



Keynote Address At The 1986 ASPRS-ACSM Fall Convention

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FIRST, I would like to thank the people responsible for this convention for having invited me as keynote speaker this morning. I consider this invitation an honour and it is with great pleasure that I address the topic of new frontiers for our profession.

The word frontier raises different ideas and emotions in people. To some a frontier is physical. It refers to the opening up of new land, such as the West, the North or Alaska. It also means outer space, which is often called the last frontier, or the oceans. To other people a frontier is more subjective. It is a state of mind related to the feeling of freedom.

In the June 16 issue of Time magazine, an article entitled "Freedom First" suggests that the real frontiers are freedom and the future; in other words the freedom to do what we want to do to ensure our future. To illustrate the relationship between the ideas of frontier and freedom, the article gives a particularly appropriate example since it concerns Wasilla, a town in Alaska located about 45 miles north of here.

According to this article, Wasilla has been trying to get along without the usual restraints that limit freedom in the name of order in most North American cities. No zoning, no police, no planning, no taxes. As the former mayor of Wasilla told a Wall Street Journal reporter last February: "People move here and buy their one acre. They build a house. They put in a septic tank and a water well. They become a little kingdom unto themselves. They've got a .44 magnum, and if anybody messes with them, they become a police department too."

The freedom to control our future is a powerful concept: it is the lure behind the desire to explore frontiers. But today there are few frontiers to push back and less and less unexplored land to discover. Even space and the oceans are only open to exploration by a few people. So where are the frontiers for people to push back today? What are

the new frontiers? The new frontiers are society's restrictions on individual freedom and control of the future. They are the State's intervention in almost all aspects of human activities. In reaction to this situation and its burden on government revenues, we are now entering a period of de-regulation and government downsizing. In view of this changing relationship between society and the State, what are the new frontiers for professions? Professions will be provided with the opportunity to assume more responsibility in their respective fields of expertise. For our profession the new frontiers are in the field of land information. Our responsibility is to ensure closer cooperation amongst surveying and mapping disciplines to provide systems and standards which will make optimum use of space age technology to meet the increased demands for information. This is the topic I would like to discuss with you this morning.

Today, de-regulation and government downsizing has become a reality in many countries. This trend is particularly strong in the United States and the United Kingdom and is receiving renewed attention in Canada under the present administration. As stated in an article by John Konrad in Current Issues, Price Waterhouse, July, 1986, "Governments are moving towards greater reliance on the market to achieve their policy objectives through initiatives to de-regulate industries and privatize state enterprises. Governments should consider devolution of services to professional groups in the private sector, to non-profit agencies and to local government as a means of re-engaging community enterprises. Such transfer is likely to foster more innovative and flexible solutions to social problems, to reduce dependence on government and to result in reduced government expenditures."

In some areas useless rules are being abolished and in others more functional regulations are being adopted. At the same time functions exercised by the public sector are being returned to the private sector in order to promote more

real competition in fields which until now were reserved for the public sector. After continued growth during the last few decades, public administrations have now started downsizing.

As a result of this new trend, there will be less management by the State and more freedom for Society. This new relationship will have a great effect on organized groups such as professional associations. It could provide new frontiers for professions.

As stated in a recent report on the operations of the Government of Canada:

"Better decision-making by government might result from having a better organized, more active and professional contribution to government by the private sector. Industry and professional associations are often too narrowly focused or poorly organized to contribute to public policy-making. If they had more responsibility for providing information, self-regulations, and public policy advice, they could strengthen their organizations and ultimately contribute to better decision-making by government."

But the ideas of new frontiers, more freedom, and control of the future, imply the obligation to assume more responsibility. Professional associations which, in recent years, have been under increasing public scrutiny will have to continue demonstrating that they put the protection of the public above self-interest.

The ideas of new frontiers is not new to our profession. Wherever there were new frontiers to explore, members of our profession were there to map the new territory and to demarcate the land for orderly settlement. The surveyor accurately established the details and location of the physical landscape, the cartographer converted that information into map form and the geographer studied the pattern and form of the cultural landscape.

The ideas of freedom and control of the future are also part of our tradition. By ensuring the integrity of boundaries, and the definition of the extent of land, surveyors contribute to the protection of property rights which are a fundamental feature of democracy. This concern for protecting private property was expressed by Plato in the following quote:

"Let no one touch the monuments which separate the field of one citizen from that of his neighbour, or the field of a foreigner, if the lands are situated on the boundaries of a country; such an act would be moving something which should not be disturbed; and everyone should have the will to move the biggest stones rather than the monuments or small stones which mark the boundaries of friendship or hostility."

People involved in various surveying and mapping activities also contribute to the future by providing the information about land which decision makers use to plan for the orderly development of land and the rational management of natural resources.

The success which our profession has had in dealing with frontiers in the past was made possible because our profession works within surveying and mapping systems and in compliance with standards of practice. The systems include control networks, cadastral survey frameworks, mapping, land registration and land information systems. Within these systems, there are standards to specify how surveys and maps must be made to be acceptable for public records and public use. These are the necessary requirements to ensure the integrity of the information which we provide to the public.

The establishment and the maintenance of survey systems and standards have traditionally been a governmental responsibility. But as government de-regulation and downsizing take place, some of these functions are being delegated to professional associations.

For example, in the province of Quebec, although the government remains responsible for the survey system, the land surveyors' association is responsible for the standards of surveys of private lands. The government with the advice of the association enacts the legislation and regulations but it is the responsibility of the

land surveyors' association to ensure that they are adhered to. To this end the Quebec Land Surveyors' Association has a full-time officer who is responsible for hearing and investigating complaints from the public and from surveyors. Through the investigation he will either solve the complaint or refer it to the disciplinary committee. The Quebec surveyors' association also has a professional inspection program to ensure the continuing high quality of the surveyor's work and office procedures.

Similarly, the Ontario Land Surveyors' Association has recently accepted the responsibility for the examination of all surveys prepared for land registration. To take over this function the Ontario government provided a one-time grant of \$100,000 to the Association. The association hired two land surveyors and two clerical staff to operate a Survey Review Department. For ongoing operational funds the association has a levy of fifteen dollars per plan.

For another example we can look at Switzerland where some traditional functions of North American governments are delegated directly to the private sector. Private surveyors are selected and granted a three year contract to look after the maintenance and updating of the official cadastre. This contract is automatically renewed unless the work is unsatisfactory. This provides for continuity of expertise in dealing with the records.

Since their origin, and because of their economic and social implication, surveying and mapping activities have always been controlled on behalf of the public. At first this control was exercised through religion. Eventually it came under the authority of the State. Now the control is being transferred to our professional associations. For effective de-regulation of government responsibilities a very good relationship between public sector professionals and private sector professionals is a necessity. Also proper de-regulation must be accompanied by appropriate regulation. In other words, only with good regulations is it possible to de-regulate.

This new organization of functions between the public sector and the private sector constitutes a major challenge for the surveying and mapping community. Our profession has been traditionally made up of two distinct groups: public sector surveyors and those engaged in

private practice. In Canada, for example, for many years, there was an equal proportion of these two groups. In recent years, however, the private sector surveyors and mappers have formed more than 60 percent of the profession. Until recently, private surveyors and surveyor associations have relied on their public sector colleagues to ensure that proper survey systems and standards were established and maintained. The plan examination processes of some government survey agencies illustrate how private surveyors have relied on their public sector colleagues for quality control.

As one private surveyor once said, "Why should I bother to examine my survey plans when the government does it for me for free?" Also private sector surveyors have often viewed the survey systems and standards more as constraints to their practice than a safeguard for the integrity of the information and the protection of the public. Similarly, surveyors associations have not been overly concerned with discussing survey systems and standards. As I have mentioned earlier, these concepts are changing with the private sector and survey associations assuming more of the traditional governmental responsibilities.

The new organization of functions between public sector and private sector surveyors has introduced a major cultural change in the surveying and mapping community. Surveyors and mappers associations are getting more involved in questions concerning survey systems and standards. They are also realizing that ensuring the protection of the public is not necessarily detrimental to their self-interest. On the contrary, the surveying and mapping community is conscious that by protecting the public interest it also ensures the future of the profession.

Society's continuing increase in demands for information and the availability of new technology to meet these demands, also offer new frontiers to our profession. During the last decade, our profession has made significant contributions in applying new technology to the surveying and mapping of our respective countries. Many jurisdictions are now equipped with reliable control survey networks and mapping products. In some cases, this information is even available in numerical form and through electronic communication. However, the effective management of this information requires that traditional systems and standards be modernized to enable the exchange of information.

In addition, the integration of cadastral survey and land registration records within information systems constitutes a major challenge for our profession. Despite the progress made in other surveying and mapping fields, little progress has been achieved in the modernization of the property rights systems. The progress in acquiring and integrating surveying and mapping information was primarily due to the "closed shop" nature of its operating environment, while the lack of progress in modernizing and integrating the property rights system was primarily due to the varied nature of the community involved in its operating environment. The challenge facing the profession in this area is to effectively integrate property rights information with surveying and mapping information within a comprehensive land information system.

The co-ordination of the activities of various surveying and mapping disciplines is a major concern which should be addressed by the profession. As stated in a paper by Brian Humphries presented at the Fall 1984 symposium held in Edmonton, Canada: "It is ironical that foreign governments can quickly obtain a picture from a satellite of an area of land but the local administrators cannot tell you who owns it." Without close co-operation amongst these disciplines it will be difficult for our profession to play a leadership role in land information systems. The profession also needs to increase its concerns about the systems and standards required for land information systems. In this regard our profession has a fundamental role to play as members of organizations dedicated to the development of land information systems. As you probably know, the Institute for Land Information (ILI) has recently been reorganized. It now includes a membership arm called the Land Information Assembly. This assembly is open to individual membership. This is an excellent opportunity for members of our profession to join with other professionals for multi-discipline co-operation in developing land information systems.

This latter part of the 20th century is marked by the emergence of an information society and by a more functional organization of Society and the State. It also carries the opportunities of new frontiers for humanity. As the philosopher Spinoza wrote 300 years ago: "Humanity will take a giant step forward on the day that it is able to de-centralize as easily as it can centralize." This is now possible with computers: small

personal computers allow everyone to receive information, process it and make decisions. This new era offers society new opportunities for greater freedom. This will, however, only be possible if people are willing to assume more responsibility.

After having rejected key institutions such as church and the family, people will need to develop new references for ethical conduct. Professions by their function, their responsibilities, and their conduct provide a typical example of attitudes that would lead to greater freedom in our society. What characterizes professionals is their human qualities. Professionals have a high sense of individual responsibility. They have a sense of duty to contribute to the advancement of society. Professionals share a common ideal which puts self expression above pecuniary incentives and loyalty above individual advantage. Their standard of conduct is based on personal service, courtesy, honour and ethics.

To some people, these standards of conduct may sound like motherhood statements. But most people realize, sooner or later, that feelings of freedom can only be felt through conduct that expresses human qualities. In this period of de-regulation and downsizing, professions will be provided with the opportunity to assume more responsibility in their respective fields of expertise. By maintaining their human qualities, professions will continue to fulfill a fundamental role in our society.

Our profession is the oldest scientific profession. In Rome surveyors were amongst the first liberal professions. The role of our profession has always been to provide land information for the orderly management of land and its resources. Today, the increasing demand for information and the availability of space-age technology, bring new challenges. Close co-operation amongst surveying and mapping disciplines will be required to provide systems and standards for land information systems. Our profession has a definite and significant role to play as the future of our society unfolds. We must look ahead at the challenges offered by the new frontiers and approach them with the same professional attitudes demonstrated by the surveyors and mappers who opened up this great continent.

Upon reviewing the program of this convention and observing the attendance here, one realizes that the survey-

ing and mapping community has maintained its professional attitude. This week's program addresses the various topics, concerns and challenges now facing our profession. The number of colleagues who have come from all parts of the U.S.A. to share knowledge and experience for the advancement of our profession also illustrates the vital role of professional associations. I am grateful to have the opportunity to participate in this convention and I wish you all a successful week. ●

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