

## Interview



### Evolving Role of the Surveyor in Society

*Interview with Robert Foster, FIG President*

*By Mathias Lemmens, Editor, GIM International*

The FIG (International Federation of Surveyors) is to hold its XXII International Conference in Washington D.C., USA, from 19th-26th April 2002. This event, which takes place once every four years, is this time being held jointly with ACSM and ASPRS. The event will attract many professionals from all over the world, not only from the prosperous industrial nations but also from developing countries. To mark the forthcoming event, GIM International interviewed FIG President Robert Foster, who expressed his opinion that too many see new developments as a threat to the surveying profession, or else fail to recognise the relevance of such developments for them. Since new technologies allow the professional to concentrate on the broader issues of land administration, he sees a future rich in opportunity. "It is a matter of the evolving role of the surveyor in society." He also believes that co-ordinated activities, such as the coming one to be held in conjunction with the ACSM and ASPRS, are of immense benefit to all three organisations.

*The FIG is a worldwide professional organisation. What do you see as the mission of the FIG? What, in this respect, do you consider should be the prime focus for the FIG: mapping of the natural environment for proper exploitation and environmental protection purposes, or the field of cadastral systems, including the establishment of 3D-Cadastrals and the development of land information systems in developing countries?*

The Preamble to the Statutes of FIG states that it is the aim of FIG "to ensure that the disciplines of surveying and all who practice them meet the needs of the markets and communities that they serve." An earlier version of the Preamble stated that it was the purpose of FIG "to support international collaboration for the progress of surveying in all fields and applications." My view of the mission of FIG is a combination of these two. A primary responsibility of any professional association is service to the public; advancement of the profession is an object that serves that responsibility.

The interests and activities of the ten commissions of FIG span all the interests you mention in your question. That is, the interests of mapping the natural environment, cadastral systems and land information systems are embedded in the commission's involvement in professional practice, professional education, spatial information management, hydrography, positioning and measurement, engineering surveys, cadastre and land management, spatial planning and development, valuation and management of real estate, and construction economics and management.

*The world is rapidly changing in many ways. How should surveying and mapping education adapt to these changes? What will be the effect of the Internet on the educating of geomatics professionals?*



*An essential part of FIG activities concerns the organising of conferences and seminars and visiting member associations. President Foster here visits a cadastral office in the Czech Republic, with Jiri Sima, General Director of the Czech Office for Surveying, Mapping and Cadastre (CUZK) and Jitka Stoklasova, Director of the local cadastral office in Karlovy Vary.*

Surveying and mapping education is constantly changing in response to the needs of every society. A dramatic example of this is the growth of surveying education in the former-communist countries where a new market-based economy has created a land market, which in turn has created a demand for a new cadastral surveying profession. The same applies to education in land valuation, which in terms of the international definition is a surveying discipline. In a broader sense, surveying education must provide new levels of management skills with an interdisciplinary focus in order to build the identity of the surveying profession up to that of a profession dealing in land administration, rather than simply land measurement.

The Internet has made 'distance learning' an exciting and realistic source of education, not only for the technical aspects of surveying and mapping but also for the managerial dis-



The FIG Council 1999-2002 is lead by Robert W. Foster (middle) with Vice-Presidents Charles Challstrom (left), Prof. Holger Magel, Jerome Ives, Dr. Tom Kennie and Christian Andreasen. Congress Director Mary Clawson is in the middle.

ciplines of land management and spatial planning. Distance learning is being developed to provide entry level education for surveying, as well as supplying a source for lifelong learning, or continuing professional development for both practitioners and professionals.

*What are your main aspirations for the FIG congress in Washington 2002?*

The 2002 FIG Congress will bring together surveyors from all parts of the world - not only from the prosperous industrial nations but also from developing countries. In addition to the extensive technical programme (over 470 technical presentations), I look forward to a rich

### Mr Robert Foster: Biographical Note

Mr Foster received his formal education in civil engineering at the University of Vermont (USA). He graduated in 1955 and is a registered professional engineer and registered professional land surveyor in the Commonwealth of Massachusetts. He served as president of the American Congress on Surveying and Mapping during the year 1991/92. When the FIG General Assembly accepted the offer of ACSM to host the FIG Bureau and the Congress of 2002 he was asked to serve as president during the US term, from 1999 to 2003.



Robert W. Foster,  
President of FIG

interchange among professionals from so many different cultures and economies. It will be an opportunity for all of us to gain a new appreciation of the vitality of our profession and its contribution to society. And, not least, I look forward to the opportunity for American surveyors to see what is happening in other parts of the world, for a new sense of the value of our profession and today's critical issues.

*Is the organisational structure of FIG still appropriate, considering the requirements of a present world in which globalisation, privatisation, competition and professional flexibility are increasingly assuming a key role?*

FIG will celebrate its 125th anniversary next year. We have made dramatic changes to the governance of the federation in the past two years. Firstly, we established (under the leadership of our predecessor, the UK Bureau) a permanent office and staff in Copenhagen. This gave FIG - for the first time in its history - permanence of location and stability of recognition. No longer did other associations and agencies have to learn the new location of FIG every four years. Next, we changed the governance from a system in which the administrative group, the Bureau, was chosen by the General Assembly on the basis of a future Congress site, to one under which the General Assembly will elect the president and vice presidents of a Council, thus replacing the Bureau concept and providing for a democratic system of governance. This will also make it possible for members from even the poorest countries to participate in the governance of FIG.

Technical and professional issues are dealt with by the commissions of FIG and the commission structure is continually being examined to assure the best response to the needs and interests of the profession in serving the public. Globalisation, privatisation and mobility of professionals in a shrinking world are issues that span several of our commissions and are studied accordingly. FIG is recognised by the UN as a non-governmental organisation - NGO - and as such we play an active role, along with several other UN agencies, in dealing with major world issues like sustainable development, globalisation and privatisation. Our UN-related activities are co-ordinated by a Director, FIG/UN Liaison, who is appointed by the Council.

*Today anybody can get accurate positions from any relative cheap GPS device. So it may be a matter for surmise what remains of the role of today's surveyor in society. Please elaborate on this question.*

This question assumes that the role of the surveyor is exclusively one of positioning and measurement. Even if that were so, surveyors would continue to be involved well into the foreseeable future, even as GPS becomes available to an array of other professionals. Within the narrow scope of surveying, which is land boundary determination, the qualification of GPS-derived points



*FIG organised its first regional conference in Nairobi in October, together with the UN-HABITAT and ISK from Kenya. This international conference on spatial information management for sustainable development attracted five hundred delegates from forty countries and resulted in a joint FIG/UN Nairobi Statement.*

must still be accomplished by professionals.

But, as I said earlier, surveying is much broader and within this broader context GPS becomes just one more tool available to surveyors, along with EDM and the total station: technologies that have removed much of the tediousness from land surveying. These technologies allow the professional to concentrate on the broader issues of land administration, including planning and management, administration of systems of land information, registration and recording of titles, valuation of real property, and construction economics. So it is not a matter of 'the remaining role of the surveyor'; it is a matter of the evolving role of the surveyor in society. It is a role well-recognised in many parts of the world and it is a role to which surveying education is responding.

*Today many, many conferences, workshops and congresses in the field of geomatics are organised all over the world. Conferences and exhibitions for producers of geo-software products or commercial professional congress/exhibition organisers are able to attract thousands, sometimes even more than ten thousand, participants professionally involved in the geomatics arena. Is an organisation like FIG, which is driven through the efforts of volunteers, able to compete with these events?*

It has been my observation, over thirty plus years of involvement in professional society work, that your question is relevant at every level of association work in my country. We have surveyor associations in fifty states here in the US and in many states there are multiple chapters, many with their own conferences, workshops and exhibitions. The national association, ACSM, promotes the same activities, at best in co-ordination with the state-level activities. Most of these events incorporate a trade-show put on by the vendors of equipment, software and services and very often the revenue from the vendors is a

major determinant of the success of the event. Co-ordinating all of this activity without competing at various levels, whilst still providing service to the members, is a management challenge that can easily turn into a political crisis if not handled well. It is a challenge to FIG, as well.

*What I meant is: can a congress organised by the FIG still make a valuable contribution, given the numerous other activities already taking place?*

I believe we are meeting this challenge but we do not hope to compete with exhibitions such as INTERGEO, which is able to draw on a huge population of surveyors concentrated in western Europe. The FIG Congresses and Working Weeks are held primarily to provide an opportunity for our commissions to meet, process their work plans and report on their progress, and for the General Assembly to carry on the business of FIG.

I suspect that in the near future the arrangement and scheduling of these conferences and exhibitions must change. From the point of view of the vendors there must be a reduction in the number of events. For FIG, there may be a necessity to bring more of the convention management to the office in Copenhagen (FIG Working Weeks and Congresses are currently the responsibility of the local national members who host the events). In the meantime, the 2002 FIG Congress is being held jointly with two national associations in the US: the American Congress on Surveying and Mapping (ACSM) and the American Society of Photogrammetry and Remote Sensing (ASPRS), proving that co-ordination is possible. In retrospect, I believe we will find that this co-ordination was of immense benefit to all three organisations and their individual members, whilst it also made life easier and more pleasant for the vendors by its efficiency.

*The last question is yours. Here you may touch on a subject not covered by previous questions but which is, in your view, of significant importance or worthwhile commenting upon.*

This open question makes it possible for me to reiterate my point that the surveying profession must see opportunity in developments like the advance of technologies, globalisation, privatisation, and sustainable development. Too many see a threat in these developments while others fail to recognise the relevance of them for our profession. Too often I hear people questioning the future of surveying: I see it as a future rich in opportunity if the profession will embrace the broader role, as it is internationally defined.

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