



# ICA News

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International Cartographic Association

Association Cartographique Internationale

*The Society for Cartography and Geographic Information Science*



**ICA 2003 ACI**  
*Cartographic Renaissance*  
Durban, South Africa



# ICA Executive Committee

## ICA Executive Committee

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Cover: 'Save the Earth' by Leon van Rooyen  
(15 years) from South Africa. One of the  
entrances of the 2001 Barbara Petchenik  
Children's Global Map Competition, 20th  
International Cartographic Conference,  
Beijing, China.



## Editorial

The end to another busy year is rapidly approaching. The last six months have seen some of our Executive Committee members representing the Association at significant events such as the World Summit on Sustainable Development held in Johannesburg last August; the International Scientific Council on Global Mapping; the UN Geographical Information, and Joint Boards of the Spatial Information Societies.

Furthermore, last August members of the ICA Executive Committee met with the Local Organising Committee of the 21st International Cartographic Conference, to discuss the progress and organisation of this event, which is significant to the whole cartographic community. As reported by ICA Vice-President Alberta Auringer Wood, the Executive Committee had a good preview of the beautiful coastal setting selected for this forthcoming Conference,

which will be held in Durban, South Africa. The organisation is well underway with the responses to the call for papers now being reviewed by the ICA Commission Chairs.

National representatives are reminded that nomination of candidates for President, vice-President, Secretary General and Commission Chairs for the period 2003-2007 are now open.

Some important issues, such as the new ICA Strategic Plan and a proposal for individual memberships will be discussed during the ICC 2003. As they will shape the future of this Association, it is very important that Commission Chairs, ICA National Representatives, and individuals express their views and contribute to the formulation of a Society that best reflects the interests of all Cartography and Geographic Information Science professionals.

This issue of the newsletter contains a good mixture of Cartography-related events held in locations ranging from the high

mountains of Bishkek to the islands of Greece. As reported by Manfred Buchroithner, member of the ICA Commission on Mountain Cartography, ICA joined the celebration of the year 2002 as the 'International Year of the Mountains', by sponsoring the Seventh International Symposium on High Mountain remote Sensing Cartography held in the Kyrgyz Republic last July. We also welcome two new affiliate members: ESRI and NavTech technologies.

Lastly, as a reminder, after your Christmas shopping list and the New Year commitments are over, do not forget to mark in your diary the week of the 10 to 16 August 2003, with a big word saying 'ICC 2003 Durban'. We look forward to seeing you there!

Wishing you a Merry Christmas and all the best for 2003.

*Graciela Metternicht*  
Editor

## ICA officer candidacies

National ICA representative bodies can nominate ICA officers (for President, Secretary General, Vice President or Commission Chairs) by sending both a letter and an e-mail message to the Secretary General, Ferjan Ormeling, before March 10, 2003 (5 months before the next General Assembly in Durban, August, 2003) with the following data:

- Name of the candidate, post applied for
- Short curriculum vitae, with data on cartographic or GIS training and professional experience
- Involvement in national cartographic society and in ICA
- Written declaration by the candidate that he will serve, when elected.
- These data will be incorporated on the ICA homepage after March 10, under 'nominations'.

## Attention to all current and former ICA officers and Commission Chairs: Archiving reminder

Assist us in making a record for the future about ICA activities. Please send all your original correspondence, minutes of meetings, commission reports, print copies of electronic mail or web pages, etc, when you are through with your term of office or when you do not need them any longer to:

Documentation Centre of IGN  
6 avenue Blaise Pascal  
Cité Descartes  
77 455 Marne-la Vallée CEDEX 2  
FRANCE

They should be gathered together in subject files contained in boxes (roughly 25 X 33 X 12) and accompanied by a typed list of their contents, or preferably, a text-file transmitted by diskette or email\*. Please stamp or label the documents or files indicating that ICA is the owner of the materials. Make sure that the packaging is of sufficient quality to ensure the safety of the documents during transport.

These materials shall be processed at a comprehensive level, i.e. the processed item comprises the archive box; the detailed contents within shall not be indexed. However, if a typed contents list is provided, it can be scanned and converted to text file (OCR), which will be entered into their catalogue record for the archive box. Thus, it will be possible to retrieve a box containing a document description, since their system allows full text retrieval.

The Documentation Centre will also archive and catalogue any published documents such as proceedings of commission meetings or special conferences. Please forward any such publications to the same address as shown above.

Any questions, contact Alberta Auringer Wood <awood@mun.ca>, ICA Vice President (Canada) or Francois Borel <borel@ensg.ign.fr> of the Centre.

The Documentation Centre of the IGN does not have the wherewithal to list and describe these documents, which will have to be done by the sender.

# ICA Executive Committee Meeting

## International Cartographic Association (ICA) Executive Committee Meeting Report

The meeting of the ICA Executive Committee was held from August 1-7 in Durban, South Africa. The primary purpose was to review the site for the 2003 conference and discuss plans and progress with the Local Organizing Committee (LOC). See their web page at <http://www.icc2003.gov.za/>. Those present in addition to myself were Bengt Rystedt (President - Sweden), Milan Konecny (VP - Czech Republic), Li Li (VP - China), Elri Liebenberg (VP - South Africa), Takashi Morita (VP - Japan), Ferjan Ormeling (Secretary General and Treasurer - Netherlands), Kirsi Virrantaus (VP - Finland), and Michael Wood (Past President - United Kingdom). Robert McMaster (VP - United States) was absent from the meetings due to commitments at his academic institution. All EC members were urged by the President to be proactive and stimulate nominations for EC positions by the end of February deadline. There will be another EC meeting that will be held in Budapest at the end of April or in early May. Plans for representation at other meetings were discussed and arranged. Some reports were handed in regarding VP or Commission activities. Ms. Liebenberg reported on progress made by the LOC up to August 1st.

The minutes from the previous EC meetings were discussed and approved with some minor amendments. It was agreed that the number of Children's Map Competition awards that would be supported would be from 8 to 10 giving the selection committee some flexibility. ESRI has been invited to become an affiliate member. There was some discussion on the possibility of having an individual membership category, and the President will present a proposal about it at the next meeting. Other action items from the previous meeting were reported as completed or in process.

Reports from Commissions were summarized and discussed. Those received or given orally were: History of Cartography, Spatial Data Standards, Map Production, Theoretical Cartography, Maps and the Internet, National and Regional Atlases,

Marine Cartography, Mountain Cartography, Gender and Cartography, Visualization and Virtual Environments, and Cartography and Children. It was noted that Commission Chairs should take steps very soon to have their Commissions proposed again by their country, if they wish to have them continued, and that Chairs need to be nominated, as well. The President remarked that he liked guidelines for cartography for web maps, to be included on the ICA web site.

The tentative schedule for the meeting next year was considered. On Friday, August 8, 2003, there will be an all-day Executive Committee meeting, as well as educational workshops possibly with themes of GSDI: Metadata, TC211 (standards for geographic information), Web Mapping, Map production organization/management, Census cartography (preparation tasks and presentation of results), or others. The Economic Commission for Africa (ECA) might have money to sponsor these educational workshops. Commission chairs should contact Antony Cooper of the LOC regarding these workshops. On Saturday afternoon, August 9, it is planned to have a meeting for Commission and Working Group Chairs which I, Milan Konecny, and Takashi Morita will organize and moderate. The first General Assembly will be held all-day on Sunday, August 10, with Commission Chairs to present their posters after lunch. There will be a reception in the evening sponsored by bidders for the 2007 conference. The official opening of the conference will be on Monday morning, August 11, with a keynote address, awards, and recognition of distinguished guests included. The afternoon will include a plenary session and one for students and the travel award recipients. In the evening there will be a reception in the exhibit area. Tuesday, August 12, will have paper sessions, a Joint Board of Spatial Information Societies meeting, and an afternoon meeting of the Executive Committee. Wednesday, August 13, will have sessions and an afternoon meeting of the Executive Committee with National Representatives to discuss the ICA Strategic Plan. August 14, Thursday, will include sessions, an afternoon meeting of the Executive Committee followed by a special session with the proposed Commissions Chairs to be organized by A. Wood, Konecny and Morita, and a gala dinner at the Congress Centre. Friday, August 15, will contain sessions and another afternoon Executive Committee. The last official day of the

conference, Saturday, August 16, will have the second General Assembly, followed by a Closing Ceremony and a meeting of the new Executive Committee. Some suggestions regarding the plenary session speakers were considered. For the technical sessions, it was noted that there should be four papers in 90 minutes with 30 minutes break between sessions in the mornings and afternoons. If there were going to be Commission meetings, it was hoped that they would be in the mornings so that the EC members could attend, since the EC meetings would be in the afternoons.

The workshops prior to the ICC will take place outside the Durban ICC. The EC was asked for assistance for finding the appropriate plenary speakers. As themes the following were chosen: Role of international mapping programmes for developing countries and the ICA strategic plan.

The executive committee also attended a meeting with the executive of the International Geographical Union at the Durban Hilton adjacent to the ICC. IGU president Ann Buttimer and ICA president Bengt Rystedt jointly chaired this meeting. Several subjects were discussed. One was concerning a Water atlas: 2003 will be World Water Year, and in this context the joint IGU-ICA atlas project would be important. Prof Liu (IGU) and Li Li (ICA) described the proposal. The project will be proposed as well to International Council of Scientific Unions (ICSU) for financing, which has a March 31, 2003 deadline. The second topic was "Spatial Data Handling" (SDH) and ICA President stressed the wish of ICA to complement the work of SDH, and would therefore like to have some links between ICA and SDH. A third discussion point was concerning a possible course concerning electronic atlases to be held at the IGU headquarters, Villa Celimontana, in Rome. Fourth was the application for membership of ICA to ICSU, and Ron Abler stated that IGU was prepared to support this. The Secretary General proposed an electronic atlas session for the 2004 IGU conference in Glasgow that would be similar to the one held in The Hague in 1996.

The President will prepare a report for General Assembly about individual membership at US\$ 50 or 60 for a 4-year period (or US\$ 25 or 30 when they are already members of a national cartographic society). The Secretary General will propose that from Durban onwards all ICA officers,



# ICA Executive Committee Meeting

including Commission Chairs will serve maximally 2 consecutive terms in their position. It was felt that the wording GI Science has to be included in the statutes wherever feasible. The Secretary General reported on the financial situation which is sound, though some countries are behind on payment of dues, while some Commissions have not requested available funds, perhaps partly due to inactivity.

Additional reports were submitted regarding GSDI (Global Sustainable Development Initiative), ISCGM (International Scientific Council on Global Mapping), WSSD (World Summit on Sustainable Development) by Milan. The President reported on the United Nations Geographical Information Working Group (UNGIWG) meetings in New York, Rome, and Washington, DC. He also attended the UN Regional Cartographic Conference for Africa last September. Also discussed were the Joint Board SIS (Spatial Information Societies), the FIG conference in Washington, Euro Geographics, IMTA Australasia (International Map Trade Association), an ISO (International Standards Organization) report on Certification and Qualification of Personnel in Geomatics, and the International Hydrographic Organization.

Group photos were taken on the steps of the Durban Club before we loaded up our luggage to set out after lunch on a field trip north of Durban. We stayed at a cultural village called Dumazulu. The next day we went to Hluhluwe/Umfolozi Game Reserve to look for the "Big Five". The day also included a two-hour open vehicle game drive and an unforgettable lunch at the Hilltop Camp overlooking the 96 000 hectare Game Reserve. The Hluhluwe/Umfolozi Game Reserve is the oldest of South Africa's many game parks and is especially known for its rhinoceroses. We saw three groups of them, as well as elephants, giraffes, zebras, Weaver birds, various egrets, crested guinea fowls, a monkey, buffalo, Nyala deer, Impalas, Kudu antelopes, a white-backed vulture, and warthogs. We overnighted again at Dumazulu, having toured the village and seen the residents display craft work and traditional dances. The following morning, we drove to the St. Lucia Estuary, a 65 km long body of water with a sand bar at the sea end. There we

had a boat ride where we saw lots of jumping fish, hippopotamuses, crocodiles, Egyptian Geese, South African Fish Eagles, white Egrets, and radiantly coloured Bougainvillaea. We drove back to Durban going from very rural areas with small huts or houses on dirt roads, to bigger roads and multi-lane highways, before reaching the large urban area.

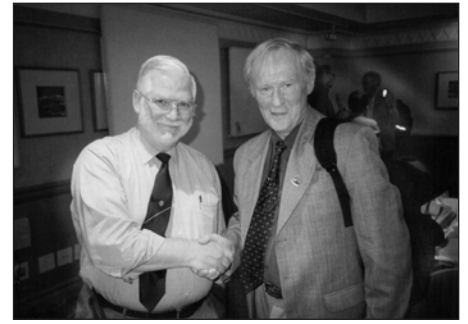
*Alberta Auringer Wood  
(Vice President - Canada)*



*The ICA Executive Committee and Members of the Local Organising Committee of the 21st ICC.*



*The EC at work in Durban. From left to right: Li Li, Bengt Rystedt, Elri Liebenberg, Alberta Auringer Wood, Ferjan Ormeling.*



*Ron Abler, IGU Executive Director (left) and Bengt Rystedt, ICA President (right), at the meeting held in the Hilton Durban.*



*Milan Konecny, Michael Wood, Takashi Morita and Kirsi Virrantaus during the one week meeting at Durban.*



*ICA Vice-president Takashi Morita enjoying one stop at the Umfolozi Game Reserve.*



*Members of the Executive Committee in a cartographic exploration of African wildlife*

## 21st International Cartographic Conference, Durban

### Barbara Petchenik Children's World Map Competition

The Barbara Petchenik Award was created by the International Cartographic Association in 1993 as a memorial for Barbara Petchenik, a past Vice president of the ICA and cartographer who worked through her life with maps related to children. The aim of the contest is to promote the creative representation of the world in graphic form by children.

The awards are given every two years during an ICA conference or an ICA general assembly, preferably at least one for each continent, with special consideration to the age of the child producing the drawing. The awarded drawings are submitted to UNICEF for consideration as greeting cards. Participating nations are encouraged to report on the ways they have used for collecting drawing (video report, etc.) and to collect and archive maps for further research.

#### Rules of the competition

ICA member nations will collect maps, on the theme "Making a better world for children", produced by children under 16 years of age. This is the theme for the next two conferences.

The international judging will focus on three criteria: 1) a recognizable message, 2) cartographic content, and 3) the quality of execution.

Judges will be looking for:

- A recognizable connection between the form, shape, and use of cartographic elements which creatively address the Competition's theme;
- A recognizable image of all or a large portion of the world in which the shapes and relative locations of land masses and oceans are as correct as can reasonably be expected for the child's age and within the context of the "system of projection" used;
- Appropriate cartographic elements such as symbols, colors, names and labels, etc., which help address the Competition's theme;

- Clarity and legibility of the point, line and area symbols appropriate to the media of expression, whether on paper or other surfaces, whether drawn or made up of indigenous materials;
- Expressive rendering and appropriate use of the perceptual dimensions of color, i.e., changes in value for quantitative distinctions and changes in hue for qualitative distinctions;
- Overall aesthetic quality in such matters as balance and harmony among the image elements.

The maximum size of a map must not exceed A3 (420 mm x 297 mm or 17 x 11 inches). Any number of "systems of projection" can be used to generate the coastlines and other base material (e.g., international boundaries and graticule). These can include tracing or copying an existing world map or using a computer program.

Each map must have the following information on a label attached to the back side of the representation: the name, age, school address and country of its author, and the title in either English or French as well as in the author's language.

The winning entries will be submitted to the UNICEF International Art Committee by the ICA Executive for consideration as greeting card designs. ICA may use them as well. Any participant agrees that his/her representation may be reproduced by ICA or UNICEF or scanned for publication on the Internet by Carleton University without consultation or copyright fees. Competition maps are archived at Carleton University's Map Library and are being prepared for web viewing (see <http://collections.ic.gc.ca/children/> and <http://www.library.carleton.ca/madgic/maps/children/index.htm>).

#### National coordinator's guidelines for handling the competition

Each member nation must nominate a coordinator to run the contest in his/her country. The name of the coordinator must be received by the ICA Secretary General at least one year prior to the submission date of map entries. Countries in which no national coordinator is identified may participate provided that the Executive receives the name of a country member willing to act as the coordinator for that country.

Each national committee will select a maximum of five maps to be forwarded to the ICA Secretary General. For the purposes of the national competition, criteria other than those used for the international competition may be considered. The maps selected by the national committees must be sent to the ICA Secretary General and not to the Conference site. They will be displayed during the 21st International Cartographic Conference of the International Cartographic Association in Durban, South Africa, 10-16 August 2003.

When submitting their selected entries to the ICA Secretary General, national bodies are requested to include a letter which, for each submission, gives the following information: the name, age, school address and country of its author, and the title in either English or French (the ICA's official languages) as well as in the author's language. All entries to the ICA Secretary General must have a label attached to the back side of the representation which includes the name, age, school address and country of its author, and the title in either English or French (the ICA's official languages) as well as the author's language.

#### Deadlines:

The maps and accompanying letter should be sent so as to arrive by June 1, 2003 to:

ICA Secretariat  
c/o Faculty of Geographic Sciences  
Utrecht University  
P.O. Box 80115  
3508 TC Utrecht  
The Netherlands

National bodies are responsible for distributing the certificates awarded by the ICA Executive. These certificates will be produced and provided by the ICA Executive. Participating nations are encouraged to collect and archive all of the entries in their national competitions and to report to the Commission on their methods of announcing the competition, establishing any other judging criteria, and the selection process used. This information will be of value in evaluating the success of the Competition and in making adjustments in the future.



## Seventh International Symposium on High-Mountain Remote Sensing Cartography (HMRSC VIII) in the International Year of Mountains (IYM)

Reacting to a motion of the Kyrgyz Republic, in their resolution of 10 November 1998 the General Assembly of the United Nations declared the year 2002 the International Year of Mountains. This initiative should, on a global scale, draw attention to the various problems of the mountain regions.

The above fact gave reason to organise the 7th event of the international symposium series on High-Mountain Remote Sensing Cartography (HMRSC VII) in Bishkek, the capital of the Kyrgyz Republic. It took, as a precursor to the Global Mountain Summit in Bishkek in October 2002, place from 15 to 26 July 2002 and was the first symposium which was held under the auspices of the International Cartographic Association (ICA), since the HMRSC Group is a part of the ICA Commission on Mountain Cartography (CMC). The presence of the ICA President Bengt Rystedt still emphasised this event's importance.

Valery Tsurkov, the Director General of the Geodetic and Cartographic Service of the Kyrgyz Republic, was in charge of the organisational work. He was vigorously supported by Manfred Buchroithner, TU Dresden, who had actually initiated and prepared the holding of this symposium in Bishkek.

The programme contained some 40 oral contributions with diverse, mainly practice-oriented topics and a poster exhibition. Experts from 10 countries in South America, North America, Europe and of course Asia presented their papers dealing with mountain land-use, mountain hazards, seismo-tectonic problems and the generation of combined image-line maps. Lingual barriers between the English and the Russian presentations were overcome by a permanent simultaneous translation. Highlights of the poster exhibition were the geocoded large-format ortho-images of the Russian State Research Centre PRIRODA and the geocoded ERS-2 mosaics of Kyrgyzstan and Afghanistan generated by the German DLR.

Technical visits of the GIS Department of the Ministry for Ecology and Natural Hazards and the Institute for Water Problems and Hydropower Plants of Kyrgyz Academy of Sciences and a one-day excursion to the nearby Ala Archa national Park in the Kyrgyz Range of the Alatau Mountains completed the Bishkek part of the Symposium.

Traditionally, a scientific field trip followed. During 10 days, it led a group of international participants via the Issik Kul, the second largest high-mountain lake of the world, into the highest part of the Tien Shan. Equipped with special English editions of the respective Kyrgyz topographic map sheets (generously produced and printed by the Kyrgyz Survey on the occasion of this excursion!) and by Russian satellite imagery donated by Tien Shan Travel Inc., Bishkek, the glaciated regions around Pic Pobedy (7439 m) and Chan Tengri (7005 m), amongst them the globally unique phenomenon of the supraglacial Merzbacher Lake on top of the Northern Inylchek Glacier could be studied and discussed.

The Final Resolution of the Symposium outlining the benefits of the use of remote sensing technologies for remote, hardly accessible high-mountain regions will be submitted to the Bishkek Global Mountain Summit in October 2002, the main event of the International Year of Mountains. The Proceedings of HMRSC VII will be published by the Kyrgyz Geodetic and Cartographic Service both in a black and white print version and, with colour illustrations and animations, burnt on CD-ROM.

*Manfred F. Buchroithner  
Member, ICA Commission on Mountain  
Cartography*



*Some of the participants of the EnviroMount 2002 .*

## EnviroMount 2002

The jewel in the crown of the Polish mountain resorts, Zakopane, hosted the international EnviroMount 2002 Conference (19-23 September). The conference attracted over eighty geomatics professionals from 14 countries. The academia researchers from Poland, Austria, and the US were the most frequently represented among the numerous speakers as well as in the audience. The great majority of presentations were focused on GIS and RS in mountain environment research, with the special emphasis on mountain forests and vegetation.

Presented applications represented a big variety of approaches, scales and geographic locations ranging from the Tatras as the closest to the conference site, to the sites as remote as the Himalayas, Mt. Kilimanjaro, and the mountains of the American West. The paper presenting changes in the sub-Alpine vegetation on plateau of the Krkonose Mtns., presentations dealing with the strong human impact on "the smallest high mountains of the world" - the Tatras, the change detection using object-oriented image processing in the Austrian Alps are examples of such differentiated applications. The common denominator of all the presented papers was the care and concern regarding the present and future conditions of mountain forests. The goal is to preserve the pristine environment of mountain forests as the most critical feature to protect not only the mountains itself, but consequently the quality of human habitats on the elevations below the mountains. Integration of RS and GIS came up not as just theoretically defined direction to go, but as a naturally applied, practical approach to

support and enhance the quality of the performed research.

Some of the presented projects were accomplished with very limited financial and organizational resources, but incredible intellectual assets and truly zealous enthusiasm of the researchers e.g. the projects aimed to preserve forest stands on Mt. Kenya and Mt. Kilimanjaro and the Ukrainian Carpathian Mountains. Similarly, the integration of efforts among a group of researchers from the five Carpathian countries toward creation of the system monitoring the impact of air pollution on the condition of mountain forests organized by A. Bytnerowicz from USDA Forest Service deserves to be mentioned and mimicked elsewhere.

The presented research confirmed once again that the information technology, including the one serving geomatics is growing tremendously. It was nicely described by the keynote speaker of the conference, A. Riebau, "Today's palmtop computers have more computing power than NASA once had to launch its first satellite to the orbit". The second, very optimistic aspect is that the community cares about the environment. "In this sense, the satellites which may be dimly reflected on a starry night in a pristine alpine lake will perhaps become a true symbol of humankind accepting mature responsibility to protect the Earth's remaining wild places" (Riebau).

The organizers of the conference, led by W. Widacki should get three "A"s – one for the quality of gathered people, second for the place they selected as the conference site, and the third for the pace of the conference which allowed for reflection and discussion after each and every presented paper. The scientists representing dozens of organizations created the informal based on personal contacts network of people interested in sharing experiences, knowledge, and helping each other in their respective research. The field trips made those personal connections even stronger.

In behalf of the organizing committee, a tribute was paid by W. Fedorowicz to the memory of one of the scheduled speakers of the conference, Anna Jakomulska who tragically died a few days before the

conference. All the participants had paid their respect to Anna, who is truly missed by many, with a minute of silence.

*Witold Fraczek, ESRI, Redlands, Ca*

## **International Conference INTERCARTO-8: GIS for sustainable development of territories**

From May 30 to June 1, 2002, the international conference "INTERCARTO-8: GIS for Sustainable Development of Territories" took place in the premises of the Russian Geographical Society and the St.-Petersburg University, Russia. The conference was organized by the International Cartographic Association (ICA), Moscow Lomonosov State University (MGU), St.-Petersburg State University (SPbGU), and the Russian Federal Service of Geodesy and Cartography (Roskartografiya). It was supported by Russian Funds of Fundamental Researches and some private firms. 190 experts from 13 countries participated in the conference activities, including participants from Bulgaria, Hungary, German (4 persons), China (19 persons), Netherlands, Finland, Czechia (2 persons), Sweden, Estonia, Yugoslavia, countries of CIS (Moldova, Uzbekistan, and Ukraine). It is necessary to underline that for the first time such a conference included a session on planetary cartography. The meetings of two ICA commissions, namely on Education and Training in Cartography (Helsinki, May 28, 2002) and Planetary Cartography (May 31, 2002) were also held within the framework of the conference.

After the opening ceremony, a keynote speech was presented by the President of RGS and Professor of the S.PbGU, Yu Seliverstov. He described the concept of sustainable development, its specific concrete definitions, value and practical necessity. During a plenary session, reports were also presented by the chief of cartography at the S.PbGU, G.D.Kuroshv; ICA vice-president M.Konecny; professor A.I.Martynenko; the Chairman of National Committee of Russian Cartographers; the deputy of the

Roskartography chief A.N.Prusakov; the rector of the Ukhan' University Lie Deren; professor K.B.Shingareva, ICA Secretary F.Ormeling; the dean of the Cartographic Faculty MIIGAiK T.P.Nyrtsova; and the chief of RAN Geography Institute, V.A.Snytko.

The main subjects of Intercarto-8 sessions were directed towards the solution of one very actual problem of modern sciences on the Earth and Society, namely the creation and use of geographic information systems as an effective means for implementation of sustainable development of territories. This theme involves a spectrum of ecological, economic, social and political problems. On the conference the following questions were considered: the GIS theory and methodology, Projects for Russia and the North, problems of developing countries, GIS-technology for territorial management, experience of ecological GIS-projects development.

The section on planetary cartography comprised three meetings devoted to actual cartographic problems of Mars, the Moon, Venus and asteroids. Mars attracted a large number of papers represented by colleagues from DLR Institute of Space Sensor Technology and Planetary Exploration (Berlin, Germany), connected with the use of high resolution stereocamera HRSC, with creation of orthoimage maps on the basis of data obtained from the Mars Orbiter camera of the Mars Global Surveyor, and also the further development of methods for true 3D-presentation of Mars surface (the last one was represented by the Institute for Cartography, University of Technology, Dresden, Germany). A new original classification of thematic maps was offered for the Moon, the problems and perspectives for the thematic cartography of the Moon were considered under modern conditions (KhGU, Ukraine). It is worth noting the paper on geological mapping of stations Venus and Vega landings (GEOCHI of RAN), and also on development of a mathematical basis for mapping of irregularly-shaped celestial bodies (MIIGAiK).

The main recommendations of the conference reflect both results and basic directions of development and use of geoinformation systems and technologies. The brief conclusions of conference are reduced to the following items.



- The special hardware and software of large GIS-projects are composed of many regional programs of the territories' sustainable development. They provide solutions to diverse problems for optimization of the exploitation of natural resources, being developed and improved as complex systems of universal value.
- The technical progress in the field of computer science and computer facilities renders essential the influence on development of cartographic and GIS-technologies. The development of informational and telecommunication technologies, network and multimedia becomes an integral part of the scientific and technical activity, and of daily life of society.
- The modern GIS-technologies are guided by creation of open systems, in which the conveyor technology of data processing has developed. All of them are widely used as a toolkit for the solution of industrial problems by composing landowner list, study of cities ecology, ecological substantiation of territories assimilation, economic solutions and evaluation of their effect on the environment.

The conference promoted broad exchange by experience on theoretical and practical aspects of cartography and GIS, definition of further perspectives of their development, and extension of cooperation in this area.

The meeting of the Commission on Education and Training in Cartography focused on the creation of an international cartographic web course. This Commission should provide educational and scientific standards of the course. The main task is finding some standard for such courses on cartography which can orientate everyone interested in cartography and cartographic education. The course shall consist of various branches of modern cartography studied of one's own choice. Technical and law aspects of the course are still under consideration, and the ICA commission would like this course to be free of charge and copyrights.

During the meeting of the ICA Commission on Planetary Cartography the main commission's activities were revised. First of all, the state of activities concerning two international projects, namely on creation of a series of multilingual maps of planets and their moons and on drawing up a

glossary on planetary cartography, was considered. At present most of a series is already prepared and the maps of Mars, and Venus are issued. The production of a map of the Moon is underway, and the map of Mercury is almost ready. The creation of an IS (Information System) on planetary cartography was discussed. The proposal on improving the coordination of activities with activities of the ISPRS Working Group on extraterrestrial mapping existing within the framework of the photogrammetric union, especially in the organization of joint symposiums and participations in activities of international conferences and congresses was made during the discussion of the commission's activities.

Next InterCarto 9: GIS for Sustainable Development of Territories Conference will be held in Sevastopol (Ukraine, June 27-29 2003). Contact: InterCarto Organising Committee, INTERCARTO-9: Secretary Olga Barabash, 2, Kapitanskaya St., Sevastopol 99011, Ukraine. E-mail [marta@alpha.mhi.iuf.net](mailto:marta@alpha.mhi.iuf.net)

*Vladimir Tikunov, Kira Shingareva*



*Albert Abdrakhimov (Russia), Vadim Kaidash (Ukraine), Rene Pischel (Germany), in front of the picture Bianna Krasnopevtseva (Russia), Marita Waehlich (Germany), Kira Shingareva (Russia).*

## 7th Annual Conference of the Hellenic Cartographic Society

On October 23 – 26, 2002, the 7th Annual National Cartographic Conference of the Hellenic Cartographic Society was held, in Mitilini on the isle of Lesbos, with the theme "Island Cartography". With about 150

participants the event, held at the municipal theatre in Mitilini (the new auditorium of the University of the Aegean could not be completed in time), tried to answer the issue whether any specific aspects of mapping islands existed, like there are in mountain cartography or coastal zone cartography. A member of specific aspects were agreed upon, such as the problems of scale, of fitting into a national mapping program, the loss of context when rendered individually, and isolation.

The local organizer, Nicolas Soulakellis, lecturer in cartography and RS at the Faculty of Earth Sciences, University of the Aegean (the University's faculties are distributed over a number of islands, like Lesbos, Chios, Samos and Rhodos) together with the President of the Hellenic Cartographic Society, Prof. Myron Miridis, had organized 8 sessions, with altogether 40 papers, an exhibition on the development of mapping of the Aegean archipelago and an excursion to the petrified forest in western Lesbos. The sessions were on the history of cartography, cartographic analysis of island areas, island atlases, the mapping of island environments, cartographic technology and remote sensing of island areas, and miscellaneous themes, and the conference was closed by a forum on environmental mapping and the role of GIS. Abstracts had been prepared in advance. The proceedings will be ready at the next conference, which will possibly be held in Crete in 2003.

The conference was sponsored by the Greek Ministry of the Aegean, and the National Map Centre. Themes presented covered amongst others the cartographic representations of the travels of Odysseus, interactive seismic atlases of Greece, symbols on electronic nautical charts, environmental mapping with the use of remote sensing, bathymetric charting and multi-dimensional scaling. The exhibition was visited by local inhabitants; school class visits had been organized as well, so that it was quite a bustle in the theatre. It was a good example of how cartographers should reach out to local communities when organizing meetings. When properly organized there is an enormous appeal in maps.

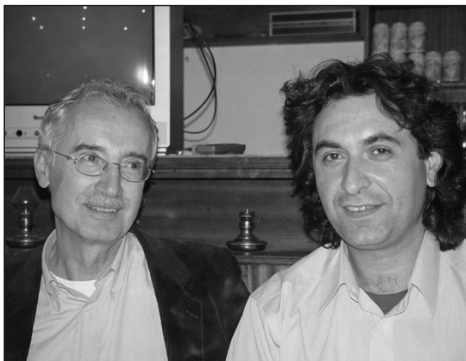
The University of the Aegean where the conference was organized was the first to

# Conferences

have a geography course (with a cartography option) in Greece (1995); an example that has since been followed by the University of Athens. In Thessaloniki, geography can be opted for within the cartography and geography specialization of the Geodesy, Cartography and Civil Engineering Department of the Aristoteles University.

The conference saw the launching of the new book by Prof. Evangelos Livieratos of Thessaloniki's Aristoteles University on the mapping of Mt. Athos, where amongst others some early manuscripts of Ptolemy are preserved. During the farewell dinner, it came out that the URL of the ICA homepage ([www.icaci.org](http://www.icaci.org)) was not particularly well-chosen for a greek audience: in Greek, icaci reads as I kaki, that is 'the bad guys'! This certainly did not apply to the conference organizers!.

*Ferjan Ormeling*  
*ICA Secretary General*



*President of the Hellenic Cartographic Association Prof. Myron Myridis and the Head of the Local Organizing Committee A/Prof. Nicolas Soulakellis, during the closing dinner in Mytilini.*

## Report on ISO/TC 211 activities for ICA News

ISO/TC 211 is the International Organization for Standardization's Technical Committee developing standards for Geographic Information/Geomatics. The 15th Plenary meeting of ISO/TC 211 was held in Gyeongju, Korea, on Thursday 14 and Friday 15 November 2002, with several

Working Group, Project Team and other meetings being held before that, from Sunday 10 November 2002. The following is a brief report of the ISO/TC 211 activities this year.

ISO 19101, Geographic information – Reference model, and ISO 19108, Geographic information – Temporal schema, were published during 2002 as International Standards, and there are several more standards that have basically been finished and are going through the final stages of formal approval. However, ISO/TC 211 is taking on more work, with the following projects having commenced during 2002:

- ISO 19115-2, Geographic information – Metadata Part 2 – Metadata for imagery and gridded data;
- ISO 19136, Geographic information – Geography Markup Language;
- ISO 19137, Geographic information – Generally used profiles of the spatial schema and of similar important other schemas;
- ISO 19138, Geographic information – Data quality measures;
- ISO 19139, Geographic information – Metadata – Implementation specifications; and
- ISO 19140, Geographic information – Technical amendment to the ISO 191\*\* Geographic information series of standards for harmonization enhancements.

On the Wednesday, a very interesting half-day workshop was held on standards in action, at which presentations were made by the following countries on their progress with implementing the ISO 19100 family of standards: United States of America, Malaysia, Korea, China and Switzerland. The results of a survey on the use of the standards worldwide were also presented at the workshop. All the presentations are available from the ISO/TC 211 Web site, as are all other ISO/TC 211 documents, though access to the actual draft standards is restricted: <http://www.isotc211.org/>

Other highlights from the meetings include:

- Over the last year, Ireland, Kenya and the Philippines have joined ISO/TC 211 as

members, and the Permanent Committee on Spatial Data Infrastructure for the Americas (PC IDEA), the Scientific Committee on Antarctic Research (SCAR) and the United Nations Group of Experts on Geographical Names (UNGEGN) have joined as Class A liaisons.

- A survey has been conducted of ISO/TC 211 members to assess their usage of the ISO 19100 standards and it is probably not surprising that ISO 19115, Geographic information - Metadata, is considered the most important. The members also felt that the standards were difficult to understand, and ISO/TC 211 is preparing material to help explain the standards. The results of the survey will be published soon.
- ISO/TC 204, Intelligent Transportation Systems, will ensure that its new application-independent standard for interchanging data between Transport Information and Control Systems (TICS), the eXtended Geographic Data Files (XGDF), will be compatible with the ISO 19100 standards.
- The Harmonized Model Maintenance Group has been set up to ensure that the formal models of the ISO 19100 standards, implemented in the Unified Modelling Language (UML), are harmonized.

The 16th Plenary of ISO/TC 211 will take place in Thun, Switzerland, on 22 and 23 May 2003, preceded by working group, project team and other meetings. The 17th Plenary will be in Berlin, Germany, around November 2003, with the 18th scheduled for Canada in May 2004, the 19th for Malaysia in November 2004 and the 20th for Sweden in May or June 2005.

*Antony Cooper, ISO/TC 211 liaison to the ICA*



## Gender and Cartography (GaC)

On the 20th August 2002, several members of the GaC met in Gda\_sk (Poland) to participate in a two-day seminar organized by the ICA Commission on Theoretical Cartography. Chairing this meeting were Alexander Wolodtshenko and Hansgeorg Schlichtman. Participants of the seminar were asked to discuss the problem on whether the current name of commission of "Gender and Cartography", corresponding on a very limited scale with a domain of under-represented subpopulation's cartographical presentation, should be preserved during the 2003-2007 term. According to opinions of Takashi Morita, Alexander Wolodtshenko and other participants, the commission has to change the name definitively and such proposals should be taken into consideration by the Executive Committee in view of the reasonable direction of enlargement in the field of the future commission's activities. Summarizing the responses to a basic questionnaire addressed to all members of the GaC it can be noticed that "women question" seems to be not sufficient for the future of the commission's activities because some minority populations, as well as different kind of inequalities existing within some groups of people are very actual and important issues.

In the frame of a project sponsored by the Polish Head Office of Geodesy and Cartography the next four tables of Polish Insertion of projected ICA Demographic Atlas have just been finished. The Polish team from the Department of Geodesy and Photogrammetry of the Agricultural University of Wroc\_aw, Poland intend to complete the insertion of "Poland" before Durban's Conference. This insertion was accepted by EC during 20th ICC in Beijing as a model for other countries. The EC of ICA empowered me, as commission's chair, to dispose a part of the current financial support for editing this insertion. We hope that indispensable agreements between the Head Office of Geodesy and Cartography and ICA will be successfully finished very soon.

After transferring the Commission's website from Canada to Poland, it is now administrated by Wojciech Dach. In the frame of collaboration with International Federation of Surveyors (FIG) FIG's Commission on "Under-represented groups in surveying" both sides used their websites to disseminate a review of three papers entitled: "A Gender for

Change: The Future of Women in Surveying" (S.J. Wilkinson, V. Astle, S. Yeo – UK), "Wanted: Women Engineers" (G. Dasse – Germany) and "Advances and Reflections: Efforts to include women in United States surveying and mapping" (W.J. Woodsbury Straight – USA).

Another important form of cooperation was active participation of the GaC in the Global Campaign on Secure Tenure organized by FIG. The purpose of the thematic questionnaire on women and adequate housing (according to the Commission on Human Rights resolution 2002/49) is to request information from the states, local authorities, civil societies and stakeholders for the preparation of a study from which a special report will be submitted to the Commission on Human Rights. For such a social activity, electronic post is an excellent way to facilitate contact between representatives of different interested organizations. Unfortunately, because of the low level of technology or/and education, many subpopulations as well as many regions, are still not satisfactorily represented "in public life". For instance, it could not be incidental the lack of responses from Africa to my last questionnaire on the future name of the Commission. But at the same time the new title "Geodesia et Descriptio Terrarum" - an electronic periodical of Polish Agricultural Universities- provides access to a new methodological solution connected to a cartographic model of the actual state of education in Africa.

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

## Cartography and Children

### Report on Activities in Brazil, 2002

In August 2002 the Cartography and Children Commission participated in two meetings in Brazil. The first, the Cartography and Children Commission Seminar (August 4 th to 7th), organized by Dr. Janine Le Sann, was hosted by the Federal University of Minas Gerais. The meeting took place in Diamantina, a world heritage site, in the *Casa Gloria* a restored historic building housing part of university's Institute of Geo-Sciences. The second meeting was the First Ibero-American Conference on Cartography and Children, August 7th to 10th. This was hosted, by the Department of Cartography and Geography of the Universit Estadual de Rio de

Janeiro, with the program arranged by a team lead by Dr. Tomoko Paganelli.

For 30 years, Brazilian researchers have been investigating issues related to mapping and children. Since 1995 numerous Brazilian national conferences on this subject have been held. Today, Brazil has more than 100 researchers (professors, graduate students and teachers) actively pursuing a wide range of issues relating to school cartography. Yet, internationally, very little is know of the work that has been done. Recently, research themes relating to school cartography have been defined and teams associated with each of these identified. In addition, as of this year, "School Cartography" is now recognized as an area of research eligible for government funding. The two meetings attended by members by Commission members from Argentina, Brazil, Canada, Greece, Hungary, United States of America and the United Kingdom, provided an opportunity to meet Brazilian colleagues and graduate students and focus on the exchanging of research experiences related to Cartography and Children.

Thirty people traveled the 430 kilometers from Belo Horizonte, through a spectacular landscape to Diamantina. The seminar focused on " The themes, methods and results of the lines of research of the International Commission on Cartography and Children". Following an introductory session in which an overview of the work of the commission was presented there were reflections on the history and current status of Brazilian cartography for children. In the following sessions, the 30 papers on school cartography touched on the following topics: concept construction, spatial theory, graphic semiology, graphic literacy, classification, teaching materials (educational atlases – national and regional), the curricula concerns relating to teaching cartography to children and those with special needs the nature and applications of new technologies. Following many of the papers, thanks to the participation of Doctora Regina Araujo de Almedia, there were questions posed and lively discussions. During their time in Diamantina, the participants were also able to view local crafts as well the treat of sampling regional cooking and music at the Pousada Reliquias do Tempo. Prior to travelling to Rio a meeting of the Cartography and Children commission was also held.

The registration for the First Ibero American Symposium on Cartography and Children, in Rio de Janeiro, was 395. As part of a most the impressive opening ceremony of

# Commissions' Report

welcome, Doctora Rosângela Doin De Almedia gave a presentation on the nature and status of Brazilian research relating to school cartography. One of the aims of this meeting was to bring together Brazilian and foreign researchers to discuss the development of cartography for children and students at different levels of education. There were four main conference themes: the sharing of international and intercultural experiences; graphic and cartographic representation; new technologies in school cartography and; atlas conception and methodology. The contributions of the Cartography and Children's Commission were associated with the sharing of international and intercultural experiences. This involved a morning of papers and a series of three-hour workshops. During the closing speeches of the meeting there was a commitment made by the new president of the Brazilian Cartographic Society to support the creation of a permanent Brazilian group associated with Cartography for Children and give the necessary assistance for this group to work.

The members of the commission who attended are most grateful to them many people and institutions who were involved in the logistics of organizing the two meetings as well as the provision of support that permitted some members to participate.

The next Cartography and Children Commission seminar is to be held in South Africa just prior to the 2003 meetings in Durban. I would be grateful if anyone interested in attending or participating at this meeting, who has not already been in contacted me, could get in touch with me as soon as possible.

*Jacqueline M. Anderson*  
Chair, ICA Cartography and Children Commission

## Marine Cartography

The last period between Newsletters has been dominated by planning for the next CoastGIS Symposium on GIS and Computer Cartography for Coastal Zone Mapping. The Symposium is to be held at the "Palazzo Ducale" in Genova, Italy from 16 – 18 October 2003.

The Symposium is the result of the ongoing collaboration between this Commission and the Commission on Coastal Systems of the International Geographical Union. The local organisation is being carried out by GISIG, the Geographical Information Systems International Group. The Group is a

non-profit Association operating in the field of GIS, grouping almost 100 organizations dealing with geographical information and territorial problems from more than 20 European countries. Financial support has come from the EU through the European Union for Coastal Conservation and a grant has been received from the US National Oceanic and Atmospheric Administration in the US Department of Commerce. Other support is ongoing from ICOOPS – the International Centre for Coastal and Ocean Policy Studies, the Università degli Studi di Genova and many other groups.

Please visit the homepage [www.gisig.it](http://www.gisig.it) for updated information. The early call for papers went out in October 2002 with an Abstract deadline of April 2003.

Readers will be interested to see the progress being made with getting CoastGIS papers onto the web at [www.coastgis.org](http://www.coastgis.org). It is hoped shortly to have the 1995 Cork meeting papers placed on the site. Negotiations are in hand for the same for the 1997 Aberdeen conference papers.

The draft of the proposed Standards for the Nautical Cartographers and Syllabus, have been circulated widely by the International Hydrographic Bureau for comment and suggestion. The next meeting of the FIG/IHO/ICA Accreditation Panel will be held in UK during June 2003. My co-contributor for this work has been Dr Lysandros Tsoulos of Greece: his efforts have been substantial and appreciated.

Readers who are interested in the work of the Commission are invited to contact me for information at [rfurness@ozemail.com.au](mailto:rfurness@ozemail.com.au). If you would like to join the Commission then please nominate through your national member association of ICA. If you have some suggestions about what the Commission should be doing, then I am very keen to hear from you. The current Terms of Reference are on the ICA website though they have subsequently been amended to cover the contribution to the work of the FIG/IHO/ICA Accreditation Panel. I will renominate for election as Chair from the Durban General Assembly but would be enthusiastically supportive of a nomination from anyone suitably qualified to take the reins.

*Ron Furness*  
Chair, ICA Commission on Marine Cartography

## Maps and the Internet Commission

The Maps and the Internet Commission ([maps.unomaha.edu/ica](http://maps.unomaha.edu/ica)) held its annual meeting in Karlsruhe, Germany, on Sept. 24-25. The meeting was organized by the co-chair of the Commission, Dr. Georg Gartner, from the Technical University of Vienna and included representatives from 13 different countries. The two-day meeting was hosted by the Technical University of Karlsruhe and was held prior to the annual WebMapping conference ([www.webmapping.de](http://www.webmapping.de)).

The conference addressed all aspects of maps and the Internet, from methods of map delivery, education, and research. A major theme of the meeting was mobile methods of map presentation through cell phones. Other topics included the development of research in internet cartography, the dissemination of census data through web maps, the modelling of the online map visualization process, applications in education, the integration of virtual reality, geo-marketing with internet maps, atlas delivery, and the use of scalable vector graphics (SVG) format.

Participants included:  
Andrienko Gennady, Fraunhofer Institute, Germany: Speaker  
Andrienko Natalia, Fraunhofer Institute, Germany: Speaker  
Asche Hartmut, University Potsdam, Germany: Web.Mapping Chair  
Bang-Kittilsen Ane, Norwegian Institute of Land Inventory, Norway, Participant  
Brisson Carl, Université de Québec à Chicoutimi, Québec, Canada: Speaker  
Brodersen Lars, Kort & Matrikelstyrelsen, Denmark: Speaker  
Bulens Jandirk, Centre voor Geo-Information, The Netherlands: Speaker  
Cammack Rex G, Southwest Missouri State University, USA: Speaker  
Cartwright William, RMIT Melbourne, Australia: Speaker  
Cramér Mathias, Sveriges Nationalatlas, Sweden: Speaker  
Drecker Martina, Ruhr-University Bochum, Germany: Participant  
Fairbairn David, University Newcastle, England: Speaker  
Freckmann Peter, FH Karlsruhe, Germany: Speaker  
Fritz Wolfgang, FH Karlsruhe, Germany: Pro-Rektor  
Gartner Georg, TU Wien, Austria: Commission Co-Chair  
Gauthier Majella, Université de Québec à Chicoutimi, Québec, Canada: Speaker  
Günther-Diringer Detlef, WWF Auen Institut, Germany: Speaker



Hampe Mark, University Hannover, Germany: Speaker  
 Herrmann Christian, FH Karlsruhe, Germany: Web.Mapping Chair  
 Iversen Sverre, Geological Survey of Norway, Norway: Speaker  
 Konecny Milan, Masaryk University Brno, Czech Republic: ICA Vice-President  
 Lehto Lassi, Finnish Geodetic Institute, Finland: Speaker  
 Ligtenberg Arend, Centre voor Geo-Information, The Netherlands: Speaker  
 Medyckyj-Scott David, University Edinburgh, Scotland: Speaker  
 Meyer Marlene, Kort & Matrikelstyrelsen, Denmark: Speaker  
 Neumann Andreas, ETH Zürich, Switzerland: Speaker  
 Peterson Michael P, UN Omaha, USA: Commission Chair  
 Scharlach Holger, RIVM, The Netherlands: Speaker  
 Schmid Wolfgang, INGENIO, Germany: Participant  
 Schnabel Olaf, ETH Zürich, Switzerland: Speaker  
 Sutton Emma, University Edinburgh, Scotland: Speaker  
 Uhlirz Susanne, TU Wien, Austria: Event Manager  
 van Elzakker Corné, ITC Enschede, The Netherlands: Speaker  
 Wintges Theodor, FH München, Germany: Speaker

The next meeting of the commission will be held in Stellenbosch, South Africa, at the beginning of August 2003, prior to the ICA Conference.

*Michael Peterson  
 Chair, ICA Commission on Maps and the Internet*

## Theoretical Cartography Seminar in Gdansk

After the Dresden Seminar 2000, the ICA Commission on Theoretical Cartography held its Seminar "The Selected Problems of Theoretical Cartography 2002" in Gdansk, Poland from 20-21 July 2002. The host of the Seminar was the University of Gdansk, Cartographic Laboratory (local organizer Pavel Neytchev).

Over 20 commission members and guests from Lithuania, Poland and Ukraine attended in Gdansk. The agenda of the two-days meeting included 9 papers, 2 reports, 3 posters, discussions and cultural programs (three towns excursion: Gdynia, Sopot and Gdansk). Definitions in cartography; cartosemiotics and map language; and acquisition of cartographic knowledge were important themes of the closing discussion. The results of the Seminar are planned for publication as a collection of papers before ICC 2003.

We also welcome to the commission new members from Lithuania, Dr. Giedre Beconyte and from Ukraine, Dr. Anton Gordeev. Nowadays the Commission on Theoretical Cartography include 26 members from 17 countries and 4 continents.

The atmosphere of the Seminar was friendly and reflected successful work of the Commission. The next Seminar is being planned for 2003 or 2004, to be held in Kiev University, Ukraine.

*Alexander Wolodtschenko  
 Chair, ICA Commission on Theoretical Cartography*

## ICA Working Group on Incremental Updating and Versioning

The ICA Working Group on Incremental Updating and Versioning held its fourth annual meeting at the Bundesamt für Kartographie und Geodäsie (BKG) in Frankfurt am Main, Germany, on 14 and 15 October 2002. This took the form of a joint workshop sponsored by the ICA with the International Society for Photogrammetry and Remote Sensing's (ISPRS) Intercommission WG II/IV (systems for automated geo-spatial data production and updating from imagery) and the Eurogeographics Research and Development Forum. Twenty delegates from 12 countries participated in this, the Third Joint Workshop on the Incremental Updating and Versioning of Spatial Data Bases, which consisted of theoretical and practical papers, with lively discussions during and after the presentations. We would like to thank very much Prof-Dr Dietmar Grünreich, the President of BKG, for his hospitality and his generous offer to host future meetings of the Working Group. We would also like to thank very much the staff at BKG who helped with all the arrangements, especially Dr Andreas Busch.

It became clear that as incremental updating and versioning are critical aspects of spatial database maintenance, they should be looked at holistically. We revisited the concepts of incremental updating and versioning that were drawn up at our previous workshop in Beijing, China, and will flesh them out over the next few months as part of the Working Group's work. We intend publishing these concepts and best practices



*Participants to the annual meeting of the Maps and the Internet Commission.*



*Participants of the Gdansk Seminar.*

# Commissions' Report

as our second publication, prior to the 22nd International Cartographic Conference (ICC) in La Coruña, Spain, in July 2005.

Our first book, proposed during the 20th ICC in Beijing, is currently in preparation and aims to reflect the current status of the practice and theory of incremental updating and versioning. We hope to release this book at the 21st ICC in Durban, South Africa, in August 2003. We plan to have a three day workshop just before the ICC in Durban, where we will concentrate on elaborating on the concepts and best practices of incremental updating and versioning. Provisionally, the 4th joint workshop on the Incremental Updating and Versioning of Spatial Data Bases will take place in Durban near the venue for the ICC, from Friday 8 to Sunday 10 August 2003.

Details of the Working Group, the workshops and our progress may be found on our Web site at: <http://geo.haifa.ac.il/nicaupdt>

*Ammatzia Peled  
Antony Cooper*



*Delegates at the Workshop on Incremental Updating and Versioning, held in Frankfurt, Germany. Back row: Thierry Badard (France), Jan Beyern (Belgium), Arnaud Braun (France), Bert Kolk (Netherlands), Andreas Busch (Germany), Helmut Mayer (Germany). Middle row: Peter Højholt (Denmark), Mark Richardson (United Kingdom), Ammatzia Peled (Israel), Keith Murray (United Kingdom). Front row: Luis Colomer (Spain), Bengt Rystedt (ICA President), Antony Cooper (South Africa), Hanna Kempainen (Finland), Vladimir Bessarabov (United Nations).*

## Spatial Data Standards Commission

### I. Introduction

During the past year the Commission has continued its work towards its evolving book that uses a set of scientific and technical

metadata assessment characteristics to analyze and understand the various national and international spatial metadata standards in the world. Since last Fall we have been actively editing the chapters of the book. Prof Henri Aalders, Dutch Commission member, has been added as an Associate Editor to edit the Part II Regional Summaries, and to write the Introduction for the book. This has been done to facilitate the preparation of the book in view of the workload of the Editor.

The Full Commission has been working on its plans on the Spatial Data Infrastructure at its meetings: 2000 in Monaco, 2001 in Beijing, and at its recent meeting in Brno.

### II. July Commission meeting in the Czech Republic

The Commission held its 2002 annual meeting July 8 to 12 in Brno, Czech Republic hosted by Prof. Milan Konecny, Commission SDI Coordinator. The four day meeting was held for several reasons. The first was to do the final review of progress on the ICA

metadata standards book and the authors involved. Editing of the first four Parts and coordination with Elsevier is continuing on a very active basis.

Meanwhile, the Commission continued its discussions from Beijing on the Spatial Data Infrastructure. This is to carry out point 3) in its 1999-03 Terms of Reference to plan a new task on researching the Spatial Data Infrastructure at the world, regional and national levels. This work is being carried

out in close coordination with the ICA Executive with Prof. Milan Konecny as the Commission SDI Coordinator.

At the meeting the Commission decided that a major part of its 2003-07 work on the SDI will be to develop a UML model of the SDI. This idea developed out of a basic discussion begun in Monaco, and developed

in more detail at the recent meeting in Brno. This developing scientific thrust by the Commission will be proposed as the major task in the 2003-07 Terms of Reference to be proposed in Durban next year.

### II. Planned ICA Metadata Book

The Commission Editors, Moellering, Aalders, and Crane are working hard to bring together and edit the chapters of our ICA book titled: World Spatial Metadata Standards. In April, 2002 Elsevier assigned an ISBN number to the book. It is hoped to go to press with Elsevier sometime this summer.

Scientific work on the characteristics on such metadata standards originally began in 1995. After three years these characteristics had been developed and field tested. Work then turned to developing the book itself. Much of the timing of the book has hinged on the readiness of the ISO/TC211 world metadata standard. Originally it was thought that this TC211 Committee Draft (CD) would mature enough by 1999 to write a chapter on it, and to bring together the other chapters associated with it. Unfortunately, TC211 decided to subject the world metadata standard to two additional cycles of work, resulting in two additional years of development and refinement on their part.

Meanwhile, the Commission continued to refine and test its metadata work, and at its 2000 meeting in Monaco reviewed and finalized the outlines for the regional summary chapters in Part II. After receiving positive confirmation from TC211 in the Summer of 2001 that the world metadata standard was ready to move from CD3 towards Draft International Standard (DIS), the Commission and its editors moved into full writing mode of the Part II and updating the Part IV chapters for the book manuscript. The Commission has been in major writing and editing mode ever since.

This current version of the book has five major Parts analogous to our prior 1997 Elsevier book that assessed world spatial data transfer standards:

- I. Full Introduction
- II. Six summaries of regional metadata standards development activities in: Europe, N. America, Africa/Middle East, Asia/Pacific, Latin America, and the ISO community.
- III. The full set of metadata assessment characteristics: 12 first order categories, 58 second order subcategories, and about 202 tertiary characteristics.



IV. About 20 chapters describing the major metadata standards in the world, and a few application profiles.

V. Crosstable of 67 critical transfer characteristics by the 20 National and International metadata standards and profiles.

All chapters in the first four Parts of the book have been written and are being polished, edited and prepared for publication. The draft N. American regional summary chapter has been lagging, but is being actively worked on to complete it. The current list of chapters follows.

I. Intro to World Spatial Metadata Standards - Henri Aalders

II. Regional Metadata Activities Summaries  
Europe - Henri Aalders (NDL) François Salgé (FR), & Alexander Martynenko (RUS)

N. America - Richard Pearsall(USA), Valerie Hume(CDN), & Richard Hogan(USA)

Asia/Pacific - Craig Macauley (AUS), Du Daosheng (China), Kazuhiko Akeno (Japan), Tae-Jung Min (Korea)

Central & South America - Tatiana Delgado (Cuba)

Africa & Middle East - Antony Cooper (SA) & Liz Gavin (SA)

ISO/TC211 - David Danko (USA) & Olaf Østensen (ISO)

III. Scientific & Technical Metadata Characteristics

Introduction - Editors.

Glossary of Terms & Definitions

Harold Moellering & Aaron Crane Eds.

Main Scientific & Technical Metadata Characteristics

Harold Moellering & Aaron Crane Eds.

IV. Assessments & Full Descriptions of Metadata Standards

Main Line Metadata Standards

Australia/New Zealand - Craig Macauley

Canada - Valerie Hume

China - Jiang Jing-tong

Czech Republic - Petr Rapant

Denmark - Anders Neilsen & Peter Kjeld

Finland - Paula Ahonen

Hungary - Istvan Kadar & Tamas Prajczner

Israel - Ammatzia Peled

Japan - Shoji Okuyama, Shinji Takazawa & Kazuhiko Akeno

Korea - Tae-Jung Min & Heung-Muk Cho

Netherlands - Henri Aalders

Russia - Alexander Martynenko

South Africa - Nic Scheepers and Antony Cooper

Spain - Sebastian Mas

United States - Richard Pearsall & Richard Hogan

Dublin Core - Stuart Weibel

CEN/TC287 - François Salgé

ISO/TC211/WG3/T15 - ISO/DIS 19115 - David Danko

Subject matter Metadata Standards/Profiles:

EU/CERCO/MEGRIN - La Clef - Marcus Wandinger & Claude Luzet(FR)

EU/CEO - Space Imagery; Bernd Eckhardt(D)

EU/GEIXS - geology; Luc Bonnefoy(FR)

USA/NBII - biology; Susan Stitt(USA) & Anne Frondorf(USA)

*Harold Moellering*

*Chair, ICA Commission on Spatial Data Standards*

## Map Production

In 2002 CMP continued with the activities specified in the Terms of Reference. No significant details are to be described after postponing the annual meeting from September 2002 to February 2003. For the Commission on Map Production 2003 will be a busy year. The following plans are in the process of development:

- Zurich Switzerland 19 and 20 February 2003 annual meeting and exchange of the latest products and production information;
- ICC 2003 pre conference seminar (title and topics to be decided), cooperation IMTA and ICA
- Participation in the ICC 2003 congress
- Colombia 3rd week October 2003 (title and topics to be decided, cooperation IPGH and ICA
- Finish and publish the Compendium of Cartographic Techniques

The CMP aims to finishing and updating the Terms of Reference of Commission. The Commission will propose concentrating more on production management topics. The objectives will be adapted and therefore a change on the Commission's name will be suggested, seeking approval for it at the ICC in Durban.

For reactions: [mailto:steen@itc.nl](mailto:mailto:steen@itc.nl)

*Sjef van der Steen*

*Chair, ICA Commission on Map Production*



*Participants of the Brno Meeting of the ICA Commission on Spatial Data Standards.*

# Statistics and maps on the WWW

## Statistics and maps on the World Wide Web: a good combination?

### Introduction

All countries of the world publish statistics. Mostly the National Statistical Offices (NSO's) are responsible for this. These offices publish a country's statistics about demography, economy, education, environment etc. The statistics published by these offices can be watched on different geographical levels: national, provincial / regional or municipal. Every year a lot of these publications are published as statistical yearbook or monthly report. With the introduction of the Internet a lot changed for the NSO's. Next to the familiar printed publications, more and more statistics are published online. Most of the NSO' websites are quite comprehensive. The statistical information is displayed in many ways: as tables, charts, texts, but also in the form of digital maps. It is interesting for cartographers to see how NSO's work with these digital maps. Do they use the maps optimally? Or can their presentation be improved? On behalf of a new publication by the ICA Commission on Maps and the Internet we checked all statistical sites available, and evaluate them here.

### NSO's on the web and their quality

Firstly not all countries of the world publish their statistics online. But, by using the sites of the World Bank and the United Nations, statistics from almost all countries can be found (URL 1,2). Not all countries have NSOs, some countries choose to let different government departments publish statistics. In this paper only websites of NSOs are considered.

It is good that a country's statistics can be found on the Internet so simply. But what is the quality of those web pages? The websites of the NSOs show an enormous variety. Professional sites alternate with simple sites. Sometimes it seems like an amateur designed a website. The simple websites mostly contain little information; or the information is ranged wrongly. A problem is that not all websites are in English. Some of them only contain the national language, which might make it almost impossible for people from other

countries to find information. Some websites have not been updated since 1999, so most links would not work any more. Even if such websites can be much improved (URL 3, 4), they are always better than countries that do not have a website at all! Examples of really good websites are those of the Netherlands and Finland (URL 5, 6). Both sites use a statistical program names Statline, which has a clear database. A visitor simply selects a theme, place and time, and the relevant statistics will be presented. Altogether one may conclude that most countries have a good statistical website, although sometimes one really has to search for the right information. The prejudice that European websites would be better is not valid at all, the websites of NSO's from the Dominican Republic or India are very detailed as well, and have all the functionality one could wish for (URL 7,8).

Most important of course is the acquisition of statistical data. Most NSOs opt for tables to show their statistics. Often one can download an Excel document. Making a presentation with Acrobat Reader is also getting popular, especially because it looks really good. Whole publications with tables and charts are displayed with this program. Programs like the StatLine database are perfect for selecting statistical information; for copying information Excel or Acrobat Reader are better.

The different NSO's try to make their sites more attractive for the lay public. That's why one can find some unusual functions on certain sites. The Danish Statistical Office has an option where one can see how many Danish inhabitants have a certain name (URL 9). Some pages such as the one from Luxembourg (URL 10) contain a guest book, where visitors can give their opinion or reaction. The website of the statistical office of Guatemala offers visitors a (digital) calculator and a glossary (URL 11). The Philippines try to attract people with a real Statistical Quiz. (URL 12)

### Statistics and maps on the World Wide Web

A couple of NSOs choose to make statistics more accessible by using digital maps. There are three sorts of digital maps: view only, clickable, and interactive ones. The view only digital maps can be found on various websites. Mostly they present a picture of the country concerned, divided in regions or provinces in order to show the

statistical subdivisions. Examples of such maps can be found on the websites of the NSOs of Kazakhstan, Chile or Palestine (URL 13, 14, 15). Clickable maps are maps where one may click on by using the mouse of the computer. After having clicked on an area in these maps, information on the area will appear in a pop-up window or one will be linked to the information of the selected region directly. These types of digital maps are very useful. As a visitor one knows immediately which region is meant. The statistical website of Scotland uses these maps to show students directions in the statistical world. This 'Learning Zone' is worth visiting, not only for students (URL 16). The most advanced digital maps are the interactive maps. These are maps with many functions, as they would allow for changing of colours or legend, have a zoom function, are clickable etc. One will not find many GIS applications like these on the statistical websites. Those of the NSOs of Switzerland and India do contain them however (URL 17, 18). The Swiss website has a thematic map which can be changed using a toolbar. When the mouse is placed over one of the cantons, the statistical notes of that canton are shown. When one clicks on the canton, more information appears. The NSO of India has almost the same application as the Swiss one. The application of Census India is more comprehensive. It is possible to zoom in and out, and one may change colours and legend. A website with a huge amount of digital maps is the one of the United States (URL 18). Here one may download many thematic maps of different themes and places, in different formats. This website also gives the possibility to download files that can be used in Arcview, a GIS software application.

Altogether more and more digital maps are to be found on the websites of NSOs. Sometimes these maps are hard to locate (one may have to hit a couple of links). The clickable and interactive maps are very useful. More websites should use these. Problem of the interactive (GIS) maps is that sometimes they are difficult to use, because there are too many options. It is recommended to visit the websites of the NSOs of Switzerland, India and the United States (URL 17, 8, 18).

### Links to NSO's

One may search for NSOs on the Internet in different ways. Using an engine like Google is a good option (URL 19). The



Geosource website, from Jeroen Bosman, is also a good starting point (URL 20). This web page contains links to almost all NSOs on the web as well as links to gateways to statistical agencies. Most sites of NSOs have a list with links to other NSOs on their page.

**List of URL's (accessed: 25-11-2002)**

- URL 1: The World Bank Group - <http://www.worldbank.org/>
- URL 2: UNICEF Statistics - <http://www.unicef.org>
- URL 3: Direction de la Statistique (Morocco) - <http://www.statistics.gov.ma>
- URL 4: Dirección Nacional de Estadística (Cuba) – <http://www.sld.cu/webs/estadi>
- URL 5: Central Bureau of Statistics (Netherlands) – <http://www.cbs.nl>
- URL 6: Statistics Finland – <http://www.stat.fi>
- URL 7: National Statistics Office (Dominican Republic) – <http://www.one.gov.do>
- URL 8: Census of India – <http://www.censusindia.net>
- URL 9: Statistics Denmark – <http://www.dst.dk>
- URL 10: National Institute of Statistics and Economic Studies (Luxembourg) - <http://statec.gouvernement.lu/>
- URL 11: National Statistics Bureau (Guatemala) - <http://www.ine.gob.gt/>
- URL 12: National Statistical Office (Philippines) - <http://www.census.gov.ph/>
- URL 13: Agency of Republic of Kazakhstan on Statistics - <http://www.kazstat.asdc.kz>
- URL 14: National Institute of Statistics (Chile) - <http://www.ine.cl/>
- URL 15: Palestinian Central Bureau of Statistics - <http://www.pcbs.org>
- URL 16: General Register Office for Scotland - <http://www.gro-scotland.gov.uk/>
- URL 17: Swiss Federal Statistical Office - <http://www.statistik.admin.ch>
- URL 18: U.S. Census Bureau - <http://www.census.gov/>
- URL 19: Google – <http://www.google.com>
- URL 20: Bosman, J. (1998), GEOSOURCE VII. Statistical agencies, geological surveys, meteorological services etc. - <http://www.library.uu.nl/geosource/cat7.html>

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Map Room  
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**GIS India 2003**

**January 8-10, 2003**  
Birla Auditorium, Jaipur  
B1, 4/442, Gurukripa Complex, Raja Park, Jaipur, India  
Email: [info@gisindia2003.org](mailto:info@gisindia2003.org)  
Web: <http://www.gisindia2003.org>

**Map India 2003**

**Januay 28 - 31, 2003**  
Hotal Grand Inter-Continental, New Delhi, India  
Telfax: 91-120-4500060  
Email: [info@mapindia.org](mailto:info@mapindia.org)  
web: [www.mapindia.org](http://www.mapindia.org)

**National Cartographic Conference - GeoCart'2003**

**12-14 February 2003**  
Wairakei Resort, Taupo, New Zealand  
Enquires: Igor Drecki  
[info@cartography.org.nz](mailto:info@cartography.org.nz)  
[www.cartography.org.nz/geocart2003/](http://www.cartography.org.nz/geocart2003/)

**5th Geomatic Week "Cartography, Telematics and Navigation" and GlobalGeo, first International Fair of Geotelematics**

**11 -14 February 2003**  
Congress Palace of Fira, Barcelona.  
Enquires: Ms. Mónica Guardia  
Institut de Geomàtica  
Campus de Castelldefels  
Av. del Canal Olímpic, s/n  
E-08860 Castelldefels  
Fax.: 93 556 92 92  
Email: [infosg@ideg.es](mailto:infosg@ideg.es)  
Website: <http://setmanageomatica.ideg.es>

**National Seminar on Remote Sensing and Geographical Information System**

**5 - 7 February 2003**  
Venue: Kottayam, Kerala  
Enquires. R. Satheesh  
School of Environmental Sciences  
Mahatma Gandhi University,  
Gandhinager P.O.  
Kottayam, Kerala - 686 008, India  
Fax.: 0481-731002, 731009  
Email: [rsgismgu@yahoo.co.in](mailto:rsgismgu@yahoo.co.in)

**26th GITA Annual Conference**

**March 2 - 5 2003**  
San Antonio Convention Center, San Antonio, Tex., USA  
Web: [www.gita.org](http://www.gita.org)

**99th Association of American Geographers Annual Meeting**

**March 4 - 8 2003**  
Enquires: Jeremy Crampton and Mei-Po Kwan  
Email: [jcrampton@gsu.edu](mailto:jcrampton@gsu.edu), [kwan.8@osu.edu](mailto:kwan.8@osu.edu)  
Web: [http://geog-www.sbs.ohio-state.edu/faculty/mkwan/WebCV/AAG\\_Securiry.html](http://geog-www.sbs.ohio-state.edu/faculty/mkwan/WebCV/AAG_Securiry.html)

**2003 GeoTec Event - "A Spirit of Collaboration"**

**March 16-19, 2003**  
Enquires: Matt Ball  
GeoTec Media  
2400 28th Street, Suite 103  
Boulder, CO 80301  
Fax: 303-544-0595  
E-mail: [info@GEOTecEvent.com](mailto:info@GEOTecEvent.com)  
Website:  
<http://www.geoplance.com/gt/default.asp>

**AGILE 2003: The Science behind the Infrastructure**

6th AGILE Conference on Geographic Information Science  
Lyon, France  
24-26 April 2003  
Web: <http://agile2003.insa-lyon.fr>

**International Symposium on Environmental Information Systems**

**May 27-29, 2003**  
AUSTRIA  
Enquires:Linda Robson  
Email: [linda@cis.uoguelph.ca](mailto:linda@cis.uoguelph.ca)  
Web: <http://isess.crlle.uoguelph.ca>

**20th International Conference on the History of Cartography**

**June 15-20, 2003**  
Harvard Map Collection, Harvard University, Cambridge, MA (15-17 June 2003)  
Osher Map Library, University of Southern Maine, Portland, ME(18-20 June 2003)  
[www.ichc2003.org](http://www.ichc2003.org)

# Forth Coming Events

## **EARSEL Symposium**

June 03 - 06 2003,  
Gent, Belgium  
Email: rudi.goossens@rug.ac.be

## **IGARRSS 03**

July 21 - 25 2003,  
Toulouse, France  
Email: massonnet@cst.cnes.fr

## **21st International Cartographic Conference**

10-16 August 2003,  
Durban International Convention Centre,  
Durban, South Africa  
Private Bag X10  
MOWBRAY 7705  
South Africa  
Fax: +27 21 689-1351  
E-mail: ICC2003@dla.gov.za  
Website: [http:// www.icc2003.gov.za](http://www.icc2003.gov.za)

## **ISPRS Workshop Challenges in Geospatial Analysis, Integration and visualization II Stuttgart, Germany**

8-10 September 2003  
Enquires: Dr Shiewe  
Email: jschiwew@fzg.uni-vechta.de  
Website: [www.iuw.uni-vechta.de/personal/geoinf/jochen/isprs03.htm](http://www.iuw.uni-vechta.de/personal/geoinf/jochen/isprs03.htm)

## **Fifth International Symposium on GIS and Computer Cartography for Coastal Zone Management**

16th - 17th -18th October 2003  
Genova, Italy  
E-mail: gisig@gisig.it  
Contact Person: Emanuele Roccatagliata,  
Paola Salmona  
<http://www.gisig.it/coastgis/home.htm>

## **ISPRS Workshop 'High Resolution Mapping from space 2003'**

**Hanover, Germany**  
6 - 8 October 2003  
Enquires: Germany WG I/5  
Chair: Dr Jacobsen  
Email: karsten@ipi.uni-hannover.de  
Website: [www.ipi.uni-hannover.de/html/aktuelles/tagungen.htm](http://www.ipi.uni-hannover.de/html/aktuelles/tagungen.htm)

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NTC NEWS

**NAVIGATION TECHNOLOGIES UNVEILS VOICE DATA FOR ITALY**

Navigation Technologies announced that phonetic transcriptions of its Italian NAVTECH map database are now available. NAVTECH Voice Data can increase the functionality of voice-enabled navigation systems by reducing recognition complexities, improving output accuracy and expanding the system use beyond basic commands. This announcement follows the availability of voice-enabled map data for the United States, Germany and the United Kingdom.

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July 7-11, 2003

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Date Sharing With ArcIMS Metadata Services

Author by Kent Anness, GIS Manager, KWRIS. Powered by ArcIMS and ArcSDE, Kentucky's Geography Network (KYGEONET) provides a spatial data clearinghouse for the GIS, engineering, planning, and research communities of the Commonwealth of Kentucky.

ESRI Announces Tablet PC Support for ArcGIS

New downloadable tools for Microsoft Windows XP Tablet PC Edition allow ArcGIS users to take full advantage of features such as pen-based computing, digital ink technology, and enhanced mobility functions. Download your free toolset now.

Free Live Training Seminar: "Using ArcCatalog: Tips and Tricks"

Join us Thursday, November 14, 2002, at 9 a.m., 11 a.m., and 3 p.m. Pacific Time. Learn about ArcCatalog tool sets, customization options, and advanced operations that can streamline tasks for your individual needs.

ESRI:www.esri.com