lower Great Lakes

**November 7-8, 1991, Days Inn - Falls View, Niagara Falls, New York**

Sponsored by The Buffalo Association of Professional Geologists

A two-day examination and investigation of U.S. and Canadian ground water issues.

Four half-day modules: regulatory affairs, applied contaminant hydrogeology, remedial actions and activities, and case histories.

Ideal for engineers, geologists, hydrogeologists, geophysicists, environmental professionals, attorneys, facility managers, regulators and citizen groups.

Featured speakers include: Frank Schwartz (Ohio State University), John Greenhouse and Shawn Frape (Waterloo Centre for Groundwater Research), Martin Sara (Waste Management, Inc.), Kent Novakowski (Environment Canada), William Kappel (U.S. Geological Survey), Stan

Irwin (Ministry of the Environment, Niagara River RAP), William Wertz (NYS Department of Environmental Conservation), Robert Stadelmaier (RECPA Environmental Services) and others.

A keynote speaker will address the November 7th luncheon. The registration cost for the two-day event is $120 (US) per BAPG member and $150 (US) for non-members. Contact David D. Slaine at (716) 285-5448 or Norman K. Wohlabough at (716) 282-2676 for registration or exhibitor information.

Buffalo Association of Professional Geologists, Inc.
Ellicott Station, P.O. Box 1254
Buffalo, NY 14205-1254.

CALL FOR PAPERS
Second International Symposium on Environmental Studies
Tropical Rainforests - FOREST '92

First International Seminar on the Environmental Problems of Large Urban Centers - ECO-URBS '92
Rio de Janeiro, Brazil - May 24 - 29, 1992

Paper abstracts may be submitted to the editorial committee no later than November 30, 1991. Early submission is encouraged. The abstracts written in Portuguese, Spanish or English should not exceed 1,200 words. Submission of complete papers is also acceptable. Registration will cover both FOREST '92 and ECO-URBS '92.

For information on paper summary and registration:
FOREST '92 and ECO-URBS '92, Organizing Committee,
P.O. Box 3591, 20001 - Rio de Janeiro - RJ - Brazil, Fax (+55-21)2261345.
Telex (+5521) 37984 - FBCN-BR, Telephone (5521) 2206913 and 2665008.
Professional Liability Insurance - The Time Is Now

Well, you've made it. You've met the qualifications as established by the American Institute of Professional Geologists and can use the title "Certified Professional Geologist." A goal that has taken many years of hard work has been realized. Congratulations!

The life of a professional geologist can be one of excitement, travel and financial rewards, or, just as easily, one of financial devastation. As a "professional" you are held to a higher standard of performance than many of your peers. If you are involved in a project that does not turn out as planned, look out. Clients, project owners, and investors will be looking to find out what went wrong and who's responsible. If there was a financial loss, the course most often taken is to sue everyone involved and let the courts decide.

Lawsuits, even if based on frivolous claims, are expensive to defend and can have a devastating impact on a geologist's professional life. Even if the geologist is found to have performed his duties in a professional manner, his reputation may be tarnished and his bank account severely diminished.

Solutions to the problems are available. As pointed out by AIPG member David Abbott, Jr., CPG 4570, in September of 1988, adhering to the AIPG Code of Ethics is an excellent method to avoid professional mistakes that can occur. But, what do you do if you are sued? How do you proceed and how are you going to pay for it? Professional liability insurance may be the only answer. We have been actively working with AIPG Executive Director William V. Knight, CPG 153, and the AIPG Insurance Committee to develop a professional liability policy designed for geologists. It has taken almost a year for us to review the many different professional liability policies that are available in the insurance industry. None of the policies that we reviewed were designed to cover the unique exposures of a geologist. With that in mind, we set out to create our own policy contract. This policy will address the multi-disciplined professional duties of AIPG members. It was designed for geologists with valuable input from the AIPG Insurance Committee.

Johnson & Higgins of Seattle, Washington is proud to have been appointed to represent AIPG in the insurance marketplace. J&H can offer professional liability insurance through companies that understand the unique professional exposures of AIPG members, insurance designed to cover many of the exposures geologists encounter.

In reviewing the insurance requirements with the AIPG Insurance Committee, two areas were of greatest concern: the pricing structure of the insurance and the coverage provided by the policy. Many AIPG members won or work for companies that are relatively small, usually under 20 employees. In the past, smaller companies have not been able to afford even the minimum premium charged by most insurance companies. A typical minimum premium was $25,000 with deductibles as high as $50,000. Insurance was out of the question for most AIPG members. Solving this problem was a high priority.

We are designing our programs to offer alternatives. We currently have access to insurance companies where the minimum premium starts as low as $5,000 with deductibles as low as $5,000.

We are now negotiating with underwriters to design a new policy which will have a unique pricing structure based upon a per-geologist charge. The new policy will provide broad coverage with relatively low deductibles as well as reasonable premiums. Our target date to offer this policy is mid-October, just in time for the AIPG National Meeting in Gatlinburg, Tennessee.

J&H is committed to working with AIPG members to develop the best professional liability insurance policy available. Insurance for AIPG members in currently available. If you or your company would like further information, or would like to obtain a quotation, please contact Ed Belsky at (206) 233-2205.

Taking Action In Washington

AIPG is extending its advocacy capabilities through active participation in the newly established AGI advocacy program. The purpose of the program is to provide a point of contact for the member societies to reach the Congress and Executive Branch, to track legislation, to provide a vehicle for members to become involved in activities in the Capitol, and to facilitate access to geoscientists by Congressional and Executive staffs. AIPG funds have been committed and a full-time professional in the AGI office is expected to initiate the program approximately October 1.

Priorities and general guidance will be responsibilities of a Geoscience Advocacy Advisory Committee drawn from member societies. This committee held its first meeting August 19, at which time it interviewed candidates for the Advocate position and identified issues of interest. The issues identified include the National Geological Mapping Program, Mineral resource appraisals, the 1872 Mining Law, a National Energy Policy, Radon overkill, Asbestos overkill, the Seismic Hazards bill, and Research funding.

This will enable AIPG and the other members of AGI to increase their influence in the Capitol by combining their resources to support a program that most could not support alone. Owing to its broad professional and public affairs orientation, AIPG expects to be a particularly active participant.

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SEPTEMBER 1991
Economy Takes Toll on Salaries for Scientists and Engineers

Salaries of experienced scientists and engineers have remained flat during the past years, as a result of a stagnant economy felt throughout the U.S. Although salaries of these professionals inched upwards between 1989 and 1991, the small gains were often offset by increased contributions they were forced to make to employee benefit plans or other salary-affecting factors, including inflation.

Adding to the uncertainty of their economic welfare was the fact that salary offers to new employees this year were not much higher than a year earlier, and sometimes they were lower. This change resulted from employer belt tightening, both with regard to new hires and in retention of current technological personnel. These are some of the main findings of a new report, SALARIES OF SCIENTISTS, ENGINEERS AND TECHNICIANS, by the Commission on Professionals in Science and Technology.

A brief narrative analysis of economic conditions in the sciences and engineering reinforces the 252 tables of salary data from more than 50 salary surveys to provide a broad range of information on starting and advanced salaries by field, experience level, degree level, and type of employer; with differentials by sex, type of job and geographic area. Some of the findings:

* Recruiting on college campuses was down in 1991, as the economy continued to take its toll on hiring by companies all over the country. Engineering bachelor’s graduates continued to command the highest starting salary offers, with petroleum engineering graduates experiencing salary offers, with petroleum engineering graduates experiencing salary offers nearly 11% higher than in 1990 to reach nearly $39,000. However, at the other end of the engineering spectrum were graduates in aerospace who face an unpromising job outlook due to cutbacks and layoffs in their industry. Although women received equal or nearly equal starting salary offers in engineering, wide disparities exist in other disciplines.

* Regardless of discipline or degree level, those graduates beginning their professional careers in industry reported higher starting salaries than did those working in any other employment setting.

* Doctoral scientists and engineers working in industry reported the highest median salary, while those working in state and local governments reported the lowest. Teaching, the dominant work activity of doctoral scientists and engineers, continues to provide the lowest annual salary, while PhDs working in R&D management earn the most.

* Overall, women doctorates in sciences and engineering earned 25% less than men in 1989, a discouraging figure for women, since the salary gap has widened from 20% in the 1985-1987 period. White PhDs earned more than minority PhDs and women earned less than minorities. By citizenship, native-born citizens with doctorates earned less than those who were naturalized U.S. citizens, but non-U.S. citizens working in the U.S. earned the least, regardless of field.

* The more experienced R & D scientist or engineer reported higher salaries than their younger counterparts regardless of position, although salaries did begin to drop in the latter stages of their careers. Regardless of type of employer or discipline, women scientists and engineers working in R & D earned less than their male colleagues.

* Salaries for chemists were up 5% from 1989 to 1990 at all three degree levels, while salaries for chemical engineers rose less than 4% for the third year in a row. Salaries for data processing personnel are increasing, but at a slower pace than in the past. The job market for data processing personnel is "soft," with many companies downsizing.

* For the third year in a row, salaries of experienced engineers in the U.S. failed to keep up with inflation in 1990. Overall, bachelor’s degree engineers earned $45,000 compared to $63,650 for doctoral engineers.

* Physical science technicians employed in research and development receive higher salaries than do technicians in any other broad discipline.

* For the first time in a decade, faculty salaries in 1990-92 failed to keep pace with the cost of living. Faculty salaries vary considerably by discipline and type of institution, with engineering professors earning the highest salaries among the science and engineering disciplines, at both public and private institutions. Regardless of rank or type of institution, the average salaries of women are less than those of men.

This new report makes possible a close comparison of salaries in every major field of science and engineering (as well as some comparative information in other fields) and at every degree level for beginning and for experienced professionals employed in business, government, academe, and other employment sectors.


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AIPG 1991 ANNUAL MEETING
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Gatlinburg, Tennessee
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THE PROFESSIONAL GEOLOGIST
Diverse Erosion Control Program


Acclaimed as the finest meeting and exposition in the erosion control industry, the conference has expanded to a four day format offering a variety of educational opportunities for attendees. The multi-faceted program for 1992 will feature 2 short courses - "Erosion and Sediment Control Workshop" and "NPDES: Urban Stormwater Management"; the industry's largest and best attended trade exposition; over 40 technical presentations, oral and poster displays; training workshops for contractors and others interested in the "how to" aspects of retaining walls, gibbons, hydroseeding, and biotechnical applications; and an exam for those seeking to become a Certified Soil Erosion and Sediment Control Specialist.

Attendance at the conference includes experts and specialists from the U.S. Canada, Europe, Asia and Australia who will address a wide range of topics including erosion control research, case studies, technology and policies. Technical presentations are to be published in a Proceedings which will be available at the conference.

The IECA was founded in 1972 to provide information on the technology of erosion control. The Association serves as a means for professionals throughout the world to communicate and exchange valuable information related to erosion by wind and water - the causes, the prevention and the remedies.

For additional information regarding the 1992 IECA Conference and Trade Exposition please contact: Ben Northcutt, Executive Director, P.O. Box 774904, Steamboat Springs, CO 80477, telephone (303) 879-3010, fax (303) 879-8563.

Turek Chairs National Committee

Frank S. Turek, CPG 4788, has been named as the new Chairman of the National Geologists Examination Committee, effective immediately. Turek replaces John W. Williams, CPG 6615, who resigned owing to the press of business responsibilities.

The Committee's current charge is to monitor the efforts of the Association of State Boards of Geology to develop an examination for its member Boards. The Committee will assess the feasibility of developing an optional examination that would be acceptable to various Boards for comity purposes. Such an examination would be made available as an option to those AIPG Members who wished to obtain comity in accepting states. If the project appears feasible, the Committee will carry it forward.

AIPG Accredits Continuing Education

Arvada, CO -- Continuing Education activities in geology and related scientific areas will now be accredited by the American Institute of Professional Geologists (AIPG). Beginning in September, 1991, AIPG's program features: Continuing Education Credits (CECs), Professional Development Credits (PDCs), and Records-Keeping and Transcript Services.

State Boards of Geology and many individual geologists realized the need to end the confusion surrounding quality control in continuing education activities. States such as South Carolina, which recognizes AIPG accreditation, require continuing education to maintain professional registration. Geologists, inundated with advertisements for continuing education activities, need some basis upon which to judge quality and make informed choices. The AIPG program makes available an unbiased evaluation and monitoring system applicable throughout the United States and many foreign countries.

CECs will be limited to formal courses designed to improve the professional skills of graduate professional geologists. Accreditation will be given for advanced geologic and related courses. The program is confined to non-college-credit offerings and does not apply to college-credit courses.

For professional geologists who attend other educational activities, such as workshops, seminars, field trips, etc., PDCs will be available. This program gives geologists an option to improve and maintain their professional expertise in non-traditional formats.

Record-keeping and transcript services will also be provided. These services are free to AIPG Members and Affiliates. Others will be charged a fee.

AIPG's Continuing Education Accreditation Committee will evaluate activities for accreditation. Evaluation will be on content, faculty, facilities, equipment, materials and presentation. An activity must maintain its quality or accreditation can be withdrawn. Monitors will audit accredited activities for quality control.

For further information, contact AIPG's National Headquarters, 7828 Vance Drive, Arvada, Colorado 80003, or call (303) 431-0831.

Founded in 1963, AIPG is the only national organization which certifies the competence and ethical conduct of geologists in all branches of the science. The Institute adheres to, and promotes high principles of professional responsibility and public service throughout the geologic community. AIPG's mission and scope make it the ideal organization to fairly determine which activities are worthy of accreditation. Since AIPG does not offer courses itself the accrediting process is not a conflict of interest.
EXECUTIVE DIRECTOR’S COLUMN

The Business Of International Business

Geologic Opportunities In A Changing World

William V. Knight

The cover photograph on this month’s TPG illustrates, in a sense, the opportunities, risks and challenges geologists face in our increasingly international business relationships.

Many of our Members are in the "consulting business" in one way or another. They seek employment opportunities wherever they can be found. Also, many of our Members are employed by businesses, governments and educational institutions whose offshore relationships are growing rapidly. To serve these Members, especially, and to give others some sense of what is going on in the world, TPG this month is featuring international matters.

Recent developments in the Soviet Union (It appears possible, and incredible, that by the time you read this there may no longer be a "Soviet Union") appear to be hastening the opening of opportunities in that vast country. This is true, also, in other parts of the world that have been under Soviet sway for so long.

I recall hearing my principal expert on the geology of the Soviet Union, Art Meyerhoff, talk about the "fertile crescent" of mineral resources which runs from eastern Siberia, through the Middle East to South Africa. It contains some of the largest and richest deposits of nearly every geologic resource one can name. For some, like chromium, it is virtually the only commercial source. In his view, this was a principal reason for the intense Soviet interest there.

When the AIPG group visited the Soviet Union just thirteen months ago, they were told that many of their known larger deposits of various resources had been exploited, but that most of the medium and smaller deposits had been virtually ignored. The emphasis in these statements was on oil and gas. But, it was implied --- and sometimes stated --- that the same was true of most other resources, as well. This is known to be true of much of the third world, where indigenous national companies or major international companies have dominated the scene. Thus, new opportunities exist for geologists experienced in plying their trade in a market economy. And, the opportunities are not confined to exploration and development of minerals, oil and gas. They are in water, environmental and engineering geology, as well.

Opportunities are always accompanied by risks. One of the greatest risks is associated with political uncertainties and instability. For those who have the wherewithal to tolerate these risks, the opportunities appear tremendous. Major companies that have the staying power are much better equipped financially to exploit the opportunities than are the small independents. But the small operator is not limited, as is the major, to the larger prospects. Thus, his range of opportunities is much broader. For the small, aggressive entrepreneur, the opportunities and risks increase exponentially. Within limits, it can be said that "the smaller the operator, the greater the range of opportunities --- and risks".

One of the misconceptions that make life difficult is that "all Americans are rich". Therefore, we are expected to finance anything and everything without regard to the economics of the venture. Indeed, in many cases, market economics are so misunderstood by those who have always lived under socialism that the entrepreneur is met by a blank stare when he tries to discuss them. (When questions were asked by AIPG Members about the finding and lifting costs relative to some of the oil production that was being touted, the information was said to be unknown, not just unavailable. One sometimes wonders whether such "holidays" of information are real or merely convenient.)

As the TPG articles by society representatives in Europe and Latin America suggest, there is no great shortage of "generic" geologists in the world... just maldistribution. However, there does seem to be a real need for those who have special management or technical capabilities and who can transcend political and cultural boundaries to work with those who know the territory. This is why AIPG has been working to establish links with our counterparts in other countries, thereby expanding opportunities for our Members. Next year's Congress in Salamanca is another step in that process. (See "EC-92" in "From Washington", TPG, August, 1991).

In the past several months, Headquarters has received inquiries from an increasing number of Soviet geologists seeking employment in the United States. Our advice to them has been to make contact with companies and persons seeking to invest in the Soviet Union. The opposite applies. Those seeking to do business in these countries will need local contacts and representation there. Last September I wrote that "the best short term course for those interested in doing business anywhere in the Soviet Union, particularly if it involves natural resources, seems to be to spend time developing local contacts and identifying specific prospects." This still seems to be true. It still seems no time to invest capital there. This applies as well to those third world countries that have been under Soviet influence. Intangible groundwork is essential before hard capital is invested. Now is the time to be doing it.

Political freedom in the abstract is not market freedom in the reality. People must eat. Hopefully, conditions will improve. But, there is a long way to go, and many opportunities to go awry. "Local knowledge" is a much-used term in golf, sailing and many other sports. It applies in business and geology, too. It can mean the difference between success and failure.

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Executive Director’s Itinerary

(subject to change)

The Executive Director is visiting various Sections, agencies, campuses, and organizations. He is both talking and listening, exchanging information and ideas. Members are encouraged to attend these meetings whenever and wherever possible. His itinerary for the next six months, as presently scheduled, is:

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<tr>
<th>Date</th>
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<tbody>
<tr>
<td>Sep. 11</td>
<td>American Petroleum Institute, TX</td>
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<td>Sep. 16</td>
<td>Colorado Section, Denver, CO</td>
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<td>Sep. 27</td>
<td>Internociety Conference on Registration of Geologists, Denver, CO</td>
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<tr>
<td>Sep. 30</td>
<td>Geoenvironmental Forum, Chicago, IL</td>
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<td>Sep. 29 - Oct. 4</td>
<td>Association of Engineering Geologists, Chicago, IL</td>
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<td>Oct. 3</td>
<td>Illinois-Indiana Section, Chicago, IL</td>
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<td>Oct. 14 - 19</td>
<td>AIPG Annual Meeting, Gatlinburg, TN</td>
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<td>Oct. 20 - 24</td>
<td>Geological Society of America, San Diego, CA</td>
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<td>Nov. 16</td>
<td>Association of State Boards of Geology, Little Rock, AR</td>
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<td>Nov. 19</td>
<td>Permian Basin Section of SEPM, Midland, TX</td>
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<td>Dec. 4 - 6</td>
<td>North West Mining Association, Spokane, WA</td>
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<td>Jan. 25</td>
<td>AIPG Executive Committee, Arvada, CO</td>
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<tr>
<td>Feb. 21 - 22</td>
<td>Oklahoma Section, Tulsa, OK</td>
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THE PROFESSIONAL GEOLOGIST

16
The Executive Committee held its summer meeting on July 13, 1991, beginning at 8:07 a.m. A summary of the business conducted follows:

Secretary Larry R. Rhodes presented his report which contained application and membership data. Since the tracking of statistics began in 1986, more applications have been received for this quarter than for any other. As of July 8, proposed Section Bylaws were received from six Sections: Louisiana, Missouri, Montana, Nevada, Oklahoma and Oregon. Three other Sections, Kentucky, Florida and Michigan have reported they are working on theirs. No word has been received from the remaining Sections.

Treasurer Dale O. Reese stated that the Institute should be in good financial shape for next year. There was discussion concerning the budget.

Editor Thomas Z. Jones noted that there have been many positive comments concerning the TPG color editions. Additional improvements are anticipated in the near future.

Executive Director, William V. Knight presented his report. Resolutions were passed concerning the Directory, Registration/Legislation and International Geologic Activities.

President Haydn H. Murray reported that he has been involved in correspondence concerning the 1872 Mining Law and the Geologic Mapping Program. He, along with Executive Director Knight, attended the quarterly meeting of the European Federation of Geologists in Stockholm, Sweden. The Europeans were surprised that the United States does not have more members in AIGP for its size. There was much discussion on how to get more of the 65,000 - 80,000 geologists in the United States to join AIGP.

Larry Anna of the Colorado Section presented his report on the Annual Meeting Handbook. This handbook, which is much needed, is expected to be completed this year. It is to be used as a guide for the Annual Meeting Host Section.

Ed Nuhfer is working on AIGP publications which may be funded by grants, and will then be sold by the Institute. The books include "Geologic Hazards", "What Every Home Owner Should Know", and "Strategic Minerals".

Tom Warren of the Colorado Section reported on Continuing Education - Accreditation, and presented a list of the organizations who have been approached to accredit their courses. Continuing Education - Program Development was also discussed.

Concerning International Activities, ways for AIGP members to become members of the European Federation of Geologists were discussed and this is being looked into. Members of the Federation are expected to attend the annual meeting in Gatlinburg in October.

Robert Northcutt, Chairman of the National Screening Committee, reported that a definition of experience as a Geologist is necessary as new disciplines (such as environmental) emerge. The Executive Committee accepted Bob's suggested definition: "The practice of Geology as a vocation doing geological work which requires the application of geological principles, theories, and knowledge in the collection, analysis and interpretation of geologic data."

Gail Waggoner (Colorado Section), of the Insurance Committee, and Ed Belsky of Johnson & Higgins, Inc., of Seattle, Washington, presented a report on Errors and Omissions Insurance for members of the Institute. They will soon have a plan designed and priced for Geologists. It can be used by individual Geologists as well as companies. The coverage, deductible and prices look good. Mr. Belsky, who is also a Geologist, was asked by president Murray to write an article for TPG on E&O Insurance, and to have a booth at the Annual Meeting in Gatlinburg (Editor's Note: See article on page 13).

The meeting was adjourned at 5:06 p.m.

MacMillan Chairs Professional Issues Subcommittee

Geologists whose business practice involves evaluation of coal and mineral rights, water rights, underground storage facilities, and environmental assessments are needed for a newly appointed subcommittee of the Governmental Affairs Committee. The subcommittee has been formed to assess potential damage of FIRREA Title XI real estate appraisal licensing and certification.

AIGP believes that this bill has a negative impact to geologists in that it may exclude their valued professional opinions in lieu of licensed real estate appraisers. The subcommittee was formed to address matters affecting professional practice, specifically the impact of the real estate appraisal bill on our profession.

Logan MacMillan, CPG 4560, has been appointed subcommittee chairman. The appointment is effective immediately. MacMillan has been, and will continue as, Chairman of the Colorado Section Regulatory and Legislative Committee. There he coordinated efforts to keep professionals who evaluate water and mineral rights from needing to be licensed as real estate appraisers. In this new national position, MacMillan and his subcommittee will attempt to extend this to the national level. Another issue this sub-committee will address is H.R. 1217, the Innocent Landowners Defense Amendment, which purports to identify those who are qualified to perform environmental assessments.

To be successful with the federal regulatory agencies our technical expertise needs to be recognized as a key ingredient in a proper appraisal of real property. Those geologists interested in working on this important issue please contact National Headquarters or Logan MacMillan (303) 741-3653.

EXECUTIVE DIRECTOR
for the
AMERICAN GEOLOGICAL INSTITUTE

The search committee invites applications for the position of Executive Director from mature, broadly educated earth scientists who have significant management and budgetary skills and executive experience. A Ph.D. or equivalent qualification is desirable.

The Executive Director conducts the affairs of the Institute, as directed by the Executive Committee, including administering all planning and standing policies, supervising AGI staff, and coordinating various activities, projects, and programs of the Institute. The Executive Director maintains liaison relationships with the officers and administrators of AGI affiliated societies as well as other geoscience and science-related organizations.

The position is available in January 1992 or earlier. Interested persons are invited to submit a resume and a letter stating salary and other contractual requirements by Oct. 11, 1991, to

Chairman, Search Committee
American Geological Institute
4220 King St.
Alexandria, VA 22302

Applications and inquiries will receive confidential consideration. AGI is an equal opportunity employer.
FROM WASHINGTON...

F. B. (Ted) Mullin, CPG 1716

The Heat Is Turned Up on the National Energy Strategy

In July, President Bush urged the Senate to act upon the National Energy Strategy, S-1220, when it returns in September. The President is backing the measure because it contains many of the components of his original draft. Originally introduced by Senate Energy Committee Chairman J. Bennett Johnston, D-LA, and ranking minority member Senator Malcom Wallop, R-WY. The bill was reported out of the Senate Energy and Natural Resources Committee on June 5.

About a dozen Senate Democrats are strongly opposed to passage of the bill. Also included in the list of critics are the League of Conservation Voters headed by Bruce Babbitt, the General Accounting Office, and a coalition of utilities.

The league praised the Senate panel for saying no to Senator Wallops proposal to provide an open-ended authorization for federal hydroelectric projects. The league went on to fault the panel for: weakening standards for air conditioning and heating equipment and striking altogether standards to force electric motors to conserve power, rejecting a measure that would let states pass more stringent nuclear regulations than the federal government, promoting increased reliance on fossil fuels, failing to specify stricter fuel-economy standards, and authorizing oil and gas leasing in the Arctic National Wildlife Refuge.

The House subcommittee approved controversial language that would speed the pace of filling the strategic petroleum reserves to 1 billion barrels. It would require U.S. oil importers and refiners to start contributing 1 percent of their inventories - or cash equivalent - to the nation’s emergency oil inventory in March 1993 unless the administration was able to find new sources of reserve stocks through leases or other arrangements. No wonder there is controversy attached to this proposal.

A Cabinet Seat for the E.P.A. - Still Empty

E.P.A. is getting closer to a seat in the Cabinet. S-553, a bill to make the E.P.A. a full cabinet-level agency is still pending. The bill was reported out of the Government Affairs Committee with a favorable recommendation on June 13. No date has been set for consideration in the Senate but there is opposition for fear of encroachment on Commerce and DOE business.

Recent RCRA Rewrite

Senator Baucus (D-MT) has drafted a rewrite of the Resource Conservation and Recovery Act (RCRA) and plans to hold hearings for the Senate Environment and Public Works Committee later this year. He may have been prompted by 400 groups from 40 states who launched the “War On Waste” in June of this year. Their aim is to cut toxic chemical use in half, recycle 75 percent of all solid waste, and moratoria on deep-well injection, hazardous waste landfills, and most incinerators.

Senator Bumpers Mines Appropriations Committee

During a recent meeting over the 1992 budget, Senator Bumpers (D-AR) used the Senate Interior Appropriations Committee as a forum to express his concerns about mining. He suggested a moratorium on mining patents was necessary and it could be accomplished by not funding the Mining Law Administration Section of the Bureau of Land Management. He also mentioned the holding fee for patented mining claims again. Senator Stevens (R-AK) urged the continuing of processing patents in the interest of national economy. Senator Domenici (R-NM) also urged the committee not to become involved as the matter is being debated elsewhere and that withholding funding is not the correct manner in which to address the issue. Senator Reid (R-NV) also expressed his concerns in support of mining and the national interest.

The House passed fiscal 1992 spending bill for Interior and related agencies which contains a provision that would place a one-year moratorium on the issuance of mining patents. Bumpers plans to seek a corresponding amendment to the Senate version of the bill when it reaches the floor after the August recess.

Both the Senate committee bill and the House spending bills would repeat the offshore development moratoria enacted in last year’s interior appropriations act, and added vast tracts off the coast of Florida and the Atlantic coast. With these additions, most of the nation’s outer continental shelf would be placed off limits to new oil and gas leasing, as well as “pre-lease” activities during the coming year.

Minerals Management Service Hearings Scheduled

On August 1, 1991, a Federal Register Notice 56 FR 36643 announced the availability for the Draft Environmental Impact Statement for the COMPREHENSIVE OUTER CONTINENTAL SHELF NATURAL GAS AND OIL RESOURCE MANAGEMENT PROGRAM FOR 1992 -1997. Eight hearings were scheduled for September 10 through September 19 at different locations throughout the country (including Alaska). For those who could not make the hearings, but wish to have comments on record, the following information is provided.

Written comments of the draft EIS, including comments from individuals unable to present oral statement or to attend the hearings, will be accepted until OCTOBER 29, 1991. All written comments should be mailed to the Director, Minerals Management Service, 381 Elen Street, Mail Stop 4320, Herndon, Virginia 22070-4817, Attention: Debra Purvis. Specify on the envelope or package “Comprehensive Program draft EIS.” Both oral and written statements will be given equal consideration.

Geo-Important Federal Register Notices (07/91)

Review and Compilation by E. G. Newton & Associates, Inc., P.O. Box 65335, Washington, DC 20035

Environmental Protection Agency

Proposed rule 40 CFR Parts 264, 265, 280, and 761 Standards applicable to owners of hazardous waste treatment, storage, and disposal facilities; financial responsibility. Contact: Ed Coo (202) 382-6259. 56 FR 30201.


An invitation for preproposals for the environmental education and training program. Contact: George Walker (202) 382-4484. 56 FR 30444.

Notice of interagency policy on beneficial use of municipal sewage sludge on Federal land. Contact: Robert Bastian (202) 382-7378. 56 FR 30468. [Corrected 56 FR 33186]

Notice of proposed rulemaking 40 CFR Parts 141, 142 National primary drinking water regulations; radionuclides. Contact: Gregory Helms (202) 382-7575. 56 FR 33050.


Proposed rule 40 CFR parts 60 et al Hazardous waste treatment, storage, and disposal facilities; organic air emission standards for tanks, surface impoundments, and contain. Contact: Michelle Astin (919) 256-356. 56 FR 35490. [Re: standards for design and construction of landfills and other land facilities]

STATE NET

U.S. H. 3202

AUTHOR: Murphy
TOPIC: ENVIRONMENTAL PROTECTION AND POLLUTION CONTROL
SUMMARY: Provides for the protection of the nation's water resources.
STATUS: 80/9/1 INTRODUCED. To HOUSE Committee on INTERIOR AND INSULAR AFFAIRS.

U.S. H. 3209

AUTHOR: Campbell
TOPIC: ENVIRONMENTAL PROTECTION AND POLLUTION CONTROL
SUMMARY: Provides for the protection of the nation's water resources.
STATUS: 80/9/1 INTRODUCED. To HOUSE Committee on INTERIOR AND INSULAR AFFAIRS.

U.S. H. 3235

AUTHOR: English
TOPIC: ENVIRONMENTAL PROTECTION AND POLLUTION CONTROL
SUMMARY: Frees the nation's water resources.
STATUS: 80/9/1 INTRODUCED. To HOUSE Committee on ENERGY AND COMMERCE.

U.S. H. 3239

AUTHOR: Murphy
TOPIC: ENERGY
SUMMARY: Frees the nation's water resources.
STATUS: 80/9/1 INTRODUCED. To HOUSE Committee on ENERGY AND COMMERCE.

U.S. H. 3246

AUTHOR: Murtha
TOPIC: ENERGY
SUMMARY: Frees the nation's water resources.
STATUS: 80/9/1 INTRODUCED. To HOUSE Committee on ENERGY AND COMMERCE.

U.S. H. 3264

AUTHOR: Murtha
TOPIC: ENERGY
SUMMARY: Frees the nation's water resources.
STATUS: 80/9/1 INTRODUCED. To HOUSE Committee on ENERGY AND COMMERCE.

U.S. H. 3279

AUTHOR: Environmental Protection Agency
TOPIC: ENVIRONMENTAL PROTECTION AND POLLUTION CONTROL
SUMMARY: Frees the nation's water resources.
STATUS: 80/9/1 INTRODUCED. To HOUSE Committee on ENERGY AND COMMERCE.

U.S. H. 3287

AUTHOR: Campbell
TOPIC: ENERGY
SUMMARY: Frees the nation's water resources.
STATUS: 80/9/1 INTRODUCED. To HOUSE Committee on ENERGY AND COMMERCE.

SEPTEMBER 1991
## GeoEnvironmental Forum

Sponsored by the American Society of Civil Engineers (ASCE) and the American Society for Testing and Materials (ASTM), the GeoEnvironmental Forum (see TPG, April 1991, p. 11)

At its most recent meeting, the Forum established nine objectives relative to the non-invasive Level 1 Preliminary Site Assessments (PSAs). These are:

- Identify the tasks that should be performed in a PSA Level 1 study.
- Identify desirable qualification for people performing the work.
- Identify why control mechanisms are needed; document the reasons.
- Identify control mechanisms now in use or in development (including state laws, certification program, etc.), and their providers.
- Identify those who will benefit from having the information developed by the Forum and seek their endorsement.
- Evaluate the need to endorse, establish, or facilitate establishment of certification programs, and to take appropriate action.
- Prepare a summary and guidance document.
- Develop and implement a public awareness program.
- Monitor the program and keep it current.

Some of these objectives are completed or near completion. All objectives are expected to be completed, or "on track", by early 1992. Then work will commence on other geoenvironmental concerns, including Level 2 PSAs, which involve invasive testing of the site involved, analysis of samples, and interpretation.

The Forum currently comprises the five founding organizations (AIPG, AEG, AGWSE, ASFE, and HWAC) identified in the April TPG. The American Society of Civil Engineers (ASCE) has been invited to join and other relevant national organizations have expressed interest. The Forum ultimately may comprise 20 or more organizations. Some of the specialty organizations (e.g., AGWSE) have developed, or are expected to develop, "board certification" programs for their specialties. These likely will be similar to, or in conjunction with, those being developed under the guidance of the Council of Engineering Specialty Boards. These models are on the specialty certification programs of the medical profession.

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### Table: GeoEnvironmental Forum Objectives

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<th>Objective</th>
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<td>1.0</td>
<td>Identify the tasks that should be performed in a PSA Level 1 study.</td>
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<tr>
<td>2.0</td>
<td>Identify desirable qualification for people performing the work.</td>
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<tr>
<td>3.0</td>
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</tr>
<tr>
<td>4.0</td>
<td>Identify control mechanisms now in use or in development (including state laws, certification program, etc.), and their providers.</td>
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<tr>
<td>8.0</td>
<td>Develop and implement a public awareness program.</td>
</tr>
<tr>
<td>9.0</td>
<td>Monitor the program and keep it current.</td>
</tr>
</tbody>
</table>

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**Note:** The Forum's objectives and activities are ongoing and subject to change.
Certified/Registered Geologist -- There is a Difference
William G. Weist, Jr., CPG 1937, Chairman, AIPG Ethics Committee

A recent charge of unethical practice brought before the Ethics Committee focused, in part, on a member of AIPG signing technical reports "Registered Professional Geologist" rather than "Certified Professional Geologist", when the person involved was not registered as a geologist in that state. Frank Dellechio's letter to the editor in the June 1991 issue of TPG indicates that others may be making the same mistake. Therefore, it seems advisable to refresh everyone's memory as to the difference between the two terms as they apply to members of AIPG.

AIPG chose the term "Certified Professional Geologist" to inform everyone that the person using this title had met the high professional and ethical standards set by the Institute. These standards are the same for all members of AIPG regardless of where they practice geology. Any geologist should be proud to be designated a Certified Professional Geologist.

A "Registered Professional Geologist" (or similar designation, depending on the state), on the other hand, has met the standards or qualifications required by one state to be licensed to practice geology in that state. Being certified by AIPG does not constitute registration in that state. Even if a state's regulations declare that membership in AIPG is sufficient to meet the standards (e.g., Alaska), a geologist still must apply to be registered and pay the required fee before the geologist may use the title Registered Professional Geologist. Unless a state has a reciprocity agreement with other states, a geologist registered in that state is not registered elsewhere. Practicing geology in any state that requires registration without being registered by that state is a violation of that state's regulations.

A member of AIPG who uses the title Registered Professional Geologist or Registered Geologist, when in fact that person is not registered, is in violation of Section 2.2.1 of AIPG's Code of Ethics, which reads: "A Member shall not knowingly engage in false or deceptive advertising, or make false, misleading, or deceptive representations or claims in regard to the profession of geology or which concerns his or her own professional qualifications or abilities or those of other geologists".

To avoid misunderstandings, I suggest that anyone doing geologic work in a state that requires registration, and who is properly registered, sign the report as: Registered Professional Geologist (or the appropriate title) #____ State of _____.

This is particularly important in Alaska, Indiana and Virginia, which use the term Certified Professional Geologist rather than Registered Professional Geologist, so there will be no confusion with AIPG's certification.

Consultants' Column
Fred Fox, CPG 1273

If you consult for a living, you already know about networking. Without it you lie dead in the water, because you can’t possibly do everything that needs doing by when it has to be done, without it. The networking concept - sharing the expertise of others - is important to the success of any consultancy. You can’t survive without networking. No matter how good you are, alone you can accomplish just so much. Networking enables you to harness the knowledge and expertise of others and leverage your own limited earning power.

Of course, networking requires that you trust others, but even more it requires an ability to manage, to delegate and follow up. Delegation can free you from pressure and improve the overall quality of your work. You have to delegate before you reach your limit, which requires that you know your limit, which requires in turn the ability to plan and follow up. Remember - you are responsible for all the risks you must take. That’s one of the reasons clients hire consultants.

And it’s a good reason why you should think about hiring your own consultants, bringing up a subject usually thought of only with respect to big business - the Board of Directors. It’s almost certain you don’t have one. Good sense says you should. But wait a minute - you probably do have an attorney and accountant, so you may already have the root of a Board. You also probably use a banker and an insurance agent. You also probably deal with these people as individuals. You might be surprised at the amount of good information you can generate by putting these people together in your office (or at lunch) for about three-quarters of an hour some day soon. The advice of other business professionals will make all the difference in the world. Knowledge is your most important asset, and business knowledge is what you probably need most (your technical knowledge should be a given).

Another area in which you may be lacking (especially some of us who have been around for some time) is computer skills. You already know that you have to be sufficiently well-organized so that you can move smoothly from project work to marketing to housekeeping at a moment’s notice. Quick access to information can make or break a project. Computer-literate professionals know that their PC is the key to good management (time, project and personal).

Minimum hardware is a ‘386 and a large, fast hard disk. I know many of you are getting along with less, but modeling and the newer high-powered applications really need the ‘386, and they are certainly inexpensive enough. A good PIM (Personal Information Manager) can help you get (and stay) organized. Learn how to use your PC for word processing, spreadsheet analyses, database, project and office management, drawing/drafting and simple bookkeeping, even marketing. Check into on-line services. There’s a wealth of resources out there, many for the asking. If you aren’t “computer literate”, you will have a tough time competing. A computer increases your effectiveness and productivity by orders of magnitude. Lack of one certainly creates a handicap.

You can rig your computer in such a way that it will keep you on course, with limited input from you. It’s easy to forget an appointment in the heat of battle; your PC will help keep you honest. You need both plan and schedule, and you will need to constantly update them. You have obligations. There are certain things that must be done, others that should be done, still others that you’d like to do but don’t require doing, more that can be done, and so on. You have to set priorities, but your PIM can help you juggle them. The secret to juggling is timing, and planning is necessary for proper timing.

If you remember that what you’re doing is running a business, you’ll stay out of trouble. Forget that, though, and you’re in for a rough ride.

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- 14C analyses by A.M.S.
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SEPTEMBER 1991
CALL FOR PAPERS
Climate, Volcanism, and Global Change

Papers are being solicited in areas related to volcanic eruption dynamics and geochemistry, dispersion and removal of volcanogenic aerosols, effects on the atmosphere and climate, and signatures in sediments, ice cores, and tree-rings. The conference will bring together a broad range of geophysicists whose research and/or interests involve volcanic eruptions and their impact. Results obtained from investigations of the El Chicon 1982 event and its aftermath are of particular interest for sessions dedicated to this specific, well-documented atmospheric perturbation.

Abstract Format and Deadline: November 18, 1991

A camera-ready original and two copies of all abstracts must be submitted by the deadline to Chapman Conference on Climate, Volcanism and Global Change, AGU, Meetings Department, 2000 Florida Avenue, NW, Washington, DC 20009. Abstracts must be submitted in the standard AGU abstract format (sample on reverse side). There is no charge for abstract submission.

Further Information

If you have questions about the scientific program, please contact Stephen Self, Department of Geology and Geophysics, The University of Hawaii at Manoa, Honolulu, Hawaii 96822; or, Richard P. Turco, Department of Atmospheric Sciences, the University of California at Los Angeles, Los Angeles, CA 90024-1565.*

Land Seismic Reflection - Well Log Data Available

- Wyoming (Red Bird)

These data come in varied formats, including field tapes, location and index maps, analog common depth point sections, field notes, and descriptive texts. NGDC also archives seismic well logs for the Texas Panhandle and the NPRA, and coal well logs for north-central Alabama, east Kentucky, and Emery County, Utah. NPRA data include information on more than 100 wells drilled between 1955 and 1985 on the North Slope of Alaska.

For more information on seismic reflection and well log data available from NGDC, National Geophysical Data Center, Boulder, Colorado.*

MEMBERS IN THE NEWS

V. Steve Reed

V. Steve Reed, CPG 5194, Vice President, Geraghty & Miller, Inc., has been appointed the position of Director of National Accounts. Mr. Reed is based at the firm's Denver, Colorado Office. Steve has more than 16 years of experience performing and supervising hydrogeologic studies at sites throughout the United States. His areas of expertise include hazardous waste site investigations, site audits, remedial action design and construction, ground-water contamination investigations, modeling, and remediation. Steve also provides expert testimony before state and federal courts and agencies and routinely serves as a technical advisor for a number of company projects.

Bruce E. Archinal, CPG 4743, has been appointed Offshore Division Exploration Manager for Pogo Producing Company. Bruce joined Pogo in 1982 and has worked on numerous domestic onshore, offshore and international exploration projects for the company. He was previously with Houston Oil and Minerals Corporation and Tenneco Exploration and Production Company.

Brian A. Beck, CPG 7011, has taken the position of Associate with Alton Geoscientific, Irvine, California. The new position will place Brian in charge of all technical aspects of the day to day work with regards to soil and groundwater remediation.

Timothy Stone, CPG 7282, has joined the WBE environmental consulting firm STONE Environmental Sciences, Inc., located in Hampstead, New Hampshire, as Vice President responsible for hazardous waste and ground water studies. Tim has over 10 years of hazardous waste related experience as a project manager and hydrogeologist. Recent projects have included subcontract work in California and the southeast, in addition to typical project commitments in New England. Previous employers have included the New Jersey Department of Environmental protection, International Technology Corporation, and Balsam Environmental Consultants, Inc.

Governor Sullivan has named six Wyoming geologists to the new Wyoming Board of Professional Geologists. They are Roger J. Barton, CPG 4972, of True Oil Company in Casper; Ronald A. Baugh, CPG 4607, an independent geologist in Casper; J. Steven Castleberry of Mobil Coal Producing, Inc. in Gillette; David S. Gardner of M-I Drilling Fluids Company in Greely; W. Roger Miller of Miller & Associates in Casper; and William F. Sherman, a geotechnical consultant in Cheyenne. Gary B. Glass, CPG 2503, the State Geologist, is a seventh, ex officio member of the Board.
APPLICATIONS RECEIVED
(as of August 31, 1991)

Applicants for certification must meet AIPG's standards as set forth in its Bylaws on education, experience and competence, and personal integrity. If any Member has any factual information as to any applicant's qualifications in regard to these standards, whether that information might be positive or negative, please mail that information to Headquarters within thirty (30) days. This information will be circulated only so far as necessary to process and make decisions on the applications.

Full Membership


BOOTHBY, Donald R., 32215 Samantha Court, Union City, CA 94587. Sponsor: L.J. Turk, Cameron Downey, moto Davis.

BRUCE, Clement H., 1912 Chatham Drive, Carrollton, TX 75007. Sponsor: William C. MacQueen, Edward McFarlin, Frederick R. Herbel.

CHOWDHURY, Ahab N., 8804 High Point Circle Louisville, KY 40229. Sponsor: Robert D. Kjetland, Mark Howard, Martha L. Taylor.

CLODFELTER, Chris L., 3311 Rolling Hills Circle, Carrollton, TX 75007. Sponsor: Paul Stock, Gene Murray, Joe P. Notaro.

CLOUD, Robert A., 1459 Plumwood Drive, Houston, TX 77014. Sponsor: Richard Morris, Michael Lukert, Jeff Agee.

CROWL, Mary A., 26900 Cook Road, Olmsted Falls, OH 44138. Sponsor: Bruce Baker, Mary Lou Capobianco, Steven D. Warren.

CUSHMAN, David A., 2318 Table Heights Drive, Golden, CO 80401. Sponsor: Donald R. Gerner, Roy Spitzer, David Grey.

DAVIS, Allen, 2506 Northbrook, Longview, TX 75605. Sponsor: Mark Zbysz, Joel Pailin, Frank Stoddard.

FRICHSMAN, Jay R., 2245 Woodbridge #228, Roseville, MN 55113. Sponsor: Eric Mohring, Jeannette Lehr, Brian Rintinger.

HARTNELL, Jill A., 1252 Forrest Road, West Chester, PA 19382. Sponsor: John Jone, John Housa, Gary Blida.

Hively, Roger E., 5745 West 3rd Place, Lakewood, CO 80226. Sponsor: Jeff Weber, Alan B. Nicol, Jeffrey M. Simonson.


JONES, Bruce C., R.R. #1, Box 179, Rancho Murieta, CA 95687. Sponsor: Larry Austin, Norman Telford, Ben Richard.


MAURERS, Jarlino S., 1231 Fairfax Avenue, Clarksburg, MD 20733. Sponsor: Kenneth Weaver, Robert D. Miller, Jon C. Hentzinger.


REESE, Stuart O., 405 Henlock Hall, Middletown, PA 17057. Sponsor: Anthony S. Scalise, Barry Markman, Otto C. Kopp.

SIMMONS, Craig R., 621 South Hampton Avenue, Raynham, MA 02768. Sponsor: Kenneth Thompson, Charles J. Pope, David Taylor.

SWEATMAN, Mark B., 3246 Davis Drive, Brighton, MI 48116. Sponsor: George R. Kuske, H. Lyn Boone, Bruce Halman.

THEORET, Dennis R., 301 Birchwood Blvd., Bellaire, TX 77401. Sponsor: James T. Mickan, Deborah Wright, Vener Priberg.


ZWEIG, Loren T., 3140 West 23rd Avenue, Denver, CO 80211. Sponsor: Randy March, Mike Amrit, Carl Norbeck.

Candidate for Certification

LAMBERT, Susan M., 403 South Seven Avenues, #10, Sioux Falls, SD 57103. Sponsor: W. M. Last, Anton Brown.

NEW MEMBERS

ANDERSON, Gary, CPG-8261, Camas, WA
BREEDEN, Roger, CPG-8234, Bowling Green, KY
BOW, Craig S., CPG-8250, Lakewood, CO
BOWLING, Ronald A., CPG-8235, Cypress, TX
COOK, Kevin H., CPG-8262, Canton, MI
DUCHAC, Kathleen C., CPG-8236, Lawrence, KS
HALL, Nancy L., CPG-8251, Plano, TX
HALPERIN, Alan, CPG-8237, Murrysville, PA
HERMAN, Joel B., CPG-8238, Selinsgrove, PA
HOEGBERG, Harald E., CPG-8263, Aurora, CO
JACKSON, Jerry H., CPG-8239, Albuquerque, NM
JOHNSON, Erlik A., CPG-8240, Cadillac, MI
JURICH, David M., CPG-8252, Golden, CO
KEARNEY, Mark K., CPG-8253, Ontario, CANADA
KILMARTIN, Kevin C., CPG-8241, West Chester, PA
KRUEGER, Jennifer J., CPG-8254, Cincinnati, OH
LANGDALE, Clyde R., CPG-8242, Tijeras, NM
MAZZARELLI, Gail N., CPG-8243, Sparta, NJ
MCFARLAND, Barry L., CPG-8244, Wichita, KS
MCKINNEY, Thomas F., CPG-8255, Westfield, NJ
MOSCONI, Louis S., CPG-8264, The Woodlands, TX
OBRECHT, Jeffrey C., CPG-8245, Trappe, PA
PAUMON, George R., CPG-8256, Schenectady, NY
PORTIT, Timothy R., CPG-8246, Franklin, KY
RATTNER, Kevin G., CPG-8265, Redmond, WA
RICE, John B., Jr., CPG-8266, Randallstown, MD
RODRIQUEZ, Thomas E., CPG-8247, Philadelphia, PA
RODWIN, John C., CPG-8257, Holland, MI
ROSS, Brian A., CPG-8258, Brainerd, MN
SERAFINI, Michael C., CPG-8267, Dansville, MI
SAH, Ajikumar N., CPG-8248, Edison, NJ
STRUHACKER, Debra W., CPG-8259, Reno, NV
WATSON, Jeffrey B., CPG-8249, Albuquerque, NM
WOLFR, Scott F., CPG-8260, Chanhassen, MN

AIPG Membership Totals

<table>
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<th>Category</th>
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<td><strong>TOTAL</strong></td>
<td><strong>4,337</strong></td>
<td><strong>4,429</strong></td>
</tr>
</tbody>
</table>

SEPTEMBER 1991

23