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International Cartographic Association

Association Cartographique Internationale



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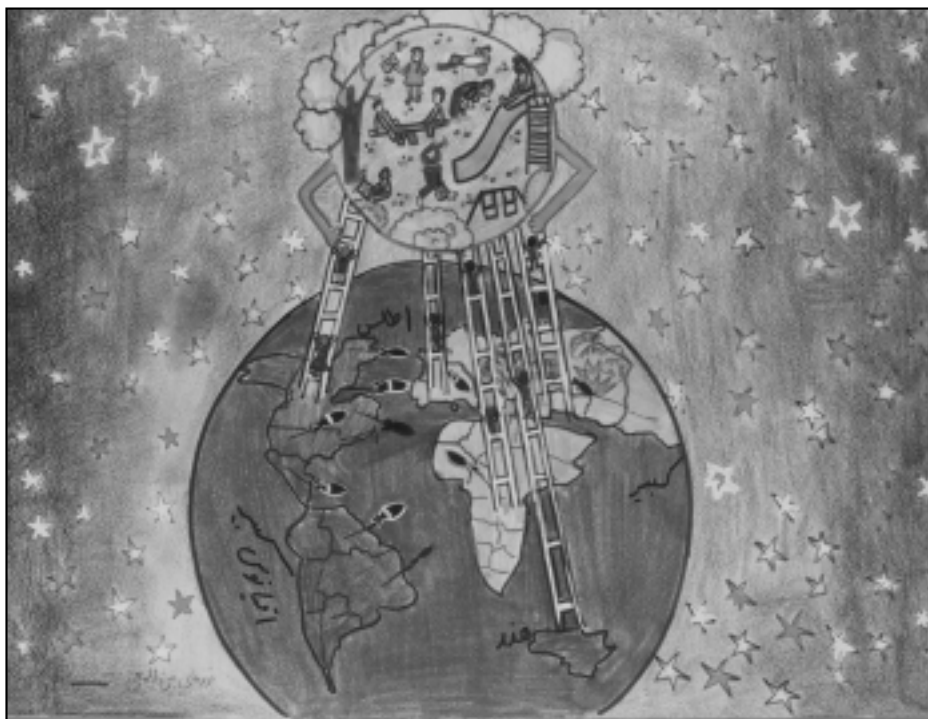
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Barbara Petchenik Children's Map Competition: 2003. Untitled, by Mahya Hadi Varnamkhasti (10); Shahid Bahonar Primary School; Tehran (Iran)

Editorial

It is always an interesting time compiling the contributions that members of the Executive Committee, Commission Chairs and colleagues interested in keeping Cartography alive, send after my usual request for contributions.

It is with a great pleasure we report the conferring of the Brazilian Cartographic Merit Order to ICA President, Milan Konecny.

Several successful Cartography-related meetings have been held around the world during the first half of 2006. The ICA Commission on Mountain Cartography held its 5th workshop in Slovenia, with a record number of participants. Likewise, the first international workshop of the Working Group on Digital Approaches to Cartographic Heritage took place in Thessaloniki, Greece. As usual, our President kept the Association truly visible worldwide representing ICA at the Third International Conference on Early Warning (Berlin, Germany), the Map Middle East 2006 Conference on Geospatial Information, Technologies and Applications (Dubai, United Arab Emirates), the Brazilian Cartographic Week (Brazil), the First International Conference on Cartography and GIS (Borovets, Bulgaria), Geo-Siberia 2006 (Novosibirsk), and the meeting of the International Society for Digital Earth (ISDE), Beijing.

This issue contains information on forthcoming ICA activities including the joint workshop of the Commissions on Ubiquitous Mapping and Maps and the Internet (UPIMap2006), the ICA Workshop on Geospatial Analysis and Modeling; the International Symposium on Theoretical Cartography, and the International Symposium in the History of Colonial Cartography.

Lastly, I would like to draw your attention to the call for abstracts for the 23rd International Cartographic Conference which has a November 2006 deadline. The newsletter also provides guidelines regarding the ICA Travel Awards and the Barbara Petchnick Children Map Competition. I encourage you to keep checking the Conference website (<http://www.icc2007.com>) for the latest news.

Graciela Metternicht
Editor, ICA Newsletter.

ICA President Dr. Milan Konecny granted with the Brazilian Cartographic Merit Order

During the first week of May 2006, the Brazilian Society of Cartography (SBC) organized the 1st Seminar on the Survey of the Brazilian Continental Platform and Delimitation of the Amazon Space as part of its Cartographic Week. At the end of the week, the Cartographic Merit Order (OMC) ceremony took place.

The OMC was created according to chapter XII – Art. 41 of the bylaws of the Brazilian Society of Cartography, approved by the Extraordinary General Assembly of November 20, 1970. The order, maintained by the society, is granted to the cartographers who have rendered remarkable services to cartography, to the country or who were distinguished at their careers; to the civilian and military citizens national and foreigner who have become creditors of the homage of the Brazilian Nation and in special to its cartography; and to national and foreigner citizens who have rendered outstanding services to the

Brazilian cartography in general or to the Brazilian Society of Cartography in privately.

Among several personalities Dr. Milan Konecny – ICA President – was granted with the OMC at the rank of Grand-Officer. The Vice President of SBC – Prof. Dr. Paulo Márcio Leal de Menezes – head of the Department of Geography of the Federal University of Rio de Janeiro – UFRJ received his medal at the rank of Commander.

Dr Paulo Menezes



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President's Report

Dear Colleagues, friends and cartographers in all parts of the World.

My last report was finished in Caracas, Venezuela, and I promised to tell you more in the spring issue of the ICA News. Here is my report regarding my visit to Venezuela and several other events I assisted representing ICA in the first half of 2006. In Venezuela I was invited to participate at the XVIII General Assembly of the PAIGH (Pan-American Institute for Geography and History) which had the ambitious task of discussing and setting priorities for the XXI Century (<http://www.ipgh.org/english/>). The Republic of Venezuela and the Simon Bolívar Geographical Institute of Venezuela (IGVSB) via the National Section of the PAIGH, were given the task of organizing the XVIII General Assembly.

After a career of 30 years of service to the PAIGH, most recently as Chairman of the Costa Rican National Section, the XVIII General Assembly unanimously elected Dr. Oscar Aguilar Bulgarelli as President of the PAIGH for the quadrennial 2006-2009 (Costa Rica). In his speech he enhanced that "we must not lose the perspective that the principal objective of the Institute is the development of its activities, projects and publications that promote scientific research, that allow us to better understand American societies".

By acclamation of the General Assembly Santiago Borrero Mutis (Colombia) was elected as the Secretary General for the quadrennial 2006-2009. This was also a very good message for ICA because since the time Dr. Borrero took his position, relations between ICA and PAIGH have developed progressively. He also hosted (together with former PAIGH president Juan Francisco Sanmarco) our Executive Committee meeting in Mexico City at the beginning of 2005. The Assembly was visited by the Minister of the Environment, Ing. Jacqueline Farias, and Ing. Nora Delgado, Acting President of the IGVSB.

As a Chairman of the Cartography Commission for 2006-2009, Eng. Rodrigo Barriga Vargas (Chile), was elected. Rodrigo is also involved in the preparation of the ICC 2009 to be held in Chile, and it is very for the ICA that he will continue his PAIGH activities. He enhanced that: "The participation of the Member States of the PAIGH, the interest and the assistance received from the specialists in the Consultative Technical Meeting augers for a 2005-2009 period of special contributions in the production and application of cartography and the development of the infrastructures of spatial data in the region, as can be clearly seen in the ambitious group of 28 resolutions approved, its reach, and the clarity of the policy lines that the Cartography Commission can now count on under my charge."

Eng. Mario Alberto Reyes Ibarra was elected Chairman of the Geography Commission, for the period 2006-2009. I see it was a very good decision of the ICA Executive Committee to develop cooperation and strategies specific for Latin American countries. In the program I also contributed with a speech on 'Cartography and GIS Applications for Early Warning Prevention and Management of Disasters'.

At the end of January 2006 I visited the Cartography and GIS conference held in Borovets, Bulgaria (see special report). On the 17th February I visited Budapest, Hungary, where I held discussions with Arpad Papp-Vary, past ICA vice-president about the possibilities to enlarge the group of ICA affiliate members. I also visited Mr. Elod Both, Director General of the Department for Space Technologies of the Ministry of Informatics and Telecommunications of Hungary, with whom I discussed possible co-operations in the field of mobile technologies in relation to the U.N. Global and Navigation Satellite Systems efforts. I also met Dr. Szabolcz Mihaly, General Director of FOMI, discussing possibilities of joint cooperation between FOMI and

ICA, and enhancement of the position of cartography in the SDI world, especially UE initiative INSPIRE.

It is happening more and more often that several activities important for ICA are concurrent, such as next two ones. Together with SG Ormeling and VP Tikunov (who could not participate personally) and with a very strong support of the GI specialists from Dubai, on March 25 we organised a seminar about Cartography for Gulf countries, especially the United Arab Emirates. Secretary General Ormeling and I informed participants about ICA and its activities, research agenda, participation in the global, regional and local projects worldwide. The main topic of the seminar was a discussion about possible cooperation between ICA and institutes such as the Dubai Municipality GIS Center, led by Er. Mohammed Al Zaffin, and GIS Development and CSDMS (both from India). Participants expressed their wishes of developing cooperation between ICA, ISPRS and FIG because they want to get concentrate information for their everyday activities. We agreed on that point, but at the same time emphasised that the three organisations cover research activities in different fields, and ensured them that the Joint Board of GI organizations would deepen their efforts in this matter.

The following recommendations were unanimously arrived at:

- 1) Immediate efforts need to be made towards creating a digital standard for mapping with Arabic annotation and rendering, in a manner similar to the current effort by international organizations for the English language maps.
- 2) Map generalization for all scales of maps needs to be standardized and agreed upon.
- 3) The educational curricula in the Middle East region has to be updated to include latest and ongoing technological break-through in the field of geospatial sciences.
- 4) The creation of an Urban Information Standard for our region will be of immediate value.

The seminar was linked to Map Middle East 2006 Conference on Geospatial Information, Technologies and Applications under the theme of "Geospatial for All – All for Geospatial" held on 26 - 29 March 2006 at World Trade Centre, Dubai. The DWTC is considered one of Dubai's premier landmark properties and business locations and it has been at the forefront of exhibition organising in the Middle East for more than 20 years. On March 26, as a part of the Opening Ceremony, I gave an invited address on 'Geospatial Data for Everybody: the ICA Potentials'. The conference was organized in cooperation between the GIS department of Dubai City and world famous CSDGM organization from India, and it was very successful and superbly organized. All these organizations are inviting ICA to participate in next conference (March 2007), and to prepare one block of the program devoted to cartography and ICA efforts. I did some steps to ensure this event, and will shortly contact Commissions' Chairs to prepare a valuable and attractive participation of the ICA in this event.

Less than 18 hours after my speech in Dubai, I participated at the Opening Ceremony of the Third International Conference on Early Warning, organized by the United Nations and the International Strategy for Disaster Reduction (ISDR) in Bonn, Germany, on March 27-29. I first participated in this event as President of the ICA in 2003, and the knowledge I got there inspired me to initiate the creation of the new ICA Working Group on Early warning and Crises Management Mapping. The Conference was visited by the UN envoy for tsunami problems and former USA president Bill Clinton who gave an encouraging speech about early warning and disaster management situations and potentials

The 23rd International Cartographic Conference

worldwide. ICA was included in the Poster Session of the programme. I coordinated efforts of ICA members over the world, and in 3-4 days we were able to prepare a poster of ICA entitled 'Cartography and Geoinformatics for Early Warning'. It gave me a great satisfaction to see how ICA specialists from different parts of the world can work fast and with highest quality. The poster was created in cooperation with my colleague T. Bandrova, with whom we designed the first version of the poster, and with valuable help of other ICA colleagues: Ute Dymon, L. Friedmannova, G. Metternicht, D. Fairbairn, G. Gartner, L. Hurni, P. Kubicek and K. Stanek. In the future we need more activities like this, which are providing awareness on the great potential of ICA in the global, regional or local scene. Comparing results from both EW II and III conferences, I have to critically say that I did not recognize much movement ahead about cartographic awareness between participating politicians. Certainly they need and accept maps, remote sensing images, and GPS. However, many countries are not doing it in practice, and this fact represents a chance for ICA to help, especially in developing countries. I also met the Director General of the ISDR, Dr. Briceno, and we agreed to try finding topics for more frequent cooperation between ICA and ISDR, especially in the cartographic fields.

On the first week of May 2006, the Brazilian Society of Cartography (SBC) organized the 1st Seminar on the Survey of the Brazilian Continental Platform and Delimitation of the Amazonian Space as part of its Cartographic Week. At that event, on May 5, I was awarded the 'Knighthood of Brazilian Cartography'. I accepted it, and understood it as an award not only for me but for all ICA as well.

On May 18, together with ICA Past President Rystedt and SG Ormeling I participated in a excellently organized meeting of the Working Group on Digital Technologies in Cartographic Heritage, in Thessaloniki, Greece. At the event I gave an opening address on the 'Position of contemporary cartography and its importance for enrichment of the cultural heritage'. I am pleased to report that also here ICA made very good choice in accepting the initiative of Professor Livieratos to start this working group.

On May 21, I participated in Beijing at the inaugurated meeting of the newly established International Society for Digital Earth (ISDE) which is registered in China. The meeting was attended by Prof. Dr. Xu Guanhua, Minister for Science and Technology of China, and Prof. Dr. Prof. Lu Yongxiang, President of the Chinese Academy of Science, and newly elected president of ISDE. Because ICA participated in many events of the former International Committee for Digital Earth, and my endorsement of the ISDE conference in Brno (2003), I accepted the position of one of two vice-presidents. In the scientific part of the event I gave an invited paper on 'Perspectives of Cartography and Geoinformatics in Digital Earth Environment'.

At the end of this report I want to inform you that I got an invitation from GIS Development and CSDMS organization (both India) to actively participate at the World Map Forum to be held in Hyderabad, India, on January 22-25, 2007. I gave a preliminary acceptance. So, looking at the main ICA activities for the first half of 2007, the main and most important event for us is the August 2007 International Cartographic Conference in Moscow. I visited twice the local organizing committee in last 6 months.

It is also a time for all national cartographic associations to begin thinking about convenient candidates for new president, secretary general, vice-presidents and commission chairs of the International Cartographic Association.

Milan Konecny, ICA President

The 23rd International Cartographic Conference

The capital of the Russian Federation, Moscow, will be the venue of the ICA XIV General Assembly and XXIII International Cartographic Conference which will take place from August 4th till August 10th 2007. The motto of the conference «Cartography for everyone and for you» is chosen proceeding from the fact that now without a cartographic component the qualitative decision of problems of a society or even a citizen is impossible. Cartography was, is and there will be one of bases of the states development and fast changes occurring in information technologies applied in cartography, ecology, natural resources development and management that are closely connected with changes in social sphere, economy and industry.

The official website of the Conference <http://www.icc2007.com/> contains a wealth of information. Contact for additional information: info@icc2007.com Hereafter we provide information regarding the conference themes, deadlines for abstract submissions, travel awards and the Barbara Petchnick Children's map competition.

Conference Themes and instructions to authors

1. Theoretical Cartography.
2. Map Projections.
3. Map Design and Production.
4. Education and Training in Cartography. Internet courses.
5. Digital Cartography and GIS for Sustainable Development of Territories.
6. Geoinformation Systems.
7. Spatial Data Infrastructures (NSDI, GSDI and SDI). Development, Standards.
8. Incremental Updating and Versioning of Spatial Data Bases.
9. Cartographic Generalization and Multiple Representation.
10. Cartography and Satellite Imagery for the Management of Natural Resources and the Environment.
11. Maps and the Internet.
12. Internet Location-Based Services, Mobile Mapping and Navigation Systems.
13. Marine Cartography, Navigation and Ocean Mapping.
14. National and Regional Atlases. Electronic Atlases. Thematic and Multimedia Cartography
15. Copyright and Access to Cartographic Data.
16. Virtual models, Visualization, Animation and Cartography.
17. History of Cartography.
18. World and Aeronautical Cartography and Military Mapping.
19. Mountain Cartography.
20. Tourist Cartography
21. Cartography and Children. Educational Products.
22. Maps for the Blind and Visually Impaired.
23. Planetary Cartography.
24. Research and Development: New products and Cartographic Systems.
25. Other themes: Cartography and Advertising, Maps in the Media, Census Cartography, Cadastral Maps, Three dimensional Mapping, New concepts in Cartographic Symbols, Space and Time in GIS, Toponymy, Analytical Cartography, Cartography and Health, Cartography against Poverty.

The 23rd International Cartographic Conference

Authors wishing to present a paper must submit a summary or abstract of the proposed content with a maximum extension of 400 words, setting out the general interest of the paper for the participants at the Conference, describing the contents of the presentation, its contribution to the development of cartography, characteristics of any research that may have been undertaken together with any arguments considered pertinent for the selection of the submitted paper, regarding its originality and innovation.

ICA Commission chairs will be part of the Scientific Committee, will review the abstracts and take part in the selection. The abstract submission form is available at: http://www.icc2007.com/files/abstract_submission.pdf

Important deadlines:

Call for abstracts: March 01, 2006

Deadline for submission of abstracts: November 01, 2006

Notification of authors: January 15, 2007

Deadline for submission of full papers: April 30, 2007

Abstracts submitted in English must include the following details:

- Title of the proposed paper
- Name of the author, organization to which he or she belongs and e-mail address.
- If there are several authors, please give the particulars for each of them.
- Conference Theme considered appropriate for the contents of the presentation.
- Text of the abstract (no more than 400 words).

ICC Travel Awards

A limited number of travel awards to the International Cartographic Conferences of the International Cartographic Association will be made to young cartographers who are nationals from developing countries. ICA generally uses the United Nations definition of developing country, which can be found in the U.N. Statistical Yearbook. Recent definition includes all countries in Africa, South and Central America including the Caribbean, and much of Asia and Oceania. Applicants must be giving a paper at ICA for the first time and be 35 years old or less. They must send a full copy of the paper as well as abstract to the Conference Secretary and to the ICA Secretary-General in time to arrive by 15 December 2006 for the Moscow conference. In addition, applicants must arrange for a letter of support from a recognised cartographer from the home or other country (due at the same time as the paper; writer sends it to the Secretary-General).

With both copies of the paper, the applicant must submit a separate sheet with the following information:

- Applicant's name, address, fax number (if possible), e-mail address (if available), nationality, passport number;
- Paper title;
- Education beyond high school;
- Date of birth (month, year);
- Gender;
- Name and address of person submitting letter of support;
- Estimated cost of transportation to the conference place;
- Number of days the applicant will be at the conference;
- Previous work for ICA, if any (involvement in commission or working group, for example);

- Intended future involvement in ICA (commission or working group interest especially).

The Executive Committee will make an effort to spread the awards regionally and to include both men and women. Up to 15 awards will be made depending on number and quality of submissions. Preference may be given to applicants from member countries in good standing but the competition is open to young cartographers in all developing countries. Notification of awards will be provided by January 31 2007, prior to the conference. Application forms can be downloaded at: <http://www.icc2007.com/pages.php?id=18&pid=6&sid=38>

Barbara Petchnick Children 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.

Rules of the competition

ICA member nations will collect maps, on the theme "Many Nations, One World", produced by children under 16 years of age.

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

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.

The maps and accompanying letter should be sent so as to arrive by June 1, 2007 for the Moscow conference to:

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

More information is available at <http://www.icaci.org/> (under Children's map competition).

GEO-Siberia 2006

The idea of the InterGeo conference, which started in Germany several years ago is strongly accepted nowadays by the geospatial community as a way to show possibilities, research frontiers and applications of basic disciplines dealing with spatial information such as geodesy, photogrammetry, cartography, remote sensing. An excellent example of this situation was The Second International Exhibition and Scientific Congress "GEO-Siberia-2006" on Geodesy, Cartography, Geology, Geophysics, Mineral Resources Management, Land Management, Land Cadastre, Real Estate Cadastre, Forestry Management, Geographic Information Systems, Environment Analysis and Instrument Engineering, organized by the Siberian Fair Exhibition Center – the Siberian Fair and Siberian State Academy of Geodesy (SSGA) – was held from April 26 to 28 at the Siberian Fair in Novosibirsk.

The Siberian Forum "GEO-SIBERIA" became the first event beyond the Urals that combined an International exhibition and congress. Leading professionals from more than 70 cities of Russia, as well as the Commonwealth of Independent States, that are, Germany, France, Switzerland, Czech Republic, Mongolia, Belorussia, Kazakhstan, and Uzbekistan, came together to discuss the current problems in geodesy, geology and cartography.

The exhibition and congress was officially supported by a number of ministries and departments, e.g: Ministry of Education and Science of the Russian Federation; "Roskartographia", the Federal Service of Geodesy and Cartography of Russia; the Siberian Branch of the Russian Academy of Sciences (SB RAS); International Cartographic Association (ICA); the German Cartographic Society e.V. (DGfK), the German Association of Surveying (DVW) and many others research institutes and public organizations.

The opening ceremony of the Forum "GEO-SIBERIA" was held on April 26, 2006, with the participation Victor P. Savinykh, Rector of Moscow State University of Geodesy and Cartography, Pilot-Cosmonaut, Twice Hero of the Soviet Union; Ivan V. Lesnykh, Rector of the Siberian State Academy of Geodesy (SSGA); Günter Schmitt, Vice-president of DVW; and Horst Borgmann, President of German Surveyors Organisation, Berlin-Brandenburg Branch, Honorary Professor of the Siberian State Academy of Geodesy, and Dr. Milan Konecny, President of ICA who gave an address on "Cartographic and Geoinformatics Perspectives in Early Warning and Crises Management Operations".

Within the framework of the congress there were five topics, 25 technical sessions with 510 presentations made by professionals from 130 companies and organizations. The Proceedings of the congress are published in 8 volumes on paper and a CD-ROM. Within the framework of the congress the scientific and technical conference "Advanced Technologies for Creation, Updating and Generalization of Topographic Maps and Plans, GIS Design and Unified Topographic Basis for the Purposes of Territory Management" was held. There were 98 professionals from 43 companies of West-Siberian Region and 22 presentations on the conference. During these three days there were more than 2,000 visitors at the exhibition.

Milan Konecny
ICA President

Swedish Map Days

The annual conference of the Swedish Cartographic Society was held on March 22-24, 2006. This year it was organised in co-operation with four other organisations in the domain of geomatics and attracted some 1200 participants. During 60 sessions over 200 papers were presented. Some parts were organised as short courses in different aspects such as remote sensing, geodesy and cartographic design. The latter one covered generalisation, use of colours in visualisation and printing, and typography. The technical exhibition was as usual of very high standard with almost all companies operating on the Swedish market represented. This year a part of the exhibition area was open for educators and a map exhibition. In the map competition the Swedish Geological Survey received most votes for their soil map of the bottom of lake Mälaren.

This event is a real meeting place for all in the geo-spatial professions. Walking around in the exhibition area is a true pleasure as well as the difficulties to choose between the menu of papers given in the upcoming sessions. Thursday evening is always the time for relaxing with gala dinner, entertainments and dancing.

The yearly business meeting of the Swedish Cartographic Society was also held in conjunction with the conference. The society operates in sections for cartography, historical cartography, photogrammetry and remote sensing, geodesy, GIS and education. There are also local committees organising evening meetings normally with an invited speaker and discussions. Patrik Ottoson was elected as President for the coming year. He took over from Elisabeth Argus, who wanted to step down but continues as board member.

Bengt Rystedt
ICA Past President



Elisabeth Argus, the outgoing President and Patrik Ottoson the new President of the Swedish Cartographic Society.

First International Conference on Cartography and GIS

January 25 – 28, 2006, Borovets Bulgaria

It is a very good message for cartographic community that Bulgaria begun a new series of conferences aimed at Cartography and GIS, with the purpose of collecting knowledge and information about the newest achievements of cartography combined with GIS in the Balkan Peninsula and wider region. The conference profited from the fact that in the Balkan region, high attention is being paid to the creation of SDIs, especially in connection with leading projects of the European Commission, INSPIRE and GMES. The conference was organized with

Conference Reports

strong support of the ICA, especially the commissions on Cartography and Children, Education and Training, Gender and Cartography, Planetary Cartography and Maps and the Internet. The main motive of the event was to discover and offer satisfactory decisions for an ever increasing demand for analysis and visualization of geo-spatial data in the areas of science, economy, management, ecology, and crises situations at national, regional and world scale.

The conference keynotes were delivered by Milan Konecny (ICA and Czech Republic): 'Cartographical Perspectives in SDI World'; Jerry Johnson (ESRI EUROPE): 'ESRI Developments in Cartographic Systems'; Jan Sirotek (GEODIS, Czech Republic): 'GEODIS GROUP in Southeastern Europe'; Ulrich Boes (Bulgaria): 'Digital South-East Europe – New Technology and New Challenges'; Katalin Tóth (EC, Joint Research Centre, Ispra): 'INSPIRE – First Steps towards the Environmental Spatial Data Infrastructure in Europe'.

The conference organizers found strong support from the Government and Ministers of Education, of Regional Development and Public Works, Agency of Cadastre, Geodesy and Cartography, and Political Office of the Deputy Prime Minister. The organisers met expectations about good results and ideas for better projects and future works of the Bulgarian society a year before its expected integration in the European Union, and as one of the newest NATO members. The conference was organized by the University of Architecture, Civil Engineering and Geodesy, Sofia, Bulgaria under the auspices of the Rector Assoc. Prof. Penio Penev.

Good cooperation between the local organizing committee headed by Prof. Temenoujka. Bandrova, the ICA Executive Committee and above mentioned ICA commissions, attracted great interest from participants of more than 20 countries. The largest delegations were from the Czech Republic, Turkey and Russia. Interest on the conference also came from Austria, Brazil, Greece, Italy, Latvia, Macedonia, Netherlands, Nigeria, Poland, Rumania, Slovenia, Spain, Hungary, Hong Kong, Switzerland, South Africa, and Japan.

During the opening ceremony the participants were greeted by the rector of University of Architecture, Civil Engineering and Geodesy Assoc. Prof. Dr. Penio Penev, ICA President, Prof. Dr. Milan Konecny, Vice Minister of Disaster Management Policy Boris Mihajlov, representative of the Ministry of Education and Science, Ivan Atanasov, Manager of the Agency of Cadastre, Geodesy and Cartography, Cveten Boev, and Jerry Johnson as presenter of ESRI Europe, the biggest sponsor of the conference. The president of ICA handed the International price -a diploma, accompanied with US\$50- for the best drawing presented at the ICA Children's Map Competition, to Diana Hadjiska, 12 years old.

The conference started with five keynote speeches; 146 authors presented their 50 reports in 10 themes in 9 oral sessions and more than 20 posters. More information can be found in www.datamap-bg.com/conference.

During the conference the Commission on Gender and Cartography had its annual meeting with the main focus on the Commission's future work. Likewise, a retrospective exhibition of Bulgarian maps produced by children who participated in the last three National Competitions for the ICA Barbara Petchenik awards was held. Bulgaria received three prizes at the International Cartographic Conferences held in Ottawa (Canada), Durban (South Africa) and A Coruna (Spain). A video film with 100 favourite children's maps of the world was shown during the welcome reception. ESRI Press publishes the film and book paper version. The drawing of Nikola Zlatanov, age 7 from Bulgaria, has been selected for the book cover.

The conference was held under the support of the European Commission Joint Research Centre (ISPRA), and the University of Architecture, Civil Engineering and Geodesy, Sofia, Bulgaria. The International and local organizing committee agreed to continue this event with a 2nd International Conference on Cartography and GIS in 2 years, January 2008, at the Borovets resort, Bulgaria.

*Milan Konecny
President*



ICA President and Czech delegation present an award to the organizing committee chairwoman Prof. Bandrova

5th ICA Mountain Cartography Workshop

Bohinj, Slovenia, 29th March – 1st April, 2006

The 5th Workshop of International Cartographic Association, Commission on Mountain Cartography took place in Slovenia this spring. Previous mountain cartography workshops took place in the Austrian Alps (Silvretta 1988, Rudolfshütte 2000), North America's Cascade Range (Mount Hood 2002) and the Catalan Pyrenees (Val de Nuria 2004). This year the mountain cartographers returned again to the Alps, but this time to the southern limestone region. The workshop venue was "Gozdnasola" (forest school), which is the National Training Centre of the Scout Association of Slovenia. The centre is located near Lake Bohinj, 533 m above sea level, in Triglav National Park, a protected area of forests and mountains, including Triglav (2.864 m), the highest peak in Slovenia and the Slovenian national symbol.

The workshop was organized by the Section for Cartography, Association of Surveyors of Slovenia. Other contributors included The Faculty of Civil and Geodetic Engineering, University of Ljubljana; Surveying and Mapping Authority, Republic of Slovenia; Geodetic Institute of Slovenia; Local Tourist Organization Bohinj; Slovenia's Government Public Relations and Media Office; Triglav National Park Authority; and, the Scout Association of Slovenia.

Fifty people attended the workshop, making it the largest mountain cartography gathering to date. Attendees came from Austria, Croatia, Germany, Poland, Slovenia, Switzerland and the USA. Staying at a small facility in the mountains for three days fostered professional interaction among the group. It was a requirement that almost everyone give a presentation. The presentations covered a range of research and production topics relating to the broad theme of mountain cartography. Specific topics included topographic mapping, relief representation, hillshading, cliff drawing, cartography of glacial phenomena, risk and natural hazard mapping, snow avalanches and landslide hazards,

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geomorphological mapping, mountain tourist mapping, remote sensing applications, data models, data integration, digital elevation models, data capture, classification and representation, cartography and GIS tools applied to mountain data, visualization, rendering, animation, multimedia and Internet applications, LBS services.

The workshop started on the evening of Wednesday, March 29th with welcoming presentations by the local organizer, Dusan Petrovi and the Commission president, Lorenz Hurni. Next on the agenda was a keynote presentation by MSc. Martin Solar, head of management and planning for the Triglav National Park Authority. Martin Solar gave a slide show and discussed projects underway in the park and environmental and management problems that the park is facing.

On Thursday, participants gave 18 presentations in three sessions. The first session started off with presentations on mountain maps of North America. Tom Patterson, Andreas Neumann and Martin Gamache presented papers on developing a new visitor map of Glacier Bay National Park, Alaska; an interactive hiking map of Yosemite National Park; and the mountain cartography work by the Alpine Mapping Guild, respectively. Following this, Christian Häberling discussed conceptual aspects of 3D map integration in interactive school atlases. Bernhard Jenny spoke about the design of a panorama map with parallel and spherical projection. Brane Padjen and Damijan Jeric discussed how they made panoramic maps of Slovenia. Martin Gurtner concluded the session with a historical overview about compiling information on Swiss national topographic maps, from traditional field sheets to recent digital workflows.

The second session combined presentations on glacier mapping and remote sensing. Manfred Buchroithner presented on the development of three new types of glacier dynamic maps. Viktor Kaufmann and Richard Ladstädter described the monitoring of the Doesen rock glacier (Ankogel group, Austria) from 1995-2005. Mihaela Triglav Cekada explained photogrammetrical monitoring of the disappearing Triglav glacier in Slovenia. Wolfgang Sulzer discussed the challenges of mapping Mt. Aconcagua in the Andes with remote sensing techniques. The last presenter, Jacek Drachal, analyzed the appearance of mountain chains on satellite images provided by Google EARTH.

Session three, on GPS terrain applications / Risk and natural hazard mapping, consisted of six presentations. Gasper Mahnic showed a special GPS based device that enables users to locate points in the mountains and helps to interpret views. Kristof Ostir described the application of satellite remote sensing in natural hazard management relating to the Mount Mangart landslide. Michaela Kinberger discussed the importance of geo-communications and daily avalanche awareness. Vladimir Prebilic and Uros Svete examined the problems and challenges for Mountain Rescue Service (GRS) in Slovenia. Miha Pavsek spoke about avalanche cadastre for the Slovenian Alps and its meaning for avalanche prevention. The sixth and final presentation by Stefan Räber discussed the manual renovation of a 3D relief model of the Valis Alps made decades ago by Eduard Imhof. Toni Mair of Switzerland did the renovations. Stefan Räber and Bernhard Jenny followed this after dinner that evening with a movie titled "Construction of 3D-reliefs", which they directed. The movie provided an overview of the 3D relief work of Toni Mair, whose work was on exhibit at the workshop. Meeting Toni Mair and seeing his exceptional work was a great experience for every participant. The representatives of ETH Zürich used this opportunity to thank Toni for renovating the Imhof model.

Friday offered another 15 presentations, divided into three sessions. The first two sessions covered relief presentation and GIS analysis of mountainous areas. Jürg Gilgen showed the new topographic map series of Switzerland with a focus on rock, scree and glacier representation on them. David Theler spoke about an integrated GIS application dealing with geomorphological mapping and risk assessment in the western Swiss Alps. Drasen Tutic presented his experiences with analytical relief shading of Mount Medvednica above Zagreb. Methods to create rock drawing analytically were prepared by Tobias Dahinden and also by Simon Premoze. Mr. Premoze gave a second presentation about the processing of terrain data to preserve features in a DEM. Aileen Buckley and Charlie Frye described a data model for named features of the natural landscape. Michael Heuberger discussed terrain representation for small-scaled maps. Lorenz Hurni gave a presentation on integrated cartographic mountain information systems, which are important for the future presentation of mountain cartographic products. The next paper



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discussed a new DEM of Slovenia, made from various data sources and featuring enhanced geomorphological details by Tomas Podobnikar, including a description of Triglav national park historical maps analysis, where Ziga Kokalj joined Tomaz. In the final presentation, Blaz Barboric spoke about coordinate homogenization in Triglav National Park and the problem of cross border data compatibility.

The last session, Visualizations and animations, consisted of three presentations. Katja Londerhausen and Nikolas Prechtel prepared an animated presentation of the Dresden "Altai-GIS". Lojze Miklavcic explained procedures for making a map of Lake Bohinj in natural looking manner. Dusan Petrovic examined the results of a user questionnaire on different types of 3D presentations. The session concluded with a discussion panel on design issues in mountain cartography today, led by Karel Kriz. The panel prompted an active debate. In the evening, Manfred Buchroithner demonstrated an interactive over fly above Gesäuse National Park in Austria. For entertainment afterwards, Dusan Petrovic presented videos that introduced the arduous sport of adventure racing.

On Saturday, the participants pursued different outdoor activities. A dozen participants climbed Mount Rodica (1966 m) and skied down to the valley in excellent snow conditions. Others spent the day alpine skiing at Vogel (the local ski area) and mountain biking. And others went sightseeing, including Savica Waterfall, Mostnica Gorge, the railway station and railroad tunnel at Bohinjska Bistrica, hay-racks in Studor, churches, or taking the cable car to Vogel for a view of Bohinj Lake far below. The workshop wrapped up with a farewell diner featuring Slovenian dishes.

During the workshop, Commission on Mountain Cartography members met to discuss Commission business and announce the next workshop. The 6th workshop of ICA Commission on Mountain Cartography will take place in Lenk, Switzerland, in February 2008.

All papers will be published in the publication series of ICC. Abstracts can be accessed on the commission's web-site www.karto.ethz.ch/ica-cmc.

Dr. Dusan Petrovic, University of Ljubljana

ISO/TC 211 Activities

ISO/TC 211 is the International Organization for Standardization's Technical Committee developing standards for Geographic Information/Geomatics. The following is a brief report of the ISO/TC 211 activities since they were last reported on in the ICA News, in December 2005.

ISO/TC 211 has now published 22 International Standards, two Technical Specifications and three Technical Reports (see: <http://www.iso/TC211.org>). The latest to be published is ISO 19128:2005, Geographic information – Web Map Server interface. New projects that have commenced over the last six months are:

- ISO 19144-1, Geographic information – Classification Systems – Part 1: Classification system structure;
- ISO 19144-2, Geographic information – Classification Systems – Part 2: Land Cover Classification System (LCCS); and
- ISO 19145, Geographic information – Registry of representations of geographic point location.

ISO 19144 is being developed together with the United Nations Food and Agriculture Organization (UNFAO). Part 1 provides a generic classification system structure which is implemented in Part 2 for land

cover, by providing the elements and formal rules for constructing a classification 'legend' (an example of this could be CORINE). UNFAO has also developed open source software to support LCCS and has translated LCCS into several languages.

The ISO 19145 project will produce a "Stage 0" report, which will explore the possibilities of registries documenting the various formats used for the representation of geographic point location by coordinates. Such a registry would support interoperability of geographic point location representations between applications.

The 22nd ISO/TC 211 Plenary was held in Orlando, Florida, USA, on 25 and 26 May 2006, preceded by a number of Working Group, Project Team and Editing Committee meetings, as well as workshops and seminars on the implementation of the ISO 19100 standards by ISO/TC 211's member countries and liaisons. Two resolutions from this Plenary that might be of interest to the ICA are:

- A new liaison was entered into between ISO/TC 211 and the European Space Agency (ESA).
- ISO/TC 211 proposes starting a new project to investigate how ontology and semantic web approaches can benefit ISO/TC 211 objectives.

The 23rd Plenary of ISO/TC 211 is scheduled for Riyadh, Saudi Arabia, on 14 and 15 November 2006, preceded by Working Group, Project Team and other meetings. The 24th Plenary is scheduled to be hosted by UNFAO in Rome, Italy, in May 2007. Significantly, this would be the third Plenary hosted by a liaison organization, reflecting the value of the ISO 19100 standards to their communities.

*Antony Cooper and Dave Danko
ISO/TC 211 Liaisons to the ICA*



ICA delegates to the ISO/TC 211 Plenary in Orlando, FL, USA, 25 May 2006, from left to right: Jean Brodeur (Canada), Jan Hjelmager (Denmark), Dave Danko (USA), Paloma Abad-Power (Spain), Hal Moellering (USA), Henri Aalders (Netherlands) and Antony Cooper (South Africa).

The First International Workshop on Digital Approaches to Cartographic Heritage

Thessaloniki, Greece, 18-19 May 2006

In distinction to History of Cartography which concerns the continuous, methodical record of cartographic events or the study of the diachronic development of cartography or the sequence of facts related to Cartography and maps, Cartographic Heritage deals with whatever valuable is inherited or is inheritable from cartography and maps considering as cartography-heirs all those who are recipients of the goods from cartography and maps, i.e. the general public! In this sense, Cartographic Heritage (a part of the overall Cultural Heritage) represents a broader domain related not only to the literate component of cartography but also to its material counterpart, involving thus, issues affined to sciences and technologies.

In this context, all cartographic valuables inherited or inheritable from the past and the needs of all the recipients of those valuables, constitute a new field of research and implementation which concerns not only the humanistic part of the issue (i.e. history, a highly specialized domain addressed mainly to experts) but also the relevant sciences and technologies supported by modern digital Information and Communication Technologies (ICT) addressed to the general public.

This was the basis on which the recently established ICA Working Group on Digital Technologies in Cartographic Heritage was founded (www.maplibrary.gr/ica_heritage) trying to bring together the ensemble of Cartographic Heritage with the digital mainstream not only to comply with the international policies on cultural heritage both in the conceptual and the operational sense (e.g. all projects on cultural heritage financed by the European Commission should obey the digital clause!) but also to offer the ground for the attraction of young researchers in cartography who are already familiar with digital technologies and are interested in culture.

In this way, the fascinating domain of our rich and profound heritage in mapping and mapmaking (as documented in the long history of Cartography and maps) acquires a new dimension and broadens considerably its audience. The belief that Cartographic Heritage is a challenging field for modern research is mainly based on the apprehension of the cardinal changes the digital revolution is introducing to our modern societies and cultures, and especially to the new generation's way of thinking, feeling, acting and producing. It is so radical the impact of the digital revolution, that Euclid's postulation twenty-three centuries ago, that *'...everything on earth can be described by numbers (digits)...'* sounds now more than prophetic!

The WG's main concern, to contribute in the dialogue between the humanistic and the scientific/technological components of cartography, in the domain of Cartographic Heritage with the aid of digital technologies, was reflected on its First International Workshop on Digital Approaches to Cartographic Heritage held in Thessaloniki, Greece, from 18 to 19 May 2006, hosted at the Museum of Byzantine Culture (the Council of Europe's Museum Prize 2005).

It was organized with the support of the Hellenic National Centre for Maps and Cartographic Heritage, the Aristotle University of Thessaloniki and the Hellenic Cartographic Society, sponsored by the Hellenic Republic Ministry of Macedonia – Thrace, and was addressed to cartography scholars and researchers, map-historians, map-curators, map-librarians, map-collectors, administrators, digital industry/market operators and students, from different cultural, scientific and

engineering backgrounds whose work is either focused on, or affined to Cartographic Heritage.

The Workshop (www.maplibrary.gr/ica_heritage/workshop.htm) offered a common ground where colleagues from various disciplines and practice met, interacted and exchanged knowledge, experience, plans and ideas on how modern ICT can or could be used and contribute to Cartographic Heritage in terms of acquisition, processing, analysis, interpretation, storage, viability and communication of relevant digital data. Forty scientists from twenty countries (Austria, Bulgaria, Croatia, Cyprus, Czech Republic, Egypt, Finland, France, Germany, Hungary, Israel, Italy, Lithuania, Netherlands, Portugal, Spain, Sweden, Switzerland, United Kingdom, USA) and almost equal number of participants from the hosting country, the majority young researchers, together with the ICA president Milan Konecny, the secretary general Ferjan Ormeling, the past-president Bengt Rystedt and the ICA Commissions chairs, Georg Gartner (Maps and the Internet), Alexander Wolodtschenko (Theoretical Cartography) and Laszlo Zentai (Education and Training), contributed with forty papers and discussed a variety of issues related to the use of modern ICT in the access to and the study, analysis, documentation, preservation and dissemination of the multifaceted Cartographic Heritage.

The contributions were presented in eight sessions covering topics like the classification, the preservation, the conservation and the promotion of old, even from the prehistoric period, and of modern cartographic products, i.e. artefacts, maps, atlases and globes (Beconyte/Cesnulevicius; Bandrova/Kameranov; Wolodtschenko; Zentai; Ormeling), the sustainability of cartographic heritage (Jobst), the methods and technologies applied in accessing cartographic heritage via the web (Gartner) and the web uses as on-line source-provider assisting the study of map history (Drakoulis), as a ubiquitous tool for the promotion and presentation of map archives to the general public (Fleet; Jessop; Lovison-Colob; Kowal) or for assisting the education process by networked multimedia (Reyes Nuñez).

A part of the workshop's thematic was covered by the analysis of the geometric content of old maps in association with its semantics, as it is e.g. the estimation of the planimetric accuracy of historical maps giving interpretation about map compilation (Jenny), the involvement of digital transparency in unveiling the copying of old maps (Daniil), the application of navigation principles in evaluating early nautical map projections (Gaspar), or the investigation of Vermeer's expertness in map painting (Livieratos/Koussoulakou).

Digital archives, either as map libraries (Fernandez-Wytenbach/Ballari/Manso; Geospatial Enabling Technologies) or as photo libraries (De Gennaro et al.) together with issues on innovative harmless digitisation processes as applied to vulnerable documents of cartographic heritage (Tsioukas/Daniil/Livieratos; Color Consulting Group) gave the technology essence while an entire session was dedicated to the 3-d virtual reconstruction of historical urban spaces with the use of old cartographies (Guerra/Adami; Davie/Frumin; Visintini et al.; Brumana et al.; Achille et al.).

Modelling historical evidence in digital maps (van den Heuvel) and terrain accuracy of cartographic entities represented on old maps (Benavides/Koster) as well as the digital elaborations for the study of territorial temporal transformations (Balletti) and for the analysis and the comparative evaluation of shaded relief representations in old maps (Boutoura/Dalas) showed the potentiality offered by modern technology in broadening the utility capacity of cartographic heritage.

It was demonstrated that the use of numerical and pictorial data derived from classical texts relevant to cartography, allow to get insights

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on the cartographic design structures derived from such old texts like Ptolemy's *Geographia* and renaissance *Isolarii*. Ptolemy's coordinates were the basis for spatial analyses related to modern positioning of archaeological sites (Manoledakis/Livieratos), for comparisons with relevant depictions on Ptolemaic maps (Livieratos/Tsorlini/Boutoura) and *Isolarii* texts offered the pictorial data for calibrated placements of individual islands on spatially continuous insular modern maps (Ploutoglou/Pazarli/Papadopoulos).

Finally, the historic cadastres, these first large-scale mappings, which contributed to the advancement of modern cartography (Rystedt), a distinct reference in cartographic heritage, were treated using mainly tools from GIS analysis (Heere) and implemented in some key studies of regional historical importance (Orciani et al.; Pearson).

All contributions, already available in CD-ROM, will soon be published in the Workshop's paper proceedings and also in the 2006 issues of the new international web journal *e-Perimtron* on sciences and technologies affined to history of cartography and maps (www.maplibrary.gr/e_perimtron) which is willing to assist the Working Group's work.

Together with other more technical issues, which also discussed during the sessions, the final outcome of the Workshop demonstrated the need for such a working topic, on Cartographic Heritage, within the ICA structure not only because it seems to interact nicely with other topics treated by ICA Commissions and WG, which besides have expressed their collaborative interest for this first Cultural Heritage Workshop, (like e.g. Maps and the Internet, Education and Training, Theoretical Cartography, Visualization and virtual environments, Map projections, History of Colonial Cartography), but also because it contributes to the broadening of the presence and influence of scientific and engineering cartography in the Wide World of Culture.

Prof. Evangelos Livieratos

Chair, ICA WG Digital Technologies in Cartographic Heritage
livier@auth.gr



Visit to Mount Athos to see Ptolemy's manuscript on atlas production (*Geographia*)

We were sorry that the two other initiators of the ICA National and Regional Atlases Commission, Tim Trainor and Eva Siekierska, were not able to join us, on this 'pilgrimage' to the repository of one of the oldest existing manuscript of Ptolemy's *Geographia*, a description of the manner how to produce an atlas with world maps and regional maps, with a list of 8000 places and their coordinates, originally from the 2nd century AD. Just prior to the First International Workshop on Digital

Approaches to Cartographic Heritage, organized by the ICA Working Group on Digital Technologies in Cartographic Heritage (that is by Prof. Evangelos Livieratos and his staff), Thessaloniki 18-19 May 2006, we were allowed to make a day trip to the Vatopediou Monastery, the second largest in this autonomous monasterial republic (where only men are admitted), of the Holy Mountain or of Mount Athos, where the Ptolemy manuscript is kept.

Departing from Thessaloniki at 5AM, being picked up by Miltiadis Daniil, a Cartography PhD student from Democritus University in Xanthi, we reached Ierissos on the far side of the Chalkidiki peninsula at 7 AM, where we met an intermediary from whom we received our Diamonitiria (working permits to visit Mount Athos, signed by the abbots of the Great Lavra, Dochiarios, Xenofoon and Esfigmenos monasteries), which were subsequently checked by a border patrol of the Greek Navy, and then were allowed to board the boat that would deliver us straight to the Vatopedi monastery by 9.45AM. This gave us a window of a good hour and a half, as the same boat, the only direct link with the outside world that day, would call again on its journey back to Ierissos at 11.30. After a reception in the guesthouse and a visit to Father Arsenios' study we finally arrived in front of the Monastery's treasury where amongst others the manuscript is kept. Unfortunately, because of the religious festivities on this very day, the staff responsible for the treasury was attending a function elsewhere, but they had left instructions how to handle the many keys. These proved to be insufficient, as all the attempts to open the first lock by Father Arsenios and his assistant were in vain. He finally suggested Bengt to try it as well, and this worked! 20 minutes before the boat was to call again on its return visit, all the 5 other locks underneath the first one had been opened as well without any problems, we were in the treasury and in front of the manuscript!

Although the short duration of the visit prevented us to see more of this wonderful monastery dating from 972AD, seeing this first atlas (as in most other Ptolemy manuscripts, the guidelines how to produce the world and regional maps had been followed and elaborated as well, so that it really has been turned into an atlas) was a very special occasion for us, having worked with and on atlases for so long. At 3.00 PM we were again in Thessaloniki, back from another world.

Ferjan Ormeling

ICA Secretary General



ICA past president Bengt Rystedt with Father Arsenios, Vice-Abbot of the Vatopedi Monastery on Mount Athos, in front of the book in which the 13th century Ptolemy manuscript is bound.

Commissions' Reports

Marine Cartography

Professor Lysandros Tsoulos and Chair, Ron Furness, represented ICA once again at the April meeting of the FIG/IHO/ICA Advisory Board on Marine Cartography on Standards of Competence for Hydrographic Surveyors and Marine Cartographers which was held in Goa, India, from 10th to 14th April, 2006.

At the time of writing we are about a month away from holding CoastGIS 2006 in Sydney and Wollongong from 12th – 16th July, 2006. It is shaping up to be a most interesting meeting with around 90 or so presentations planned and offered from 18 countries. Report next issue.

Ron Furness – Chair



The FIG/IHO/ICA Advisory Board meeting in Goa.

Cartography and Children

A new book on 'Learning and Teaching with Maps' has been produced by Patrick Wiegand, Chair of the ICA Commission on Cartography and Children. This book explains in detail how children and young people read, understand and interpret maps and how teaching with maps can be more effective.

Learning about maps has never been so important for children and young people. The rapid growth of internet mapping, digital atlases and Geographical Information Systems demands new skills alongside traditional ones such as locating places and using a map to find the way.

Learning and Teaching with Maps describes how children make meaning with maps, including large scale plans, topographic and thematic maps, globes and maps of the world. Using research evidence from psychology, cartography, geography and education it explains how children understand scale, coordinates, symbols, contours and place names and identifies common learning difficulties. New perspectives are provided on children's understanding of small scale and atlas maps as well as recent evidence for young people's use of Geographical Information Systems. The text is extensively illustrated with examples of maps, including those made by children themselves using conventional materials as well as computer software.

The book describes how teachers can plan a curriculum to ensure balance and progression and suggests workable classroom activities for children from the early years of primary school to the middle of

secondary education. Particular attention is paid to how learning with maps can contribute to children's developing literacy and numeracy skills. Practical guidance is provided on how teachers and others can support learning by making better maps for classroom use. The book draws on the author's unique experience of teaching in primary and secondary schools, teacher training and extensive research and development in educational cartography.

Patrick Wiegand

Chair, ICA Commission on Cartography and Children

Ubiquitous Mapping and Maps and the Internet

Second International Joint Workshop on Ubiquitous, Pervasive and Internet Mapping (UPIMap2006), Seoul, Korea, October 23 - 25, 2006

The ICA Commissions on Ubiquitous Mapping and Maps and the Internet announce a workshop in Seoul at the end of October 2006. The workshop is sponsored by the Commission on Ubiquitous Mapping, the Commission on Maps and the Internet, the University of Seoul, the Center for Spatial Information Science (CSIS) of the University of Tokyo. The ICA commissions were formed in 1999 and 2003 respectively in response to the rapid growth in the use of electronic networks to make and distribute maps and spatial data, and rapid diffusion of new mobile devices. The purpose of the workshop is to bring together international specialists in the field of Mobile Mapping, Location Based Services and Internet Mapping, and to disseminate information to a broader audience on new developments and major areas of research.

UPIMap2004 in Tokyo included on site demonstrations of commercial human and car

navigation systems and visits to the Tokyo metropolitan traffic control center and the VICS (Vehicles Information Control System) center for car navigation. UPIMap2006 in Korea will present another opportunity to see the latest in mapping technology. Demonstrations in Seoul will highlight new developments in ubiquitous and Internet mapping. A visit will also be included to the digital city simulation center at Seoul University.

The meeting will be held at the University of Seoul. (<http://www.uos.ac.kr/ceng/bunvinf/g010/cbg010.jsp>). The campus is located 20 minutes from Seoul Central Station by subway. Seoul is the capital of Korea and one of the largest economic centers of eastern part of Asia. A workshop participation fee will be charged by the organizers - \$150 for attendees, \$75 for students. This includes a technical tour. There are many good hotels near the university. The price of a room ranges from \$70 a night for a single to \$100 for a twin room.

Inquiries and Paper Submissions should be addressed to Takashi MORITA, Department of Civil and Environmental Engineering, Hosei University. Email: morita@k.hosei.ac.jp Website: <http://ubimap.net/workshop2006/>.

Michael Peterson

Chair, ICA Commission on Maps and the Internet

Commissions' Reports

Mapping from Satellite Imagery

A special issue of CARTOGRAPHICA, the International Journal of Geographic Information and Geovisualization, will focus on recent developments and practical applications of Cartography and Satellite imagery for the management of natural resources and the environment is planned for June 2007. Submissions may address, but are not limited to the following topics:

- Applications of existing and forthcoming satellite imagery in view of their potential inputs for producing and updating topographic and thematic maps and databases;
- Cartographic capabilities of different remote sensing systems for natural resource mapping and sustainable development;
- State of the art of cartographic standards (e.g. legend, symbology, etc) for remote sensing based mapping of different domains: a) urban areas; b) land cover, c) forestry; d) environment.
- Methods and techniques for satellite-based change detection and its cartographic representation (e.g. temporal cartography).
- Cartographic applications of satellite imagery for rapid mapping and management of disasters.

We seek original and novel contributions in such topics. All submissions will be peer-reviewed in line with CARTOGRAPHICA policy. Because of the page limits, not all submissions recommended for acceptance by the review panel may be included in this special issue. In such cases, the guest editor will select the most relevant papers for inclusion in the special issue. Other accepted submission will be recommended to the CARTOGRAPHICA Editorial Board for publication in regular issues of the journal.

Manuscripts shall be prepared following the CARTOGRAPHICA Journal Instructions to Authors, <http://www.utpjournals.com/jour.ihtml?lp=carto/submissions.html>, and submitted as digital files, prepared in PDF, MS Word or Rich Text Format (RTF) format, via electronic mail to the Guest Editor (g.metternicht@curtin.edu.au) and CARTOGRAPHICA Editor (carto@uvic.ca) by **July 28, 2006**. We look forward to receiving your manuscript!

Graciela Metternicht

Chair (acting), ICA Commission on Mapping from Satellite Imagery

History of Colonial Cartography

International Symposium in the History of Colonial Cartography.

Utrecht, 21-23 August 2006

The ICA Working Group on the History of Colonial Cartography in the 19th and early 20th centuries, together with the Faculty of Geosciences at Utrecht University in the Netherlands are organizing an International Symposium on the History of Colonial Cartography which will take place from Monday 21 August to Wednesday 23 August 2006. The theme of the Symposium is "Old Worlds – New Worlds: History of Colonial Cartography from 1750 to 1950".

The Symposium will be held at the University Library, University of Utrecht, Utrecht, The Netherlands. Utrecht University is the only university in the world that has a Chair in the history of cartography and through its official research program, entitled Explokart, the department has published several authoritative texts on the discipline. The

Symposium is also generously supported by the Koninklijk Nederlands Aardrijkskundig Genootschap (Royal Dutch Geographical Society). On Wednesday 23 August there will be an optional Technical Excursion to the Royal Tropical Institute (formerly Colonial Institute) in Amsterdam and the Amsterdam University Library which houses, amongst others, the Map Collection of the Royal Dutch Geographical Society

A registration form in pdf.format and information as regards accommodation appear on the Working Group's website www.histcolcarto.org. Prospective delegates should download and complete this form and submit it before 30 June 2006. Contact persons are Prof. Dr. Elri Liebenberg (Chair: ICA Working Group): elri@worldonline.co.za and PD Dr. Imre Josef Demhardt (Co-Chair: ICA Working Group): demhardt@t-online.de

Elri Liebenberg

Chair, ICA Working Group on History of Colonial Cartography

Map projections

The Commission on Map Projections within the International Cartographic Association (ICA) was founded just two years ago. As the first international organization dedicated to small-scale geographic map projections, it may be surprising such a body took so long to coalesce. Yet that it happened at all is also surprising in some ways. Though a fundamental element of maps, map projections generally command little attention even from cartographic circles, much less from the public at large. Historically those researching map projections tended to work alone, if for no other reason than that there are so few of them. Because, in broad strokes, everything a practicing cartographer really needs to know about map projections can be condensed into a few pages of a text book, it would be fair to ask whether the topic merits a dedicated body.

On the other hand, despite the ready availability of basic projection knowledge, we find projections misused rampantly. The field has weathered politicized controversies. Rapid advances in computing power have opened up new projection techniques and better practical ability to analyze projections. As surveys of celestial bodies increase in number and detail, projection techniques suited to less regular bodies become crucial. Concurrent with these challenges, though, come more efficient vehicles of communication that let researchers seek each other out, disseminate their knowledge, and collaborate to solve the old and new problems of mapping and education about map projections.

Several organizations concerned with large-scale projections already exist for geodesists. This commission complements those efforts by concentrating on small-scale projections more relevant to cartographers. We propose to consolidate, coordinate, advance, and disseminate knowledge of small-scale map projections to map projection researchers, professional and happenstance cartographers, and the public at large.

As a young commission, we concern ourselves for the moment with building up an infrastructure that will support our future endeavours.

Our first projects are:

- Build a glossary of terminology relevant to map projections and their research
- Recommend names for map projections
- Update and expand a bibliography of map projection research
- Build a web site to disseminate the products of the commission.

Because these projects are collaborative and our membership is distributed all over the world, we have chosen to use an Internet collaboration tool called a "wiki" to collect, edit, and annotate material

before we publicize it in some final form. (An example of a vastly larger [and more chaotic!] wiki project is the well-known Wikipedia found at <http://www.wikipedia.org>.) Any member is invited to contribute in any way his or her expertise allows, which encourages participation that rounds out the content. Presently our website and wiki site are graciously hosted by the geography department at University of California at Santa Barbara. While we have no substantial content posted publicly yet, our website can be seen at <http://www.csiss.org/map-projections/>.

Daniel R. Strebe

Chair, ICA Commission on Map Projections

Special Features

ICA Academic Initiative on Continuing Education Workshops

In 2004, ICA initiated the development of International Continuing Education Workshops in the field on Cartographic Foundations of GISystems and GIScience. The purpose of this initiation is to improve professional cartographic knowledge and mapping skills of practitioners who work in the field of GIS projects development and implementation, since these specialists are more and more frequently facing problems of search and evaluation of different map sources for cartographic databases creation, as well as with problems of map visualisation and thematic maps modelling on the GIS basis. Thus the lack of professional cartographic knowledge and mapping skills decreases the quality and efficiency of GIS project developments and use.

- The Benefits of ICA Education Workshops for GIS practitioners are the following:
- Definition and protection of an area of professional cartographic knowledge and mapping skills that are necessary to learn and apply in GIS projects implementation.
- Establishment and maintenance of high standards of cartographic knowledge and mapping skills applied to GIS activities.
- Encouragement for cooperation of Cartographers and GIS Specialists in the field of GISystems and GIScience.
- Establishing and maintenance professional links to National and International Geographic and GIS educational bodies.
- Development of cooperation between ICA and companies producing GIS software and Geospatial data.

The first ICA Training Workshops were held in July-August 2005 in Sevastopol (Ukraine) and Istanbul (Turkey) for students from Russia and Ukraine, as well as in Urumqi (China) for Chinese students. The workshops started by lecturing in Sevastopol and continued by a Session on the "Sevastopol-Istanbul" Ferry Board. The main topics were dedicated to GIS conceptual foundations, Spatial data bases in GIS, Cartographic aspects of GIS and Web-Mapping.

During a free day stay in Istanbul students visited and acquainted with Cartographic and GIS activities carried out at the Istanbul Municipal Administration as well as in the private Istanbul Map Enterprise.

A visit to the Istanbul Technical University (Department on Surveying and Photogrammetry, Remote Sensing Laboratory, Satellite Data Receiving Center) was also organized. Workshop participants met with the Secretary General of International Society for Photogrammetry and Remote Sensing (ISPRS), Prof. Dr. Orhan Altan.

After returning to Sevastopol students took lessons on modern issues in Map Production: ISO9000 Quality Management Systems, Enhanced Technologies for Map Design and Publishing, Economy aspects of Map Production.

The workshop in Urumqi was dedicated mainly to Geoinformation and Cartographic approaches on Regional Planning. Students had lessons on the modelling of geographic and cartographic objects, on thematic mapping for regional planning and spatial management, on development of distributed GIS using Web. Other main topic was connected to the use of GIS and maps for State inter-boundary cooperation. Students also visited a Map Production Agency in Urumqi.

All participants gave good references to topics and lessons proposed on ICA Education Workshops. Through special interviews held with students, it was emphasized the workshop furnished new understanding of GIS cartographic foundations, helping to systematize the students' own professional knowledge and skills in accordance with new trends of Cartography and GIScience development. All participants were awarded with an ICA Certificate of Attendance.

Relying upon the successful experience accepted during the process of organizing and providing ICA Education Workshop in 2005 it is planned to develop this activity in 2006. One of the main steps toward enhancing ICA Education Courses is the development of partnership and cooperation between ICA and organizations which successfully propose continuing education courses on GIS and Cartography on the international level. Thus it were established close contacts with UNIGIS International Association (UIA) – a worldwide network of universities cooperating since 1990 in the design and delivery of distance learning in Geographical Information Systems and Science. From the ICA party, Vice-president Vladimir Tikunov took part in the negotiations, and from UNIGIS – the UIA Co-Chairman Josef Strobl (Austria) and Head of UNIGIS-Russia Center Alexander Simonov.

The UNIGIS network offers Postgraduate Certificate, Diploma and Masters courses, and has large experience in developing of education materials and technologies as well as in realization of different educational events – workshops, summer schools, courses, etc. Cooperating between UNIGIS and the ICA Education Program will get access to this experience and simultaneously plans to propose to UNIGIS students new enhanced topics based upon cartographic aspects of GISystems and GIScience.

It is planned to organize two ICA Education Workshops in August 2006 in Altay (Russia) and Urumqi (China) for practitioners dealing mainly with Map Production and Publishing, as well as with development of different GIS projects. The new education plan and program include both lecturing and practical works in the following main topics:

- GIScience Fundamentals for Cartographers;
- GIScience and Cartography Interaction for Regional Planning and Spatial Management;
- GIS and Internet Integration for Web Mapping and Map Distribution;
- Map Production Management, Economy and Quality;
- Spatial Data Infrastructure for Processing and Map Publishing;
- Thematic Mapping and GIS provision for Mountain Tourism Organizing;
- Sustainable Development GIS Provision and State Inter-Boundary Cooperation.

Special Features

UNIGIS lecturers and students are also invited to take participation in 2006 ICA Education Workshops.

For further information please contact: Vladimir Tikunov, ICA vice-president (Tikunov@geogr.msu.su)

Vladimir Tikunov, ICA vice-president



ICA Training Workshops in Sevastopol, Istanbul and Urumqi.

Latin Geo: The Geographic Information Technology Lab (Spain)

Today's world can be seen as the Information Society, due to the fast development of the Information and Communication Technology. Information is nowadays universal, ubiquitous and equitable, making it possible on this basis to have a more accurate and global access to the knowledge required for both governmental and business decision making.

In this regard, there must be a clear effort in advancing knowledge and improving the understanding of geo-information to promote new and better applications in this field.

In order to give optimal solutions to the problems concerning the localization, access, acquisition, modification, visualization and dissemination of geographic information, a new laboratory, the Geographic Information Technology Lab (LatinGEO) was established in 2004. It is the result of a Cooperative Framework Agreement between the Spanish National Geographic Mapping Agency (IGN) and the

Polytechnic University of Madrid (UPM). LatinGEO's mission is to contribute to society through education, learning, and research at the highest levels of excellence.

In today's society, universities must play an essential, strategic role in developing new ideas, searching for and finding solutions to improve peoples' standard of living. On the whole, research is considered to be the foundation a university should be laid down on. Consequently, this Lab's aim is to carry out research, development, creation and dissemination of knowledge in the field of Geographic Information Technologies (GIT). This can only be achieved with a multidisciplinary team of experts in this area, formed by professionals of the Spanish National Geographic Institute and by members of the Polytechnic University of Madrid (8 teachers and 30 trainees finishing their graduate or postgraduate studies). They are involved in starting up and cooperating in Research Projects, as well as in developments, models, reports and other activities requested by Public Administrations and Industry.

The primary research lines in the Geographic Information Technology field include remote sensory perception, Spatial Data Infrastructures, GIS services, cartographic visualization, setting up territorial boundaries and location-based services.

Technology is improving cartographic production technology, not only during the data capturing phase (photogrammetry, remote sensory perception, satellite imagery, GNSS, etc.) but also giving more quality and flexibility to cartographic products. With this idea in mind, LatinGEO is focusing on the development of virtual reality applications, such as the creation of a virtual reality tool that would allow to fly over a 3D digital terrain model by hand.

LatinGEO's training objective is achieved through the development of GI-related Courses and Seminars aimed at Public Administrations, academic and professional organizations. They are conceived as a way of providing and updating the knowledge of all the specialists interested in this field. In this regard LatinGEO is supplying experts with the latest information concerning issues such as use of OGC specifications, metadata creation and maintenance, Spatial Data Infrastructures, etc. Teaching is also one of the ways of providing university students in their graduate or postgraduate years with the right tools for solving today's geo-information challenges.

In order to disseminate knowledge, a platform with e-Learning capabilities is being created, where the most relevant information from International Organizations (OGC, INSPIRE), translated into Spanish, is being placed. Courses are also included in this platform.

Decision-making and understanding of geographic phenomena are both foremost interests of today's world citizens. Only with accurate data displayed in an efficient way can users achieve the appropriate analysis of their environment and make the relevant decisions according to the outcome of this analysis. The dissemination of knowledge is therefore a key aspect in our mission. With this objective in mind several conferences have been held, such as the Spanish Spatial Data Infrastructure Meeting, in which geo-information specialists covered a wide variety of issues concerning geographical phenomena.

Taking into consideration the research lines mentioned above, several projects are being conducted with the following objectives:

- **IATEL** focuses on the application of remote sensing techniques by using low and medium resolution images in order to obtain environmental indicators and variables.

- **Metadata** is another project consisting of developing, designing methodology, loading and maintaining metadata, as well as running the new Spanish Spatial Data Infrastructure Metadata Catalogue.
- **Nomenclátor's** aim is the elaboration of a methodology for the creation of the Spanish Gazetteer, which will allow the localization of geographical elements all over the land.
- **SIANE** has developed an application enabling the automatic creation of maps with good cartographic quality using geographical data. This tool will be used in the production of the Spanish National Atlas.
- **Administrative boundaries** searches to optimize the existing database containing the corporation limits, putting special emphasis on parameters such as quality, security and precision.
- **Cartociudad** will result in the creation of digital cartography as well as cartographic databases of Spanish cities with land registry information, street directories, postal codes etc. which will allow navigation and location-based services, such as gazetteers, geocoders, finding optimal paths between two points, etc.

For further information about LatinGEO's projects and initiatives please get in touch with us at: <http://redgeomatita.rediris.es/latinego/>

*M. Carmen Muñoz-Cruzado, Miguel Angel Bernabe, Daniella Ballari
Polytechnic University of Madrid, Spain*



Latinego Team



The Latinego Research Laboratory

Tail Pieces

National Geographic Society, 2006 Prince of Asturias Award for Communication and Humanities

The National Geographic Society has been granted the '2006 Prince of Asturias Award for Communications and Humanities'. The Jury for the Award announced its decision last May in Oviedo.

For over a century, the National Geographic Society has played a key role as a pioneer in disseminating scientific knowledge and in publicising not only the conservation of the planet's natural resources but also mankind's historical, geographic and artistic heritage. It has provided support to over 8,000 scientific research projects and explorations on all five continents in the course of its existence. This year a total of 36 candidatures from Albania, Argentina, Bulgaria, Finland, France, Ireland, Italy, Mexico, Morocco, Poland, United Kingdom, United States, Uruguay and Spain ran for the award.

This is the second of eighth 'Prince of Asturias Awards' to be bestowed this year, for the twenty-sixth time. The Prince of Asturias Award for International Cooperation has already gone to Bill and Melinda Gates. Each of the Prince of Asturias Awards, which date back to 1981, is endowed with 50,000 Euros, a commissioned sculpture donated by Joan Miró, a diploma and an insignia. The awards will be presented in the autumn in Oviedo at a grand ceremony chaired by H.R.H. the Prince of Asturias.

Ramon Lorenzo Martinez, ICA Vice-President, Spain

22nd ICC, A Coruna, Spain

To: ICA Commissions Chairs

Dear Colleagues and friends,

I am very pleased to report to you that the Annual General Assembly of the Spanish Society for Cartography, Photogrammetry and Remote Sensing was held last April 20th, after the conclusion of the 22nd International Cartographic Conference in the city of A Coruña in July 2005. The Agenda of the Meeting included a point regarding the report to the members of the Society on the work and activities carried out in preparation of and during the Conference.

As you know the ICA Executive Committee and the Commission Chairs met in Prague in January 2004, where it was resolved that the Chairs of the Committees would form part of the Scientific Committee for the 22nd International Cartographic Conference.

The General Assembly of the Spanish Society for Cartography has therefore resolved to include in its Minutes its gratitude to and appreciation of the Chairs of the Commissions for the magnificent work carried out by them in their review and selection of abstracts in the field of interest of each of the Commissions, to prepare the technical programme for the Conference.

I am therefore very pleased to inform you of this resolution and to further state that as Conference Director I was very honoured by your collaboration. I also wish to express my personal satisfaction as well as that of the members of the Spanish Cartographic Society at having had such an important and relevant participation on the Scientific Committee.

Best regards,

*Ramón Lorenzo
22nd ICC Conference Director and SECFT President
Madrid, May 2006*

Forthcoming Events

Forthcoming Events

INTERCARTO – INTERGIS 12

Sustainable Development of Territories. GIS theory and practice. 25 – 31 August 2006

The International Cartographic Association, the Federal Service of Geodesy and Cartography of Russia, Lomonosov Moscow State University, Kant Russian State University in Kaliningrad together with the German Cartographic Society and in cooperation with German Computer Society are arranging an international conference INTERCARTO-INTERGIS 12 in Kaliningrad and Berlin.

Notes on paper representation – the same as in the previous INTERCARTO Conferences (see Materials, 2003, 2004, 2005). For registration we need to know: your full name, place of employment, academic degree and status, address, phone, fax, e-mail, paper's title, the speaker, co-authors. Conference participant's registration fee: Russian Federation: 50 \$, Others: 110 \$.

Further information can be obtained from Dr. Galina M. Barinova, Kant Russian State University, E-mail: ecogeography@rambler.ru.

For your diary

ICA Workshop on Geospatial Analysis and Modeling

Vienna, Austria
Date: 8 July 2006
E-mail: bin.jiang@hig.se
Website: <http://www.hig.se/~bjg/ica/workshop/>

7th International Symposium on Spatial Accuracy Assessment in Natural Resources and Environmental Sciences

Lisbon, Portugal
Date: 5 - 7 July 2006
E-mail: mcpereira@igeo.pt
Website: <http://2006.spatial-accuracy.org/default.asp>

GICON 2006 - Geoinformation Connecting Societies

Vienna, Austria
Date: 10 - 14 July 2006
E-mail: congress@mondial.at
Website: <http://www.gicon2006.at>

COAST -GIS '06

Wollongong and Sidney, Australia
Date: 13 - 17 July 2006

GEOBrasil 2006

Sao Paulo, SP, Brasil
Date: 18 - 20 July 2006
E-mail: info@geobr.com.br
Website: <http://www.geobr.com.br>

Map Asia 2006

Bangkok, Thailand
Date: 29 August - 1 September 2006
E-mail: info@mapasia.org
Website: <http://www.mapasia.org>

GeoCart'2006: Going global: Mapping New Zealand's Trajectory

The University of Auckland, New Zealand
Date: 4-6 September 2006
Email: info@cartography.org.nz
Website: www.cartography.org.nz

XII SELPER International Symposium

Cartagena, Colombia
Date: 24 - 29 September 2006
E-mail: info@selper.org.co or irocha@selper.org.co
Website: <http://www.selper.org.co>

2nd International Symposium on Gi4DM

Goa, India
Date: 25 - 26 September 2006
E-mail: asrajawat@sac.isro.gov.in
Website: <http://www.commission4.isprs.org>

Intergeo 2006

Munich, Germany
Date: 10 - 12 October 2006
E-mail: ofreier@hinte-messe.de
Website: <http://www.intergeo.de>

Geoinformatics 2006

Wuhan, China
Date: 28 - 29 October 2006
E-mail: wuhuay@lmars.whu.edu.cn
Website: <http://www.lmars.whu.edu.cn/geoinformatics2006/index.htm>

International Symposium on Theoretical Cartography

'Cartographic Thinking, Geo-Information and Modern Society'
Date: 28 - 29 October 2006
Venue: University of Wuhan, China
Contact: alexander.wolodtschenko@mailbox.tu-dresden.de
Website: www.ais.fraunhofer.de/and/Wuhan2006

6th African Association of Remote Sensing of the Environment (AARSE) Conference

Cairo, Egypt
Date: 30 October - 2 November 2006
E-mail: aarse@rcmrd.org
Website: <http://www.itc.nl/~aarse/>

GSDI-9 - Geospatial Information: tool for reducing poverty

Santiago de Chile, Chile
Date: 3 - 11 November 2006
E-mail: gsdi9@igm.cl
Website: <http://www.igm.cl/gsd9>

Map World Forum

Hyderabad International Convention Centre, Hyderabad, India
Date: 22-25 January 2007
Email: info@mapworldforum.org
Website: www.mapworldforum.org

12th International Convention and Fair INFORMATICS 2007

16th February, 2007 at Havana's International Convention Center, Cuba
<http://www.informaticahabana.com/?q=en>
Contact: Tatiana@geocuba.co.cu

XII Congress of the Spanish Remote Sensing Association

Date: 19- 21 September 2007
Venue: Hotel Sheraton, Mar del Plata, Argentina
www.xiicongreso-aet.org.ar
Contact: Dr Raul Rivas (rrivas@rec.unicen.edu.ar)

Contributions

Please send contributions to:

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**Indian National Cartographic
Association**

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West Bengal, INDIA

<http://www.incaindia.org/membership.htm>

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53-124 Wrocław

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*The International Cartographic
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