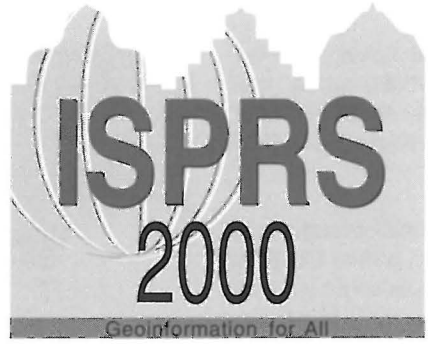

Before the Congress

Introduction by the Congress Director, Klaas Jan Beek and the Chairman of the Scientific Program Committee, Martien Molenaar

The Preparation of the XIXth Congress of the International Society for Photogrammetry and Remote Sensing

Introduction by the Congress Director, Klaas Jan Beek and the Chairman of the Scientific Program Committee, Martien Molenaar

The XIXth Congress of the International Society of Photogrammetry and Remote Sensing (ISPRS), which took place in Amsterdam, The Netherlands from 16-23 July 2000 for the first time has produced its Proceedings on CD ROM, except for this part A.

Two CD ROM's with 893 papers have been distributed to all participants upon arrival at the Congress, a third CD ROM with 130 delayed and corrected papers was sent by mail to all participants in February 2001. This CD ROM also includes the updated participants list.

Hard copy proceedings were also available during the Congress at prices comparable to the previous Vienna Congress in 1996. 140 complete sets were sold as well as 114 hard copy volumes of separate Commission Proceedings.
Each participant also received during the Congress a hard copy abstract book of all papers accepted for oral or interactive poster presentation, 893 papers in total.

More than 1300 extended abstracts had been submitted by the end of October 1999, which were subjected to a review process in which all Technical Commission Presidents, Working Group Chairpersons and Session Convenors were involved. As a result of this selection process a preliminary programme was designed by assigning the proposed papers to 80 oral sessions and 36 poster sessions.
After receiving more than 900 full papers by the end of April 2000 the final programme was made, which consisted of 73 oral sessions, 30 poster sessions, 6 special sessions related to the Congress Theme 'Geoinformation for All', and some other special sessions.

The development of the scientific programme had already started in September 1998 at the Joint Meeting of the ISPRS Council with the Technical Commission Presidents, once the Council had agreed with our Local Organising Committee to run this Congress somewhat different from previous congresses. We wanted to make this congress shorter, more compact and more focused. The year 2000 effect stimulated us to aim at a forward looking spirit and the promotion of global solidarity in contributing to the prosperity of all people in the world through the application of the

Klaas Jan Beek, Congress Director

Martien Molenaar, Chairman of the Scientific Program Committee

ISPRS sciences and technologies. Considerable funds were raised to support the active participation of approximately one hundred people from developing countries in transition during this Congress.

We proposed to put more emphasis on broad topics of societal relevance, requiring more inter-commission sessions. Also we wanted to explore in a global context the constraints towards achieving the Congress Theme: 'Geoinformation for All'. In previous Congresses the programme depended more on rather specific disciplinary scientific outputs of Working Groups of the Technical Commissions.

During the Joint Meeting in 1998 the ISPRS officers produced a list of themes for sessions, which they felt should be highlighted. This has ultimately resulted in 35 inter-commission technical sessions, 44 technical sessions of the separate Commissions and Working Groups and 30 interactive poster sessions, linked to the oral sessions. These 109 sessions have been attended by 6323 persons, an average of 58 participants per session.
Convenors were assigned to each session theme, these were in most cases the chairpersons of the Working Groups of the Technical Commissions, but also some other experts were invited for this. They produced short descriptions of all the themes, which were collected and edited by our Scientific Committee, chaired by Martien Molenaar, and published in the Second Announcement of the Congress in April 1999. The council and Commission Presidents decided to publish the Congress papers in the Archives, without reference to the discussions which took place during the Congress presentation sessions.

For the preparation of this part A of the Proceedings: Summary Account of the Congress, we acknowledge in particular the contributions of the ISPRS Council members Lawrence W, Fritz and John Trinder regarding the reporting on the General Assembly Sessions. We also express our thanks to Jan Timmerman, for all his dedication and hard work as editor of this Part A.

The Preparation of the XIXth Congress of the International Society for Photogrammetry and Remote Sensing

by Klaas Jan Beek

1. The Netherlands and ISPRS

The background to the interest of The Netherlands Society for Earth Observation and Geoinformatics in organising the XIXth ISPRS Congress can best be explained by referring to the letter of June 3, 1996 to the ISPRS Secretary General Dr. Lawrence W. Fritz of Drs. J.P.Pronk, Minister for Development Cooperation and Dr.Ir.J.M.M. Ritzen, minister of Education, Culture and Science:

For The Netherlands, a densely populated country with high demands on physical and scientific infrastructures, the geoinformation sciences and corresponding industry are vitally important. Early land reclamation dating back to the Tenth Century would not have been possible without a mastery of land surveying techniques. Throughout history, there has been an ever-increasing demand for accurate maps from the maritime user society at large. This earned Dutch cartographers such as Ortelius, Mercator and Blaeu an international reputation during the 16th and 17th century. In the fields of triangulation and optics they were supported by the inventions of mathematicians and physicists such as Snellius and Christian Huygens. During the present century, photogrammetry received a strong impulse from Willem Schermerhorn, geodesist and first Prime Minister of The Netherlands after World War II.

After attending the second world conference of the International Society of photogrammetry in Berlin in 1926, Schermerhorn coordinated the introduction of photogrammetric techniques. This resulted in the production of cheap and accurate maps of rivers and land surfaces in The Netherlands during the 1930s.
Schermerhorn was elected president of the ISP in 1938 and organised the next congress in 1948 in the Hague, The Netherlands. Being the first post-war conference, it took place in a spirit of great international co-operation and solidarity. Upon the ISP's recommendation, The Netherlands Government decided to establish the International Training Centre (ITC) for aerial survey and earth sciences, to accelerate the production of geographical information in developing countries.

In the year 2000 ITC will celebrate its 50th Anniversary. By then, it will have organised training and educational courses in The Netherlands for 15.000 specialists from 150 countries and an equal number through its sister-institutes and projects abroad.

The turn of the millennium marks another historic benchmark in The Netherlands, as the results of the second ten-year National Remote Sensing Programme (NRSP) will be presented in the year 2000. Remote sensing is a core subject in our environmental research, with special emphasis on applications in the developing countries. By means of RS one may focus on characteristics of the coastal zones, the identification of oil spills from ships, the monitoring of deforestation in tropical rainforests and global climatic change.

To this end, institutes in The Netherlands work in close co-operation with institutes in the countries participating in the European Space programmes and in the programmes of the United Nations Agencies.

The Netherlands strives continuously to bridge the gaps between the rich and the poor countries. These gaps are particularly wide in science and technology, including photogrammetry and remote sensing. Bearing this very much in mind, and considering the historic importance of the year 2000 for ITC and the National Remote Sensing Programme, we invited the ISPRS to organise its XIX World Congress in 2000 in Amsterdam, The Netherlands.
Amsterdam was once the world capital for the production of maps and globes. Not all countries and individuals on the globe have so far benefited equally from the fruits of progress in science and technology. The theme for the turn-of-the-millennium ISPRS Conference in Amsterdam, "Geoinformation for All", reflects a spirit of world-wide solidarity. In this spirit, The Netherlands looks forward to meeting the challenges of the next century and to meeting you in Amsterdam in the year 2000.

2. Photogrammetry, Remote Sensing and GIS in The Netherlands

The Netherlands has a long-standing tradition in photogrammetry, remote sensing and GIS. Willem Schermerhorn was the founding father of photogrammetry as a scientific discipline and profession in The Netherlands. It was under his leadership that Irian Jaya was mapped in the nineteen-thirties. This was the first time that aerial triangulation and block adjustment had been used on such a scale and the project proved to be one of the largest photogrammetric exercises of its time, the area being 100,000 km^2 and the photoscale 1:40,000. As a result of the knowledge acquired by him and his staff during the project, they realised the potential benefits of this technique as a mapping tool. Schermerhorn became a driving force behind the establishment of the Survey Department of the Ministry of Public Works (MD) and The International Institute for Aerospace Surveys and Earth Sciences (ITC).

Photogrammetry became a fully accepted tool for cadastral and topographic mapping in the sixties and seventies. As such, it has been of great assistance in carrying out the major land consolidation programmes performed by the cadastre and the Ministry of Agriculture, Nature Management and Fisheries, which have helped to modernise Dutch farming practice and enabled agriculture to become the country's second largest export industry.

In the last two or three decades, the successors of Schermerhorn and his generation have widened the scope of the

MD and ITC in such way that remote sensing and GIS have become at least as important as photogrammetry. In The Netherlands, the MD has been a trendsetter in the use of remote sensing. Radar techniques have long been used for controlling shipping in the North Sea. Their success and the advent of new airborne and satellite sensors inspired other organisations to develop land applications of remote sensing. The research institutes of the Ministry of Agriculture, Nature Management and Fisheries, in co-operation with the Wageningen Agricultural University, have played a leading role in this development. Together with many other organisations, they have developed applications such as crop monitoring and crop yield prediction, environmental monitoring and forest inventories. This research evolved into a National RS Programme coordinated by BCRS, The Netherlands Remote Sensing Board. This Board has coordinated and encouraged national RS activities since 1986 and has ensured that the Dutch activities are an integral part of the international programmes operated by organisations as the EU, ESA, NASA and the UN.

The National RS Programme has strongly contributed to the current operational use of RS-techniques, both in terrestrial and aquatic applications. As a result of the initiatives taken under the programme, numerous organisations, institutes and companies in the Netherlands are involved in RS and GIS research and applications. They actively participate in The Netherlands Society for Earth Observation and Geo-informatics, which presently has over 700 members.

The ITC has become the largest international institute for RS and GIS education and research in the fields of geo-informatics, earth sciences and environmental applications. It has a world-wide network of alumni through whom the Dutch expertise in these fields can be passed on.

Since the 1920s Dutch scientists have had the benefit of a strong international exchange with their colleagues through the International Society of Photogrammetry. The Netherlands provided the 6th ISP President, the Secretary General and the Treasurer during the years 1938-1948, Council members during 1948-1960, Treasurers during 1972-1976 and 1980-1984,Technical Commission Presidents during 1934-1938 (C III), 1960-1964 (C VII), 1968-1972 (C IV), 1984-1988 (C VII). During each ISPRS Congress, The Netherlands presents the Otto von Gruber Award and the Schermerhorn Award. Also worth mentioning is the fact that the ISP Journal of Photogrammetry was founded in 1938 in The Netherlands by Otto von Gruber and Willem Schermerhorn. Over many years Dutch photogrammetrists have participated actively in the editing and publication of the journal.

3. The Proposed Congress Theme

The theme of the Congress has been chosen to express the fact that the acquisition, processing, dissemination and use of geo-information is no longer a playground monopolised by scientists and specialists. The importance of these activities for society should be manifest and this Congress should make an effort to prove this. Therefore the ISPRS and the Congress organisers hope that this theme will be elaborated in the special sessions and technical sessions of the Congress and in some of the workshops that will be organised before the Congress. All Congress participants are therefore invited to contribute to this effort; the ISPRS officials and especially the Commission Presidents and their Working Group Chairmen should play a central role in this respect. Several interpretations of the Congress theme can be made, these may be helpful for triggering initiatives:

- Geo-information for the benefit of all: emphasis is on the role of geo-information for understanding large scale and global processes like climatic change, land use development, urban growth, land degradation etc.
- Geo-information available for all: this refers to policies for data dissemination, cost aspects, legal regulations, earth-observation programmes.
- Geo-information accessible for all: technological aspects of data dissemination and users access to geo-data, the role and development of the Web, technology of federated and distributed databases, geo-information infrastructure, interoperability, global databases, data mining.
- Geo-information useful for all: data should not only be available and accessible but it should also be offered so that it can be used in a large variety of applications; that means that it should be offered in the right formats, data definitions should be clear and relevant for users, data quality should be expressed so that fitness for use can be evaluated.
- Geo-information producible by all: the research and development activities of the ISPRS community resulted in methods, techniques and technology that put tools in the hands of end users, so that they can extract their own information from raw data and develop geo-databases for their own applications. This development is still going on; the expertise invested in developing geo-information handling technology results in tools that no longer depend exclusively on technological experts for information production, but rather on high-level knowledge of the different application fields and their integration.
- Geo-information understandable for all: the fundamental concepts of spatial data modelling are better understood through the joint research efforts of experts from many disciplines, such as the application disciplines, image processing, photogrammetry and geodesy, computer science, etc. over the last two decades a theoretical framework has been developed through which the different approaches for spatial modelling, data acquisition and spatial information production can be understood and compared. This theoretical framework needs further development to better support the activities in the different mapping disciplines and to help the users to understand the semantics, quality and structure of geo-information and educational programme are required to transfer this knowledge.

4. The Proposed Congress Programme Structure

The proposed programme consisted of three components, i.e. tutorials, workshops and the main body of the Congress:

- The tutorials are intended to upgrade the knowledge of the participants in some selected fields of interest
- The workshops will enable experts to meet and to discuss in depth the developments and trends in a