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Cover: *Save the Earth, Maps* by Patricia Lan, Age 12, Canada and Michaela Klimentova, Age 12, Slovakia. Two of the eight maps selected winners of the 2001 Barbara Bartz Petchenik Children's Global Map Competition.

Editorial

Another successful meeting of the International Cartographic Association is over. With more than 1,000 participants from 57 countries and four international organisations, the 20th ICC was held in Beijing from the 6 to 11 August.

The Local Organising Committee put a great effort into the display of the 1,200 maps which were entries to the International Map Exhibition. They also exhibited 140 Chinese historical maps and the 104 maps of the IHO competition. Another display was The Barbara Petchenik Children Map Competition, which had 159 entries from 25 countries. This issue announces the winners of each category.

The conference received ample coverage in the China Daily (the national English newspaper of China). The Vice-Premier of China, Wen Jiabao, sent a letter of congratulations, which was read during the opening ceremony. 'The conference will play an important role in promoting international collaboration and exchanges in the field of surveying and mapping', Wen said.

During the closing ceremony, ICA President Bengt Rystedt congratulated the Local Organising Committee, not only for the quality of the technical and map exhibitions, but also for the number of commercial firms that provided support to the conference. He also noted some minor problems that had occurred during the event. 'Although most of the sessions went well, there were problems with some sessions, due to insufficient technical support and the non-attendance of some contributors. That often happens at international conferences and it is difficult to prevent', Bengt said.

This issue of the newsletter contains a wide coverage of the main events of the conference including the traditional awards of the opening ceremony, the ICA travel awards, the Childrens and International Map competitions, and general statistics of the conference. Alberta Auringer Wood and Russian ICA representatives provide interesting views of the conference, oral and poster sessions, and commission meetings. Milan Konecny and Elri Liebenberg recently held Symposium on Digital Cities and History of Cartography, respectively. The special feature section contains an interesting description of the National Map Library of China, visited by an ICA delegation during the conference.

The addition of 'The Society for Cartography and Geographic Information Science' as a sub-title to the ICA name was discussed during the meeting of the ICA country representatives. No better words than

Michael Woods' speech during the opening ceremony can define the need for such a movement. 'The proposed change of the ICA name to *'Cartography and Geographic Information Science'* may seem a problem for some cartographers, but it can also be interpreted as the natural next stage in the evolution of our joint fields. It could have very positive effects. It may provide opportunities to heal the 40-year-old separation – reconnecting the GISystem field with its parent discipline, cartography. For others, it will be a recognition of collaborative ventures which are already in place. I would hope for new and rich research opportunities, less duplication of effort and a strengthened geospatial/ geographical scientific community', Michael said.

To keep pace with this ever evolving discipline, and to better recognise the contributions of ICA's sponsors, the layout of the newsletter has changed. A coloured cover has been designed, with each issue containing a different winning entry of the Barbara Petchenik Childrens Map Competition. The back of the cover contains the list of Affiliates subscribed to the ICA with a minimum of ten subscription units, while the inside back names International and National Scientific and Technical Organisations subscribed to the ICA with a minimum of two subscription units. It is also thought that this publicity may attract additional sponsors for the Society, which is certainly a need. I hope you will enjoy the new design and the contents of this issue.

Lastly, I wish you all a Happy Christmas and New Year, and look forward to receiving your contributions, which are fundamental to the continuing success of this newsletter.

See you all in Durban, South Africa, in 2003 to celebrate 'Cartographic Renaissance: Revival of Developing Nations'.

Graciela Metternicht
Editor

Obituary In Memoriam Olof W. Hedbom (1920-2001)

On July 4 our good friend Olof W. Hedbom died of a rapidly spreading cancer. The cartographic community will remember him as a prominent representative with an outstanding record of service. On national level Hedbom made a career as cartographic designer and atlas editor. He rose from the rank of draughtsman engaged with the Lithografiska Anstalt Esselte to general manager of the map publishing firm Liber

Kartor. Continually Olof maintained fruitful relations with geographers who knew how to appreciate his ability to visualize terrestrial phenomena. At an advanced age he made himself familiar -reluctantly but with success- with computer mapping. He leaves behind an impressive series of atlases, predominantly educational, most of them excelling in clarity and legibility.

In his thirties Olof participated in the so-called Esselte Conference on Applied Cartography held in Sweden in 1956 which laid the foundation of an International Cartographic Association (ICA) in which he himself would later play an important role. He served the Association in the successive capacities of Vice-President (1972-1976) and Secretary-Treasurer (1976-1984). During these years I had the pleasure of visiting many countries together with Olof to discuss a diversity of ICA-questions among which membership and subscription problems, conference and seminar venues. As certain countries in those days refused visa to conference participants for political reasons sometimes tricky affairs had to be solved. Our frequent contacts led to good relations between our families. Repeatedly Olof was a welcome guest in our home in Holland.

His knowledge of the historical background and economic situation of the visited countries facilitated contacts. His remarks often spiced with humour moved people to abandon their reservations. He displayed his faculties on many occasions in a variety of now and then critical circumstances. So I remember our first contact with the Chinese in the 1970's to discuss their possible ICA-membership when Olof animated a formal dinner by serving Peking Duck, their favourite dish, to our hosts. Not to forget our visit in 1981 to Poland where Martial Law was proclaimed and where we succeeded to safeguard the planned conference in Warsaw. In recognition of his merits the General Assembly of the ICA presented him in 1989 with the Honorary Membership.

Finally we wish his dear sister Ingegerd and his children Lars, Ulrika and Ann-Sofie, who together took care of him until the bitter end, strength to bear and overcome their loss. My wife and I will always remember Olof's warm friendship!

F.J. Ormeling Sen.

General Statistics of ICC 2001

During the closing ceremony, Mr Bai Bo, Chairman of the Local Organizing Committee reported the following statistics of ICC 2001: 1157 persons, from 57 countries and 4 international organisations attended the Conference. There were 814 delegates, 59 students, 519 foreigners, 295 Chinese, 120 accompanying persons, 223 exhibitors, amongst which 100 foreigners. The conference was sponsored by State Bureau of Surveying and Mapping of China, the Chinese Society for Photogrammetry, Geodesy and Cartography, ESRI and Supersoft. There had been 7 pre-conference workshops, with altogether 250 participants, 4 plenary meetings, 65 oral sessions, with 260 papers, 4 poster sessions with 80 papers, 20 commission meetings, an International Map exhibition with 1200 exhibits from 30 foreign countries, an exhibition of Chinese historical maps with 140 exhibits, an IHO exhibition with 104 exhibits. The Barbara Bartz Petchenik exhibition had 159 exhibits from 25 countries. There were 40,000 visitors to the International Map Exhibition. 43 Companies from 7 countries (13 foreign companies) participated in the technical exhibition, there were 30 000 visits. There were 5 technical visits to which 324 delegates participated, and 585 persons participated in the city tours.

Welcome by the President

Honorary guests, delegates and accompanying persons of the 20th International Cartographic Conference - ICC 2001. Ladies and gentlemen, on behalf of ICA I wish you most welcome.

Many thanks to Vice Premier Wen Jiabao for the congratulations and wishes for a successful conference. The decision for holding the 20th International Cartographic Conference in Beijing was taken four years ago, so it has been a long time for preparation. I would like to thank all involved in the organisation for their dedicated work to achieve a good conference. Thanks also to you, who have prepared presentations and materials for the exhibitions. Now we will start the examination of your work and give the final grades on Friday.

Working for ICA gives no monetary profit. The profit is found in personal satisfaction of meeting and learning from colleagues all over the world. This is especially valid for the members of the Executive Committee and the Commissions and Working Groups. The main work of ICA is done in the commissions and the commission chairs are real heroes of work. Many commissions have already had pre conference meetings in order to complete their terms of reference and to report on the result of this period, when we meet in Durban, in two years from now.

To witness our conference we have invited representatives from our sister societies. From the International Society for Photogrammetry and Remote Sensing - ISPRS - we have Ammazia Peled from Israel. He is not only treasurer of ISPRS but also heavily involved in ICA activities. From the International Geographical Union we have Academician Changming Liu. He is one of the vice presidents of IGU. From the

International Hydrological Organisation - IHO - we have Rear Admiral Guiseppe Angrisano. He is president of the IHO. From IMTA - the International Map Trade Association we have Will Teft. He is president-elect. As official guest from the United Nations we have Vladimir Bessarabov. He is at the Cartographic Section at UN in New York. You are all most welcome.

In the dawn of this new millennium the organisers have chosen the theme Mapping the 21st Century as conference theme. This refers to mapping for the future, but can also in Chinese be understood as mapping for life, and that maps and cartography are needed in all aspects of our life. The theme has obviously inspired to look ahead and to face new problems and challenges, where cartography can contribute to the development of our society at large and to the cultural and natural environment in particular.

Once again most welcome and with these words I declare the conference open.

Bengt Rydstedt, President

A View of the 20th ICC, Beijing Executive and Chairs of Commissions Meetings

After the lengthy journey of two days and a night due to crossing the International Date Line, we arrived in Beijing on the afternoon of August 3. The events began with registration and an Executive Committee meeting on the morning of the 4th. Receiving the five volume set of proceedings was a shock as altogether they weighed 5 Kg or 11 Lbs. In the afternoon, the Commission on Children and Cartography met to discuss the events during this meeting. They agreed to request that the Executive Committee allocate \$500 for up to 10 prizes of \$50 each for the Barbara Petchenik Children's Map Competition and to change the theme for the Durban meeting in 2003 to "Making a Better World for Children." This was later approved by the Executive Committee.

The Executive Committee met again on Sunday morning to discuss, among other topics, the strategic plan that must be ready for presentation to the General Assembly in 2003 in Durban. An interim meeting with Commission Chairs is contemplated to get their suggestions. Considerable discussion ensued regarding other aspects of the ICA publications program. A journal is being contemplated, while each commission is expected to do a monograph during a four year period. Each commission is to send a proposal by November 15th for one based upon current work and papers appearing in the proceedings. The publications procedures need to be rewritten and a process for reviewing monographs established. It is expected that the Publications Working Group will be dissolved in Durban and the Publications Committee will be reconstituted at that time. Some additional discussion occurred regarding awards and balloting for delegates and the general public on the map exhibits. The meeting of Commission Chairs took place in the afternoon, being well attended with only three commission chairs absent. The major topics were publications (such as monographs and the proposal for a

journal), archiving (procedures are now in place to deposit ICA materials with the Institut Geographique National in France), and terms of office of chairs. Small group discussion brought up other problems such as participation of young scholars, difficulties in finding members to do committee work, communication to and from the Executive Committee, intellectual property rights, and definitions. Commission Chairs have until November 15th to submit a proposal in regard to the latter item. Visitors at the end of the meeting included Rear Admiral Guiseppe Angrisano, President of the International Hydrographic Organization, to talk about possible cooperative efforts. In the evening, members of the Publications Working Group met for a short discussion of possibilities.

Opening Ceremony

The official Opening Ceremony for the meeting was held on Monday, 6 August, in the Beijing International Conference Centre. It was chaired by Bai Bo, Vice Chair of the Local Organizing Committee and Conference Director. Bengt Rydstedt, ICA President, gave a short welcoming address to officially open the conference and introduced the sister society representatives. A letter was read by Chen Bangzhu, Director General of the Surveying and Mapping Bureau, from the Vice Premier of China. Representatives from sister mapping organizations gave greetings from their respective organizations, including ISPRS (International Society for Photogrammetry and Remote Sensing), IGU (International Geographical Union), IHO (International Hydrographic Organization), IMTA (International Map Trade Association), UN (United Nations). Mr. Chen also noted that there were 65 oral sessions, 20 working meetings, six technical visits, and five pre- or post-conference excursions. Video greetings were presented from Fer Ormeling Sr. former ICA President who had been invited to attend, but was prevented due to health reasons. Yang Kai, Chair of the Local Organizing Committee, indicated that there were delegates from 54 nations. Memorial moments of silence were held for John Keates, Alexander Liouty, and Olof Hedbom, recently deceased cartographers of significance and ICA participants. Bengt Rydstedt, ICA President, conducted presentation of awards, assisted by ICA Vice Presidents and Judy Olson, Chair of the ICA Awards Committee. There were two of the prestigious Mannerfelt Medals presented, one to Shupeng Chen of China and the other to Joel Morrison of the USA. In addition, ICA Honorary Fellowships (for special contributions to ICA by cartographers of international reputation) were presented to Judy Olson (USA), Hu Yuju (China), Kei Kanazawa (Japan), and Ronald Furness (Australia). This was followed by some entertainment including two groups of dancers, a singer with a very robust voice, and a magician who involved the audience in his magic. Michael Wood, ICA Past President, gave a keynote address on the "21st Century World - No Future Without Cartography." This is in the proceedings in its entirety and will probably appear elsewhere in some form. His major themes were the scientific and societal challenges facing all of

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us and how cartography and cartographers are necessary for a sustainable future.

Sessions

With these events the meeting really got underway in general. After a lunch break, the first of the oral sessions began. Session comprised map design and production, GIS and digital mapping, cartographic theory and methods, computer generalization of spatial data, and cartography and the environment. After a break, the afternoon concluded with a plenary session on Global Issues moderated by ICA Vice President Milan Konecny (Czech Republic) at which he presented, along with Chen Shupeng (China), Gao Jun (China), Vladimir Bessarabov (UN), and Derek Clarke (South Africa). The exhibits, including maps and technical products, were opened. In the evening, there was a welcoming reception for everyone which was a buffet of exotic dishes with entertainment by a group of musicians.

On Tuesday, August 7, there were numerous (20) oral paper sessions, as well as two poster sessions, technical visits, city and region tours, and exhibits. Session topics included GIS and digital mapping; mapping on the Internet and the World Wide Web; education and training in cartography; tourist mapping and intelligent navigation systems; national and regional atlases; temporal aspects of cartography; security, pricing and copyright of cartographic database and digital maps and geospatial data sharing; history of cartography and historical maps; spatial data infrastructure policies; satellite mapping; cartographic theory and methods; global mapping and military cartography; multimedia cartography and electronic maps; spatial data visualization; mountain cartography; map design and production; computer generalization of spatial data; and cartography and children and gender in cartography. I visited the Chinese historical map exhibit consisting primarily of reproductions of scroll maps, city and country maps and atlases from the first century B.C. to the early 1900s, including rubbings of stone maps. It was a bit hard to find this exhibit area due to the lack of a floor plan of the conference centre in the conference program and confusing signs in the building. The international map exhibit was also visited where we found several Canadian maps on exhibit. Problematic were double-sided maps of which only one copy had been sent. They were laid on tables along with atlases which meant finding a particular one to be a very difficult task, although the Local Organizing Committee had prepared an excellent, 365 p. descriptive listing of all maps in all the exhibits. There was also an exhibit of nautical charts from many countries.

On Wednesday, there was another plenary session, on Towards the Cartographic Research Agenda, chaired by ICA President Bengt Rystedt (Sweden) featuring presentations by Dietmar Gruenreich (Germany), Roy Mullen (USA), Liqiu Meng (Germany), and ICA Secretary General Ferjan Ormeling (The Netherlands). In addition, there were eight oral presentation sessions after it, as well as one poster session, technical tours and city tours. The session topics included GIS and digital mapping, mapping on the Internet and the World Wide Web, map design and production, marine

cartography, spatial data visualization, mountain cartography, education and training in cartography, computer generalization of spatial data, cartography and the environment, satellite mapping, cartographic theory and methods, global mapping and military cartography, and national and regional atlases.

On Thursday there were 20 oral presentation sessions and two poster sessions. The topics included satellite mapping, mapping on the Internet and the World Wide Web, map design and production, national and international standards in cartography, cartography and children, cartographic theory and methods, maps for the handicapped, computer generalization of spatial data, spatial data visualization, GIS and digital mapping, planet cartography, history of cartography and historical maps, geo-spatial data quality and evaluation, national and regional atlases, education and training in cartography, multimedia cartography and electronic maps, and cartography and the environment.

Meeting of ICA Country Representatives

A meeting of 35 representatives from 26 ICA member countries and others was held during the afternoon. A number of problems were raised by some of those present. Having six parallel sessions with six or seven speakers each was one complaint, while changes in the order of presentations from people who did not show up was another. There were problems in understanding some of the speakers and session chairs, equipment did not always work, a number of people ended up chairing several sessions, and the problems of the number of volumes of the proceedings and getting them back home was raised. Having the poster papers in the proceedings was appreciated, however. Many supported having registration payments sent with papers, felt that national committees should ensure that their speakers show up, and that a room should be set up where speakers must check-in by a particular time and where a technical set up could be done in advance. Some brief commentaries regarding the strategic plan were made. A number of countries supported the addition of "The Society for Cartography and Geographic Information Science" as a sub-title to the ICA name. Discussions regarding the ICA archiving procedures with the Institut Geographique National in Paris were held. The procedures are published elsewhere or are available upon request. This session was followed by another continuation of the Executive Committee meeting. Among the highlights were forthcoming conference bids (three invitations), finances (no problems), Mongolia will be re-instated as a member, The Turkish Chamber of Engineers will become an affiliate member, and future Executive Committee meetings were tentatively scheduled. In the evening, there was a "Gala Dinner" requiring another hour-long bus ride to the downtown area to the Beijing Hepingmen Roast Duck Restaurant. While time-consuming, it did give an opportunity to see more of the city which is experiencing a tremendous amount of growth and building. The dinner featured such delicacies as deep-fried scorpions, as well as all the parts of a duck that are edible. The march of the cooks with the platters of the

roasted ducks was quite something to see, as was the carving of them. After dinner entertainment consisted of toasts by various people and singing by quite a few country delegations, including Canada and the USA.

Friday morning, the last day of the conference, began for me with a history of cartography session including papers on Jedediah Hotchkiss and the accuracy of his maps prepared during the US Civil War in the 1860s, historic nautical charts of the Mediterranean, digitizing of map archives in Sweden, and Daniel Defoe's 1705 satire "The Consolidator" about Chinese map makers on the moon. It was one of five sessions held first thing in the morning, prior to the Closing Ceremony.

The Closing Ceremony

That ceremony began with a recounting by Bai Bo of statistics about the conference. There were addresses by ICA President Bengt Rystedt, the Surveying and Mapping Bureau Chief Chen Bangzhu, ICA Secretary General Ferjan Ormeling and Prof. Yang Kai President of the GSGPC and Chair of the LOC. Yang Kai noted that the five volumes of the proceedings contained 160 papers, and that there were 60 members on the Local Organizing Committee. The ICA Travel Awards were presented to Cecilia Maria Oka (Brazil), Richard Olomo (Nigeria), Felicia Olufunmilayo Akinyemi (Nigeria), and Sun Xuejuan (Canada), two of whom made it to the awards session. Appreciation was given to the keynote speaker and invited speakers. Awards for the nine categories (topographic, nautical, geologic, urban, satellite images or maps, recreation and orienteering, globes, atlases, and other) of the international map exhibit were presented. The Children's Map Competition winners were announced and are mentioned earlier in this report, as well as in a separate report. Awards for outstanding contributions to the conference were presented, including an Honorary Fellowship in ICA for Bai Bo. The 8th UN Conference on Standardization of Geographic Names was announced. There was a performance by a number of Chinese entertainers followed by the handover of the ICA flag and the official closing of the conference.

All in all, it had been a good conference with many experiences of generous hospitality.

Alberta Auringer Wood, ICA Vice-President, Canada

Special recognition

Memorial moments of silence were held during the opening ceremony for three recently deceased cartographers of significance and ICA participants. The ICA President read the following citations:

John Steven Keates died in September 1999. John Keates made an outstanding contribution to international cartography through his many students who have made their marks in the mapping world and through his writings, which included the internationally-renowned textbook *Cartographic Design and Production* and his insightful critique on modern cartography *Understanding Maps*. Although he was a quiet man who did not seek high office, he contributed immeasurably to ICA when he

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helped his good friend Carl Mannerfelt in early discussions about the idea of ICA. He later made contributions to the Commission on Cartographic Technology. For his outstanding contributions to the field, for the very special cartographer he was in combining practice and theory, and for his incredible influence on his students, ICA posthumously bestows Special Recognition on John S. Keates.

Alexander Liouty died in March this year. He was a scientist of national and international renown. A familiar face to many at ICA, he was a long-time participant. He is especially appreciated for his contribution to the Commission on Theoretical Cartography.

Olof Hedbom died just a month ago. He received his ICA Honorary Fellowship in 1997. He was a well-known contributor to cartographic meetings all over the world for many decades. He was a very active person with many international contacts and contributed to international co-operation in the field of cartography. He served as Secretary General 1976-1984. Olof Hedbom was always prepared to give his opinion, not seldom controversial and drastically formulated.

Awards

ICA has two awards. The most prestigious one is the Carl Mannerfelt Gold Medal. It honours cartographers of outstanding merit who have made significant contributions of an original nature to the field of cartography. It is awarded only on rare occasions to emphasise its distinction. The other one is the ICA Honorary Fellowship for cartographers of international reputation who have made special contribution to the ICA. Two Mannerfelt medals and five Honorary Fellowships were delivered during the opening ceremony.

The Carl Mannerfelt Gold Medal

Professor Chen Shupeng is the honorary director of the Institute of Remote Sensing Applications of the Chinese Academy of Sciences (CAS). He was the first director of the State Key Lab of Resources and Environment Information Systems. Professor Chen initialized in China the research in such geo-sciences fields as automated cartography, remote sensing applications and geographic information systems (GIS). He accomplished his four-volume Probe in Geo-sciences and has supervised more than 50 graduate students at the Ph.D. and MSc levels. He is now advocating research in geographic information science.

He is also the chief expert of the pilot project Mechanism and Transformation of Remote Sensing Information (1998) granted by the National Natural Science Foundation. He has published more than 20 books, atlases, and dictionaries, which have won him 27 prizes of various sorts, such as the National Award, Distinguished Contribution in China (1991), Special Golden Award for Environmental Science (1993), Geo-science Award, Liang-He li Foundation of Hong Kong (1996), and the Miller Cartographic Award, The American Geographic Society (1998).

Professor Chen held the full membership of the Committee of Geographic Data Acquisition of the International Geographic

Union (1984-1991) and was a full member of the Committee on Geographic Modelling (1996-2000). As an academician of the Chinese Academy of Sciences (1980-), the Third World Academy of Sciences (1992-) and International Eurasian Academy of Sciences (1995-), and a member of editorial boards of three international GIS journals, he significantly strengthened international academic cooperation and exchange between China and the world.

For his national leadership, his years of distinguished service, and his outstanding contributions to cartography, Professor Chen Shupeng is awarded the Carl Mannerfelt Gold Medal.

Dr. Joel Morrison is currently Professor of Geography and Director of the Center for Mapping at Ohio State University. He earned his Ph.D. from the University of Wisconsin, Madison, WI, in 1968, his M.Sc. from the University of Wisconsin, Madison, WI, in 1964, and his B.A. from Miami University, Oxford, OH, in 1962.

He served as an ICA Vice-President for a number of years and as ICA President from 1984-1987, continuing on the ICA Executive as Past President for four years, as well. He was the recipient of an ICA Honorary Fellowship in 1991, was a member of the Board of Directors of the International Union of Surveying and Mapping, a U.S. representative to the ICA Commission on Cartographic Communication, Chair of the United States Board of Geographic Names, and President of the American Congress on Surveying and Mapping and chair of its Cartography Division, which he was instrumental in changing to the American Cartographic Association (now Cartography and Geographic Information Society). He was one of the organizers of the Cartography Specialty Group of the Association of American Geographers (AAG) and recently was the AAG Treasurer. In 1999, he was awarded the Anderson Medal, the highest honour of the AAG Applied Geography Specialty Group which was bestowed in recognition of highly distinguished service to the profession of geography.

His distinguished employment career includes service in major government agencies, including Assistant Division Chief for Research in the National Mapping Division of the United States Geological Survey, and Chief of the Geography Division of the U.S. Census Bureau. In addition, he taught for many years at the University of Wisconsin--Madison, where he educated and inspired numerous cartography and geography students and served as chair of Department of Geography.

Dr. Morrison is the one of the long-time co-authors of *Elements of Cartography*, the classic English-language resource in cartography. It provides a solid conceptual foundation in the basic principles of cartography while introducing the technological advances, which have greatly altered modern cartographic techniques. He has been associate editor and senior consultant to Goode's World Atlas, and his innovative and stimulating articles have appeared in professional journals worldwide, and his thought-provoking presentations are always on the forefront of developments in the field.

For his leadership in cartography, for his positive influence on mapping and related programs in the United States and other countries, and for his outstanding commitment to the profession of cartography, Dr. Joel L. Morrison is awarded Carl Mannerfelt Gold Medal.

ICA Honorary Fellowships

Dr. Judy Olson is professor of geography at the Michigan State University at East Lansing. Dr. Olson received her B.A., M.A. and Ph.D. from the University of Wisconsin. After graduating from Wisconsin, she has held academic positions at the University of Georgia, Boston University, and more recently Michigan State University.

Dr. Olson's seminal research has focused on cartographic communication, design and symbolization. Her early projects included the improvement of dot mapping techniques, and a focus on the cognitive aspects of cartography. More recently, Dr. Olson's research has looked at colour theory and use on maps, including the design of maps for persons who are colour blind. At all of her teaching positions, she has educated some of the very best and brightest graduated students.

Dr. Olson's professional service to the profession of cartography has been nothing short of exceptional. She has served as Associate Editor and Editor of the journal *The American Cartographer*, now *Cartography and Geographic Information Science*, President of the Association of American Geographers, Chair of the AAG's Cartography Specialty Group, and Chair of the Geography Department at Michigan State University. For many years she served as chair of the US National committee for ICA. She served as Vice President of the International Cartographic Association (1992-1999). She took over this position at short notice after the unfortunate premature death of Barbara Petchenik. As Vice President she had many proactive contributions and involvement in running the EC business and played a leading role in organising commission chair and national delegates meetings. In the commission on theory of cartography she contributed to the redefinition of cartography.

Prof. Hu Yuju is a professor in cartography in Wuhan University. He is well known in cartography in China and has published over ten books on cartography, especially on map projections. He was a member of the first delegation of the Chinese Society for Geodesy, Photogrammetry and Cartography to the ICA, that is to the 6th ICA General Assembly in Tokyo in 1980 when China joined ICA as a national member. He was ICA Vice President for 2 terms in the period of 1984-1991. Prof. Hu Yuju has actively participated in the organization of the Seminar on Computer-aided Cartography in Wuhan in 1981 and the Seminar on Advanced Cartographic Education and Training in Wuhan in 1986. He was the organizer of the ICA Executive Committee meeting in Wuhan in 1990, including many other ICA activities in the last 20 years.

Mr. Kei Kanazawa has been a full member of the ICA Commission on Education and Training (CET) since 1964. He has participated in the writing and editing of the ICA publication "Basic Cartography" and the accompanying Exercise Manual. He has

20th ICC: Awards & Recognitions

lectured at the Seminars of the CET in Wuhan, China in 1986; in Prague, Czech in 1987; in Bangkok, Thailand in 1991 and 1994; and in at least seven additional locations in the 1990s.

Ron Furness is internationally known for his work in hydrographic cartography, and has made an outstanding contribution to ICA as Chair of the Commission on Marine Mapping. He successfully convened the CoastGIS series and has been an active participant in many ICA functions.

International Map Exhibition Awards

The jury for the official Committee Awards consisted of:

Mrs Li Li, Prof Ferjan Ormelting, Mr Fan Yi, Prof Vladimir Tikunov, Mr Sjef van der Steen, Prof Alexander Wolodtschenko, Prof Robert Weibel, Mr Fan Jingsheng, Mr Timothy Trainor, Mr Ron Furness, Prof Eva K. Blum, and Prof Menno-Jan Kraak.

The following categories were discerned:

1. Topographic maps
2. Nautical charts and bathymetric maps
3. Geological maps
4. Urban maps
5. Satellite images and satellite image maps
6. Recreation and orienteering maps
7. Atlases
8. Globes
9. Other cartographic material

The jury picked a winner for each of these categories:

Topographic maps: sheet 15, Antwerpen, of the new digitally produced topographic map series 1: 1:50 000 of Belgium, NGI (Catalogue BE06)

Nautical Charts and bathymetric maps: Bathymetry of Lake Ontario, NOAA, USA (US25)

Geological maps: Geological map of Russia and adjacent areas. Russia (Catalogue RU16)

Urban maps: Top Swiss Erlebniskarte St. Moritz, Switzerland (Catalogue CH05)

Satellite images and satellite image maps: Landscape map of the Karkonosze National Park, Poland (PL17)

Recreation and orienteering maps: Mapa Excursionista Gavarnie-Ordesa. Spain (Catalogue ES26)

Atlases : The National Physical Atlas of China. China cartographic Publishing House (Catalogue CN03)

Globes: Illuminated Political Globe (in Chinese and English-language versions), China Cartographic publishing house and Boom Cart.Prod.Co., Ltd (Catalogue CN94)

Other cartographic material: National Geographic 'Millennium in maps' map supplements (esp. Biodiversity) (Catalogue US38)

IHO Map Exhibition Award

The Jury of the IHO map exhibition award was composed by: Radm Giuseppe Angrisano, IHB President (Chairman), and Ron Furness, Chairman of the ICA Commission on Marine Cartography; Prof. Harold Moellering, Chairman, ICA Commission on Spatial Data Standards; Mr Wang Jinfu, Deputy-Director, Maritime Safety Administration, China; Ing en

chef Michel Huet, IHB Professional Assistant for Cartography.

The winner was the Maritime Safety Administration, China

ICA Travel Awards

The jury of the Travel Awards consisted of Prof Bengt Rystedt, Prof Ferjan Ormelting and Mrs Li Li. They had selected the following winning entries:

– Richard Olomo for his paper *The impact of human factors on the retrieval of information presented with cultural symbols on Nigerian Topographic maps*;

– Cecilia Oka for her paper *The production and use of tactile maps in Sao Paulo, Brazil. An overview and perspectives*;

– Felicia Akinyemi for her paper *Geographic targeting for poverty alleviation in Nigeria: a GIS approach*;

– Xuejuan Sun for her paper *Balancing tourism and conservation in the Tianmu Shan biosphere reserve, China*.

Awards of Outstanding Contributions to the 20th ICC

Profs. Chen Bangzhu, Yang Kai, Bengt Rystedt, Ferjan Ormelting, Mrs Li Li and Mr Wang Qian provided all of the volunteers who had contributed, manned the desks, looked after the equipment, etc, with honorary diplomas.

After that ICA president Bengt Rystedt possessed himself of the microphone and asked Mr Bai Bo to come forward in order to hand him an honorary fellowship of the International Cartographic Association, for his services to cartography in his capacity as Conference Director for the 20th ICC. He then awarded to Mrs Li Li, Prof Yang Kai and Mr Wang Qian diplomas for their outstanding services.

Ferjan Ormelting ICA Secretary General

2001 Barbara Petchenic Children's World Map Award – Winners

25 countries entered with 116 official maps displayed. There were also an additional 24 maps displayed from five of the countries. Eight Awards were made by the Awards Committee. These best represented the theme of "Save the Earth" or "Préservons la terre." The judges were:

Alberta Auringer Wood (ICA Vice President, Canada, Chair, Judging Committee)
Jacqueline Anderson (Chair of Children and Cartography Commission, Canada)

Reinhard Herzig (Member, Children and Cartography Commission, Germany)
Elri Liebenberg (ICA Vice President, South Africa)

Xu Gencai (Local Organizing Committee Representative, China)

The judges focused on three criteria: 1) a recognizable message, 2) cartographic content, and 3) quality of execution. Peter van der Krogt (The Netherlands) prepared the CD-ROM from which images of the award winners were displayed. The countries were grouped accordingly:

1. North America (2 countries) - one award (Ms. Wood and Ms. Anderson abstained)
2. South America (3 countries) - one award

3. Africa, Australia and New Zealand - one award (Ms. Liebenberg abstained)
4. Asia (China, Japan and India) - one award (Mr. Xu abstained)
5. Middle East (Israel, Iran) - one award
6. Europe (11 countries) - three awards (Mr. Herzig abstained)

Brazil (BR02)

Title: Sauver la Terre: préserver l'environnement aujourd'hui c'est assurer la vie demain
Author: Jacqueline C. Camargo, Age: 11
School: Travessa Jacob Budel, 36, Bocaiuva do Sul

Canada (CA01)

Title: Save the Earth
Author: Patricia Lan, Age: 12
School: Glenlyon-Norfolk School, Junior Girls Campus, 801 Bank St., Victoria, B.C.

Greece (GR02)

Title: [In Greek]
Author: Stelios Petrakis, Age: 15
School: Trilofos Thessaloniki

Hungary (HU06)

Title: Wake up, Man! Perhaps It is Not Too Late!
Author: Kristof Barsony, Age: 8
School: Catholic Elementary and Secondary School, 2072 Zsambek, Zichy ter 3

India (IN03)

Title: Save the Earth
Author: Ankita Lamba, Age: 11
School: Convent of Jesus and Mary, 16 Convent Rd., Dehra Dun, Uttaranchal

Iran (IR03)

Title: Save the Earth
Author: Saba Sameti, Age: 11
School: Edalat Secondary School, Isfahan University Campus, 81744 Isfahan

Slovakia (SK01)

Title: [Not given]
Author: Michaela Klimentova, Age: 12
School: Zakladna skola, ul. Frana Krala 838, 966 81 Zarnovica

South Africa (ZA02)

Title: Save the Earth
Author: Bonnie Ras, Age: 14
School: Hoerskool Menlopark, Pretoria
The public attending the exhibit also voted. There were 495 ballots received. The top three choices as favourites were:

Iran (IR03): 77 votes

Title: Save the Earth
Author: Saba Sameti, Age: 11
School: Edalat Secondary School, Isfahan University Campus, 81744 Isfahan
(This map was also selected, as noted above, by the judging committee).

Hungary (HU02): 53 votes

Title: Continents
Author: Virag Kelle, Age: 15
School: Bethlen Gabor Secondary School, 1115 Budapest, Bartok Bela ut 141

Canada (CA01) 52 votes

Title: Save the Earth
Author: Patricia Lan, Age: 12
School: Glenlyon-Norfolk School, Junior Girls Campus, 801 Bank St., Victoria, B.C.
(This map was also selected, as noted above, by the judging committee).

Jacqueline Anderson and Alberta Auringer Wood

2001 Barbara Petchenic Winners



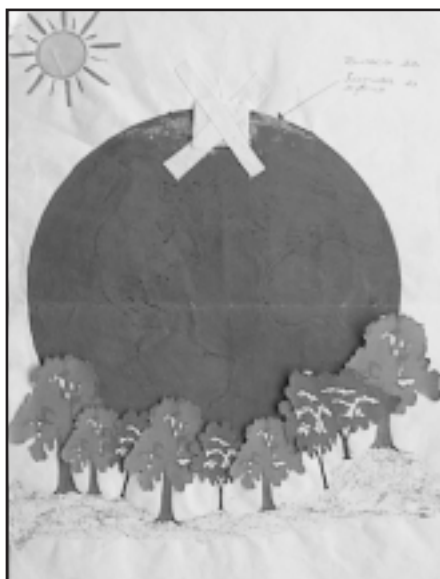
Patricia Lan, Age 12, Canada.



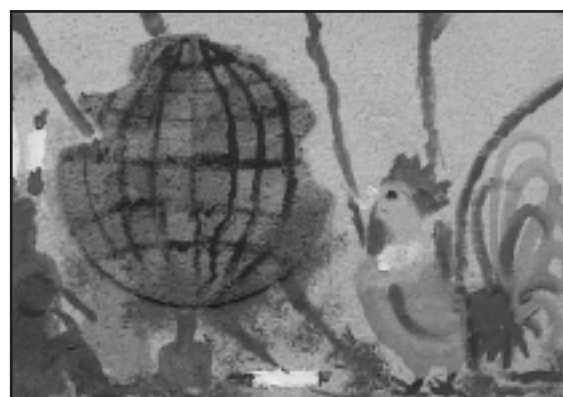
Stelios Petrakis, Age 15, Greece.



Bonnie Ras, Age 14, South Africa.



Jacqueline C. Camargo, Age: 11, Brazil.



Kristof Barsony, Age 8, Hungary.



Saba Sameti, Age 11, Iran.



Ankita Lamba, Age 11, India.



Michaela Klimentova, Age 12, Slovakia.

A View from Russia

The 20th International Cartographic Conference of ICA being the first one in present century has taken place under the motto "Mapping in the XXI century" in Beijing. Before the beginning of the Conference, seminars and meetings of ICA commissions have been passed from July 30 till August 5. The seminar of the commission on the National and Regional Atlases chaired by Timothy Trainor (USA) was held at the Institute of Geographical Science and Research of Natural Resource of the Chinese Academy of Science.

The large interest of the participants of this seminar was stimulated by the exhibition of the Chinese atlases, on which 132 atlases and series of maps issued in traditional printing and on CD-ROM's during last years were represented. There were three volumes of the National Atlas of China (physical-geographical, economic, agricultural), atlases of the population, history, climatic, woods, vegetation, soils, power resource, natural disasters, protection of nature, transport, provinces, cities, tourist, old maps and many others. Such broad spectrum issued in China scientific - reference, thematic and tourist maps and atlases characterizes the prompt development of cartography in this country and also proper scientific researches in various branches of knowledge. The Chinese cartography is doubtlessly at the first line of modern cartography in the world on variety of subjects of the atlases and depth of their study.

The analysis of the papers submitted on the Conference, and exhibits of the exhibitions shows that today the main directions of development of modern cartography and geoinformatics are global mapping, application of satellite technologies and communication channels for obtaining, processing and transmitting of the spatial data, creation of electronic maps. Besides this it is noticeable the increased attention to the most different aspects of cartographic education, theoretical cartography, and planetary cartography. On all these directions the cooperation is intensifying between national cartographic organizations. The partnership of research organizations, high educational establishments, state and private cartographic enterprises is getting stronger and closer.

Global mapping and the volume of material devoted to it claims the main role in modern cartography and geoinformatics. First of all it is discussed the creation of the Digital Earth, though it is possible already to speak both about the Digital Universe and about digital countries, cities etc. Its essence consists of construction of unified geoinformatic space on the Earth globe and construction of a unified geoinformatic structure. A number of the most developed countries create the national geoinformatic structures. The Digital Earth is sometimes considered as "new information era". Space survey of our planet with high resolution images, computer processing of the spatial data and use of telecommunication technologies forms its basis.

The USA and China are especially active in this field. The Digital Earth is understood as topographical three-dimensional representation of a planet, in raster and vector form, with variable resolution (up to 1 m), permitting to accumulate huge volumes of the thematic information at different scales. Corresponding

to planetary cartography development the next step in this direction should become the creation of similar models for other bodies of the Solar system.

The Russian point of view was represented by the Institute of Problems of Computer Science of the Russian Academy of Science. There were six papers reflecting the scientific paradigm of the Electronic Earth as a complex system of the digital description of our real planet and its virtual portrait with use of national information and computing resources, methods and technologies for the processing of volumes of multi-thematic information about the Earth. The papers also covered systems for electronic mapping of the Earth; fundamentals of spatial and temporal data integration of the lithosphere, hydrosphere, atmosphere and biosphere; the creation of object-relational knowledge bases about the Earth; high intellectual technologies; telecommunication networks; expert cartographic systems with an artificial intelligence and GIS; and state standards of electronic maps.

The theoretical problems of cartography remain one of the important directions of research of scientists - cartographers in different countries of the world. Map language was one of the known theoretical problems of cartography discussed during the conference, which speaks about its increasing role in modern cartography. Language of a map in the papers submitted by scientists from Canada, Poland, Russia, Germany was considered from the different perspectives: syntax (local syntax of a map language, syntax components of the cartographic sentence), pragmatics, typology of signs and evolution, and also capability of semantic search in digital geolibraries.

All aspects of cartography were discussed in a number of sessions devoted to education and training. Besides this, it was pleasant to note that the problems of education have attracted attention of the representatives of almost all the delegations, including such small countries as Papua New Guinea.

Regarding the so called "papers of a new wave" we noticed the presentation of D. Taylor (Canada) on the teaching cyber-cartography (it is connected with the representation of the world multidimensionality in various multimedia submissions). A

large interest shown by researchers working on distance education.

In the field on planetary cartography the large interest was called by the presentation of Randolph Kirk (chair of ISPRS WG on Extraterrestrial Mapping) about the activities of the USGS USA on geodesy and mapping of Solar system bodies including satellites of giant-planets and asteroids. The research headed by Egon Dorner (Institute for Photogrammetry and Cartography, Munich Bundeswehr University, Germany) on relief representation of the surface of Mars by combination of digital elevation model and shape from shading also

received special attention. Likewise, the papers devoted to the history of the Chinese cartography were received with particular interest. Due to several reasons, this field has remained poorly known to cartographers of other countries for a long time, in comparison, for example, with European or American cartography.

Representatives of Russia head the activity of two commissions, namely on education and training and on planetary cartography. During the conference, the ICA commission on Education and Training chaired by Vladimir Tikunov has considered the state of the activities related to the creation of an international Internet-Course on Cartography. This Commission (<http://www.geogr.msu.ru/cet>) should ensure an educational and scientific level of the course. The fundamental problem resides in creating a certain standard for such courses on Cartography, which all people interested in cartography and cartographic education could use as a guide. The structure of a prospective course will consist of various directions of modern cartography investigated on selection. The technical and legal aspects of such course still require discussions and adaptations, but, as though "in an ideal world", the ICA Commission would like to see the course charge-free, with a capability to freely copy interesting materials.

The commission on Planetary Cartography chaired by Kira Shingareva considered the results of activities undertaken in current projects (<http://www.nasm.edu/ceps/ica>). First of all, the creation of a series of multilingual maps of planets and their satellites, and also creation of a multilingual glossary on planetary cartography. Mars Map and Venus Maps belonged to the series were presented. The printed preliminary version of the glossary was discussed too. Besides, the discussion of the new project, namely creation of a cartographic database on planetary cartography, has taken place.

Lastly, we would be very glad to organize the next ICA Congress in Russia in 2007.

N. Komedchikov, A. Martinenko, K. Shingareva and V. Tikunov



From left to right: Kira Shingareva, Weihong Cui, Maxim Nyrtsov, Tamara Nyrtsova, Vladimir Berk, Vladimir Joukovski, Bianna Krasnopevtseva.

Highlights of the 20th International



Dancers at the opening ceremony



Mr Bai Bo, Vice-Chair LOC, reading the general statistics of the 20th ICC at the closing ceremony.



ICA Awards to the Local Organising Committee: Left to right: F. Ormeling, Li Li, Bai Bo, B Rystedt, Yang Kai.



ICA Honorary Fellowship to Prof. Hu Yuju, from Wuhan University (China).



Joel Morrison (USA) receiving the ICA Mannerfelt medal.



Ron Furness, Chair of the ICA Commission on Marine Cartography receiving the ICA Honorary Fellowship.



ICA President, Bengt Rystedt, toasting during the conference welcoming reception. Left: Prof. Yang Kai.



Judy Olson (USA) receiving the ICA Honorary Fellowship during the ICC opening ceremony.



Chinese acrobatics at the Beijing Chaoyang Theatre.



ICA President, Bengt Rysdted, at the opening ceremony. Left: Chen Bangzhu, Director General, State Bureau of Surveying and Mapping of China.



Audience at the opening ceremony. Front row: ICA Vice-Presidents M. Konecny, R. MacMaster and A. Auringer Wood.

onal Cartographic Conference



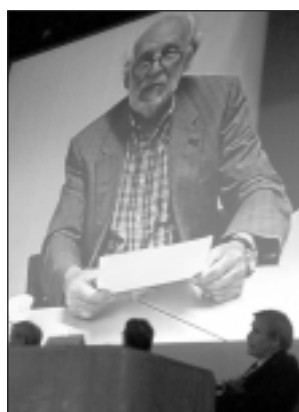
ICA Vice-President Milan Konecny reading the citation for the Mannelfelt medal awarded to Prof. Shupeng Pen (China).



Opening ceremony. Left to right: Mr Bai Bo, Prof. Yang Kai, Chen Bangzhu, Bengt Rystedt, Ferjan Ormeling and Michael Wood.



Chen Bangzhu, Director General of the State Bureau of Surveying and Mapping of China, at the opening ceremony. Back: ICA President and ICA Secretary-General.



Ferjan Ormeling Snr, addressing the audience via video conference during the opening ceremony.



ICA Travel Awards. Left to right: F Ormeling, F Olufunmilayo Akinyemi (Nigeria), Cecilia Oka (Brazil), and B Rystedt.



Gala Dinner at the Beijing Hepingmen Roast Duck Restaurant.



Closing Ceremony. Handing over the ICA flag to the Organising Committee of the 21st ICC, Durban, South Africa, 2003.



Artistic performance during the closing ceremony



ICA Secretary General (left) and ICA President (right) addressing the audience during the closing ceremony.



Address by Prof. Yang Kai, President of CSGPC and Chairman of the LOC for ICC 2001.

2005 International Cartographic Conference Site Selected

The cartographic societies of both the Republic of Korea and Spain put in bids for organizing the 22nd International Cartographic Conference in 2005. The ICA Executive Committee, after visits to the proposed sites, has selected La Coruna, Spain, as the site for the 2005 International Cartographic Conference. The Spanish Society for Cartography, Photogrammetry and Teledetection proposes Ramon Lorenzo Martinez as conference director. The proposed date for the 22nd ICC is the second week of July in 2005. The Korean Cartographic Association, which lost with a very small margin, has already notified the EC they will repeat their bid for 2007. The Russian Committee for Geodesy and Cartography is another candidate.

Ferjan Ormeling, Secretary General, ICA

Visits to the Wuhan University

The Cartography Department in Wuhan has been the scene for a number of important cartographic meetings: as part of the Wuhan College it hosted the first cartographic automation seminar in China, in 1981. In 1986, as part of Wuhan Technical University on Surveying and Mapping it hosted the WTUSM/ICA Seminar on Advanced Cartographic Education and Training (SACET). In 2001, and now part of Wuhan University, before the Beijing ICC it saw the participants of the Map and Internet seminar in Guangzhou, and afterwards members of the ICA Executive Committee visited it after their excursion to the Three Gorges dam. Cartography Professor Du received them on the premises of the Cartography department.

Ferjan Ormeling



ICA delegates during the post-conference trip to the Cartography Department at Wuhan University, hosted by Prof Du Dao Sheng.

China International Conference on Digital City

Construction Technology and Forum on Digital City in 21st Century. September 18-21, Guangzhou, China

China is one of the countries seriously working towards the implementation of the Digital Earth (DE) idea, originally proposed by the former US Vice-President, Al Gore. The first Symposium on Digital Earth was held in Beijing, China on November/December 1999. The concept of DE has received a wide acceptance in China, and the idea of constructing 'digital cities' is widely supported by political, economic and scientific circles of the Chinese society. The conference focussed on the theme 'New Century, New City, New Economy and New Opportunities'. The topics and discussion of the conference overviewed the field of construction on one side and the fields of science and technology, IT, banking, and the press on the other side. These activities aim to stimulate innovation, discuss on countermeasures, and to promote effective implementation of the 'digital city' program in such areas as the macro-guidance of the government, related policies, laws and regulations, operational mechanism of construction, new systems for scientific and technological innovations, research and development on technology, application of research results in industries and new ideas for the development of industries.

More than 1,500 people attended the event, where 1,000 of them were city mayors or persons working in managing positions in Chinese cities. Foreign guest included representatives from the Czech Republic, Germany, Russia, Canada, Australia, Sweden and some other countries. The conference program was divided into eight parts, and the papers published in the Proceedings with the title Theories and Practice of Digital City (two volumes, totalling 1172 pages). The eight chapters of the Proceedings comprise: General Views on Digital City, The Construction of Digital City and Sustainable Development of City, Regional Development of Digital City, Research on Key Technology of Digital City, Spatial Information Infrastructure Construction of Digital City, Application System of Digital City, The Application of Internet and Broadband Network in Digital City, and Relevant Research on Digital City.

On many places over the World, the SDI (Spatial Data Infrastructure) concept is readily accepted, but it is rarely part of the so-called Information Infrastructures. It was very impressive for me to recognise that a large part of the programme for mayors of the Chinese cities was devoted to questions on how to use, handle, interpret and include geographic information from maps, atlases and remote sensing images into the decision making process. The program counted with the participation of well-known cartographers from several countries, such as Tikunov from Russia (Atlas Information System as a Basis for the Town Digital Model), Gudrun and Frank Hoffman from Germany (Awareness of, Training for an Education in Interoperable Geomatics-Based-Services for Digital Cities, The Euro-Regional and Cross Border Approach at BOW, Chen Shupeng (Naturalisation and Localisation for Digital City Construction), and Guo Huadong (A New Earth Airborne Earth Observing System for Digital City), Yang Kai (The Strategy and Policies for Development of Geo-Spatial Information Infrastructure in China), Li Deren (Concept, Technical Issues and Main Applications of Cyber City, Anthony Gar-On Yeh (Digital Urban Planning-The Use of GIS in Urban Planning) from China. The author of this report prepared a paper on 'SDI and Cartography for Digital Cities' explaining not only his personal point of view on this matter, but also recent progresses in the approach of ICA towards SDI and the role of cartography in Global Issues, as well as regionally- and locally-oriented activities such as Digital Cities.

The conference was very successful. Contemporary China is a country investing a lot towards Digital Earth and Digital City ideas. Geographic-spatial data, information and knowledge are fundamental parts of these ideas.

*Dr. Milan Konecny
ICA Vice-President, Czech Republic*



Prof Yang Kai, Chairman of the State Bureau Surveying & Mapping, Beijing, China

19th International Conference on the History of Cartography

The 19th International Conference on the History of Cartography was hosted by the National Library of Spain in Madrid from 1 to 7 July 2001. The Conference was organised by the National Library of Spain, the Spanish Naval Museum, the Complutense University and Imago Mundi Ltd. The main theme of the conference was the Cartography of Spain and Iberoamerica, but papers on other aspects of the history of cartography were also presented. Approximately 175 participants registered for the conference of which 55 presented papers. 24 poster papers were exhibited.

The International Society of Curators of Early Maps (ICSEM) held a meeting on Saturday 30 June, debating the security aspects of rare map collections. This was followed by a meeting of the Commission on the History of Cartography of the ICA. During this meeting the Secretary-General of the ICA, Ferjan Ormeling, discussed the work done jointly by the Commissions on Education and Training, and the History of Cartography, on Teaching the History of Cartography. In the absence of the commission chair, Christopher Board, Elri Liebenberg highlighted the ICA Commission's terms of reference and the progress made with the Carto-Bibliography on the History of National Mapping Agencies.

During the conference, a number of excellent cartographic exhibitions were on display. The most important was Treasures of Spanish Cartography, presented by the National Library of Spain. The Complutense University staged an exhibition on Geography Books in the University: from Antiquity to the 18th Century, whereas the development of the Spanish capital could be traced in an interesting exhibition called Madrid seen through its maps: 1622-2001, presented at the Plaza Mayor.

One of the most memorable highlights of the conference was a visit to the Real Monasterio de El Escorial where lunch was served and where one of the sessions of the conference dealing with the mapping of Spain took place. Everybody agreed that the magnificent monastery was the ideal venue for a discussion of matters historical.

*Elri Liebenberg
ICA Vice-President, South Africa*

The second symposium on Digital Earth

The Digital Earth (DE) program, first announced by the former US Vice President Al Gore two years ago, sounded futuristic, but some elements of this vision might soon appear as real products. In fact, the DE

initiative is the second step of very successful spatial data infrastructures activities in many countries of the World, especially USA, Australia, and Canada. This is also one of the global spatial data oriented projects which are contemporarily developed over the World (GSDI, Global Map, UN GDB, and also the Global Disaster Information Network, GDIN).

The series of symposia on DE started on November/December 1999 in Beijing, China (see ICA News, June 2000, p. 9). The Fredericton symposium was held under the presidency of the Prof. Dave Coleman, and counted with strong support from industrial and scientific/research groups of Canada. Under the umbrella several important conferences and meetings were held. The National Conference on Geomatics and the Canadian Institute of Geomatics Annual General Meeting, the Geomatics Atlantic 2001 Conference, TExpo 2001, and the Annual Workshop of the Committee for Earth Observation Satellites Working Group on Information Systems and Services were held under the umbrella of the Second International Symposium on Digital Earth. Co-hosted by the Canadian Institute of Geomatics/New Brunswick Branch and the Greater Fredericton Economic Development Corporation, in partnership with Geomatics Atlantic and TEXPO Technical Exposition, Digital Earth 2001 was a showcase of some of the world's most exciting innovations in the management and dissemination of geographic data. Additional support was provided from conference sponsors NASA, Natural Resource Canada, CARIS, New Brunswick and University of New Brunswick.

Digital Earth addresses the cultural, institutional, scientific and technical challenges that allow citizens, scientists, planners and policy makers to visualise the Earth, and all places within it, to access information about it and to understand and influence the social, economic and environmental issues that affect their lives in their neighbourhoods, their countries and the Earth. The concept is expected to eventually encompass all the geological, geographical and demographic information collected about Earth and its inhabitants. That would enable scientists, teachers, policy-makers or anyone else to develop detailed analyses of features and phenomena as small as one meter in size.

However, Digital Earth is more than just a mapping application. The program has the potential to become a framework for an enormous range of information that can be pinpointed to a single geographic point on Earth, including cultural and scientific data. By layering this information over the geographic framework, proponents say, Digital Earth could lead to a much broader understanding of events that affect people around the world, from natural phenomena to cultural and political issues.

Every day of the Fredericton conference started with a keynote speech. These speeches were one of the most successful idea of the symposium. Among the speakers were: Jack Pellicci, Group Vice President, Global Business Development, Oracle Corporation; Klaus Barwinski, Direktor des Landesvermessungsamtes Nordrhein-Westfalen; Timothy Foresman, Director of the Division of Early Warning and Assessment, UN Environment Program, Nairobi, Kenya; and Bill Stoehr, National Geographic Maps.

The program of the conference concentrated mainly on remote sensing and GIS topics. All speakers mentioned the importance of maps, and at least two keynote speeches gave a very strong signal that cartography is here and in certain situations it is the only discipline able to provide answers for new questions and create solutions for new tasks. The first keynote speaker, Jack Pellicci, said: "Location and spatially aware enterprises are the thing of the future". Several times he highlighted that GIS is still growing but mapping, especially in connection with mobile communication tools, has been developing progressively faster in last months. The presentation by Mr. Stoehr discussed the information richness of maps, and how necessary they are to support, in combination with remote sensing, GPS and other tools, decisions on Global Issues. Later this year, ICA also devoted one of the two Plenary Sessions of the 20th International Cartographic Conference to Global Issues and the role of cartographers in it.

The author of this report is also member of the Steering Committee of the DE which is chaired by Lu Yongxiang as the President and Guo Huadong as Secretary General. The Committee's discussion focussed on whether to join DE and GSDI as a spatial data oriented activity or to keep them separately. It is also visible the emergence of two branches of the DE development: the original U.S., oriented more for technological aspects of the DE, and China Europe, Japan and others looking for DE from wider perspective, mainly enhancing sustainable development and information society aspects. The place of next symposium will be decided later in 2001. The Czech Republic has presented a written candidacy.

DE it is today not only spatial data and information. It means also e-government, e-education and life long learning, e-commerce, telemedicine and many new "e" which will be developed. Other programs are following the basic idea of DE, such as very strong and fast development of the Digital Cities in China or Digital Europe in member states of European Union. In all these activities cartographers and as well as spatial data specialists are necessary. The question of SDI and cartographic interpretation and visualisation are hot topics at many places of our World.

*Dr. Milan Konecny
ICA Vice-President, Czech Republic*

Commissions' Reports

ICA Commission on Mountain Cartography

The International Cartographic Association Commission on Mountain Cartography will be holding its 2002 Mountain Cartography Workshop at 6,000 feet/1,829 meters above sea level on the volcanic slopes of Mt. Hood, Oregon. The workshop is held biannually and covers all topics related to mountain mapping, including avalanche mapping, geo-visualization, relief presentation, photogrammetry, remote sensing, multimedia, software development, tourist mapping, GPS, and much more.

The 2000 Mountain Cartography Workshop at Rudolfshütte, Austria attracted participants from 8 nations. In May 2002, we invite you to join us at Timberline Lodge, the first ICA Mountain Cartography Workshop to be held in North America for three days of applied cartography and professional interaction in an informal mountain setting. The call for papers is now out. Details can be found at: <http://www.nps.gov/carto/hood/mt/index.html>
Date: May 15-19, 2002
Venue: Timberline Lodge, Mt. Hood, Oregon, USA
Contacts:
Tom Patterson (pattersn@ix.netcom.com)
Karel Kriz (kriz@atlas.gis.univie.ac.at)
Lorenz Hurni (hurni@karto.baug.ethz.ch)

Lorenz Hurni

Chair, ICA Commission on Mountain Cartography

Theoretical Cartography Meeting in Beijing

The Commission on Theoretical Cartography (CTC) held its second Meeting in Beijing, China on Wednesday, August 8, 2001 during the 20th ICA Conference. Seventeen members of the Commission and friends of theoretical cartography met in the morning in Meeting Room 3058 of the Beijing International Cartographic Center. The topics of Meeting were:

- Chair's report related on the Commission activities for 1999-2001 (A.Wolodtschenko)
- Commission poster for 20th ICC (T.Morita and A.Wolodtschenko)
- Presentation of the Commission Proceedings of a Seminar "The Selected Problems of Theoretical Cartography

2000", Dresden, Germany, October 14-15, 2000 (A.Wolodtschenko)

- Cartosemiotic project (H.Schlichtmann)
- Terminological project (T.Morita)
- Translation of the Book "Cartosemiotic and prehistoric maps" (T.Kanakubo)
- New German Cartographic Encyclopaedia (W.G.Koch, presented by A.Wolodtschenko)
- Next Seminar in Gdansk 2002, Poland (P.Neytchev, presented by A.Wolodtschenko)
- Next Commission Meeting in Durban, South Africa, during the 21th ICA Conference 2003 (A.Wolodtschenko)
- Miscellanea and discussion.

Our Commission is a new commission that was established at the 1999 ICA conference in Ottawa. By now the CTC includes 25 members from 17 countries and four continents. The key themes for the period 1999-2003 are: cartosemiotics, map language, mapping as a cognitive process and terminology. As a rule, the CTC members research individually, sometimes in a small groups projects. The CTC will concentrate on the next main events: Gdansk Seminar "The Selected Problems of Theoretical Cartography 2002" and the Durban ICA Conference 2003.

Alexander Wolodtschenko

Chair, ICA Commission on Theoretical Cartography

ICA Commission on Map Production Compendium of cartographic techniques

During the meeting held in Beijing, there was a discussion about the format of the Compendium. At present it is thought as a 'book'. However, the time it takes to get all the text means that some material is dated by the time it is published. One suggestion was to publish it on the web as the material becomes available and then consider publishing as a single book when ready. There needs to be further discussion about this matter. The manuscript will be completed by the end of 2001, after which Jarl and Sjef will make the final editing.

CMP Website

S. Iversen reviewed the website and discussed how it should evolve. It was suggested that all of the CMP projects should be available on the site. There was considerable discussion about how to make the site better.

Seminars

Cuba 2000: The program went well. The commission wants to be able to present this type of program on-demand.

Barcelona 2000: As a result of the good evaluations, there was a suggestion from the Barcelona and Cuba seminar that CMP should hold workshops with other Commissions.

Next Meeting: Cuba in February 2002. There is to be a seminar.

Presentations

- S. Iversen presented a review of Norwegian maps with samples.
- J.R. Larsen presented an overview of the activities (specifically computer software) at the Cartography & Surveying Section at the Vitris Bering Centre for Higher Education in Denmark.
- E. Mathias reviewed recent developments in city mapping activities in Germany.
- N.G. Grant reviewed the new Natural Resources Canada, AeroD website and showed samples of some of the products, which are in PDF format. As well the Canadian, National Quality Institute awarded Aeronautical and Technical Services the Canada Award for Excellence 2000.
- P. Gran Lopez presented a new multimedia CD map teaching tool. Its purpose is to teach people how to read topographic maps in Chile. The CD was produced using Macromedia Director. This was an excellent endeavour and there is interest in commercialising the product. As well there was a presentation of a Digital Atlas of Chile for children.
- The Chair was asked to hold further discussions on a (re)orientation within the commission, due to the unclear naming of the Commission.
- There were suggestions that the Commission should include dissemination of products and that the scope should be broadened to include the management of production.
- W. Tefft of the IMTA (International Map Traders Association) suggested that there were opportunities for collaboration between CMP and IMTA.

Sjef van der Steen

Chair, ICA Commission on Map Production

Commissions' Reports

ICA Commission on Gender and Cartography

The 20th International Cartographic Conference in Beijing, has played an important role in establishment of directive line to CGS's activity during the next two years. First of all realization of CGS's new project connected with preparing ICA Demographic World Atlas, selected issues related to: A. Under-represented Groups and B. Groups with Special Cartographic Needs was broadly discussed and, owing to positive opinion, finally EC of ICA accepted printing the Polish Insertion of DWA: "as an example of a product that can be later prepared in different countries".

Such positive result of initial trial to overcome, existing barriers on starting point cannot afford us to interrupt actual work connected with the Atlas "On" the contrary – the members of CGS, as well as members of the other ICS' commissions interested in chosen thematic maps of projected atlas, have to intensify their activity in the field of gathering needed materials, choice of the best sources of data, recommendation of suitable institutions or persons for eventual collaboration.

The next two years seem to be the period of more close cooperation of CGS with the ICA "Children and Cartography" and "Maps and Graphics of Blind and Visually-Impaired People", as well as to other international organizations.

The Polish Insertion of DWA was presented in the frame of pre-conference seminar about national and regional atlases (August, 4) organized by Timothy Trainor (ICA) and the Chinese Academy of Sciences. 36 maps and 12 diagrams creating XI tables (VIII from the part A and IV from B) were complemented by commentaries with information about regional conditions (text, tables, graphs).

The main account has been given to the comparison of sub-populations determined by gender. However, additional criteria such as place of residence, age, level of education or family status have been into consideration. Very creative discussions were held after the presentations, as well as exchange of opinions connected with possible methodological and graphical solutions during the visit to the exhibition of Chinese Atlases with such authorities in cartography as professors: Timothy Trainor, Chen Shu Peng, Liao Ke, Liu, Yue, Li Chen, Wang Yingjie and others. This undoubtedly

contributed to improvement of final form of the Polish Insertion of the Atlas.

Also meeting of CGC during the conference (August, 7) was very fruitful. The access to the commission's work declared two new candidates: Yu Dongmei from Qingdao University (PR of China) and Yvonne Eriksson from Göteborg University (Sweden). The list of data from Turkey was prepared by Necla Ulug. Co-chair of CGC Eva Siekierska prepared the commentary of the maps for the Polish Insert.

All participants agreed to postulate the change of commission's name. A suitable application will be prepared before the next conference and General Assembly in Durban (2003). The enlarging of the profile of commission's activity towards other under-represented demographic groups seems to be fully motivated, especially in relation to the events of last months.

*Ewa Krzywicka-Blum
Chair, ICA Commission on Gender and Cartography*



Ewa Krzywicka-Blum and Chen Shu Peng.

ICA Commission on Marine Cartography

There has been much Commission activity this year with both the CoastGIS Symposium being held in Halifax, Canada, during June 2001 and a good presence at the ICC in Beijing. Both were very successful with good outcomes.

169 delegates and organisers attended CoastGIS and financial objectives of the symposium were met. Assistance allowed us to aid with their travel to CoastGIS of delegates from India, Nigeria, Cameroon, Columbia (2), Brasil and Mexico (2). Selected papers are currently being edited (Oct 2001) and will be published as a GSC Miscellaneous Report on CD, on the web and as print on demand. Check the CoastGIS website at coastgis.org. One activity that will be undertaken is to get all papers of previous CoastGIS symposia onto the web site, but this will naturally take some time. The next

CoastGIS is in planning for 2003 to be held in Genoa, Italy.

There were two very strong sessions of marine cartography at the ICC in Beijing. The local China Maritime Safety Administration had prepared a most professional and exciting charting and hydrography display, which was staffed throughout the Conference. This was by far the best marine chart display yet and included innovative electronic charting systems. We were very pleased to see the support this initiative received and congratulate the China MSA for their magnificent efforts in this regard. It is clear that China is a leader in terms of marine cartography.

Dr Marton, our member from Hungary, and his small team have almost completed the translation into Hungarian, of the International Hydrographic Organization SP "Standardization of Undersea Feature Names" and we will shortly see a CD publication on the "Multilingual Gazetteer of the Seas and Undersea Features" which is in preparation under his supervision.

One new initiative that was agreed in Beijing was the added involvement of ICA through this Commission on a joint ICA/FIG/IHO Accreditation Board, which will work on preparing an international syllabus for Nautical Cartographers. At the time of writing (Oct 2001) the first draft of the proposed syllabus is being examined by the AB members; the aim is to have the edited draft presented at the International Hydrographic Conference in Monaco during April 2002 with finalisation around June 2002. This important International Hydrographic Conference is actually the five-yearly General Assembly of all Member States of the IHO. Ron Furness is one member and we are working to get a second member funded – a colleague from Greece, Dr Lysandros Tsoulos.

We welcome to the Commission a new member from Croatia, Ms Tea Duplacic.

The ICC in Beijing was a wonderful week and many marine friendships were renewed and made anew. The atmosphere was always friendly and facilitated good work in a fun environment.

*Ron Furness
Chai, ICA Commission on Marine Cartography*

Special Features

National Library of China and Maps

Several people who attended the International Cartographic Association conference in Beijing were given a special tour of the National Library of China that was arranged by Ms. Li Li, ICA Vice President from China. We were met and taken around by Mr. Sun Guoqing who had been her classmate at Nanjing University and was one of the people working with maps in the library.

Beijing Library is China's national library, a comprehensive research library, and national aggregate stack room. The library uses the name "The National Library of China" in international contracts. Beijing Library has a long standing history in collecting cartographic materials. As early as 1909, when the Beijing Library's predecessor Jing Shi Library was established, the Qing Dynasty government decided to transfer all its royal map collection to the library. In February 1929, the Beijing Library specially established the Yu Tu Bu (Map Department) to collect, process, store, and view maps. The director of the Map Unit was the famous cartography expert Mr. Wang Yong. In 1948, the library reorganized, and the Map Unit was renamed Yu Tu Zu (Map Team). In 1952, Beijing Library established Shan Ben Te Cang Bu (Rare Book Special Collection Department), which included the Map Team. In 1988, the Rare Book Special Collection Department moved into the new Beijing Library (built in 1986) at Bai Shi Qiao Road, and added a Book Reservation and Reading Team to be in charge of collections and service. The Map Team focuses on map collecting, cataloguing, and reference. For the 60 years since the Map Unit was established, map collecting has always been one of the ultimate goals of the team. They collect domestic and international maps extensively via broad channels.

The foreign maps are not catalogued, but the Chinese maps are on their OPAC. They have a legal deposit system for maps and atlases and are supposed to receive three copies of each publication. Mr. Sun noted that more than 80% of companies participate. Most of the topographic maps are stored in the Bureau of Surveying and Mapping. Maps at the scale of 1:50 000 or larger are considered secret in China. There is an Arc China product at a scale of 1:1 000 000, however. There is not much of a tourist walking society in China, but city maps are

getting more popular. Some of the holdings information given to us was that by the end of 1991, they had a collection of 23,500 titles and 98,000 volumes or sheets of which 14,000 titles (70,000 volumes or sheets) were in Chinese and 9,500 titles (28,000 sheets or volumes) were in foreign languages (organized in 100 categories). In terms of topographic maps, we were told that there are 24,000 sheets at a scale of 1:50 000, 816 sheets at 1:250 000 and 77 sheets at 1:1 000 000. The oldest item was a stone carved map from the Song Dynasty. Among the other rare items are China's earliest extant atlas *Guang Yu Tu* of the Ming Dynasty; the *Kang Xi Huang Yu Quan Lan Tu* which was the first map drawn based on longitude and latitude measurements in China; also Ming Dynasty's *Shaanxi Yu Tu* and Qing Dynasty's *Huang He Tu* (Yellow River). The early Qing Dynasty color drawing, *Fujian Yu Tu*, is about seven meters in width and length with a yellow silk dragon edge, and is really one of a kind. These rare maps provide not only the important information for the study of changes in China's geographical environment, as well as, political and economic developments, but also provide valuable information for the historical study of China's cartographic development.

This handout also described the collection policy: As part of the national library, the Map Team can receive free maps published by domestic publishers. The Map Team also collects large amounts of Chinese and foreign language maps through provincial, municipal, and autonomous regions departments, or through *Zhongguo Tu Shu Jin Chu Kou Zong Gong Si* (China Book Import and Export Co.). The basic policy of Map Team is to collect all maps openly published in China; actively collect internal reference maps published by central and regional governments; fill gaps in the collection for publications prior to 1949, including ancient maps; for maps published by foreign countries to select the general atlases, subject atlases, large scale series maps, and maps of major ports/cities published by major map publishers.

To provide good service to their users, the Map Team catalogued all maps on cards which were included in the catalogue in the Rare Book Special Collection Department. They were catalogued by region, subject, title and author. Because of the limitation of conditions and specialities of map collection, in recent years the collection has only been open to special researchers with letters of

introduction or recommendation. According to their statistics, in 1990 they served 600 researchers who used 8000 maps; and in 1991, they served 700 users with 7000 items.

In 1991 or 1992, there were eight professionals working on the Map Team, five of them with degrees in geography or cartography, and three in high-level positions. At the time of our visit, we were told that there five people taking care of the maps. In addition to daily routine works, team members work hard to improve professionally, especially research related to history of cartography and atlases in order to provide excellent service to the users. The web pages to reach the National Library of China start at <http://www.nlc.gov.cn>

Prepared by Alberta Auringer Wood with notes from the visit and from a descriptive handout in Chinese translated by Yurong "Jade" Atwill, Asian Studies Librarian at University Libraries, The Pennsylvania State University.

For your Diary

INTERCARTO - 8

INTERCARTO-8 International Conference, to be held in St. Petersburg, Russia, on May 30 - June 1, 2002, is intended as an important step forward to reach the goal of sound nature management. It will be the sixth, after INTERCARTO-3, conference supported by the International Cartographic Association and the International Geographic Union, which theme is close to problems of sustainable development. The main purpose of the Conference is to assess the present state of development of GIS-technology, digital mapping and GIS-projects for various territories. It is supposed to discuss pure and applied aspects of GIS working out, experience of leading scientists and experts in elaboration of environmental GIS. A special attention will be paid to GIS usage for solving of problems of sustainable development of different territories - rural and urban, local, regional and national ones. The conference topics include: GIS for Solving of Problems of Sustainable Development of Territories; GIS Theory and Methodology; GIS-Technology for Land Management; Digital Earth, Country, City; Multidimensional Cartography; Education and Internet; Practical aspects of distant education; Mapping for Extraterrestrial Geography, etc. The conference is organized by the International Cartographic Association, the

International Geographic Union, Geographic Information Sciences Commission, M.V .Lomonosov Moscow State University, the Russian Geographical Society and the Federal Service of Geodesy and Cartography of Russia

The Chairman of the Local Organizing Committee is Dr. Yuri P.Seliverstov, President of the Russian Geographical Society and co-chairmans are: Prof. Ferjan Ormeling, Department of Geography, Utrecht, and Prof. Vladimir S. Tikunov, Moscow State University. For more information concerning the Commission's meetings, please, contact: Vladimir S.Tikunov, chair of Education and Training Commission, e-mail: Tikunov@geogr.msu.ru

Kira B.Shingareva, chair of Planetary Cartography Commission, e-mail: Kira.Shingareva@mtu-net.ru

Call for Papers

Authors are invited to submit papers in English or Russian to the Organizing Committee of the Conference as soon as possible and not later than 15 April 2002.

Important dates and deadlines

15 April 2002 Submission of papers
1 May 2002 Sending invitations
29 May 2002 Welcoming of participants
30 May 2002 Opening of the Conference

Forthcoming conferences

Map India 2002
New Delhi, India
From 06-08 February
Enquiries to: Map India Secretariat, CSDMS, G-4, Sector – 39 Noida-201 301, UP India,
Web-site: www.MapIndia.org

2002 Annual Conference of the Professional Land Surveyors of Ohio
Quaker Square Crowne Plaza Hotel Hotel, Akron. Ohio, USA
From 07-09 February
Enquiries to Jeffrey M Mallison, PS, 2049 Braewick Dr., Akron, Ohio 44 313-6241 USA
Tele: 330 643 8128
Fax: 330 836 5979
Email: jmallison@summitoh.net

Geomatica 2002
Palacio de las Convenciones de La Habana, Ciudad de La Habana, Cuba
From 18-23 February.
Enquiries to: GEOMATICA 2002
Ing. Tatiana Degado Fernandez,
Calle 6 No 301 Esq 3ra Miramar
La Habana, 11300, Cuba
Tel: 53 (7) 22 1794
Fax: 53 (7) 24 2869
Email: geomatica@mic.cu
GEOTec Event
Toronto, Ontario, Canada
From 08-11 April 2002
Enquiries to: Matt Ball, TEOTec Media, Tel: 1 (303) 544 0594,
Email: mball@aip.com

29th International Symposium on RS of Environment
Buenos Aires, Argentina,
From 8-12 April 2002
Enquiries to: Chiyo Yamashita-Gill, University of Arizona, office of Arid Lands Studies
1955 E. Sixth St, Suite 205, Tucson, AZ 85719
USA Tel 1 (520) 621 8567
Fax 1 (520) 621 3816
Email: chiyo@ag.arizona.edu
29irse@conae.gov.ar

GEO 2002
5th Middle East Geosciences Conferences and Exhibition
Bahrain
From 15-17 April 2002
Enquiries to Susan Hudson, GEO 2002
PO Box 14 B-1390 Grezdoiceau, Belgium
Tel: +32 (0) 10 84 56 77
Fax: +32(0) 1084 1965
Email: montnet.bn.@skynet.be

ACSM-ASPRS in Conjunction with FIG 2002
Marriott Wardman Park Hotel, Washington DC, USA
From 19-26 April
Enquires to: Nadine George, 6220, Montrose Road, Rockville, MD 20852 USA
Tel: 1 (301) 984 9450 ext 11
Fax: 1 (301) 984 9441
Email: nadineg@conferncemanagers.com

The Mapping Sciences Institute of Australia
12-15 May 2002
Melbourne, Australia
Organiser: Australia
Enquiries <melbourne@orgaus.com.au>
Tel: +61-3-9595-0259
Fax: +61-3-9596-2538

GISDECO Conference, 6th Seminar on GIS and Developing Countries
International Institute for Aerospace Survey and Earth Sciences (ITC) Enschede, The Netherlands
From: 15-18 May 2002
Enquiries to: Mireille Meester,
Email: gisdeco2002@itc.nl
Web-site: www.itc.nl

3rd International Symposium on Remote Sensing of Urban Areas
Istanbul, turkey
From 11-13 June 2002
Enquiries to Assoc Professor Filiz Sunar Erbek Symposium Secretariat, Istanbul Technical University, Civil Engineering Faculty, Remote Sensing Division, Maslak, 80626 Istanbul Turkey,
Tel: 90 (212 285 3801
Fax: 90(212) 573 7027
Email: fsunar@ins.itu.edu.tr
Web site: www.itu.edu.tr/rsurban3

ISPRS Symposium of Commission IV
Ottawa, Canada From 09-12 July 2002
Enquiries to: Tom Herbert
Tel: 1 (613) 224 9851
Fax: 1 (613) 224 9577
Email: admicig@netrover.com

IEEE/IGARSS 2002
24-28 June 2002
Toronto, Canada
Information: Tammy Stein (tel 281-251-6067
Fax: 1-281-251-6068
Email: tstein@phoenix.net

11th Australasian Remote Sensing and Photogrammetry Conference
2-6 September 2002
Brisbane, Australia
Enquiries:
11ARSPC@ausconservices.com.au
Tel: +61-2-6257-3299
Fax: +61-2-6257-3256
Web site www.ausconvservices.com.au

For Your Diary

ISPRS Symposium of Commission V
Graz, Austria,
From 09-13 September 2002
Enquiries to: Prof. Dr Franz
Leberl, Tel: 43 (316) 873 5011
Fax: 43 (316) 873 5050
Email: leberl@icg.tu-graz.ac.at

IPRS Symposium of Commission VI
Rio de Janeiro, Brazil
From 17-19 September 2002
Enquiries to Dr Tania Maria Sausen
Tel: 55 (12) 345 6862
Fax: 55 (12) 345 6870
Email: tania@ltid.inpe.br

VII International Congress on Earth Sciences
Instituto Geografico Militar de Chile
Date : 21 – 25 October 2002
Venue : Diego Portales convention Center,
Santiago, Chile
Email : cct2002@igm.cl
<http://www.igm.cl>

ISPRS Symposium of Commission I
Adam's Mark Hotel, Denver, CO
USA from 11-15 November 2002
Enquiries to Amy Budge
Tel: 1 (505) 277 3622 ext 231
Fax: 1 (505) 277 3614
Email: abudge@speock.unm.edu

ISPRS Symposium of Commission VII
Hyderabad, India
From: November/December 2002
Enquiries to: Dr Rangnath
Navagund
Tel: 91 (79) 676 8862
Fax: 91 (79) 676 2735
Email: a.rangnath@ad1.vsnl.net.in1

International Symposium on " Resource and
Environmental Monitoring"
From 3-6 December 2002
Enquiries to Rangnath
Navagund, President, Technical Commission
VII, 200-2004 and Director National Remote
Sensing Agency Dept of Space, Govt of
India, Balanagar, Hyderabad – 500 037 India,
Web site www.commission7.isprs.org

XXth ISPRS Congress
Date: 13 – 24 July 2004
Venue: Istanbul Convention and Exhibition
centre (ICEC)
Contact: Congress Secretariat, Magister
Tours Inc.
Email: congress@magister.com.tr
<http://www.magister.com.tr>

ICA Commission on the History of Cartography

This commission recently established its own
Web site at <http://www.stub.unibe.ch/ica-chc/>
For more information contact Markus Oherly
(Markus.Oehrli@lt.admin.ch)

2003 International Cartographic Conference in Durban, South Africa

During the closing ceremony of the 20th
ICC in Beijin, Derek Clarke, head of the
organizing committee for the 21st
International Cartographic Conference in
2003 in Durban, South Africa, noted that it
would be held from August 10-16, under the
theme of Cartographic Renaissance; Revival
of Developing Nations. He gave some
enticing information about Durban, such as
its 320 days of sun per year, low prices, and
low crime rate. He noted that abstracts are
due by October 30, 2002, with papers by
April 2003.

*Alberta Auringer Wood,
ICA Vice-President, Canada*

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RUSSIAN FEDERATION

*The International Cartographic
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Netherlands. Email:
f.ormeling@geog.uu.nl*



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Intergraph: www.intergraph.com



Barco Graphics: www.barco.com



Aero-Sensing RadarsystemsGmbh: www.aerosensing.de



Tokyo Inshokan Printing Co: www.inshokan.com.jp