

ISPRS

2008

OPENING CEREMONY

Programme of the Opening Ceremony

Welcome Address by Mr. Lu Xinshe, Vice Minister, Ministry of Land and Resources; Director General, State Bureau of Surveying and Mapping of China

Opening Speech by Prof. Ian Dowman, President of ISPRS

PROGRAMME OF THE OPENING CEREMONY

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WELCOME ADDRESS BY MR. LU XINSHE, VICE MINISTER, MINISTRY OF LAND AND RESOURCES; DIRECTOR GENERAL, STATE BUREAU OF SURVEYING AND MAPPING OF CHINA

Distinguished ISPRS President Prof. Dowman,
ISPRS Council Members,
Friends, Ladies and Gentlemen,

First of all, on behalf of the State Bureau of Surveying and Mapping of China, I would like to extend my warm congratulations to the opening of the Congress and my sincere welcome to all the participants.

On the eve of the Beijing Olympic Games, scientists from over 80 countries and regions of the world are gathering in Beijing to attend the 21st ISPRS Congress to exchange and discuss the latest development and achievements in the photogrammetry, remote sensing and geospatial information sciences. This is significant for geospatial technology and geographic information to be used peacefully for the benefits of human beings.

Just before the opening of the Congress, Chinese Vice Premier Li Keqiang met with some of the Congress participants on behalf of the Chinese Central government. He introduced the important role of geospatial science in China and the efforts taken by China to promote the development of this science. He expressed the desire and resolution of the Chinese Government to take the path of peaceful development, and advocate and support the peaceful use of geospatial science to serve the interests of human beings. He indicated that the Chinese government will actively promote the international exchange and cooperation of geospatial science in the fields of climate change, environment protection, resources conservation, and disaster prevention and alleviation. He expressed his warm welcome on behalf of the Chinese Central Government to the participants and his appreciation to ISPRS for its contributions to promoting the development of geospatial science.

In modern society, science and technology has been a major driving force to support and lead economic development and progress of human civilization. The development of photogrammetry and remote sensing has continuously improved our ability and level of understanding the earth and bringing benefit to the people. Since the 1970s when the Chinese

scientist Prof. Wang Zhizhuo proposed the concept of full digital mapping, the State Bureau of Surveying and Mapping has been engaged in promoting the revolution of China's surveying and mapping technology. At present, digital surveying and mapping technology systems have been established in China. The national basic geographic information databases at 1:1,000,000, 1:250,000 and 1:50,000 scales, a number of provincial databases at 1:10,000 and city and county databases at larger scales have been built up. SBSM is now making efforts in the development of IT-based surveying and mapping system characterized by real time acquisition, automatic processing, on-line services, and socialized applications.

During the recent rescue work after the Wenchuan earthquake, SBSM swiftly built up monitoring system and data capture system for high resolution imagery of the disaster-hit areas by means of aerial photography, satellites and low altitude platforms. Images were instantly captured, processed and integrated with the existing geospatial information resources to produce maps and GIS. Altogether 53,000 sheets of topographic and image maps and 11TB geographic data were provided. These products not only provided timely services for the disaster relief, assessment and monitoring, but are also playing important roles in reconstruction site selection and planning, subsequent disaster monitoring and prediction, and reconstruction of infrastructures. The international community showed their sympathy and provided generous support to the Chinese government and people during the disaster relief process. Taking this opportunity, I would like to express my heartfelt thanks to the ISPRS council and the colleagues in the field of photogrammetry and remote sensing for their condolence and assistance to the Chinese Government and people after the earthquake.

SBSM always attaches importance to and supports international cooperation and collaboration in science and technology and takes an active part in the activities of ISPRS. We propose that the professionals in the fields of photogrammetry, remote sensing and geospatial sciences from both home and abroad further

strengthen international cooperation in basic and key technological research, promote data sharing for peaceful use and academic research, expand exchange and collaboration, improve understanding, and enhance cooperation to build a new silk road for information from imagery and contribute to the peace and interests of human beings and sustainable development.

Friends, Ladies and Gentlemen,

The 29th Olympic Games will be held in Beijing in a month. One World, One Dream, the slogan we put forward is meant to carry forward the Olympic spirit of

unity, friendship and peace, and promote understanding and friendship of the peoples of all nations through the Beijing Olympic Games. Welcome to Beijing to watch the Olympic Games. You are also welcome to tour around China to experience its fast development and magnificent culture.

I wish a great success of the 21st ISPRS Congress.

I wish all the best of your health and your work.

Thank you.

OPENING SPEECH BY PROF. IAN DOWMAN, PRESIDENT OF ISPRS

Vice Minister Lu Xinshe,
Congress Director Chen Jun,
Distinguished Guests, Ladies and Gentlemen,

It is my great pleasure to welcome you all to the twenty first ISPRS Congress. I would immediately like to thank our Chinese hosts for the immense effort which they have put into organising this Congress. Professor Chen Jun is the person responsible for the organisation of the congress and he should take the credit for what I am sure will be a highly successful event. We must not forget that he has been supported by his National Steering Committee, Scientific Program Committee and Local Organising Committee and by many others working hard behind the scenes. In May, China experienced a severe earthquake in Sichuan Province and our deepest sympathy goes to all those who have suffered from this. The earthquake has had a major impact on many people in China including Chen Jun and his team, who have had to deal with this emergency as well as make final preparations for the Congress.

I would also like to thank my colleagues on Council and the Technical Commission Presidents who have also worked hard to produce an excellent programme.

A Congress such as this is more than a meeting of ISPRS members. It is also an opportunity to show our work to others and to look for opportunities to collaborate and I am delighted that we have with us many distinguished guests from other societies:

Stig Enemark, FIG

Bill Cartwright, ICA
Bas Kok, GSDI
Dorota Brzezinska, representing IAG

I would also particularly like to welcome those of you, particularly young people, who have been funded by the ISPRS Foundation, Congress travel grants, and Young Authors Awards. The ISPRS Foundation makes it possible for many people to attend the Congress, who would not otherwise be able to, and I hope that everyone will support the fundraising activities of the Foundation here in Beijing.

China is a very appropriate venue for the Congress. Twenty years ago we met in Kyoto, the first time that the Congress had been held in Asia; now we are back in Asia in a country which is having an immense impact in the world with its industrial expansion and rapid growth of Chinese cities. We look forward to learning more about these developments and to experience the ancient and modern culture of one of the oldest civilisation in the world.

I would like to pause here for a moment to remember those of our number who have passed away during the past four years, and also the victims of the recent Earthquake in China: Ted Blachut, Y C Lee, Georges Masson d'Autumne, Robin Lettellier, Madeleine Godefroy, C P Lo, Karl Kraus, and Alden Colvocoresses.

This is an occasion to which we look forward from the end of the previous Congress. We left Istanbul full of

enthusiasm for our society, with many ideas for new research, new activities and making new contacts and collaborations. Now we meet again to see whether these ambitions have been met. I promised in Istanbul to develop our science and to promote the Society in Africa, I would like to briefly review some of these activities.

Many of you have come here to find out about new developments and to recharge your batteries with new ideas for research and production: you should find plenty to provide that energy. The Technical Commissions and Working Groups have been very active. There have been many new developments and you will have the opportunity over the next few days to hear about these in detail. I would like to mention here some of the highlights of our work.

A key development which influences much of our work is new Earth observation satellites and the processing and application of the data which they produce. Satellites are smaller and more agile allowing accurate DEM generation to become operational. Digital aerial cameras are reaching full maturity and the number on the market is proving this; they also collect multispectral data and so are bridging the gap between photogrammetry and remote sensing. There is increasing use of airborne and terrestrial LiDAR systems and of SAR and software is being developed for information extraction, sometimes combined with image data. I am particularly pleased that people from NASA have approached us with a proposal for forming a working group on airborne science. Another exciting development is the area of platforms is Unmanned Airborne Vehicles – the operation of these UAVs which come in all shapes and sizes, and the processing of the data, provide new challenges.

Ground based mobile mapping systems are developing very rapidly to acquire panoramic or stereo imagery and also laser point clouds that can be used to enrich the content of 3D databases. The advent of 'true' 3D-cameras, will deliver time-resolved range images at video rate.

The development of new algorithms for feature extraction is allowing the generation of 3D city models and increasing use of image data for documenting cultural heritage. There is exciting progress in practical applications of hyperspectral data as a result of better geophysical models and fundamental research in spectral signatures. Multitemporal data and change detection is becoming a very important field of research

for disaster monitoring, security applications and for global change studies.

The delivery of data is an important issue for mapping agencies and server based GIS is becoming increasingly available. There are many important developments supporting this: open source software; research into ontologies; content-based indexing, querying, data mining and information retrieval, for example. Geovisualization is providing new opportunities to present information to a wider audience. Good progress is being made in true 3D, but more theory still needed.

We see geospatial information derived from imagery applied in many areas, both general and scientific, and the applications are increasing. I would like to single out one area in particular: this is the area of disaster management which includes prediction, emergency response and long term recovery. This is topical at the moment and I am delighted that we have been able to respond to the Sichuan Earthquake by adjusting the congress programme to include a special session on emergency response and Professor Deren Li will cover this topic in his plenary presentation.

In the area of education, progress has been made with construction of basic guidelines for assuring qualities of E-Learning software. The activities of the Student Consortium are expanding with a successful series of summer schools. There are many opportunities for young people here at the Congress and feel sure that they will be taken advantage of.

The General Assembly of ISPRS is meeting during the Congress. This is the supreme body of ISPRS and will elect officers for the next four years and discuss issues which will affect the way that the Society is administered. If you wish to make input to these discussions you should talk to your national delegate.

So for those especially interested in the science there is plenty to keep you busy for the next eight days. But ISPRS is not only concerned with research and production. Our mission also includes development of international cooperation for the advancement of knowledge, research, development and education in the photogrammetry, remote sensing and spatial information sciences, and to use this to contribute to the well being of humanity and the sustainability of the environment. The challenge is to fulfil this mission and to do this responsibly.

At one end of the scale Council is looking at ways in which ISPRS react to global warming and we have had contacts with the World Business Council for Sustainable Development to advance this process.

At the other end of the scale we all face a challenge: how to use our science to benefit society. The nine societal benefit areas of The Group on Earth Observations (GEO) are a good place to start and the mission of GEO is coordinating international efforts to build a Global Earth Observation System of Systems (GEOSS). This emerging public infrastructure is interconnecting a diverse and growing array of instruments and systems for monitoring and forecasting changes in the global environment. This "system of systems" supports policymakers, resource managers, science researchers and many other experts and decision-makers.

GEO is concerned with Earth observation, but we must apply the same principles to using other images. The ISPRS tag line is 'Information from imagery'; we must live up to this, but not only extract that information, we must make sure that it is used for the benefit of society. John Trinder raised this in his opening speech in 2004. So we should ask ourselves, here in Beijing: 'what have we done so far to benefit society'? And what can we do in the future. One thing is certain, we will be able to do more by collaborating with others, we must talk to scientists in other disciplines and tell them what imagery can do for them, and together we can go to decision makers and show them how science can help their society.

Collaboration is a very important key to success: effective progress in the future will depend on collaborative efforts. ISPRS has been developed a series of workshops on GEOSS through collaboration with IEEE and OGC and by working within ICSU, The

International Council for Science. The ICSU GeoUnions have influenced the work of ICSU, and I am delighted that we have been awarded a grant for Mapping GeoUnions to the ICSU Framework for Sustainable Health and Wellbeing. The Joint Board of Geospatial Information Societies has worked together and contributed to each others science programme and has set up a knowledge portal for African NMAs on the African Geospatial Information Research Network, AGIRN, and is working with GSDI for an international knowledge portal. We are managing a project within the International Polar Year. We must use the potential of working with other societies to meet the challenges facing our planet. I can think of other important areas where this can happen such as water, land reform and informal settlements.

During the Congress we will be preparing a statement, known as the Beijing Declaration which will set out the ISPRS response to the challenges facing us, and we will ask the General Assembly to endorse this for release to the press at the end of the Congress.

In conclusion I urge you to take advantage of all of the opportunities which this Congress has to offer. Chen Jun and his team have done a fantastic job in providing technical, scientific, commercial and social activities, and I thank him and his team again on behalf of you all. Now it is up to you to take what you can from the Congress, but bear in mind that science only brings benefits when it is responsibly harnessed to benefit society, and in the present day and age, with so many problems, society needs the skills which we have to offer, but we need to promote these skills and develop them by collaboration with other disciplines. Let us adopt the spirit of the Olympics, which follows ISPRS to Beijing, and promote universal harmony through science and peaceful collaboration.