

## president's report



### Dear Colleagues

This report is always written several months before it appears in the newsletter. It means writing about future plans is tricky because at publication date the world might look

different. Still in this report I do take this risk. This report is a follow up of my previous report, and again relates to the Sustainable Development Goals, because I feel it is important for us, the International Cartographic Association (ICA), to contribute.

Last August the posters created by ICA's Commissions on the Sustainable Development Goals were on exhibit in the conference area in United Nations Headquarters in New York. During the exhibition, we did get many comments. Most were positive, but also critical

remarks were made. This prompted an additional internal peer review by our Commission chairs and the Executive Committee members, resulting in a long list of potential improvements. They were related to language, the base map (boundaries), content, cartographic representations and quality of graphics. These have now all been addressed.

As one can imagine, the boundary problem was most sensitive at the UN. It proved difficult to follow the UN guidelines, and therefore we have included the following disclaimer on all posters:

*Boundaries on maps may seem definitive, but there are often different perspectives on their status and position. This poster series is compiled from many sources by cartographers from different countries. The ICA tries to be neutral in such matters and boundaries shown reflect those found on the ground, in existing maps, or recognized by the United*

> 02



Hvar Harbour, Croatia – a venue of the upcoming 11th ICA Mountain Cartography Workshop, 21-25 May 2018 | Photography courtesy of Dušan Petrović

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## 17th general assembly of ica washington d.c. · usa

For the second time in the history of the International Cartographic Association (ICA) an Extraordinary General Assembly has been called by the ICA President. It is to take place in Washington D.C., USA, on Sunday, 2 July 2017 at 14:00, a day before the opening of the 28th International Cartographic Conference (see *ICA News*, No 67, December 2016, p 2). The first ICA Extraordinary General Assembly was held in A Coruña, Spain on Saturday, 16 July 2005.

The Agenda starts with an address by the President of the International Council for Science (ICSU) followed by a tribute to the memory of members of the ICA community that have passed away over the last two years. After the roll call of members and adoption of the Agenda, nomination of two scrutineers will take place. Next, the General Assembly will be given an opportunity to vote on a

First day of the 16th General Assembly of ICA in Rio de Janeiro, Brazil, held on 23 August 2015 | Photography ICC 2015



The 28th International Cartographic Conference (ICC) is just around the corner, in fact it starts next week in Washington D.C. The excitement of those of us who are coming must be at its peak. The prospect of attending the conference, sharing our work, celebrating the achievements of others, and engaging in various events makes us very eager to make the journey despite the costs and geographic dispersion.

Recently I asked myself a question – what makes ICCs so special, so unique, and so worthwhile that I do my best to come along? There are of course many reasons, but I really wanted to focus on those that are truly unique, one of a kind. Some might say it is cartography, our beloved discipline, which makes ICCs special. Others would say it is us – cartographers – that come to these conferences with our unique views, talents and stories to share. Others still would say it is the International Cartographic Exhibition, a one of a kind celebration of map design, creativity and innovation at a global scale. Certainly they are all good drawcards. However, I also believe there is so much more!

The most obvious one is perhaps the Barbara Petchenik Children's World Map Award exhibition. These children's drawings make me curious, sometimes puzzled, but always inspired. Another reason is the ICA Awards ceremonies. I hold a deep appreciation for all those distinguished people, fellow cartographers, who contribute so much to the advancement of cartography and the ICA. Interestingly, I also cherish a number of 'little things' that make the whole experience of attending ICCs so valuable: the ICC Proceedings with their unique content and cover designs; the ICC posters, which I proudly display in my office after returning; the ICA pin attached to my jacket's lapel by the President... It is so great to be part of the ICCs.

Predictably, the ICC 2017 features strongly in this issue of ICA News, complemented by the 17th General Assembly announcement. We are invited to the world cartographic forum and celebrate another volume of *Children Map the World* book. I hope you find the content interesting.

Igor Drecki | Editor ICA News | ICA ■

The **ica news** is published by the International Cartographic Association (ICA).

President: **Menno-Jan Kraak** | University of Twente | *The Netherlands*

Secretary General & Treasurer: **László Zentai** | Eötvös Loránd University | *Hungary*

Editor ICA News: **Igor Drecki** | The University of Auckland | *New Zealand*

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## president's report cont...

*Nations. The ICA acknowledges that there may be different opinions and interpretations.*

Personally, I have already experienced during my recent ICA travels that even the inclusion of the above statement does not make everyone happy. While travelling it might be a pragmatic idea to follow the policies of the colleagues dealing with toponymy, who stimulate the local place name policy. However, this would mean travelling with adaptable boundary maps.

The revised posters, as well as the newly designed catalogue for the poster exhibition, can be found on [icaci.org/maps-and-sustainable-development-goals](http://icaci.org/maps-and-sustainable-development-goals). But our posters were not only used and displayed in New York. In Wageningen, the Netherlands, the Sustainable Development Goals (SDG) posters guided the AGILE participants in their move between the two conference locations.

How can ICA help more to realize United Nations' 2030 agenda for sustainable development? How can we cartographers be relevant to society in helping to reach the sustainable development targets? First, well-crafted maps can effectively visualize currently known facts, and online mapping technology can disseminate these facts globally to increase awareness of the current state of affairs. Interactive map dashboards connected to geographic databases at multiple scales and equipped with space-time analytical functions would allow decision makers on various decision levels to monitor and compare indicators for policy development and take action at various geographical scales.

What is the next step? This is where future and past might mingle. The plan is to 'convert'

the posters into a book *Mapping the Sustainability Development goals – ICA's best practice*. The objective is to offer practical cartographic knowledge to those who want to map the SDGs. This would be based on expert knowledge of our Commissions and Working Groups. The book will provide a brief overview and include guidelines on how to design maps based on SDG data with many examples of 'dos and don'ts'.

The table of content might contain five chapters:

1. Cartography and maps
2. ICA and its Commissions
3. The Sustainable Development Goals
4. Map content (base maps, theme, and use environment)
5. The examples (good versus bad).

The last chapter will be the core of the book. From each Commission and Working Group I do expect at least one page contribution. It would contain, similar to the posters and seen through the eyes of our Commissions or Working Groups, a bad map versus a good map examples, explained by some text. During the International Cartographic Conference in Washington in July, the project will be discussed among the Commission and Working Group chairs.

Returning to the mingling of past and future, my experiences while working on the posters tells me that we as the ICA community will be able to deliver this book too.

Menno-Jan Kraak | President | ICA ■

ICA posters about UN Sustainable Development Goals used to guide the AGILE Conference participants from one conference location to another during the event held in May 2017 in Wageningen, the Netherlands | Photograph courtesy of Menno-Jan Kraak





# 17th general assembly of ica

## washington d.c. · usa cont...

number of issues relating to ICA membership including ineligibility to vote, exclusion from membership, and inclusion of new national and affiliate members.

After adopting the Minutes of the 16th General Assembly held in Rio de Janeiro in August 2015, the next item of the Agenda will focus on motions concerning changes to the *ICA Statutes and By-laws* proposed by the Executive Committee. Any changes to the *Statutes* will require an absolute majority vote from member nations to be accepted. Full details of these proposals, together with other relevant Agenda documents, are available from [icaci.org/extraordinary-general-assembly-2017/](http://icaci.org/extraordinary-general-assembly-2017/).

The final point of the Agenda will be presented by the Executive Committee and contains a number of items concerning the ICA's operation. It is expected the 17th General Assembly of ICA will close at 6pm.

The official nomination of national delegates is an important formal requirement from all member countries to take part and vote at the General Assembly. Please make sure the nominations are with the Secretary General of ICA prior to the General Assembly.

Igor Drecki | Editor ICA News | ICA ■

### Extraordinary General Assembly of ICA · Sunday · 2 July 2017 · 14:00-18:00

01	Opening and addresses – short presentation by President of the International Council for Science (ICSU) on the possible merger between ICSU and International Social Science Council (ISSC)
02	Recognition of the memory of members of the ICA community
03	Roll call of members
04	Adoption of the Agenda
05	Nomination of two scrutineers
06	Members ineligible to vote
07	Exclusion from membership
08	New member nations
09	New affiliate members
10	Adoption of the Minutes of the 16th General Assembly, 2015
11	ICA Statutes
12	ICA issues (messages from the Executive Committee)
13	Closing

## ica news world cartographic forum



The President of the British Cartographic Society ([www.cartography.org.uk](http://www.cartography.org.uk)) proposes establishing a forum for leaders of national cartographic societies. The forum would operate within the International Cartographic Association (ICA), but be open to all national cartographic and geospatial information societies. We will discuss common issues such as membership retention and organisational change, and to share management expertise and build international links. An initial exploratory meeting will take place at the 2017 International Cartographic Conference in Washington, D.C., USA, to which leaders of national mapping societies (i.e. presidents and/

or their representatives) are cordially invited.

Membership of the forum will be open to any broadly national cartographic society and up to two senior representatives from any national society open to individual membership are welcome, regardless of their ICA membership status.

To register your interest in joining the forum, please contact Dr Alex Kent, President of the British Cartographic Society, via email at [alexander.kent@canterbury.ac.uk](mailto:alexander.kent@canterbury.ac.uk). The 1-hour forum (Session 3509) will take place on Monday, 3 July 2017 at 13:30 in Harding Room, Marriott Wardman Park Hotel.

Looking forward to seeing you at the meeting.

**Alexander Kent** | President | British Cartographic Society | *United Kingdom* ■

## ica news

### 25 years ago...

The following piece illustrates the breath of issues the ICA Executive Committee had to deal with a quarter of the century ago. Despite these challenges and – inevitably – investment of time expected from the EC members, a ‘reminder’ about the important role of Vice Presidents is boldly made...

Igor Drecki | Editor ICA News | ICA ■

### ICA Newsletter, No 19, May 1992

#### Report of the ICA Executive Committee

The second meeting of the Executive Committee (EC) was held in Barcelona, Spain on 21 and 22 February 1992 and was hosted by the Institut Cartogràfic de Catalunya (ICC). [...]

President Taylor stressed the importance of activities, both in the Commissions and in the Executive Committee. The Vice Presidents have to interact (the ‘Executive Contact’ concept), to look after new national and affiliate members, and to represent ICA in meetings. [...]

Guidelines for ICA Conferences and General Assemblies have been prepared and will be sent to Iran, Sweden and The Netherlands, these countries having made applications for organising 1997 Conference.

The Association lost about 30% of its participants to competing conferences such as those on GIS. It seems reasonable to prepare a budget on an estimated attendance of 500 participants. This figure would require a mailing list of 5,000 people. Frequent information in advance helps to capture the expected participants. A local coordinating team has to ‘collect’ national attendees who should represent about 50% of the audience.

[...]

The *ICA Brochure* has been reviewed by Don Pearce updating the information with Bournemouth decisions (Executive members, national and affiliate members, commissions and working groups). 1000 copies will be printed.

The Executive Committee intends to prepare a strategic or business plan considering the changes in the political, economic and technological areas and their consequences and influences on ICA activities. A first draft will be prepared for the next Executive meeting in which this point will be a major item.

[...]

*Jean-Philippe Grelot, Secretary General and Treasurer*

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**Menno-Jan Kraak** | University of Twente  
| *The Netherlands*

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**Monika Sester** | Leibniz Universität  
Hannover | *Germany*

**Lynn Usery** | United States Geological  
Survey | *United States of America*

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### Submission Deadlines

**15 May** for June editions

**15 November** for December editions

## icc 2017 washington d.c. · usa



The 28th International Cartographic Conference (ICC) will be held on July 2-7, 2017, in Washington, D.C. The local organizing committee (LOC) for the event has developed a program that includes more than 450 scientific and technical presentations; 250 posters; the International Cartographic Exhibition; the Barbara Petchenik Children's World Map Drawing Competition; seven technical tours in the Washington, D.C. area; a series of pre-conference workshops developed by the commissions of the International

Cartographic Association (ICA); and several special events, including orienteering, a meridian walk, and a gala dinner. The ICC 2017 conference website at [www.icc2017.org](http://www.icc2017.org) includes detailed information on the events and provides registration access for ICC 2017, technical tours, and other conference events. The venue for ICC 2017 is the Marriott Wardman Park Hotel. The hotel offers easy access by subway to all of Washington, D.C., including the free Smithsonian Museums and Washington's National Mall, with its historic monuments. Rooms are offered at a reduced conference rate of USD 149 plus taxes, with free in-room Wi-Fi ([icc2017.org/conference-hotel/](http://icc2017.org/conference-hotel/)).

ICC 2017 activities begin with pre-conference workshops in the hotel on Saturday and Sunday, July 1 and 2, sponsored by the ICA commissions ([icc2017.org/preconference-workshops/](http://icc2017.org/preconference-workshops/)). Topics of the workshops include aspects of Generalization and Multiple Representation, Geospatial Analysis and Modeling, Location-Based Services, Map Production and Geoinformation Management, Cartographic Heritage into the Digital, Planetary Cartography, Cartography for Children, Maps and Graphics for Blind and Partially Sighted People, Map Projections, Cartography in Early Warning and Crises Management, and an ISPRS joint workshop on Modelling and Managing Cartographic Data.

Also on July 1 and 2, a second series of workshops, with topics that include aspects of Open Source Geospatial Technologies SDI and Standards, Art and Cartography, Cognitive Issues in Geographic Information, and Topographic Mapping will be held at George Washington University. A History of Cartography workshop will be held June 28 to June 30, 2017 at the Madison Building of the Library of Congress. Maps and the Internet, Education and Training, and Ubiquitous Mapping, will meet jointly at William and Mary College, Williamsburg VA, June 30 – July 1 (for the full schedule of pre-conference workshops see page 5).

The ICC begins with an Extraordinary General Assembly of delegates to the ICA on Sunday, July 2. The ICC 2017 scientific and technical program begins on Monday, July 3, with opening ceremonies that include a welcome from the American cartographic community and a vocal group performing American classics. The exhibition hall, which will include the International Trade Exhibition, the International Cartographic Exhibition, and the Children's Map Competition, opens at 11:30 am on Monday July 3. Also on display will be the nineteen map posters developed by the ICA commissions from United Nations Sustainable Development Goal (SDG) indicators. An opening icebreaker reception will be held in the exhibit area from 6:00 pm to 7:30 pm on Monday.

On July 5, from 6:00 pm to 8:00 pm, ICC 2017 will hold a reception to open a display of artwork in a gallery near the hotel. Entitled *Rising Tides: Batiks on Silk*, the display will feature works by Mary Edna Fraser, a world-renowned artist who specializes in creations that integrate cartography and geospatial science and technology.

The scientific program was developed from more than 750 abstracts and papers submitted to the LOC. Oral presentations will be made in technical sessions Monday through Friday, July 3-7. Poster sessions will be held Tuesday through Thursday, July 4-7. The program includes a series of plenary presentations ([icc2017.org/keynote-presentations/](http://icc2017.org/keynote-presentations/)) from Robert Cardillo, Director of the United States National Geospatial-Intelligence Agency; Tom Patterson, U.S. National Parks Service; Dr Lee

The Howard University Gospel Choir, which will be performing American classics at the Opening Ceremony of the 2017 International Cartographic Conference in Washington D.C., USA | *Photograph courtesy of Howard University Gospel Choir*



Schwartz, Geographer, U.S. State Department; and Mikel Maron, Mapbox. ICC 2017 offers technical tours that feature visits to cartography and geospatial information science organizations in the D.C. area, including the U.S. Geological Survey, the Library of Congress Geography and Map Reading Room, the National Geographic Society, the National Oceanic and Atmospheric Administration, the Fairfax County Government GIS and Mapping Service, the Esri Research and Development Center, and the Smithsonian Institution ([icc2017.org/technical-tour-information/](http://icc2017.org/technical-tour-information/)).

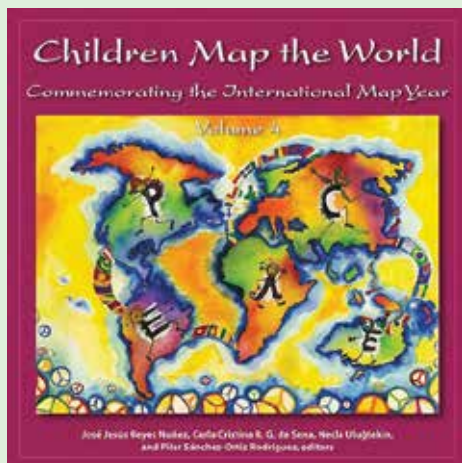
In addition to the opening reception, ICC 2017 will have a number of social events ([icc2017.org/social-program/](http://icc2017.org/social-program/)). During a meridian walk, participants will visit the markers and sites along the four principal meridians used in mapping before the Greenwich Meridian was adopted as the U.S. standard. An orienteering event will be conducted on a professional orienteering course. Evening activities include guided visits to several local Washington brewpubs and speakeasies and the Washington Capitals baseball game. A traditional ICC gala dinner will be held on Thursday evening, July 6. The gala dinner will be an informal event at the Texas Hill Country Barbeque Restaurant with a live band and dancing.

ICC 2017 is scheduled during the July 4th holiday. July 4th is Independence Day for the United States, and the Washington D.C. area has one of the most famous celebrations and fireworks displays in the country. We invite the world of cartography to come to ICC 2017 and join in the scientific conference and the celebration.

**E Lynn Usery** | Conference Director | ICC 2017 Local Organising Committee | USA ■

ICC 2017 Pre-conference Workshops	
Time	Wednesday-Friday, 28-30 June
09:00 - 17:00 daily	Joint Workshop of the ICA Commissions on <b>History of Cartography, Toponymy, and Atlases</b> at the Library of Congress
Time	Friday, 30 June - Saturday, 1 July
08:15 - 17:00 Friday	Joint Workshop of the ICA Commissions on <b>Maps and the Internet, Education and Training, and Ubiquitous Mapping</b> at William and Mary College, Williamsburg VA
08:30 - 13:00 Saturday	
Time	Saturday, 1 July
08:00 - 15:00	Workshop of the ICA Commission on <b>Cartographic Heritage into the Digital</b> at Marriott Wardman Park Hotel
08:00 - 17:00	Workshop of the ICA Commission on <b>Map Production and Geoinformation Management</b> at Marriott Wardman Park Hotel
08:00 - 17:00	Joint Workshop of the ICA Commissions on <b>Planetary Cartography, Cartography and Children, and Maps and Graphics for Blind and Partially Sighted People</b> at Marriott Wardman Park Hotel
Time	Saturday-Sunday, 1-2 July
08:00 - 17:00 daily	Workshop of the ICA Commission on <b>Generalisation and Multiple Representation</b> at Marriott Wardman Park Hotel
08:00 - 17:00 daily	Joint Workshop of the ICA Commissions on <b>Geospatial Analysis and Modeling, Location Based Services, and Visual Analytics</b> at Marriott Wardman Park Hotel
08:00 - 17:00 daily	Joint Workshop of the ICA Commissions on <b>Open Source Geospatial Technologies, and SDI and Standards</b> at George Washington University
08:00 - 17:00 daily	Joint Workshop of the ICA Commissions on <b>Art and Cartography, Cognitive Issues in Geographic Information, and Topographic Mapping</b> at George Washington University
Time	Sunday, 2 July
08:00 - 10:00	Workshop of the ICA Commission on <b>Map Projections</b> at Marriott Wardman Park Hotel
08:00 - 17:00	ISPRS Workshop on Modelling and Managing Cartographic Data at Marriott Wardman Park Hotel
08:30 - 18:00	Workshop of the ICA Commission on <b>Cartography in Early Warning and Crises Management</b> at Marriott Wardman Park Hotel

## ica news children map the world



The first part of the book *Children Map the World: Commemorating the International Map Year*, presents 50 maps created by children ages 5 to 15 for the 2015 edition of the Barbara Petchenik Children's World Map Awards organised by International Cartographic Association (ICA) and held in Rio de Janeiro, Brazil. These drawings convey powerful messages and emotions that reflect the competition's theme *My Place in Today's World*.

The second part of the book is an atlas featuring 50 additional maps chosen from the 2,066 entries sent to the earlier competitions organised by the ICA between 1993 and 2013. These drawings are accessible from the Archive of the Barbara Petchenik Children's Map Competition website ([childrensmaps.library.carleton.ca/](http://childrensmaps.library.carleton.ca/)) hosted by the Carleton University Library in Canada. The atlas reflects a world-wide celebration of these outstanding maps and their unique role in our world as well as contributes to the International Map Year celebrated in 2015-2016. Children, parents, teachers, and map enthusiasts will delight in

the work of these imaginative young cartographers. The children's representations of the world and life on it illustrate their many perspectives on the state of our planet, from optimism to pessimism, grandeur to lightheartedness, and beauty to sobering, and sometimes frightening, truths.

The book editors are José Jesús Reyes Nuñez (Hungary), Carla Cristina Reinaldo Gimenes de Sena (Brazil), Necla Uluğtekin (Turkey), and Pilar Sánchez-Ortiz Rodríguez (Spain). Their collective expertise encompasses geography, cartography, map design, three-dimensional cartographic modelling, map projections, and education as it relates to children and mapping. The editors wrote in the book's Introduction:

*We selected entries that perhaps were not picked as winners in previous years (because the actual theme of the competition was not reflected faithfully on the map) but could be considered very good maps, with just some graphic solutions that were used to represent information or data.*

*The main condition for the selection of drawings was that the cartographic aspects of the entry had to be worked out with more detail and better emphasized than the graphic ones. Our intention was to create a relatively simple atlas (containing physical, political, and thematic maps, along with a fourth category that mixed mapping with graphical and other illustrations) organized not by years of the competition, countries, or age groups, but according to the type of map that may be similar to, or typical of, atlases created by professional mapmakers.*

This is the fourth volume of the highly successful *Children Map the World* book series

published by Esri Press. The first volume appeared in 2005, followed by the second one in 2008 (see *ICA News*, No 53, December 2009, p 5). The third volume – an Anniversary Edition – was published in 2015 and celebrated the first 20 years of the competition (see *ICA News*, No 64, June 2015, p 3).

For more information, please visit the Esri Press website at [esripress.esri.com/display/index.cfm?fuseaction=display&websiteID=333&moduleID=0](http://esripress.esri.com/display/index.cfm?fuseaction=display&websiteID=333&moduleID=0).

**Igor Drecki** | Editor ICA News | ICA ■



## silvia marinova



When I was five, maybe six years old I loved spending time at the office of the cartographic service where my father used to work. Impressed by the magic of map-making I was

always excited to colour in contour maps with colour pencils. I grew up with maps and special attitude towards cartography. Playing music since my early childhood I was encouraged by many people to continue my education at the National Academy of Music. But I chose another kind of art – Cartography.

After graduating from the University of Architecture, Civil Engineering and Geodesy in Sofia with my master degree in Geodesy and Cartography, I became an author and editor of a series of tourist and mountain maps. My interest in mountain cartography was influenced by the scenic and challenging hiking tours with my family in the mountains of Bulgaria.

Later on, my science interest leaned towards thematic mapping and visualization for early warning and crisis management. My PhD research was focused on development of a uniform symbol system, contents and design of thematic cartographic products for disaster management.

In 2011, the International Cartographic Association's travel award for young scientists gave me the opportunity to network with cartographers from many countries and to acquire knowledge on good practices.

Currently I serve as Secretary General of the Bulgarian Cartographic Association and Chief Assistant Professor at the University of Architecture, Civil Engineering and Geodesy. The combination of academic work and real life projects is both useful and exciting and reveals to me multiple aspects of cartography.

**Silvia Marinova** | University of Architecture, Civil Engineering and Geodesy | Bulgaria | [marinova\\_silvia@abv.bg](mailto:marinova_silvia@abv.bg)

(left) A base map of the town of Troyan designed for disaster protection (fragment). This is one of a series of maps of the town (scale 1:10 000) and the municipality (scale 1:50 000) designed for the Disaster Management in Troyan Municipality.

(right) Vihren – 2914 m (Pirin Mountain), a part of the tourist map *The Top Ten Mountain Peaks of Bulgaria*.

[www.tandfonline.com/toc/tica20/current/](http://www.tandfonline.com/toc/tica20/current/)

The International Cartographic Association (ICA) has taken the initiative to establish the *International Journal of Cartography (IJC)* to provide the international research, education and professional community with a vehicle to report and disseminate the outcomes of our wide field of endeavours. It has as its aim to promote research, ideas, reaching, developments and industry who work in the fields of Cartography and GI Science. We see this partnership, and the provision of a quality international peer-reviewed journal, as an important tool that contributes to the ICA's goal of advancing Cartography and GI Science.

The Journal has co-editors – William Cartwright and Anne Ruas – four Associate Editors and an Advisory Board. To guide the development of the Journal we invited four distinguished researchers to fill the positions of Associate Editors: Elri Liebenberg, Gennady Andrienko, Lynn Usery and Zhilin Li. We see the Associate Editors as key partners with the ICA and us to grow the Journal into a key international research publication. The Advisory Board comprises a mix of established and emerging researchers. Members of this larger group have been asked to assist in reviewing papers, as well as providing general input into the development of the IJC.

Our aims are to provide a Journal that reflects all areas of the ICA research, teaching and professional community's expertise, and in so doing, to define contemporary cartography and GIScience. The Journal covers a number of areas of endeavour in cartography and GIScience, both traditional and transitional, if not sometime visionary.

All submissions and reviewing for papers are handled electronically through the Taylor and Francis on-line facility. This manages the paper-handling process – from submission, to review and revision to publishing. Papers are double-blind reviewed and then published on-line initially, which speeds-up the time taken from paper acceptance to publishing. Once all

papers for a particular issue are in-hand the print version is published. The Journal publishes abstracts in English and French. Additionally, at the authors' request and according to some alphabetic constraints, we are able to include a third abstract, in the Authors' mother tongue. In addition, the publisher is committed to actively promote the publication and ensuring that positive actions are taken to gain a high index rating for the journal as quickly as possible.

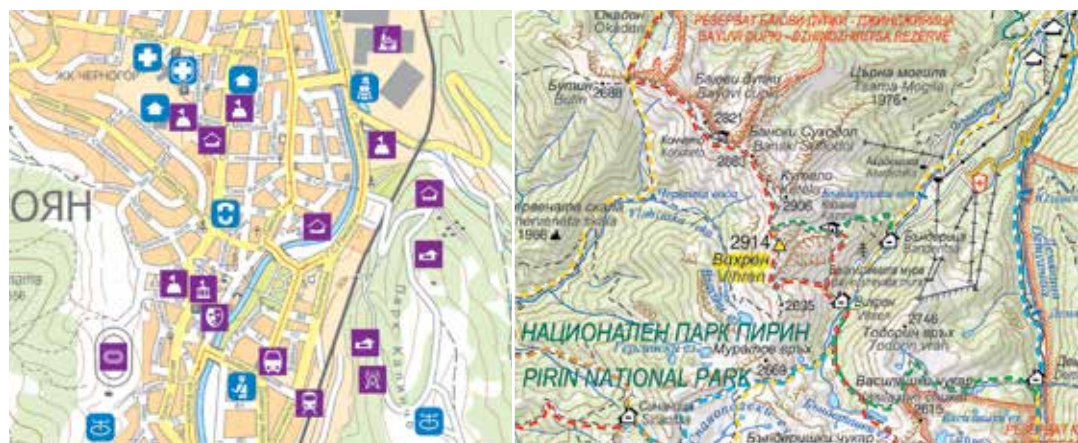
The first issue was published in the first half of 2015. It contained eight selected papers from the 2015 International Cartographic Conference held in Rio de Janeiro, Brazil, plus an editorial. The second issue for 2015 contained 6 papers.

Volume 2, 2016 had also two issues published. Issue 1 contained selected papers from the European Symposium on Cartography held in Vienna, Austria in November 2015. The papers provide an insight into some of the research activities of European colleagues. It was guest edited by Georg Gartner and Haosheng Huang. It contained 6 papers plus an editorial. Issue 2 contained six papers.

For 2017, two issues are being published. Issue 1 contains selected papers from the International Cartographic Conference 2017 to be held in Washington D.C. plus an editorial by the editors and Mike Peterson. Issue 2 is a Special Issue on Research, with papers being the formal outcomes from the ICA/Esri Cartographic Summit of 2016. The editorial team for this edition was led by Dr Amy Griffin.

Our plan is to grow the Journal to three editions in 2017. We already have in-place special editions on Standard and Risk, with plans for additional issues that focus on Generalisation and on the History of Cartography. We hope that you are able to join us in this enterprise by accepting our invitation to submit a paper to the *International Journal of Cartography* (see [www.edmgr.com/tica/](http://www.edmgr.com/tica/)).

**William Cartwright and Anne Ruas** | Editors | International Journal of Cartography | Australia / France



[www.cartogis.org](http://www.cartogis.org)

When the ICA was first formed in June 1959, the United States (U.S.) was one of the 13 founding member nations, along with Austria, Belgium, France, Germany, Finland, Italy, the Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom. Today, the U.S. is represented in ICA through the auspices of the Cartography and Geographic Information Society (CaGIS). CaGIS is composed of educators, researchers, and practitioners involved in the design, creation, use, and dissemination of maps and geographic information. The mission of the Society is to support research, education, and practice that improve the understanding, creation, analysis, and use of maps and geographic information to support effective decision-making and improve the quality of life. The Society supports four primary activities: membership in and involvement by the U.S. cartographic community in the ICA, the biennial AutoCarto international research symposium, the annual CaGIS Map Design Competition, and, for some, most importantly, publication of the *Cartography and Geographic Information Science* academic research journal. Esri, Hexagon Geospatial, East View Geospatial, and the U.S. Geological Survey are affiliated with the ICA through the U.S.

U.S. cartographers have also played prominent role in the ICA by serving as Chairs (and Vice Chairs) of numerous ICA Commissions and Working Groups (WG). In fact, there has been no single term in the history of ICA in which a U.S. cartographer did not serve as Chair of an ICA Commission or WG.

**Aileen Buckley** | Chair | U.S. National Committee for the ICA | USA ■

## Brief History of the Society and its Close Association with ICA

**1941** the American Congress for Surveying and Mapping (ACSM) was formed **1950** the Cartography Division was formed as part of ACSM **1959** the U.S. became a founding member of the ICA, and ACSM became the US adhering body **1959** Duncan M. Fitchet served as US representative on the ICA Provisional Executive Committee (until 1961) **1961** Granville Emminizer was elected to the first ICA Executive Committee (EC) as a Vice President (VP) and served for two terms (until 1968) **1968** Brice Burroughs was elected to the ICA EC as a VP (until 1972) **1972** Arthur Robinson was elected President of the ICA (until 1976) **1974** the *American Cartographer* began publication as a biannual journal **1974** the first International Symposium on Computer-Assisted Cartography (later to become AutoCarto) was held in Reston, Virginia **1976** Arthur Robinson served on the ICA EC as a VP (until 1980) **1978** the ICA's 9th International Cartographic Conference was held in College Park, Maryland **1979** the Cartography Division of ACSM gave its first Award for Meritorious Service to the Discipline of Cartography to Arthur Robinson (this was later renamed the CaGIS Distinguished Career award) **1980** Joel L. Morrison was elected to the ICA EC as a VP (until 1984) **1981** ACSM reorganized, with the American Cartographic Association (ACA) as an official member organization **1981** Arthur Robinson received the Carl Mannerfelt Gold Medal, ICA's highest distinction **1984** Joel L. Morrison was elected President of the ICA (until 1987) **1985** the *American Cartographer* became a quarterly publication **1987** Joel L. Morrison served on the ICA EC as Past President (until 1991) **1990** the *American Cartographer* was renamed *Cartography and Geographic Information Systems* **1991** Barbara Bartz Petchenik was the first woman elected to the ICA EC; she served as a VP though she died after a short illness in June 1992 **1992** the U.S. appointed Judy Olson to complete Barbara Bartz Petchenik's term on the ICA EC as a VP (until 1995) **1993** the biennial Barbara Petchenik Children's World Map Drawing Competition was created by the ICA as a memorial of Petchenik's lifelong interest in maps for children **1995** Judy Olson was elected to the ICA EC as a VP (until 1999) **1996** the ACA was renamed the Cartography and Geographic Information Society (CaGIS); a strategic plan was developed that was more inclusive of geographic information systems and science **1999** *Cartography and Geographic Information Systems* was renamed *Cartography and Geographic Information Science* **1999** Robert McMaster was elected to the ICA EC as a VP and served for two terms (until 2007) **2001** Joel L. Morrison received the Carl Mannerfelt Gold Medal **2004** ACSM was reorganized as a federation, and CaGIS became an independent society **2007** Jack Dangermond received the Carl Mannerfelt Gold Medal **2007** Tim Trainor was elected to the ICA EC as a VP and served for two terms (until 2015) **2015** Lynn Usery was elected to the ICA EC as a VP **July 2017** the 28th International Cartographic Conference will be held in Washington, D.C.

Members of the USNC and other Americans attend the 2015 International Cartographic Conference in Rio de Janeiro, Brazil | Photography Eric Anderson





## Cartography in Early Warning and Crisis Management

[comcewa.geogr.muni.cz/](http://comcewa.geogr.muni.cz/)

### Symposium in Hyderabad, India

The 10th Geospatial World Forum, held on 23-25 January 2017 at Hyderabad International Convention Centre, highlighted the value and power of geospatial technology as an enabler in addressing global economic and socio-economic issues. With 3,000 delegates representing the global geospatial community, policy makers, academia, researchers, technology providers, solution providers, and end-users, the forum featured large-scale conference and exhibition, top-ranked keynote speakers, major industry segments, high-level discussion programs and various social networking events.

The theme of the 2017 forum was *Geospatial + Deep Learning: Shaping Smarter World*. Researchers, experts and industry leaders from 56 countries and 763 organizations, as well as 60 exhibitors were in attendance.

As part of the Geospatial World Forum programme, a symposium on *Climate Change and Disaster Management* was held on 24 January 2017 ([geospatialworldforum.org/2017/climate-change-and-disaster-management.asp](http://geospatialworldforum.org/2017/climate-change-and-disaster-management.asp)). Initiated by the ICA Commission on Cartography in Early Warning and Crises Management and organized together with the India Meteorological Department, and Ministry of Earth Sciences, Government of India, the symposium attracted around 60 specialists and participants. Organisational support was provided by Mr Sanjay Kumar, Ms Deepali Roy and Ms Megha Datta.

The symposium had three distinct sessions. The first session *Geoinformation and Cartography in Early Warning and Disaster Management* was moderated by Milan Konečný (Commission Chair) and started with his keynote address titled *The Strategic Challenges of Early Warning and Crises Management in the Advent of Big Data Era: Geoinformatics and Cartographic Ambition*. Other presentations included:

- Michael Goodchild, USA: *Successful Response Starts with a Map*
- Shailesh Nayak, India: *Mitigating Tsunami Risk in the Indian Ocean*
- KJ Ramesh, India: *Climate Risk Management: Challenges and Opportunities for India*
- Akhilesh Gupta, India: *S&T Capacity Building in Climate Change in India*
- Michele Campagna, Italy: *Volunteered Geography in Spatial Planning and Design*.

The second session *Geo-information as Actionable Information for Disaster and Climate Change Resilience* was moderated by Dr Shailesh Nayak. The following papers were presented:

- Gopal Raman Iyengar and M Mohapatra,



Kunming Forum held in May 2017 in China (from left): Wang Yong, Liu Jiping, Milan Konečný, Li Pengde, Gregg Scott and Timothy Trainor | Photograph courtesy of Milan Konečný

India: *IMD's Information Mechanism to Address the Disaster and Climate Change Issues*

- GS Srinivasa Reddy, India: *The Application of ICT Tools for Natural Disaster Monitoring and Mitigation Karnataka Model*
- Steve Laming, New Zealand: *Reviewing the impact of the New Zealand Earthquakes Lidar/Photogrammetry*
- Steven Ramage, Switzerland: *Earth observations policy, strategy and data considerations for climate change resilience*
- Freddy M Pranajaya, Canada and Vijay Choudhury, India: *FARO Applications on Disaster Management*

The third session *Securing Habitats and Resources* was moderated by Basanta Shrestha, Nepal, who delivered the first address: *Geospatial Technology - Taking the Pulse of the Himalayas*. Other presentations included:

- M Bhutiyan and Michael Mayer, Austria: *UAV-based Multi-sensor Survey of Disaster Locations for First-responder Support*
- Zhang Le, China: *Applications of GIS in Forest Disaster Prevention*
- Puri Vasan, India: *Monitoring the Atmospheric Water Vapour in Real Time Using Ground Based Trimble GNSS Network*
- Omkar Parishwad, India: *Climate Change Impact on Urban Areas by Assessment of Urban Green Spaces in Indian Cities*
- G Prasad Babu, India: *Need of Location based services in Emergency and Humanitarian Response*

The symposium facilitated rich discussions after every session and highlighted the importance of cartography in solving contemporary climatic change and disaster management issues. In concluded with presentation of the Research Agenda of the ICA Commission on Cartography in Early Warning and Disaster Management.

### Conference in Novosibirsk, Russia

The XIII International Exhibition and Scientific Congress *Open-source Geospatial Solutions for*

*Public Benefits* was held on 19-21 April 2017 at the Novosibirsk Expocenter. It was organized by the Siberian State University of Geosystems and Technologies (SSUGT).

As part of the programme, the 8th International Conference on *Early Warning and Crises Management in the Big Data Era* was organized by our Commission on 20 April. The event started with a keynote by Milan Konečný entitled *The Role of Geoinformatics and Cartography in Disaster Risk Reduction (based on the Sendai Framework)*. The conference featured 14 papers and attracted almost 100 participants, many of them students and doctoral candidates. We acknowledge the support of SSUGT – Mr Igor Musichin, Professor DV Lisickij, and Associate Professor S Jankel-evich.

### UN Forum in Kunming, China

Kunming Forum on United Nations Global Geospatial Information Management (UN-GGIM) titled *Cities of the Future: Smart, Resilient and Sustainable* was held on 10-12 May 2017 in Kunming, China. Commission Chair Milan Konečný delivered a speech *Selected Smart Cities Geospatial Challenges in the Big Data Era*, while Commission Vice Chair Liu Jipping presented a paper titled *Technologies and Application in China's National Geographic Conditions Monitoring for Urban Development*. The meeting stressed emergency management as a very important part of the Smart City concept, mainly in combination with urban planning and sustainable development. Big data give new analyses, interpretation and visualization potentials for finding smart solutions. The event was attended by Mr Tao CheeHai from UN Statistics Division, Mr Gregg Scott, Inter-regional Advisor, UN-GGIM and Timothy Trainor, Chief Geospatial Scientist from US Census Bureau. The host representatives included Dr Li Pengde, Deputy Director General, National Administration of Surveying, Mapping, and Geoinformation of China and Professor Chen Jun, First Vice President of ISPRS.



## Future Plans

The next Commission event will be held in Washington D.C., USA. A workshop is planned for 2 July, 08:30-18:00, at Marriott Wardman Park Hotel. All welcome!

**Milan Konečný** | Chair | ICA Commission on Cartography in Early Warning and Crisis Management | *Czech Republic* ■

## Education and Training

[education.icaci.org/](http://education.icaci.org/)

### Commission activities

The ICA Commission on Education and Training has arranged two meetings in the past year which are worthy of report. A joint meeting with the ICA Commission on Atlases took place at the ETH Zurich, Switzerland, at the end of August 2016. Common areas of interest, reflected in the variety of presentations, included the contemporary changing concepts of atlases, the nature of educational atlases, the development of educational curricula through a proposed Body of Knowledge, and the future of the atlas as a data integration device and as an educational tool.

A range of practical examples of national and educational atlas cartography was considered by several speakers, along with more theoretical investigations of atlas content and structure. The use of atlases, both in schools and in wider society, was covered also. A session on the education of cartographers included accounts of the history of cartographic education, what is needed for cartographers to face the challenges and opportunities in digital atlases, the role of contextual education in maths for cartographer, and, most wide-ranging, the nature of the Body of Knowledge (BoK) project for cartography being run by the Commission. The role of design in the education of cartographers was also considered. The meeting was most generously supported by the Institute for Cartography at ETH, the home of the famous national Atlas der Schweiz, and the educational Schweizer WeltAtlas, and organised by René Sieber of that institute.

The month after, a forum was held at Mapping 2016, the annual symposium of UK cartographers organised by the British Cartographic Society and the Society of Cartographers in Cheltenham, England. This well attended meeting was introduced to the Body of Knowledge concept and each attendee was then asked to respond to a questionnaire asking their opinions about the subject matter of cartography and its delivery. The range of cartographers present was wide, from archivists to web designers, from government scientists to technical support staff, so responses varied significantly. The questionnaire also asked about their education in cartography and their

experiences in the workplace. The intention is that the responses will contribute to the process of developing the BoK: this will be explored further at the Commission's business meeting at the Washington D.C. International Cartographic Conference (ICC) in July.

Prior to the ICC 2017, from 30 June to 1 July, the ICA Commission will join once again with the Commissions on Maps and the Internet, and Ubiquitous Mapping, to present a short pre-conference workshop ([internet.icaci.org/commission-workshop-2017/](http://internet.icaci.org/commission-workshop-2017/)). Organised by Rex Cammack, this will be held in Historic Williamsburg, at the second oldest university in the USA. Combining practical sessions on coding with presentations on contemporary internet cartography and its educational implications, this enticing event will be the ideal 'curtain-raiser' for the main conference.

In addition to our Commission business meeting, the ICC 2017 offers seven full sessions on educational aspects of cartography. A fine range of presentations about all aspects related to education in cartography will be included in the programme. We look forward to engaging once more with those who are passionate about cartography and about educating the next generation of cartographers.

**David Fairbairn** | Chair | ICA Commission on Education and Training | *United Kingdom* ■

## Location Based Services

[lbs.icaci.org/](http://lbs.icaci.org/)

### Symposium in Washington D.C., USA

Immediately before ICC 2017, the ICA Commissions on Location Based Services, and Geospatial Analysis and Modeling are organizing an international symposium on location-based social media and tracking data (LSMTD 2017), on 1-2 July 2017. This symposium attempts to bring together researchers from various fields and perspectives to exchange and share ideas and findings of their research related to location-based social media data or location tracking and sensing data, and to discuss what can be pursued in the future. After the symposium, a special issue of the *International Journal of Geographic Information Science* (IJGIS) is planned. Suggested topics of the symposium include:

- Theories and Data Models for Social Media Data and Tracking Data
- Analysis and Applications
- Geovisualization and Visual Analytics for Social Media Data and Tracking Data

After reviewing, we have accepted 27 oral presentations for the symposium. For more details regarding the symposium, please refer to [gam.icaci.org/symposium-2017/](http://gam.icaci.org/symposium-2017/).



### LBS 2018 in Zurich, Switzerland

The ICA Commission on Location Based Services and ETH Zurich are pleased to invite you to the 14th International Conference on Location Based Services (LBS 2018), which will take place in Zurich, Switzerland on 15-17 January 2018.

Built on the success of previous conferences in this series, LBS 2018 aims to offer a common ground to colleagues from various disciplines and practice where they can meet, interact and exchange knowledge, experience, plans and ideas on how LBS can and could be improved and on how it influences both science and society.

The Call for Papers is currently open. Full papers, work in progress, and showcases are welcome. High-quality full paper submissions are intended to be published in Springer's *Lecture Notes in Geoinformation and Cartography* series. Authors of the best full and work in progress papers will be invited to submit an extended version to the *Journal of Location Based Services*.

- Important Dates:
- 12 July 2017 – Submission of full and work in progress papers
  - 29 September 2017 – Notification of acceptance
  - 13 October 2017 – Submission of camera-ready full and work in progress papers
  - 15 November 2017 – Submission of showcases

The conference organising team includes Martin Raubal and Peter Kiefer (both ETH Zurich, Switzerland), Haosheng Huang (University of Zurich, Switzerland) and Nico Van de Weghe (Ghent University, Belgium).

For more information about LBS 2018, please visit [lbsconference.org](http://lbsconference.org). We are looking forward to receiving your contributions and meeting you in Zurich!

> 10



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## LBS Research Agenda

Location Based Services (LBS) have become a research field since the early 2000s. Since that time, there have been many changes in the field, especially concerning, e.g. the increasing demands in expanding LBS from outdoor to indoor, from location-aware to context-aware, and from navigation systems and mobile guides to more diverse applications (e.g. healthcare, transportation, gaming), as well as the appearance of new interface technologies (e.g. digital glasses, smartwatch, augmented reality devices), and the increasing 'smartness' of our environments and cities (e.g. with different kinds of sensors). At the same time, we have seen more and more LBS entering general public's daily life, which greatly influences how people interact with each other and how their behaviour changes in different environments. It also brings many opportunities (e.g. for city administration and urban planning, big data) and challenges (e.g. privacy, legal and ethical issues, the 'side effects' of technology) to our planet and human society. These changes open up a lot of basic and applied research questions to the LBS research community.

To motivate further LBS research and stimulate collective efforts, the Commission believes that it is time to develop a cross-cutting research agenda, identifying key research questions and challenges that are essential for the LBS development in the next 5 or 10 years. In the first step of this process, we received 31 one-paragraph proposals. Based on these proposals, we compiled a first list of "key problems". An LBS Research Vision workshop was then organized immediately before LBS 2016 (Vienna) on 13 November 2016 to discuss these key problems in details.

Based on the feedback, comments, and suggestions collected from the LBS Research Vision workshop, the Commission chairs together with several invited experts are compiling and revising the LBS research agenda. The revised list will then be circulated to the LBS research community for further comments and feedback. We also expect to present the refined research agenda at the 2017 International Cartographic Conference (ICC 2017) in Washington D.C. in July 2017. We aim to publish the research agenda as an open access white paper in relevant journals.

## Other Activities

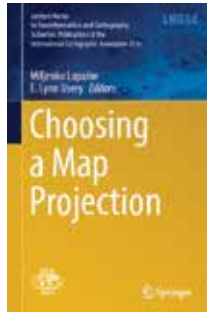
A special issue on "Location-Based Services" of the ISPRS *International Journal of Geo-Information* is planned for 2017. The special issue aims to report on general research activities related to LBS. Currently, 17 papers have been accepted after peer-reviewing. For more details, please refer to [www.mdpi.com/journal/ijgi/special\\_issues/LBS/](http://www.mdpi.com/journal/ijgi/special_issues/LBS/).

**Haosheng Huang** | Chair | ICA Commission on Location Based Services | Switzerland / China ■

## Map Projections

[ica-proj.kartografija.hr/](http://ica-proj.kartografija.hr/)

### New Book



One of the tasks of the ICA Commission on Map Projections for the period 2011–2015 was to promote proper use of map projections at all levels of education and for all map users. The book *Choosing a Map Projection*, published recently by Springer, is

the result of almost five years of work.

Various publications on map projections, refer to their great variety and choice. A well-chosen map projection is the one where extreme distortions are smaller than those in any other projection used to map the same area and map properties match the purpose of the map. Yet, a map projection may have none of these general properties and still be satisfactory, or it can be widely used despite being considered a poor choice for a particular map.

Three small, but valuable publications are:

1. Arthur H Robinson and the Committee on Map Projections (1986), *Which Map is the Best? Projections for World Maps*, Special Publication No 1 of the American Cartographic Association, American Congress on Surveying and Mapping, Falls Church, Virginia.
2. Arthur H Robinson and the Committee on Map Projections (1988), *Choosing a World Map: Attributes, Distortions, Classes, Aspects*, Special Publication No 2 of the American Cartographic Association, American Congress on Surveying and Mapping, Bethesda, Maryland.
3. Arthur H Robinson and the Committee on Map Projections (1991), *Matching the Map Projection to the Need*, Special Publication No 3 of the American Cartographic Association, American Congress on Surveying and Mapping, Bethesda, Maryland (available as a e-publication of the Cartography and Geographic Information Society since 1997: [courseware.e-education.psu.edu/project-ion/](http://courseware.e-education.psu.edu/project-ion/)).

Although these three publications are not new, they are very informative and educational. The first two publications are sold out; the third available in digital format. Miljenko Lapaine made a proposal to the ICA Commission on Map Projections to use these three publications as a model, modify and update their content and publish a new book on choosing a map projection.

The book *Choosing a Map Projection* has been prepared by experts, but with an intention to serve laymen. The authors are prominent

experts in the field of map projections, such as Waldo Tobler, Fritz C Kessler, Sarah E Battersby, Keith C Clarke, Vladimir S Tikunov, Henrik Hargitai, Bernhard Jenny, Michael P Finn and Nedjeljko Frančula. The book was edited by Miljenko Lapaine, current Chair and E. Lynn Usery, former Vice Chair of our Commission.

It is our hope the book will stimulate better understanding of map projections and develop appreciation of their versatility. It is aimed at those who make maps, as well as those who use them. The contemporary computer-assisted cartographic techniques generate a variety of map projections (along with coastlines and boundaries) quickly and inexpensively. What is still needed is a more critical approach to their use, taking into account distortions that are immanent in any map projection.

## Workshop in Washington D.C, USA

We are organising a Workshop on Map Projections on Sunday, July 2, 08:00–10:00 at Marriott Wardman Park Hotel in Washington D.C. ([icc2017.org/preconference-workshops/](http://icc2017.org/preconference-workshops/)). The program will have two parts:

1. **Critical Review on Using Developable Surfaces in Map Projections Theory**
2. **Standardization in Map Projections**

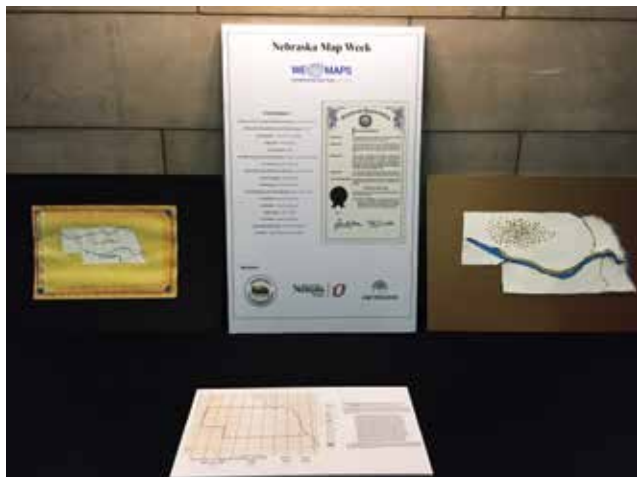
It is common practice to use developable surfaces in the interpretation of map projections. The workshop takes a critical approach to this and discusses a more diverse approach. Mapping onto a developable surface has a limited domain of application and this approach can lead to incorrect conclusions about map projection distortion. Many authors of textbooks on the subject are aware of the fact that developable surfaces are not used to create projections today, but still insist on using developable surfaces as conceptual aids that help to illustrate the projection process. Yet there are different ways of illustrating the process and possibilities, which are applicable to all map projections, not just to some of them, and they will be presented at the workshop.

Standardization is the process of implementing and developing technical standards. It can help maximise compatibility, interoperability, safety and quality and may involve the formal consensus of technical experts. According to the Charter of the ICA Commission on Map Projections, our activities include recommending canonical names for map projections and recommending map projection terminology and taxonomies. In addition, we aim at standardizing symbology in map projections and are preparing relevant proposal to be considered at the ICC 2017 in Washington, D.C. Apart from the workshop, the Commission will hold its business meeting at the ICC 2017.

The meeting and the workshop are open to everyone. Welcome!

**Miljenko Lapaine** | Chair | ICA Commission on Map Projections | Croatia ■





International Map Year event organised at the Nebraska State Capitol building and sponsored by the ICA Commission on Maps and the Internet | *Photography Rex Cammack*

## Maps and the Internet

[internet.icaci.org/](http://internet.icaci.org/)

### Commission activities

The ICA Commission on Maps and Internet has hosted and are planning several activities. In November 2016, our Commission and the Nebraska GIS/LIS Association worked together to host an International Map Year event in the rotunda area of the Nebraska State Capitol building. This week-long event displayed numerous maps from Nebraska governmental agencies, local nonprofit groups, universities and individuals. It was kicked off with a grand opening ceremony followed by a Nebraska GIS/LIS Mappy Hour where the public and cartographic professionals could examine and discuss the different types of maps and their importance to the state of Nebraska. The Governor for the State of Nebraska John Peter “Pete” Ricketts granted a State Proclamation for “Nebraska Map Week” as a part of this International Map Year Event. The Capitol Building Rotunda is an open space for the public. Hundreds of people over the week-long event were able to view the maps on display. The Commission would like to thank all of the cartographers and GIS professionals for helping to put on a great event and promote awareness that maps have a central place in the heart of a community. We would especially like to thank Governor Pete Ricketts for his proclamation regarding the importance of maps and mapping for the citizens of Nebraska. Where citizens take pride in knowing “There is No Place Like Nebraska.”

Currently, our Commission is working with the ICA Commissions on Education and Training, and Ubiquitous Mapping on a workshop prior to the ICC 2017 meeting in Washington D.C. This event will be hosted on the campus of William and Mary University in Williamsburg, Virginia, USA on 30 June and 1

July. The two-day event will include a *Map Coding Day* where presenters will facilitate a hands-on learning of internet and mobile mapping development skills. On the second day, research presentations covering the breath of each of the three Commissions will be given. You can find the latest pre- and post-meeting news at the Commission website.

At the ICC 2017, the Commission will begin planning for future activities and events. We invite you to be an active participant in this work by providing your input and ideas for future events. You can be involved by attending our meeting during the ICC 2017 meeting or submitting your thoughts and ideas to the Commission via email ([rcammack@unomaha.edu](mailto:rcammack@unomaha.edu)). We also encourage people interested in Maps and the Internet to get involved by joining our Commission (see our website for details).

**Rex Cammack** | Chair | ICA Commission on Maps and Internet | USA ■

## Mountain Cartography

[mountaincartography.org/](http://mountaincartography.org/)

### 11th Mountain Cartography Workshop in Hvar, Croatia

The ICA Commission on Mountain Cartography and the Faculty of Geodesy, University of Zagreb, are pleased to announce the 11th Mountain Cartography Workshop to take place on the island of Hvar, Croatia, from the 21 to 25 May 2018. The theme of the workshop is *Mapping for Outdoor Activities in Mountains*, however submitted papers, presentations and panels can deal with any aspect of mountain cartography, or map data related to mountain environments. Different presentation types are possible, from classic research papers to live software demonstrations and map discussions.

The island of Hvar is located in the Adriatic Sea, 60 km south of Split which is well

connected by its international airport. You can easily reach the workshop site by ferry or catamaran from Split in few hours. This will take you to the sunniest island of the Adriatic Sea with an annual average of 7.7 hours of sunshine per day. The highest peak is St Nicolaus – 628 m above sea level and only 1000 m horizontal distance from the coastline.

The city of Hvar is a unique fusion of luxurious Mediterranean nature, and rich cultural and historical heritage. The Stari Grad Plain on the island of Hvar, protected by > 12

St Ante chapel near Zavala | *Photography takeadventure*





Participants of the International Pan American Symposium on Toponymy organized by the Joint ICA/IGU Commission on Toponymy and held in Rio de Janeiro, Brazil | Photographs courtesy of Paulo Menezes

the UNESCO as world heritage, is an agricultural landscape that was set up by the ancient Greek colonists in the 4th century BC, and remains in use. The Hvar Observatory of the Faculty of Geodesy, established in 1972, is situated just above the city of Hvar, on a steep hill 240 m above sea level, in the historical Fort Napoljun built by the French Army in the 19th century. A fully developed touristic infrastructure and the beautiful natural environment will guarantee participants to benefit from professional discussions and enjoy the hospitality of the local people.

For further information please visit the Commission website or contact Dražen Tutić, Faculty of Geodesy, University of Zagreb at [dtutic@geof.hr](mailto:dtutic@geof.hr).

**Dušan Petrovič** | Chair | ICA Commission on Mountain Cartography | *Slovenia* ■

## SDI and Standards

[sdistandards.icaci.org/](http://sdistandards.icaci.org/)

### Joint ICA Commissions Workshop in Washington D.C., USA

The ICA Commissions on SDI and Standards and Commission on Open Source Geospatial Technologies are jointly organizing a workshop prior to the International Cartographic Conference (ICC) 2017 on *Spatial Data Infrastructures, Standards, Open Source and Open Data for Geospatial* (SDI-Open 2017), to take place on 1-2 July 2017 at the George Washington University, Washington D.C., USA.

Spatial data infrastructures aim to make spatial data findable, accessible and usable.

Open source software and open data portals help to make this possible. In this workshop, participants will be introduced to SDIs, standards, open source and open data in a fun way. The workshop comprises a number of presentations to provide an introduction and background to SDIs, standards, open source and open data.

Workshop participants can look forward to topics, such as a global address dataset, measuring the quality of address data, SDI in Belarus, pay models for open source software and reasons for open source becoming mainstream for GIS. There will be a hands-on session in OpenStreetMap, analytical data visualizations with GRASS GIS and an introduction to OSGeo Live, with which participants will be able to explore different open source geospatial software products and geospatial use cases. Hands-on introductions to open source geospatial software, together with mapping tasks, will give participants the opportunity to explore different tools and platforms.

Pre-registration for the workshop is required through the ICC 2017 website at [www.icc2017.org/](http://www.icc2017.org/). The workshop takes place in a computer laboratory with a limited number of seats. Please book your seat in advance to avoid disappointment.

**Serena Coetzee** and **Franz-Josef Behr** | Chair / Vice Chair | ICA Commission on SDI and Standards | *South Africa / Germany*

**Silvana Camboim** and **Michael Finn** | Chair and Vice Chair | ICA Commission on Open Source Geospatial Technologies | *Brazil / USA* ■

## Toponymy

[www.igu-icatoponymy.org/](http://www.igu-icatoponymy.org/)

### Symposium in Rio de Janeiro, Brazil

The International Pan American Symposium on Toponymy (SIPAT), organized by the Joint ICA/IGU Commission on Toponymy, was held on 3-5 May 2017, in Rio de Janeiro, Brazil. The Symposium had the support of the Federal University of Rio de Janeiro, through the Post Graduation Program in Geography, and GeoCart, Laboratory of Cartography of the Department of Geography, the Pan American Institute of Geography and History (PAIGH), as well as the Brazilian Institute of Geography and Statistics (IBGE). The main themes were:

- Toponymy on Maps
- Toponymy and Education
- Indigenous and Minority Toponymy

The event attracted 92 delegates from eight countries, Brazil, Canada, Colombia, Portugal, Argentina, Dominican Republic, South Africa and Italy. There were 24 papers and 6 keynote oral presentations.

The Symposium was attended by Professor Paulo Menezes from Brazil, organizer and ICA Chair of the Joint ICA/IGU Commission on Toponymy; Professor Cosimo Palagiano from Italy, IGU Chair of the Commission on Toponymy; Professor Peter Raper from South Africa; and Professor Yaïves Ferland from Canada.

It was a successful event during which a decisions made at the Closing Ceremony to organize the SIPAT meetings every two years.

**Paulo Menezes** | ICA Chair | Joint ICA/IGU Commission on Toponymy | *Brazil* ■



## International Map Year

[sdstandards.icaci.org/](http://sdstandards.icaci.org/)

### IMY Comes to a Close

The International Map Year (IMY) that was officially inaugurated at the International Cartographic Conference in Rio de Janeiro, Brazil, in August 2015, came to a close on 31 December 2016. Consequently, the IMY web page ([mapyear.org/](http://mapyear.org/)) maintained by webmaster Manuela Schmidt currently serves as an archive and no new information will be posted there. During the course of IMY, some 40 countries were involved in arranging National Map Days and other types of national events centred on the IMY theme *We Love Maps*.

The IMY e-book *The World of Maps* has now been extended by a chapter on geological maps written by an Italian team and based on a presentation at the Italian Map Day in September 2016. After initial translations of the book into French, Spanish, and Italian, teams are now working in China, Indonesia, Germany/Switzerland, and the United Arab Emirates on further translations. Ultimately, the book will be accessible from the ICA website (under the Publications tab) and have an ISBN.

The current task of the ICA Working Group (WG) on International Map Year is to produce a final report on the IMY activities held around the world. The report will be presented to the ICA Executive Committee (EC) and national delegates at the Extraordinary General Assembly in Washington D.C. on 2 July 2017. A paper *Outcomes of the International Map Year* will be presented by Bengt Rysted, WG Chair, at the 2017 International Cartographic Conference (5 July, 13:30-13:50) and published in the conference proceedings.

The WG proposes to capitalise on IMY concept and introduce an annual International Map Day, similar the International GIS Day held annually in November. A suitable month for celebrating the International Map Day could be April or May. A preliminary decision whether to pursue this initiative further will be made by the EC with a final decision vested in the Extraordinary General Assembly in Washington D.C.

The WG is grateful to the authors who contributed to the *The World of Maps* e-book and to translation teams. It is also indebted to Manuela Schmidt for serving as the IMY website webmaster, updating news items, and the design of the IMY logo. The WG is also grateful that members of the Executive Committee, Chairs of the ICA Commissions, as well as to the United Nations Committee of Experts on Global Geospatial Information Management and Joint Board of Geospatial Information Societies which supported the IMY. In all, IMY was a great success and achieved its goal of creating a worldwide celebration of maps and their role in our world, and provided unique opportunities to demonstrate, follow, and get involved in the

art, science, and technology of making and using maps and geographic information.

**Bengt Rystedt** | Chair | ICA Working Group on International Map Year | Sweden ■

## Marine Cartography

### Nautical Cartography Standards

After five years of intensive work, it is pleasing to report that the Standards of Competence for Nautical Cartographers were finalized for both levels (Categories A and B) at the annual meeting of the FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) held in Wellington, New Zealand during March 2017. ICA was represented at the meeting by the authors who have been closely involved with the revision of the Standards from their previous versions. The International Hydrographic Organization (IHO) is expected to ratify the Standards during a meeting of its senior group, the Inter-regional Coordination Committee (IRCC), scheduled to meet in Paramaribo, Suriname between 12-14 June 2017. Promulgation of the new Standards is anticipated during the latter part of 2017.

The new Standards have taken guidance from the curriculum approach known as Constructive Alignment. The focus is on describing Intended Learning Outcomes (ILOs) based on defined Content within an Assessment Regime designed specifically to test students' Knowledge against the ILOs. In the view of the IBSC, Competency equals Education and Training PLUS Experience.

The motivation behind the separation of the Category A and Category B requirements and the intended outcome of Category A and Category B education/training is as follows: **Category A** programmes will introduce subjects from the beginning at the underlying principles level; and **Category B** programmes will introduce subjects from a practical level. According to this framework, the Category B Standard will be aimed at the basic educational and training requirements for nautical cartographers (S-8). The Category A Standard will be aimed at the theoretical educational and foundational background necessary for nautical cartographers in-charge and cartographic managers who will develop specifications for nautical charts, establish quality control and quality assurance systems, and respond to the specific requirements of a full range of cartographic projects.

One of the three following levels of knowledge is associated with each element of the Standards:

- **Basic:** basic knowledge of the subject provides familiarity with the concepts
- **Intermediate:** knowledge of the subject as far

as theory and principles are concerned, sufficient to enable their application in practice

- **Advanced:** thorough knowledge of the subject in all its aspects to enable its application in all hydrographic and nautical cartography activities

Why are Standards of Competence for Nautical Cartographers significant? The world's trade depends on shipping. Navigating the ocean environment is hazardous enough and nautical cartography plays a significant role in promoting safe maritime operations. The safety of shipping and lives at sea is an essential objective of nautical charting whether it be by traditional paper charts or by Electronic Navigation Charts (ENCs) integrated into the vessel's bridge systems.

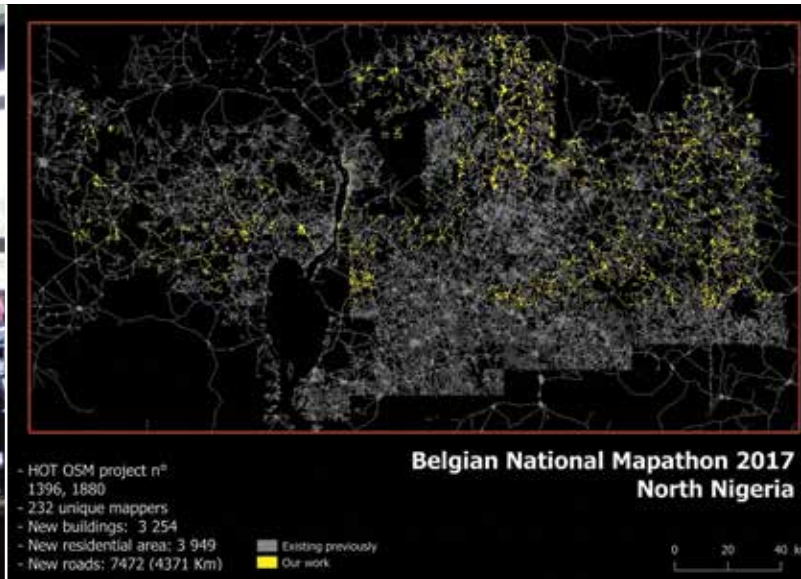
Nautical cartographers have always needed to produce and present graphically complex ocean information that tests their professional competence. With the development of ENCs nautical cartographers have had to be even more highly competent as they compile multifarious data sets into a multiplicity of chart presentations. In an international context, adherence to approved international standards is critical but the underpinning of the applications needs to be founded on accepted cartographic principles and in this, ICA has a significant role to play.

It therefore follows that those cartographers working to deliver modern international chart services **must** be competent. The standards for nautical cartographers are known as International Hydrographic Organization (IHO) Special Publication S-8 and can be downloaded from the IHO website [www.iho.int/iho\\_pubs/IHO\\_Download.htm#draft](http://www.iho.int/iho_pubs/IHO_Download.htm#draft). The Standards are accompanied by a separate but extensive guidance document, the *Guidelines for the Implementation of Standards of Competence for Hydrographic Surveyors and Nautical Cartographers*, that will also be available shortly from the IHO website.

A meeting of the Working Group (WG) on Marine Cartography will be conducted at ICC 2017, presently scheduled for the Thursday. It is planned to discuss the viability of the WG, its suggested work program and future drivers. A key discussion point will be how best to continue the excellent relationship between ICA and IHO. Interested persons are advised that the WG presently works by correspondence. One objective will be to set an action plan for elevation of the WG status to that of an ICA Commission again. The success of this aim will depend on future support from members within ICA.

Comments on the Standards can be sent to [rfurness@ozemail.com.au](mailto:rfurness@ozemail.com.au) for forwarding to the Secretariat of the International Board.

**Ron Furness and Lysandros Tsoulos** | Chair / Vice Chair | ICA Working Group on Marine Cartography | Australia / Greece ■



The National Mapathon in Belgium: enthusiastic mappers in Ghent (left); the outcome of mapping north Nigeria | Photography Seppe Santens / Image Tais Grippa

## 2nd National Mapathon in Belgium

On Saturday, 25 March 2017, eight Belgian universities opened their doors once again to one big collective mapping event – the second National Mapathon. The event was inspired by the original one organised in April last year as part of the ICA's International Map Year initiative (see *ICA News*, No 66, June 2016, p 16).

Humanitarian organizations need maps to efficiently offer help in crisis situations. Therefore, Doctors without Borders and the Red Cross joined forces in 2014 to launch the *Missing Maps* project, in cooperation with the OpenStreetMap Foundation. This time the focus was on Sierra Leone. It is a country with one of the highest number of child and mother mortality. Doctors without Borders wish to set up a project in Kenema to combat these problems and detailed maps are of utmost importance to make it a success.

Last year, we attracted about 200 people. It was the first mapathon organized at a national scale and the world record. This year an astounding 355 people contributed to the task (now we have a new record to beat!). Because of the mappers' fast progress during the event, other projects in Zambia and Nigeria were tackled as well!

We mapped about 40,000 buildings, amongst other things. A report with some animated maps and the Top 50 mappers is available from [github.com/tgrippa/Mapathon2017](https://github.com/tgrippa/Mapathon2017).

We would like to express our big thank you to all the people who made the National Mapathon possible: MSF, the Missing Maps, the National Committee of Geography, the organizers within each university, the OpenStreetMap Belgium and OSGeo volunteers. And above all to you, the many mappers who showed up.

**Frank Canters and Kristien Ooms** | Chair / Secretary | National Committee of Geography | Sub Committee on Cartography and GIS | *Belgium* ■

## Mapping Events Organised by United Arab Emirates University

In the first quarter of 2017, Dr Naeema Alhosani from the College of Humanities and Social Sciences (CHSS), United Arab Emirates University (UAU) was coordinating the *Principles of Cartography* and *Cartograph2* courses. Amongst other things, the courses involved dividing students

into different groups, each group with a task to develop their own ideas about celebrating the International Map Year. Here are the types of activities the students came up with so far (more activities are still planned in the near future).

On 2 February 2017 there was brainstorming session in the *Innovation Kindergarten* that included many geography activities, such as geography puzzle – a map of the United Arab Emirates (UAE). Also, children were painting the UAE flag and UAE map. In addition, they watched a video about the tourism in the UAE. Then, the students have been asked some questions about the geography of the UAE and they received simple gifts.

On 9 February 2017, the UAEU delivered a workshop entitled *Map elements* at the Al Shula School in Al Fujarah (Al Bithnah). The workshop discussed various map elements and the students enjoyed its content.

On 13 March 2017, a workshop was held in the Smart Alsanafer Nursery to apply three types of activities; two activities were related to the map skills involving pictures and describing routes, and the third activity was about landforms. The children had fun and actively participated in the workshop, including interacting with games. In the end the children received some gifts, a small board with colours, and they loved it.

On 20 March 2017 there was a lecture entitled *Geography is your world* delivered to UAEU students to help them understand the meaning of geography, its various disciplines, and to introduce the field of cartography. The lecture included multiple activities such as a video about geography and maps, geography games, and debate about cartography.

**Naeema Alhosani** | United Arab Emirates University | *United Arab Emirates* ■

Children participants of the workshops organised by the United Arab Emirates University | Photography Naeema Alhosani





# calendar

## june 2017

26-27: InterCarto / InterGIS-23 | **Geoinformation Support of Sustainable Development of Territories in Conditions of Global Climate Change** (organised by the ICA Commission on GI for Sustainability) | Yuzhno-Sakhalinsk | *Russia* | [intercarto.msu.ru](http://intercarto.msu.ru)

For the full schedule of ICC 2017 pre-conference workshops run by the ICA Commissions between 28 June and 2 July 2017, please refer to page 5.

## july

02-07: 28th International Cartographic Conference and 17th Extraordinary General Assembly of ICA | Washington, D.C. | *USA* | [www.icc2017.org](http://www.icc2017.org)

04-07: GI\_Forum 2017 | Salzburg | *Austria* | [www.gi-forum.org](http://www.gi-forum.org)

## september

15-16: International Symposium on the History of Cartography | **Mapping Asia: Cartographic Encounters between East and West** (co-organised by the ICA Commissions on the History of Cartography) | Leiden | *Netherlands* | [blogs.library.leiden.edu/mapping-asia/](http://blogs.library.leiden.edu/mapping-asia/)

18-20: International Symposium on Place Names | **Critical Toponymy – Place Names in Political, Historical and Commercial Landscapes** (co-organised by the Joint ICA/IGU Commission on Toponymy) | Windhoek | *Namibia* | [www.ufs.ac.za/conferences/conference/2017-international-symposium-on-place-names/](http://www.ufs.ac.za/conferences/conference/2017-international-symposium-on-place-names/)

## january 2018

14: Eye Tracking for Spatial Research (ET4S) Workshop | Zurich | *Switzerland* | [spatialeyettracking.org/et4s-2018/](http://spatialeyettracking.org/et4s-2018/)

15-17: 14th International Conference on Location-Based Services (organised by the ICA Commissions on Location Based Services) | Zurich | *Switzerland* | [lbsconference.org](http://lbsconference.org)

## march

14-18: Geoinformation for Disaster Management (Gi4DM) 2018 | Kyrenia | *Cyprus* | [www.gi4dm2018.org](http://www.gi4dm2018.org)

## may

21-25: 11th Mountain Cartography Workshop | Hvar | *Croatia*

## july 2019

15-20: 29th International Cartographic Conference and 18th General Assembly of ICA | Tokyo | *Japan* | [icc2019.jpn.org](http://icc2019.jpn.org)

# ica affiliate members

Association of Polish Cartographers |

*Poland* | [www.polishcartography.pl](http://www.polishcartography.pl)  
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Chinese Cartographic Association (Chinese Taipei) | *Taiwan-China*

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Eko-Graf Publishing House | *Poland*

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Geospatial Information Authority of Japan

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GeoTechVision Enterprise Limited | *Jamaica*

| [www.techvisionenterprise.com](http://www.techvisionenterprise.com)  
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and Geodesy | *Germany* | [www.bkg.bund.de](http://www.bkg.bund.de)  
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HERE | *Germany*

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National Hydrographic Office | *India*

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National Land Survey of Finland | *Finland*

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Ordnance Survey | *United Kingdom*

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Regional Centre for Mapping of Resources

for Development (RCMRD) | *Kenya* | [www.rcmrd.org](http://www.rcmrd.org)  
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Regional Centre for Training in Aerospace

Surveys (Rectas) | *Nigeria* | [www.rectas.org](http://www.rectas.org)  
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and Architects, Chamber of Surveying and Cadastre Engineers (UCTEA-CSCE) | *Turkey* | [www.hkmo.org.tr](http://www.hkmo.org.tr)  
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United Nations Geospatial Information

Section | *United Nations* | [www.un.org/depts/cartographic/english/htmain.htm](http://www.un.org/depts/cartographic/english/htmain.htm)  
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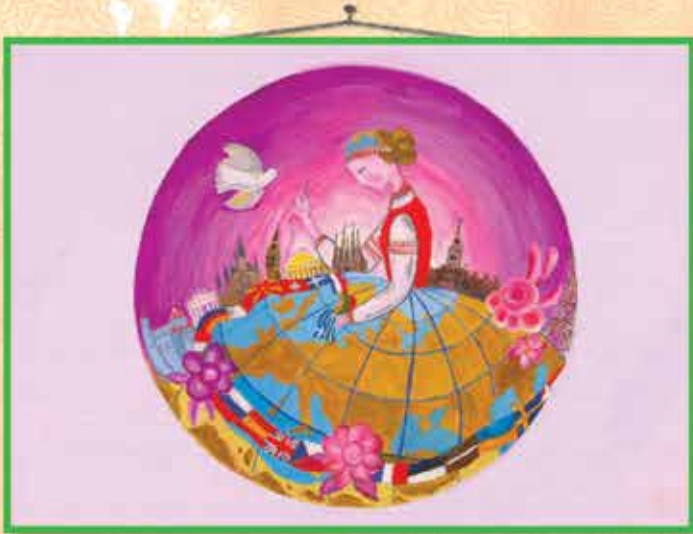
Wuda Geoinformatics | *China*

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ICA welcomes new affiliate members; for more information, please contact László Zentai, ICA Secretary General & Treasurer ([sg@icaci.org](mailto:sg@icaci.org)).



# children's map gallery 2005 winners



Marcia Grieva | 12  
| **United Europe** |  
Children's Art School  
No 4: Yekaterinburg |  
Russian Federation

Gintarė Kvietauskė | 13 | **Many Nations,  
One World** | Šilalė Kvietauskė: Šilalė |  
Lithuania



Alicja Ogorzelska | 13 | **We are  
Great Family, Take Care of Our  
Home** | Szkoła Podstawowa Nr 223:  
Warszawa | Poland

Evelin Demeter | 12 |  
**Help Our Earth** | School  
of Arts: Târgu Mureș  
(Marosvásárhely) |  
Romania



Holly Harrison | 10 | **A World Free  
from Hunger Would Be a Good World**  
| Christ Church CE (C) Primary School:  
Lichfield, Staffs | **United Kingdom**

