Full Program

The World’s Geo-Spatial Solutions

15th to 21st of November, 2009
Santiago, Chile
Full Program

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ICC 2009:
General Introduction to Program

Welcome to the 24th International Cartographic Conference. The “Full Program” is your guide for all the activities of this event; it also includes plans of the venue and of Santiago, useful information for attendees and the list of the organizations involved with this event. The Conference Proceedings, the Summary Program, the Catalogues of the Exhibitions and the Commercial Catalogue all provide further information complementing that in this full program.

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Welcome Message from the President of the Organizing Committee

Dear friends, on the occasion of the 24th International Cartographic Conference, I give a warm greeting to all the participants present. It is a great honour to lead the organization of the ICC 2009, an event that constitutes the convergence of many sectors in the search for the geo-spatial solutions required by the world community, the public presentation of the most recent cartographic technologies and a milestone of great scientific significance for the world. Without doubt your work will be of great use to all specialists, providing new ideas and encouraging the technological tendencies that contribute to the development of each country.

¡Welcome to Chile!

Welcome Message from the President of the International Cartographic Association

Dear colleagues, in November 2009 the International Cartographic Association will hold its conference in Santiago, Chile. This is an opportunity to keep abreast with the latest scientific and technical developments in our profession. As well, it provides the possibility to meet Chilean colleagues. The conference in Santiago provides the opportunity, for the first time, for the activities of the ICA to be showcased in South America. On behalf of the International Cartographic Association, I welcome you to the ICC2009 in Santiago, the 24th conference of the International Cartographic Association. I look forward to seeing you in Chile in 2009.

Regards,
CONFERENCE VENUE: MILITARY SCHOOL OF LIBERATOR BERNARDO O’HIGGINS

The venue for the 24th International Cartographic Conference is the “Escuela Militar del Libertador Bernardo O’Higgins” (Liberator Bernardo O’Higgins Military School), located in the borough of Las Condes. The site belongs to the Army of Chile (which is a Patron of ICC 2009) and is one of the main military training centers for educating army officers. The main building of the complex was built in the 1940s.

The main buildings of the Military School have been included in the areas of the conference ICC 2009, according to signage that attendees can see, related to the conference. Attendees are kindly requested not to enter areas of the Military School which are not available as part of the conference.
MUSEUM OF THE MILITARY SCHOOL

The Military School has a museum where people can have access to the Chilean military-historical heritage. It includes paintings, uniforms and graphic information. Registered attendees at the ICC 2009 can visit the museum according to the following schedule:

Times: Between 12:30 and 14:00
Dates: for 5 days, Monday 16th to Friday 20th.
Plans of the Conference Venue
Ceremonies and Plenaries

The Inauguration and Closing Ceremonies, also the Plenary Sessions, are events intended for ICC 2009 attendees to attend all together in one place; this is the main auditorium of the conference (the Military School calls it the “Aula Magna”).

Inauguration and Closing Ceremonies: These are events for all attendees and also for major guests from Chilean society, representatives of Embassies in Santiago and reporters from the local media. Detailed programs of these events will be announced to attendees during the conference; here is a brief summary:

Inauguration Ceremony: Monday 16th of November; 18:00 – 19:15: The official opening of ICC 2009 starts with welcoming speeches from the Presidents of LOC and of the ICA. The speech of the most distinguished guest of the conference, the President of the Republic of Chile, Michelle Bachelet Jeria, will be the highlight of the occasion. The Band of the Chilean Army will provide a musical presentation.

Closing Ceremony: Saturday 21st of November; 14:00 – 16:00: ICC 2009 comes to a close at this event which includes the awards and announcements of competition results, the presentation of the 24th ICC (France, 2011) and the closing speeches.

Plenaries: At these sessions six figures well-known worldwide in the earth sciences and geo-cartographic sector, will present their expert, informed visions.

Monday 16th of November; 11:00 – 12:30
• Vice-Admiral Robert Murrett, Director of the National Geospatial Intelligence Agency – NGA (United States). His presentation will focus on defence, security, and the role of cartographic agencies in that sector.
• Geoff Zeiss, Director of Geo-Spatial Technology for Autodesk: “Convergence of BIM, CAD, GIS and 3D: Implications for eGovernment”

Tuesday 17th of November; 09:00 – 09:35
Clint Brown, Director of Products at ESRI: “How the Web is changing cartography and what it means” (precedes a corporate presentation by ESRI)

Wednesday 18th of November; 09:00 – 09:35
Vanessa Lawrence, Director of the Ordnance Survey (United Kingdom): The presentation focuses on state cartographic agencies (precedes the meeting for cartographic agencies).

Thursday 19th of November; 09:00 – 09:35

Friday 20th of November; 09:00 – 09:35
Scientific Conference – Introduction

The presentation of papers and posters is a fundamental component of the international cartographic conferences. The Local Organizing Committee (COL), the Scientific Sub-Committee (see page 62) and the ICA have worked on the call for papers and on the selection of submissions, all of which present the state-of-the-art in cartography and geospatial sciences.

Papers

Most of the submissions are papers; that is, a text between 5 and 10 pages which is published in the Conference Proceedings. The papers are of two kinds, Refereed and Non-Refereed; the difference between these two categories lies in the methods through which the papers were selected and improved prior to the conference; and they do not have any influence in the organization of oral presentations.

Technical Sessions

These are the oral presentations of papers. Most of them take 90 minutes and others, 45 minutes. Each technical session comprises up to 4 different presentations of papers.

Topics of the Conference

Each scientific work is associated to one of the 31 topics of the Conference (page 11 contains the list of topics). The topics cover the different specific areas of cartographic activity, most of which have been defined according to the ICA Commissions and Working Groups.

Order of Oral Presentations

The oral presentations have been grouped according to the topics of the Conference so that each Technical Session consists of a group of presentations under the same topic. In those themes where there are many presentations, a sequence of presentations with intervals between them has been scheduled.

Poster Sessions and Exhibition

Some of the scientific submissions correspond to the poster category which consists of a poster including information presented graphically. They will be exhibited on panels during the conference. The poster sessions correspond to the time periods in which the authors will be at their respective panel in order to answer the attendees’ questions and/or comments. In the Scientific Programme of the Conference the participants will be able to check the days and time in which authors will present their posters. Additionally, some poster authors will deliver lectures in similar conditions to those of the Technical Sessions.

Conference Proceedings

The Complete texts and abstracts of the papers and posters will be published officially in the Conference Proceedings with the results of the ICC 2009 (and with ISBN number). The proceedings consist of a CD containing the papers abstracts in .pdf format which participants receive when registering at the conference venue.
## Conference Scientific Themes

<table>
<thead>
<tr>
<th>No.</th>
<th>Short Name</th>
<th>Full Title of Theme</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Production systems</td>
<td>Map production systems, economic, management and technological aspects.</td>
</tr>
<tr>
<td>2.</td>
<td>Basic Cartography</td>
<td>Marine cartography and hydrographic charting, aeronautical cartography, military</td>
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<tr>
<td></td>
<td></td>
<td>mapping</td>
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<tr>
<td>3.</td>
<td>Infrastructures (SDI)</td>
<td>Spatial Data Infrastructures (NSDI, GSDI and SDI) at national, regional and world</td>
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<tr>
<td></td>
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<td>levels. Spatial data handling and the development and use of geospatial standards.</td>
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<td></td>
<td></td>
<td>Spatial databases, updating, versioning, and spatial querying.</td>
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<td>4.</td>
<td>Hazards and disasters</td>
<td>Cartography for early warning, crisis management, disaster relief and poverty</td>
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<td></td>
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<td>eradication</td>
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<td>5.</td>
<td>GIS</td>
<td>Digital cartography and GIS for sustainable development of territories.</td>
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<tr>
<td>6.</td>
<td>Satellite imagery</td>
<td>Cartography and satellite imagery for the management of natural resources and the</td>
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<tr>
<td></td>
<td></td>
<td>environment</td>
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<tr>
<td>7.</td>
<td>History</td>
<td>The history of cartography and the cartography of history.</td>
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<tr>
<td>8.</td>
<td>Physical handicap</td>
<td>Maps for the blind and visually impaired.</td>
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<tr>
<td>9.</td>
<td>Research and development</td>
<td>Research and development: new products and cartographic systems.</td>
</tr>
<tr>
<td>11.</td>
<td>Geospatial analysis</td>
<td>Geospatial analysis, modelling and geoinformation science</td>
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<tr>
<td>12.</td>
<td>Toponymy</td>
<td>Toponymy and Geographic Names.</td>
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<tr>
<td>13.</td>
<td>Internet</td>
<td>Cartography and the Internet, mobile devices, ubiquitous computers, and location-</td>
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<tr>
<td></td>
<td></td>
<td>based services. Navigation</td>
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<tr>
<td>15.</td>
<td>Multimedia</td>
<td>Multimedia and multidimensional cartography.</td>
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<tr>
<td>16.</td>
<td>Copyright</td>
<td>Copyright, access to data, and intellectual property management in cartography.</td>
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<tr>
<td>17.</td>
<td>Users</td>
<td>Use and user issues in cartography.</td>
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<tr>
<td>18.</td>
<td>Education</td>
<td>Education and training in cartography. Delivery of online courses</td>
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<tr>
<td>19.</td>
<td>Generalization</td>
<td>Cartographic generalization and multiple representation.</td>
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<tr>
<td>20.</td>
<td>Geovisualization</td>
<td>Geovisualization. Visual analytics, mapping space and time, 3D mapping.</td>
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<tr>
<td>22.</td>
<td>Maps and society</td>
<td>Maps and society. Mapping by non-cartographers. Under-represented groups in</td>
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<td></td>
<td></td>
<td>cartographic practice.</td>
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<tr>
<td>23.</td>
<td>Tourism</td>
<td>Tourist and recreational cartography. Maps in the media and in advertising.</td>
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<tr>
<td>24.</td>
<td>Art</td>
<td>Art and cartography. Creativity, symbolisation and representation of space. Map design</td>
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<tr>
<td>25.</td>
<td>Cartographic Heritage</td>
<td>Digital technologies for cartographic heritage</td>
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<tr>
<td>26.</td>
<td>Planets and Space</td>
<td>Planetary &amp; outer-space cartography</td>
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<tr>
<td>27.</td>
<td>Critical Cartography</td>
<td>Critical cartographies and Criticism of Maps</td>
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<tr>
<td>28.</td>
<td>Montains</td>
<td>Mountain cartography.</td>
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<tr>
<td>29.</td>
<td>Children</td>
<td>Cartography and Children.</td>
</tr>
<tr>
<td>30.</td>
<td>Theory</td>
<td>Theoretical cartography</td>
</tr>
<tr>
<td>31.</td>
<td>Others</td>
<td>Other themes linked to cartographic sciences.</td>
</tr>
</tbody>
</table>
Paper Presentations in Technical Sessions

16th Monday First Afternoon Session 14:00 - 15:30

Theme: 28. Mountains
Room: S-2 (Erasmo Escala)

- “Mapping Climatic Variation in the Central Andes of Colombia”: Mario Giraldo (USA)
- “Understanding the risk: establishing of an interactive system for the visualization and exploration of natural hazards and associated uncertainties”: Melanie Kunz (Switzerland)
- “Mapping the Cultural History of the Western Himalayas”: Karel Kriz (Austria)
- “Relief Representation in Mountain Areas”: Francois Lecordix (France)

Theme: 14. Atlases
Room: S-3 (Library)

- “West-European, Russian, and Japanese Maps of the Kuril Islands up to the 19th century: a comparative analysis”: Nikolay Komedchikov (Russian Federation)
- “Atlas of the Kuril Islands”: Nikolay Komedchikov (Russian Federation)
- “Socio-Demographic Atlas of the Villarrica Sub-Basin Using Geographic Information Systems and Redatam” Cristian Henríquez (Chile)
- “Geographic and Cartographic Support for the U.S. 2010 Decennial Census”: Timothy Trainor (USA)

Theme: 1. Production Systems
Room: S-4 (General Carrera)

- “Canadian Topographic Maps - Rebuilding Canada’s National Mapping Program”: Yvan Desy (Canada)
- “New methodology for mapping production of the Spanish Province Map 1:200.000 from GIS”: Jose Antonio Merino (Spain)
- “Digital Aerial Cameras”: Klaus Neumann (Germany)
- “Cartographic Information Management In Colombia; Reach A Level Of Perfection”: Jaime Alberto Duarte Castro (Colombia)

Theme: 11. Geo-Spatial Analysis
Room: S-5

- “Spatial Patterns of The Accessibility Of The Population To Health Centers In Metropolitan Area of Gran Resistencia Chaco Argentina”: Liliana Ramirez (Argentina)
- “Assessment Of Eco-environmental Vulnerability of Fildes Peninsula, Antarctica”: Xiaoping Pang (China)
- “Research on Regional Economical Level of Lancang River Basin Based on Grey Cluster and Gis”: Dong Chun (China)
- “Charting Sea Visibility Along Coastal Areas In The Context Of Coastality”: John Kiousopoulos (Greece)
First Afternoon Session  
14:00 - 15:30 (Continued)

Theme: 27. Critical Cartography.  
Room: S-6

− “New Landscape, New Language? Post-communist Cartographies Of Independence”: Alexander Kent (United Kingdom)
− “Territoriality And Geocartographical Analysis: Scales Of Interpretation As A Tool For The Understanding Of Water Resources Management Conflicts”: Laura Quarentei (Brazil)
− “Mediated Knowledge And (un) Certain Science: The Use Of Maps In Communicating Climate Change In Mass Media”: Deitrick Stephanie, represented by Robert Edsall (USA)
− “The Emotional Life of Maps”: Stuart Aitken (USA)

Second Afternoon Session  
16:00 - 17:30

Theme: 28. Mountains  
Room: S-2 (Erasmo Escala)

− “Response Of European Rock Glaciers To Climate Change. A Comparative Analysis Of Doesen, Posets”: Jos Juan De Sanjos Blasco (Spain)
− “Visualisation Of The Dynamics Of Debris-covered Glaciers Using Space Imagery” Manfred Buchroithner (Germany)
− “Methods For Real-time Visualization And Exploration Improvements Of Precipitation Radar And Temperature Data In Web-cartography”: Christophe Lienert (Switzerland)
− “Visualization Of Glacier Surface Movement”: Samuel Wiesmann (Switzerland)

Theme: 14. Atlases  
Room: S-3 (Library)

− “Mapping Literature The Prototype Of a Literary Atlas Of Europe”: Anne-kathrin Reuschel (Switzerland)
− “Navigation In School Atlases: Functionality, Design And Implementation In The swiss World Atlas Interactive”: Juliane Cron (Switzerland)
− “Maps On Virtual Globes For Geographic Education: Approaches And Implementation In The swiss World Atlas”: Philipp Marty (Switzerland)
− “Addressing Different User Groups With One Atlas: The Biota East Africa Atlas, Subtitled Rainforest Change Over Time”: Gertrud Schaab (Germany)
Theme: 1. Production Systems
Room: S-4 (General Carrera)

- “Automating Map Production Workflows”: Aileen Buckley (USA)
- “New Approach For Semiautomatic Navigation Data Collecting Technology For Field Survey”: Tee Mati (Estonia)
- “Experience of the IGM in Technological Change for the Aerotriangulation Process”: Carlos Sepulveda H. (Chile)
- “The Globe Of Austria - Cartographic Design, Production And Some Selected Problems”: Robert Ditz (Austria)

Theme: 11. Geo-Spatial Analysis
Room: S-5

- “Research Of Establishment And Application For Spatio-temporal Data Models Of An Open-pit Stope”: Weidong Song (China)
- “Structural Holes For Structuring Stroke-based Road Networks”: Hong Zhang (China)
- “Research On Conceptual Framework For Spatio Temporal Database”: Lakmal Harinda (China)
- “Hyperspectral Remote Sensing Images Applied To Three Cases In The Central Zone Of Chile”: Natacha Oyola (Chile)

Theme: 8. Physical Handicap
Room: S-6

- “Measuring Accessibility For People With Impairments In The Urban Environment”: Johan Svensson (Sweden)
- “Music of Relief: Sound Map For The Blind And Visually Impaired”: Andrey Medvedev (Russian Federation)
First Morning Session  
09:45 - 10:30

Theme: 11. Geospatial Analysis  
Room: S-1 (Main Auditorium)
- “Semantics Of Contour Lines’ Spatial Relation”: Tao Wang (China)
- “Research On Spatial Data Mining Based On Uncertainty In Government Gis”: Bin Li (China)

Theme: 25. Cartographic Heritage  
Room: S-2 (Erasmo Escala)
- “3D Photographs For Cartographic Heritage”: Walter Schuhr (Germany)
- “On The Digital Revival Of Historic Cartography: Treating Two 18th Century Maps Of The Danube In Association With Google-provided Imagery”: Evangelos Livieratos (Greece)

Theme: 14. Atlases  
Room: S-3 (Library)
- “Educational Atlas Of America, Spain And Portugal”: Concepcion Romera (Spain)
- “Proposed Standards For Cadastral Mapping In Brazil”: Valeria Araujo (Brazil)

Theme: 22. Maps & Society  
Room: S-4 (General Carrera)
- “A Globally Oriented Deep Mapping Of Brazil”: Sandes Anderson (USA & Brazil)
- “Ethical Concerns Of Online Geoinformation Services”: Zhu Yueqin (China)

Theme: 13. Internet  
Room: S-6
- “A User Environment For Authoring, Syndicating And Aggregating Map-integrated Audio Tours: Mapodwalk Caster”: Ken'ichi Tsuruoka (Japan)
- “A Web Service To Personalize Map Colouring”: Joerg Steinruecken (Germany)

Second Morning Session  
11:00 - 12:30

Theme: 11. Geospatial Analysis  
Room: S-1 (Main Auditorium)
- “Type Of Data And Efficiency Of Choropleth Maps”: Marta Tomaszewska (Poland)
- “A Simple Physical Model To Estimate Global Solar Radiation In The Central Zone Of Chile”: Luis Morales (Chile)
- “Research On The Profile Spectrum Of Catchment Boundary Basing On Dems Of Loess Landform”: Guoan Tang (China)
- “Information Society Development Level In Carpathian Regions”: Piotr Werner (USA)
Theme: 25. Cartographic Heritage
Room: S-2 (Erasmo Escala)
- “Cartometric Analysis And Digital Archiving Of Historical Solid Terrain Models”: Alastair Pearson (United Kingdom)
- “Detailed Analysis Of The Muller’s Map Of Bohemia”: Jiri Cajthaml (Czech Republic)
- “Swiss Style Relief Shading Methodology Knowledge Base For Further Development And Application In Digital Cartography”: Stefan Raber (Switzerland)

Theme: 14. Atlases
Room: S-3 (Library)
- “Atlas Of Switzerland 3 A Decade Of Exploring Interactive Atlas Cartography”: Rene Sieber (Switzerland)
- “Spanish National Atlas Information System Development. A Step Forward”: Juan Jose Alonso Gamo (Spain)
- “Production Of Municipal School Atlases In”: Rosangela Almeida (Brazil)
- “Digital Atlas User Requirements And Use Scenarios”: Ormeling Ferjan (Netherlands)

Theme: 22. Maps & Society
Room: S-4 (General Carrera)
- “Some New Applications In The Theory And Practice Of Cybercartography Mapping With Indigenous Peoples In Canadas North”: Fraser Taylor (Canada)
- “Mapping Health Care Networks In Trinidad Integrating Ethnographic Data And Gis”: Lisa Chaudhari (USA)
- “Regional Spatial Planning Maps: A Sino-swiss Comparison Of Cartographic Visualization Methodologies”: Xi Tang (China)
- “Dependent Aspects Of Brazilian Environmental Laws And National Topographic Mapping Series”: Claudia Sluter (Brazil)

Theme: 13. Internet
Room: S-6
- “Road Pricing With Location And GPS Position”: Xu Aigong (China)
- “Web Mapping Errors And Their Typology”: Elzbieta Bielecka (Poland)
- “Geographical Data Supply for Location Based Systems (LBS) And Web Applications”: Mati Tee (Estonia)
- “Progress and Prospects for Online Mapping at the US Census Bureau”: Trudy Suchan (USA)
First Afternoon Session
14:00 - 15:30

Theme: 11. Geospatial Analysis
Room: S-1 (Main Auditorium)

- “Disaggregation Of Regional Population Data For Residential Hot Water Demand Assessment”: Monjur Murshed Syed (Germany)
- “Biogeographic Regionalization Of Chilean Asteraceae: Bridging The Wallacean Shortfall”: Andres Moreira Munoz (Chile)
- “Representing Geographical Information Uncertainty: Cartographic Solutions And Challenges”: Igor Drecki (New Zealand)
- “Support Of Spatial Analysis Through A Knowledgebase A New Concept To Exploit Spatial Information Shown For Industrial Archaeology”: Frank Boochs (Germany)

Theme: 16. Intellectual Property
Room: S-2 (Erasmo Escala)

- “Embedding Watermarks In Satellite Imagery: Technical And Application Issues”: Songnian Li (Canada)
- “An Adaptive Watermarking Algorithm For Dem Based On Dft”: Zhu Chang Qing (China)
- “Protection Of Copyright In The Field Of Cartography In The Republic Of Croatia”: Vesna Posloncec-petric (Croatia)
- “Issues On Open Data Access And Intellectual Property Rights For Cartographers”: Lucia Lovison Golob (USA)

Theme: 14. Atlases
Room: S-3 (Library)

- “Designing A Regional Atlas In Greece. The Electronic Regional Atlas Of Epirus”: Myron Myridis (Greece)
- “Educational Resources From The National Atlas Of Spain”: Concepcion Romera (Spain)
- “The Atlas Of Canadas International Polar Year North Circumpolar Map”: Eric Kramers (Canada)

Theme: 22. Maps & Society
Room: S-4 (General Carrera)

- “Sitna Geoportal: Towards The Integration Of Territorial Information”: Valentin Andres (Spain)
- “Minimal Data Base Organization For Municipal Administration Support To Geoprocessing Implementation For City Councils”: Ana Clara Moura (Brazil)
- “Crowdsourcing Is Radically Changing The Geodata Landscape”: Steve Chilton (United Kingdom)
- “Cultural-dependent Perception Of Space”: Kazimierz Becek (Brunei)
Theme: 5. GIS for Sustainable Development
Room: S-5
- “Cartography And Spatial Analysis Of Urban Sprawl”: Carolina Rojas (Chile)
- “GIS, Management Solution For The Sanitary Sector”: Carlos Arias (Chile)
- “Technological Evolution Of The Andalusian Roads Geographical Information System”: Moises Barea Solis (Spain)
- “The Development Of A Spatial Decision Support System For The Optimum Location Of Public Goods”: Voutsa Despina (Greece)

Theme: 31. Others
Room: S-6
- “The Final Version of Roerich Expedition Map In Central Asia”: Irina Golodnikova (Russian Federation)
- “New Urban Expeditions Along the GPS Matrix”: Evamaria Trischak (Austria)
- “Croatian River Information Services”: Ivana Racetin (Croatia)
- “A Truly Automated Mapping System For New Zealand’s Topographic Maps”: Geoff Howard (New Zealand)

Theme: 11. Geospatial Analysis
Room: S-1 (Main Auditorium)
- “Modeling Site Suitability For Community Water Access Points In The Mayange Sector Of Rwanda”: Max Baber (USA)
- “The Uses Of Geoprocessing Techniques In The Identification Of Locations Suitable For The Implementation Of Airport Infrastructure In The North Vector”: Daniel Tristao (Brazil)
- “The Use Of Artificial Neural Networks To Assist GIS In Decision Making: A Case Study”: Sanet Eksteen (South Africa)
- “Testing the spatial adjacency match of the ‘Entiendo’ address matching tool for geocoding address”: Manus Rademayer (South Africa)

Theme: 27. Critical Cartography
Room: S-2 (Erasmo Escala)
- “Mapping Without A Net: The Politics, Sovereignty And Ontology Of Cartography”: Jeremy Crampton (USA)
- “How Do We Map The Geographies Of Cartography?”: Chris Perkins (United Kingdom)
- “Citizen Cartographies and The Shifting Politics Of Expertise”: Sarah Elwood (USA)
- “The Cartographic Representation Of The Desired Spatial Structure In Flanders”: Philippe De Maeyer (Belgium)
Second Afternoon Session
16:00 - 17:30 (Continued)

Theme: 31. Others
Room: S-3 (Library)
- “The Eurogeonames Project, Results And Expectations”: Ferjan Ormeling (Netherlands)
- “Overview Of The Semiotics Of Maps”: Hansgeorg Schlichtmann (Canada)
- “Hill-shading Techniques To Enhance Terrain Maps”: Patrick Kennelly (USA)
- “SIRGAS 2000: The Change of Geodetic Reference Frame and the Communication with users”: Valeria Araujo (Brazil)

Theme: 26. Planets & Space
Room: S-4 (General Carrera)
- “Nomenclature Of Planetary Surface Details: Current State And Problems”: Kira Shingareva (Russian Federation)
- “International Planetary Cartography Database”: Henrik Hargitai (Hungary)
- “Conception Of A Geo-database And An Application-oriented Query System For Geological Mapping Of Martian Surface”: Andrea Nass (Germany)

Theme: 5. GIS for Sustainable Development
Room: S-5
- “Visibility Simulation Technique For Support Of Visual Recognition Of The Landform Features”: Tomaz Podobnikar (Slovenia)
- “Las Condes Territorial Information System for the Development of the Community”: Luis Valenzuela Olivares (Chile)
- “Government Gis Building Based On The Theory Of Information Architecture”: Lihong Shi
- “Fragility Studies, Landscape Usage Potential and Tourism Carrying Capacity Of Aggeo Pio Sobrinho Park”: Junia Borges (Brazil)

Theme: 10. Map Projections
Room: S-6
- “The Projection Aspects Of Digitising Globes”: Gede Matyas (Hungary)
- “Most Common State Map Projections for the Republic Of Kosova”: Bashkim Idrizi (Macedonia)
Paper Presentations in Technical Sessions

First Morning Session
09:45 - 10:30

**Theme: 13. Internet**
Room: S-2 (Erasmo Escala)

- “A Story Authoring Tool With Mapped Photo Collections”: Fujita Hideyuki (Japan)
- “Using Web 2.0 For Mapping Alternative Australian Viewpoints”: William Cartwright (Australia)

**Theme: 3. Infrastructures (SDI)**
Room: S-3 (Library)

- “The Digital National Map Of The United States Of America”: Mark Demulder (USA)
- “OGC: Global Approaches And Interoperability In Cartography”: Athina Trakas (Germany)

**Theme: 20. Geovisualization**
Room: S-4 (General Carrera)

- “The Effect Of Realism In 3D Stereoscopic Displays On the Confidence in Spatial Data Quality”: Fabrikant Sara Irina (Switzerland)
- “3D Gaming And Cartography - Design Considerations For Game-based Generation of Virtual Terrain Environments”: Lorenzo Oleggini (Switzerland)

**Theme: 7. History**
Room: S-5

- “Charcas in the “Map of South America”, engraved in Madrid in 1775”: Felix Gajardo (Chile)
- “A 125 Year History Of Topographic Mapping And Gis In The Usgs, 1884-2009”: E. Lynn Usery (USA)

**Theme: 6. Satellite Imagery**
Room: S-6

- “Quantitative Evaluation Of Satellite Aerosol Data For Mapping Fine Particulate Air Pollution In The Conterminous United States”: Zhiyong Hu (USA)
Second Morning Session
11:00 - 12:30

Theme: 13. Internet
Room: S-2 (Erasmo Escala)
- “The Brave New World Of Online Mapping”: Michael Peterson (USA)
- “The Role Of Public Heath Policy In The Design Of Web Mapping Services”: Rex Cammack (USA)
- “Incorporating Data And Geographical Tools Into Management: Geo - Workflow In Livestock Waste Production And Management Plans In Navarre”: Fernando Alonso Pastor (Spain)
- “Context-aware Visualization On The Web”: Iris Wiebrock (Germany)

Theme: 3. Infrastructures (SDI)
Room: S-3 (Library)
- “Swedish Sdi Development”: Christina Wasstrom (Sweden)
- “Iho S-100: The New Iho Hydrographic Geospatial Standard”: Rojas Mariano (Chile)
- “On The Development Of A Common Specification For A European Reference Map 1:250,000”: Anja Hopfstock (Germany)
- “Development Of A Geographic Database Of Gran Resistencia According To Specifications Of Infrastructure Rules Of International Space Data”: Liliana Ramirez (Argentina)

Theme: 20. Geovisualization
Room: S-4 (General Carrera)
- “Web-based Visual Exploration And Error Detection In Large Data Sets”: Connie Blok (Netherlands)
- “A Workflow Learning Model To Improve Geovisual Analytics Utility”: Robert Roth (USA)
- “Localization Of Uncertain And Fuzzy-bordered Areas By Geocoded Artciles Of A Knowledge Repository”: Tobias Dahinden (Germany)
- “Geotechnology in the incorporaion of the Ne Look of the Landscape”: Debora Brier (Brazil)

Theme: 7. History
Room: S-5
- “Mision Cientifica Croata And Its Role In The Mapping Of Latin America”: Mirela Slukan Altic (Croatia)
- “Local Maps In Civil Disputes: Documents In The Chancelleries Of Valladolid (Spain) And New Spain (Mexico), 15th-18th Centuries”: Pilar Chias (Spain)
- “Critical Remarks Regardin The Contemporay Bible Atlases”: Adam Linsenbarth (Poland)
- “The Hydronym ‘Iberian Sea’ In The Spanish Geographic National Institutes Collection Of Historical Maps”: Zamora Merchand Mar (Spain)

Theme: 6. Satellite Imagery
Room: S-6
- “Summary Of Capacities And Potential Applications of the First Chilean Hyperspectral System”: Marco Peña (Chile)
- “Research On Positioning And Ortho-rectification Of Single High-resolution Image Based On General Sensor Model”: Shi Jinfeng (China)
- “Terrasar-x: Applications For Spaceborne High Resolution Sar Data”: Alejandra Gonzalez (Chile)
- “Landscape Ecological Map using 3-Dimensional Vegetation Structure and Micro Landform Classification Detectd by Lidar Survey”: Mamoru Koarai (Japan)
First Afternoon Session
14:00 - 15:30

Theme: 13. Internet
Room: S-2 (Erasmo Escala)
- “The Culture Of Mapmaking On The Internet”: Tania Canto (Brazil)
- “Modeling Of Communication In Webgis For Dissemination Of Spatial Data And Promotion Of Spatial Analysis”: Sheyla Santana (Brazil)
- “Smart Environment To Support Ubiquitous Navigation”: Georg Gartner (Austria)
- “Regional Cartography-mapping The Region Of Epirus [Greece] In 13 Map Sheets”: Myron Myridis (Greece)

Theme: 3. Infrastructures (SDI)
Room: S-3 (Library)
- “Study On The Standard Architecture For Geomatics”: Li Li (China)
- “National Spatial Data Infrastructure Of Spain Organisational And Legal Framework”: Sebastian Mas Mayoral (Spain)
- “Available Web Services At Spanish Nsdi”: Antonio Rodriguez (Spain)
- “Can A Successful SDI Drive Regional Competitiveness?”: Steven Ramage (United Kingdom)

Theme: 20. Geovisualization
Room: S-4 (General Carrera)
- “Designing And Evaluating Geographic Information Interfaces A Case Study Of A Natural Hazard Information System”: Benedikt Heil (Switzerland)
- “Animation Presentation Of Static Landscape”: Irina Bushueva (Russian Federation)
- “Mapping Places, People, And Utterances To Visualize The Experience Of Place”: Ryan Burns (USA)
- “Organizing The Neo-geography Collections With Annotated Space-time Paths”: Menno-Jan Kraak (Netherlands)

Theme: 3. Infrastructures (SDI)
Room: S-5
- “Using Wps Web Services With Grass System For The Implementation Of The Polish National SDI”: Pawel Netzel (Poland)
- “The National Topographic Mapping As An Indispensable Database for a Brazilian National Spatial Data Infrastructure (NSDI)”: Silvana Camboim (Brazil)
- “Design And Implementation Of Two Software Frameworks for OGC Web Processing Service Development”: Tomasz Kubik (Poland)
- “An Overview Of The Design And Anticipated Use of The North American Profile For Spatial Metadata”: Harold Moellering (USA)

Theme: 4. Hazards & Disasters
Room: S-6
- “Emergency Geographic Information Services: A Framework And Typical Applications”: Xu Shenghua (China)
- “Cartographic Methods For Visualizing Sea Level Rise”: John Kostelnick (USA)
- “Temporailities Cartography In The Field Of Risk”: Aurelie Arnaud (France)
- “Modelling And Cartographic Visualisation Of Transport During Crisis Situations And Military Operations” Marian Rybansky (Czech Republic)
Second Afternoon Session
16:00 - 17:30

Theme: 13. Internet
Room: S-2 (Erasmo Escala)
- “Cartographic Web Applications - Developments And Trends”: Olaf Schnabel (Switzerland)
- “One Geology”: Sverre Iversen (Norway)
- “Future Navigation Systems”: Volker Paelke (Germany)
- “Managing Multiple Point-based Data Instances On A Single Coordinate In Mapping Mashups”: Brian Tomaszewski (USA)

Theme: 3. Infrastructures (SDI)
Room: S-3 (Library)
- “Security and Geo-rights Management Services in Spatial Data Infrastructure”: Bartosz Kopanczyk (Poland)
- “A Cadastral Geodatabase for the U.S. Fish And Wildlife Service”: Douglas Vandegraft (USA)
- “Detailed Services In A Spatial Data Infrastructure From The Computation Viewpoint”: Antony Cooper (South Africa)
- “Euradin: Towards A Harmonized Address Infrastructure”: Maria Cabello (Spain)

Theme: 31. Others
Room: S-4 (General Carrera)
- “Animated and Interactive Visualization of Highway Air Pollution”: Qi Feng (China)
- “Application of the Chebyshev Polynomials To Approximation And Construction of Map Projections”: Pawel Pedzich (Poland)
- “New Approach To The Gauss-Kruger Projection of an Ellipsoid Onto A Sphere”: Pawel Pedzich (Poland)
- “Processes For Improving The Colours Of Topographic Maps In The Context Of Map-on-demand”: Elodie Buard (France)

Theme: 3. Infrastructures (SDI)
Room: S-5
- “The Geosur Program A Regional Initiative To Integrate And Disseminate Spatial Data In South America”: Eric Van Praag (Venezuela)
- “Real-time Content Transformations In The European Spatial Data Infrastructure”: Lehto Lassi (Finland)
- “Spatial Data Quality: Accuracies Of Positions And Heights”: Ozludemir M. Tevfik (Turkey)

Theme: 17. Users
Room: S-6
- “Usability And Implementation Issues For Cartographic Information Systems in Interdisciplinary Environments”: Alexander Pucher (Austria)
- “Empathic Approach For Location-based Service Innovation For Hikers”: Tiina Sarjakoski (Finland)
- “From Graphical Presentation To Users Comprehension of Transantiago Network Map”: Jose Allard (Chile)
Theme: 6. Satellite Imagery
Room: S-1 (Main Auditorium)
- “Evaluation Du Changement De Loccupation Du Sol Laide Des Images Landsat Et Spot : Champ Volcanique De La Sierra Chichinautzin (Mexique)”: Cristina Noyola Medrano (Mexico)
- “Mapping Earthquake-triggered Landslides From Satellite Imagery”: Xiaojun Yang (USA)

Theme: 13. Internet
Room: S-2 (Erasmo Escala)
- “Selected Methodological Aspects of Creation of Cartographic Presentation For The Needs Of Mobile Systems”: Gotlib Dariusz (Poland)
- “Personalized Reference Map”: Li Bin (USA)

Theme: 3. Infrastructures (SDI)
Room: S-3 (Library)
- “A Concept And Development Of Geoinformation Web Services For Voivodships In Poland”: Robert Olszewski (Poland)
- “The Law Of The SNIEG: An Option For the Development of Mexico”: Mario Alberto Reyes Ibarra (Mexico)

Theme: 18. Education
Room: S-4 (General Carrera)
- “Concepts Of Space In Spatial Thinking”: Fritz Van Der Merwe (South Africa)
- “Some Thoughts on a Body of Knowledge For Different Purposes in GI Education”: Wolfgang Reinhardt (Germany)

Theme: 1. Production Systems
Room: S-5
- “Detailed Quality Control Of Topographic Map In Scale 1:25000”: Slavko Lemajic (Croatia)
- “Network-rtk Gps Positioning And Its Application To Mapping In Japan”: Kumaki Yohta (Japan)

Theme: 15. Multimedia
Room: S-6
- “Methods Of Designing Of Simple And Complex Animated Choropleth Maps And Cartodiagrams”: Dariusz Dukaczewski (Poland)
- “Multimedia Cartography As Language in Geography Teachers’ Continuing Studies: Methodological Considerations”: Suely Moreira (Brazil)
Second Morning Session
11:00 - 12:30

Theme: 6. Satellite Imagery
Room: S-1 (Main Auditorium)
- “Application Of Classifying Algorithms From Satellite Images For Soil Cover And Georesources Identification In Nova Lima, Minas Gerais”: Vladimir Ramos (Brazil)
- “Integrating Remote Sensing Processing And GIS To Fire Risk Zone Mapping: A Case Study For the Seih Sou Forest Of Thessaloniki”: Sofia Siachalou (Greece)
- “New Mapping At Scales 1:200,000 of Senegal and 1:5,000 in French Polynesia : 2 Operational Examples Of Digital Topographic Map Production”: Dominique Lasselin (France)

Theme: 13. Internet
Room: S-2 (Erasmo Escala)
- “Cross-cultural Issues In Context Based Mapping”: Takashi Morita (Japan)
- “Maps In The Language Of Cyberspace”: Tania Canto (Brazil)
- “Mapping The Victor-space - An Approach to Enhance Navigation In A Cooperative Knowledge Platform”: Sabine Cikic (Germany)
- “A Concept of Cartographic Software For Designing Visualisation of Data in Mobile Systems”: Dariusz Gotlib (Poland)

Theme: 3. Infrastructures (SDI)
Room: S-3 (Library)
- “Towards A Set Of Recommendations About How To Implement Geoportals In Sdi Nodes”: Antonio Rodriguez (Spain)
- “Cost-benefit Considerations In Establishing Interoperability Of The Data Component Of Spatial Data Infrastructures”: Katalin Toth (Italy)
- “Standards And Geographical Information Systems In The Establishment Of An Spatial Data Infrastructure in Chile”: Viviana Barrientos (Chile)
- “Quality Beyond Metadata Implementing Quality In Spatial Data Infrastructures”: Antti Jakobsson (France)

Theme: 18. Education
Room: S-4 (General Carrera)
- “The GIS Professional Ethics Project”: David Dibiase (USA)
- “Change Of The Meaning Of The Term cartographer In The Last Ten Years”: Laszlo Zentai (Hungary)
- “UniGis in Latin America 1999 To 2009: Experiences Of A Distance Education Program For GIS in Latin America”: Richard Resl (Ecuador)
- “The Pedagogical Experience In Teaching Cartography And GIS Using Public Data And Software”: Maria Cecilia Brandalize (Brazil)
Theme: 1. Production Systems
Room: S-5

- “Holographic Relief Map Production By Using Topographic Line Maps”: Hseyin Polat Dalkiran (Turkey)
- “New Topographic Standard For Croatia”: Zeljko Bacic (Croatia)
- “Census Cartographic-Core Base of Census and Survey Taking”: Myriam Villarroel Encina (Chile)

Theme: 9. Research & Development
Room: S-6

- “Roof Contours Recognition Using Lidar Data And Markov Random Field Model On Graph Theory”: Ediniea Galvanin (Brazil)
- “A Topographic Feature Taxonomy For a National Topographic Mapping Ontology”: Dalia Varanka (USA)
- “Chilean Velocity Model”: Lautaro Rivas Reveco (Chile)
- “Cooperative Boundary Detection In A Geosensor Network”: Monika Sester (Germany)

First Afternoon Session
14:00 - 15:30

Theme: 6. Satellite Imagery
Room: S-1 (Main Auditorium)

- “Mapping Of Glacier Extent Changes In The Mountain Regions Using Space Images And Glacier Inventories”: Tatiana Khromova (Russian Federation)
- “Quantifying Intra-urban Morphology of the Greater Dublin Area With Spatial Metrics Derived From Medium Resolution Remote Sensing Data”: Frank Canters (Belgium)
- “Mapping Farm Water Areas Within Coastal Belts By Object-oriented Remotely Sensed Image Analysis”: Min Wang (China)
- “Mapping And Assessment Of Grasshopper Habitat Based On Landsat Tm Imagery In The Qinghai Lake Region”: Shaoxiang Ni (China)

Theme: 23. Tourism
Room: S-2 (Erasmo Escala)

- “A Geodiversity Map: Geological-tourist Map Of Calamuchita?s Valley, Cordoba”: Maria Fernanda Gaido (Argentina)
- “Confronting The Tourist Map - Divergent Purposes And Disparate Users”: George McCleary (USA)
- “Maps For Different Forms Of Orienteering”: Laszlo Zentai (Hungary)
- “Criteria For Selecting Areas For Orienteering Maps”: Dusan Petrovic (Slovenia)
First Afternoon Session
14:00 - 15:30 (Continued)

Theme: 3. Infrastructures (SDI)
Room: S-3 (Library)
- “Implementation Factors For Successful Spatial Data Infrastructures In A Small, Centralised Nation State”: David Fairbairn (United Kingdom)
- “Brazilian Universities And the Beginning of The Brazilian Spatial Data Infrastructure”: Ivanildo Barbosa (Brazil)
- “A Spatial Data Infrastructure (SDI) For The Petroleum Industry”: Gabriel Oscar Alvarez (Argentina)
- “Implementation of a Management and Quality Control System under ISO Standards 9001:2000, 19113, 19114,19138 and 19115 in Cartographic Production”: Joselyn Alejandra Robledo Ceballos (Chile)

Theme: 20. Geovisualization
Room: S-4 (General Carrera)
- “New Solution For Construction of Rectilinear Area Cartogram”: Ryo Inoue (Japan)
- “Efficient Integration Of Data Graphics Into Virtual 3d Environments”: Susanne Bleisch (Switzerland)
- “Volume Visualization Of Spatial Data”: Iescheck Andrea Lopes (Brazil)
- “Visual Highlighting Methods For Geovisualization”: Anthony Robinson (USA)

Theme: 14. Atlases
Room: S-5
- “Thematic Maps Concerning Soils and Agriclimate Contained in Contemporary Atlases Of Poland”: Krzysztof Koreleski (Poland)
- “Developing an Online South Carolina Atlas Of Environmental Risks And Hazards”: Sarah Battersby (USA)
- “The Atlas Construction Kit: Professional And Cost-effective GIS-based Production Environment?”: Hartmut Asche (Germany)
- “Multimedia and Mobile Atlas of Kuril Islands”: Andrey Medvedev (Russian Federation)

Theme: 31. Others
Room: S-6
- “Cartographic Education Directed To School Teachers And Children: Current And Future Challenges”: Regina Almeida (Brazil)
- “Generalization Of Geographic Names on Atlas Maps”: Izabela Michna (Poland)
- “Atlas of Sao Paulo: Proposal for Representation of Socio-Spatial Differences”: Alfredo Pereira de Queiroz (Brazil)
- “Mapping Of The Subjective Space: a Methodological Challenge for the Understanding of Urban Problems”: Jorge Espinoza Nanjari (Chile)
Theme: 31. Other
Room: S-1 (Main Auditorium)
- “Terrain Feature Extraction From Variable Resolution Digital Elevation Models”: Keith Clarke
- “Laserscanning Data as a Basis For Orienteering Maps - Advanced Potential And Further Research”: Georg Gartner (Austria)
- “Remote Sensing and GIS Integration to Study Urban Growth Impact In Tourism Area, A Case Study: Ras Al Khaimah”: Mohamed Bualhamam (U. Arab Emirates)
- “Methodology of the Creation of Maps Showing Glaciers Changes”: Irina Bushueva (Russian Federation)

Theme: 5. GIS for Sustainable Development
Room: S-2 (Erasmo Escala)
- “Geomarketing And Geographic Information Systems For Urban Decisions: Indication Of The Location For a Convention Center In Belo Horizonte”: Renata Hungari (Brazil)
- “Prototype of a GIS Aplication for Teaching Geography at Schools”: Luz Angela Rocha Salamanca (Colombia)
- “Topographic And Thematic Mapping From Multi-resolution Satellite Image”: Karel Pavelka (Czech Republic)
- “On the Accuracy of Digital Elevation Models”: Xiaohang Liu (USA)

Theme: 31. Others
Room: S-3 (Library)
- “The Model For The Development Of Research Training In Asian Countries By A Foreign University Case Study Vietnam”: David Fraser (Australia)
- “Dictionary Of Cartography And Geoinformatics”: Miljenko Lapaine (Croatia)
- “Progress Map For Geography In Chile: Cartographic Materials in Primary and Secondary Schools”: Fabian Rodrigo Araya Palacios (Chile)
- “System of Educational Geographical Atlases in Ukraine”: Victoria Molochko (Ukraine) Valeria Araujo (Brazil)

Theme: 20. Geo-Visualization
Room: S-4 (General Carrera)
- “Visualization Of Vague Category Counts - Introducing The Fuzzy Dot Density Map”: Ola Ahlqvist (USA)
- “Analyzing Sequential Data From Geovisualization User Interactions”: Amy Griffin (Australia)
- “The Use Of Mapping Time And Space As A Forensic Tool In A Murder Case”: Peter Schmitz (South Africa)
- “Visualization of the Mountain Battlefield on the Soca Front Line”: Dusan Petrovic (Slovenia)
Theme: 14. Atlases
Room: S-5
- “Tourism Theme In The National Atlas Of Russia”: Alexander Krajukhin (Russian Federation)
- “Space Images In the National Atlas Of Russia”: Alexander Krajukhin (Russian Federation)
- “Pragmatic Pyramid Of Thematic Mapping”: Beata Medynska (Poland)
- “Visualizing Nutritional Terrain: An Atlas Of Produce Accessibility In Lansing, Michigan”: Kirk Goldsberry (USA)

Theme: 11. Geo-Spatial Analysis
Room: S-6
- “Sun-area Towards Location-based Analysis For Solar Panels By High Resolution Remote Sensors (laser Scanner)”: Dorothea Ludwig (Germany)
- “Development Of Scientific Bases And Methods For Making Tourist Maps Showing Historic-and cultural And Natural Heritage Sites”: Tamara Vereshchaka (Russian Federation)
- “Phobos Mapping Support By Preparing Of Phobos Grunt Project”: Ivan Rozhnev (Russian Federation)
- “The Research Of Three Imensional Scene Construction Based On Multiresolution Data”: Lin Zhiyong (China)
- “Development Of Scientific Bases And Methods For Making Tourist Maps Showing Historic-and-cultural And Natural Heritage Sites”: Tamara Vereshchaka (Russian Federation)
- “Phobos Mapping Support By Preparing Of Phobos Grunt Project”: Ivan Rozhnev (Russian Federation)
- “The Research Of Three Imensional Scene Construction Based On Multiresolution Data”: Lin Zhiyong (China)
Theme: 12. Toponyms  
Room: S-1 (Main Auditorium)  
− “Naming Of Sea Areas Near Great Britain”: David Forrest (United Kingdom)  
− “Extraction and Visualization of Geographical Names in Text”: Ying Zhang Xue (China)

Theme: 29. Children  
Room: S-2 (Erasmo Escala)  
− “Map: Tv Character and Visual Representation of Space”: James Carter (USA)  
− “Andalucia in a Map: Evaluation of an Educational Exprience”: Jose Antonio Nieto Calmaestra (Spain)

Theme: 8. Handicap & Maps for the Blind  
Room: S-3 (Library)  
− “Exploring New Directions In Non-visual Cartography: An Overview Of The Functionally Separated Multi-modal Map Rendering System”: Douglas Hagedorn (Canada)  
− “Building Route Based Maps For The Visually Impaired From Natural Language Route Descriptions”: John Nicholson (USA)

Theme: 5. GIS for Sustainable Development  
Room: S-4 (General Carrera)  
− “Using GIS In The Search For Suitable Sites For The Implementation of Fog Water Collection Systems”: Erika Pretorius (South Africa)  
− “Possibilities of Digital Geographic Data Quality And Reliability Evaluation”: Vaclav Talhofer (Czech Republic)

Theme: 5. GIS for Sustainable Development  
Room: S-5  
− “New Technique Of Creation Educational” Alexander Krajukhin (Russian Federation)  
− “Teaching Cartography Using Map Critique Exercises A Proposed Model For A Gis Cartography Course”: Makram Murad (USA)

Theme: To be announced  
Room: S-6  
− Nitrates Pollution at Hurlingham District Waters - Spatial Analysis with GIS": María Victoria Alves de Castro (rep. Carmen Alicia Rey) (Argentina)  
− “Global Map -Achievements and Issues of the 1:1,000,000 Scales Global Geographic Datasets”: Toru Nagayama (rep. Mamoru Koarai) (Japan)
Second Morning Session  
11:00 - 12:30

**Theme: 12. Toponyms**  
Room: S-1 (Main Auditorium)  
- “A Geographic Names Register As A Part Of The Spatial Data Infrastructure”: Teemu Leskinen (Finland)  
- “Some Considerations On The Function Of Place Names On Maps”: Peter Jordan (Austria)  
- “Geonimy of Brazil: Geographical Names Standardization In Research of Municipalities of Rio De Janeiro State”: Claudio Joao Barreto Dos Santos (Brazil)  
- “State Of The Art: the Geographical Names Data Base”: Graciosa Rainha Moreira (Brazil)

**Theme: 29. Children**  
Room: S-2 (Erasmio Escala)  
- “Analytic And Synthesis Maps On Geographic School Atlases”: Marcello Martinelli (Brazil)  
- “Illustrated Maps (for Children) - Good Start To Educate New Generation Of Users!”: Merle Annov (Estonia)  
- “New Historical Atlases For Educational Needs”: Temenoujka Bandrova (Bulgaria)  
- “Ideas For the Use of Chernoff Faces in School Cartography”: Jose Jesus Reyes Nunez (Hungary/ Mexico)

**Theme: 8. Handicap & Maps for the Blind**  
Room: S-3 (Library)  
- “Standardization Of Tactile Maps”: Nogueira Ruth Emilia (Brazil)  
- “Implementation Of A System Of Cartographic Symbols Tactile Maps For The Preparation Of The Impacts Associated With Global Warming”: Alejandra Coll Escanilla (Chile)  
- “Can Virtual Reality Provide Digital Maps To Blind Sailors? A Case Study”: Daniel Jacobson (USA)  
- “3D Printing Technology In Tactile Maps Compiling”: Vit Vozenilek (Czech Republic)

**Theme: 5. GIS for Sustainable Development**  
Room: S-4 (General Carrera)  
- “Cartociudad: National Database Of All Spanish Municipalities Available Freely In Www.cartociudad.es And Exploitable Through its OGC Services”: Jose Miguel Rubio (Spain)  
- “Understanding Urban Dynamics: The Use Of Vector Topographic Databases and the Creation Of Spatio-temporal Databases”: Julien Perret (France)  
- “A Grid-based Spatial Index For Matching Between Moving Vehicles And Road Network in a Real-time Environment”: Meng Zhang (Germany)  
- “Territorial Information System , Regional Service Of Housing And Development”: Igor Bacigaluppi (Chile)
Second Morning Session
11:00 - 12:30 (Continued)

Theme: 19. Generalization
Room: S-1 (Main Auditorium)
- “Morphing Techniques: Towards New Methods For Raster Based Cartographic Generalization”: Dimos Pantazis (Greece)
- “Evaluating Generalizations Of Hydrography in Differing Terrains For The National Map of the United States”: Cynthia Brewer (USA)
- “Stratified Database Pruning To Support Local Density Variations In Automated Generalization Of The United States National Hydrography Dataset”: Lawrence Stanislawski (USA)
- “Automated Matching of Building Features of Differing Levels of Detail: A Case Study”: Patrick Revell (United Kingdom)

Theme: 5. GIS for Sustainable Development
Room: S-5
- “Municipal School Atlases: Images and Narratives”: Ligia Maria Brochado De Aguiar (Brazil)
- “Development Of An International Master Program In Cartography And Geoinformatics”: Stefan Peters (Germany)
- “Usability Of Web Maps In Teaching Geoinformation In Higher Education”: Elzbieta Bielecka (Poland)
- “Satellite Information: Innovations For School Education”: Andrey Medvedev (Russian Federation)

Theme: 31. Others
Room: S-6
- “LDS Concept Based on Remote Sensing”: Mansour Ahmadi Foroushani (Iran)
- “A Diachronic study on the urban growth of Dakar and its impacts”: Diallo Ngagne (Senegal)
- “The Manuscript Maps of Angola and the Cholnoky Map Collection of Cluj”: Bartos Elekes Zsombor (Rumania)
- “Virtual Globes Museum -a Tool for Safeguarding, Communicating and Teaching Cultural Heritage” Marton Matyas (Hungary)

First Afternoon Session
14:00 - 15:30

Theme: 19. Generalization
Room: S-1 (Main Auditorium)
- “Morphing Techniques: Towards New Methods For Raster Based Cartographic Generalization”: Dimos Pantazis (Greece)
- “Evaluating Generalizations Of Hydrography in Differing Terrains For The National Map of the United States”: Cynthia Brewer (USA)
- “Stratified Database Pruning To Support Local Density Variations In Automated Generalization Of The United States National Hydrography Dataset”: Lawrence Stanislawski (USA)
- “Automated Matching of Building Features of Differing Levels of Detail: A Case Study”: Patrick Revell (United Kingdom)
Theme: 2. Basic Cartography
Room: S-2 (Erasmo Escala)

− “Official Nautical Chart: Development of a Standard”: Claudio Sobarzo (Chile)
− “Land Information System For Tourism and Housing Uses in Traditional Valparaiso”: Esteban Soto Marquez (Chile)
− “Development Of 1:500,000 Scale Gravimetric Map Of Chile”: Lautaro Rivas Reveco (Chile)

Theme: 7. History
Room: S-3 (Library)

− “Bringing The Past To Life By Extracting Spatial Information From Historical Maps For A Digital Atlas Of American Indian Treaties And Territories”: Daniel Cole (USA)
− “An Evaluation of the Ags Million Map Of Hispanic America 1920 To 1945”: Alastair Pearson (United Kingdom)
− “Historical Cartography Of Rio De Janeiro: Spatial And Temporal Reconstitution of Downtown”: Douglas Corbari Correa (Brazil)
− “Web Map Portal Focused On Old Maps And Views Of Prague”: Jiri Krejci (Czech Republic)
− “Gerhard Mercator – Ingenious Cartographer: How Accurate is his Map of the World from 1569?”: Mirjanka Lecthaler (rep. Alexandra Millonig) (Austria)

Theme: 4. Hazards & Disasters
Room: S-4 (General Carrera)

− “Building A Global Demographic Map Database For Disaster Relief And Crisis Management Paper”: Joshua Comenetz (USA)
− “Communicating Flood Risk To the Public By Cartography”: Wim Kellens (Belgium)
− “Application of Cartography for Mapping of Social Nuisance In Uyo Territory of Akwa Ibom State”: Monday Obot (Nigeria)
− “Operational Remote Sensing Programs In Hungary: From Crop Monitoring to Disaster Management”: Bela Pokoly (Hungary)

Theme: 20. Geovisualization
Room: S-5

− “Serving Spatio-temporal Data on the Web Using Open-source GIS”: Jan Jezek (Czech Republic)
− “Viewshed Analysis And Visualisation Of Landscape Voxel Models”: Ulla Pyysalo (Finland)
− “Cartographic Portrayal of Terrain Metrics Using a High-resolution DEM”: Pyry Kettunen (Finland)
− “A Geovisual Analytics Approach To Spatial Multiple Objective Optimization”: Piotr Jankowski (USA)

Theme 31. Others
Room: S-6

− “Improving Data Quality as a Basis for Automated Generalisation”: Steven Ramage (United Kingdom)
− “Map Based Universally Applicable Concept for a Spatial Decision Support System”: Mirjanka Lecthaler (Austria)
− “All for One: Adventures in Designing the Next Generation of Canadian Topographic Maps”: Ken Francis (rep. Yvan Desy) (Canada)
− “Color Photo Mapping the Large Scale Base Map of Thailand”: Thothong Wanarat (Thailand)
Theme: 17. User Public
Room: S-1 (Main Auditorium)
- “The Design of a Location Based Mobile Learning System Incorporating Visualisations of Bushfires”: Brian Quinn (Australia)
- “Retrieving Hierarchical Information From Maps: The Role Of Metric And Configurational Variables”: Rodrigo Mora (Chile)
- “Surveying The Map User W5 Who, What, Where, When And Wh”: Eric Kramers (Canada)
- “Towards Principles For Usability Evaluation In Web Mapping - Usability Research For Cartographic Information Systems”: David Schobesberger (Austria)

Theme: 2. Basic Cartography
Room: S-2 (Erasmo Escala)
- “Digital Imaging Cartography as Basic Cartographic Information System. The Spanish National Plan For Land Observation”: Antonio Arozarena (Spain)
- “Innovative Solutions For Mapping Northern Canada”: Marc Bernard (France)
- “Military Cartography And Geoinformatics - History, Present And Future”: Vaclav Talhofer (Czech Republic)
- “Proposal Of A Methodology And Procedures For Updating Topographic Cartography At 1:50,000 Scale, Using Satellite Images”: Julio Neira Gutierrez (Chile)

Theme: 7. History
Room: S-3 (Library)
- “Changes In Survey Teaching And Practice In Nineteenth Century Britain And The British Empire”: Peter Collier (United Kingdom)
- “A Train For Darfur: Integrating Historical Geospatial Data”: Lucia Lovison Golob (USA)
- “The Virtual Map Library Of Andalucia: an Experience in the Compilation of Historical Cartography”: Antonio Fajardo De La Fuente (Spain)
- “Gerhard Mercator – Ingenious Cartographer: How Accurate is his Map of the World from 1569?”: Mirjanka Lecthaler (rep. Alexandra Millonig) (Austria)

Theme: 4. Cartography of Hazards & Disasters
Room: S-4 (General Carrera)
- “Water Environmental Monitoring Analysis System For Tai Lake Basin”: Hong Zhang (China)
- “Cartographic Visualization Of Relief Impact On Transport During Crisis Situations”: Marian Rybansky (Czech Republic)
- “Assessing The Vulnerability Of Coastal Population To Hurricanes in the Caribbean Region”: Nina Lam (USA)
- “Tsunami Inundation Mapping Project”: Andres Enriquez (Chile)

Theme: 20. Geovisualization
Room: S-5
- “Temporal Links In The Coordinated Multiple View Environments Applied In Location Space, Attribute Space And Time Space”: Xia Li (Netherlands)
- “Case Studies Demonstrating The Utility Of Unconventional Designs For Creative Thinking In Geographic Problem-solving”: Robert M. Edsall (USA)
- “4d Visualisation Of George Vi Ice Shelf Using Radar Backscattering Coefficient”: Guido Staub (Chile)

Theme: To be announced
Room: S-6
Papers to be announced
Theme: 17. User Public
Room: S-1 (Main Auditorium)

− “Supporting Pedestrian Wayfinding By Analysing Movement Patterns”: Alexandra Millonig (Austria)
− “Issues in Human Subject Testing in Cartography and GIS”: Judy M. Olson (USA)
− “User-centred Geo-mobile Application Interface Development For Improved Personal Geo-identification And Navigation”: Ioannis Delikostidis (Netherlands)
− “Use of Maps to Support the 2010 United States Census”: Stephanie Spahlinger (USA)

Theme: 19. Generalization
Room: S-2 (Erasmo Escala)

− “A Study Of Cartographic Generalization Based On Rough Set Method”: Li Wenjing (China)
− “Vector Based Generalization Application In The Production Of Small Scale Databases of the Nls Of Finland”: Veijo Patynen (Finland)
− “Automated Assignment Of Building Representations Between Different Scales For The Calculation Of Preservation Constraints”: Dirk Burghardt (Germany)
− “Automatic Derivation of Different Levels of Detail for 3D Buildings Modeled By Citygml”: Hongchao Fan (Germany)

Theme: 24. Art
Room: S-3 (Library)

− “Visualizing Germany Via Maps In A Magazine”: Gertrud Schaab (Germany)
− “Literary Geography Or How Cartographers Open Up A New Dimension For Literary Studies”: Barbara Piatti (Switzerland)
− “Reframing The Digital Cartographic Frame: Examples From The Cybercartographic Atlas Of Canadian Cinema”: Sebastien Caquard (Canada)

Theme: 9. Research & Development
Room: S-4 (General Carrera)

− “Critique Systems For Geographic Information and GIS”: Ake Sivertun (Sweden)
− “The Geoide Network: Partnerships in Innovation”: Nicholas Chrisman (Canada)

Theme: To be announced
Room: S-5
Papers to be announced

Theme: To be announced
Room: S-6
Papers to be announced
Second Morning Session
11:00 - 12:30

Theme: 17. User Public
Room: S-1 (Main Auditorium)
- “The Design and Application of the Stop Specific Bus Map”: Gareth Evans (rep. David Forrest) (United Kingdom)
- “A User Perspective On Typification Of Faade Features Of 3d Building Models”: Mathias Jahnke (Germany)
- “Dynamic Map Labeling For Users”: Kristien Ooms (Belgium)
- “Experiences From Testing Map Visualizations In A Developing Country”: Gertrud Schaab (Germany)

Theme: 19. Generalization
Room: S-2 (Erasmo Escala)
- “Multi-scale Representation Of Hydrographic Network Data For Progressive Transmission Over Web”: Tinghua Ai (China)
- “Cartographic Modelling Of Terrain Relief Using Computational Intelligence Methods”: Robert Olszewski (Poland)
- “Three Reuse Examples Of A Generic Deformation Model In Map Generalisation”: Julien Gaffuri (France)
- “Generalization Approaches For Car Navigation Systems”: Ahmet Ozgur Dogru (Turkey)

Theme: 24. Art
Room: S-3 (Library)
- “The Art Of Being Lost: An Alternate Approach To Mapping”: Laurene Vaughan (Australia)
- “Maps As Comics, Comics As Maps”: Antoni Moore (New Zealand)
- “Map Design Process Modelling Using Bpel Language”: Jan Ruzicka (Czech Republic)
- “Mapping Constructed Spaces - Spatialization And Cartographic Visualization Of Informal Geographies”: Michaela Kinberger (Austria)

Theme: 9. Research & Development
Room: S-4 (General Carrera)
- “Cartographic Web Services And Cartographic Rules A New Approach For Web Cartography”: Ionut Iosifescu (Switzerland)
- “Expert System To Classify Semantic Information”: Marcio Schmidt (Brazil)

Theme: To be announced
Room: S-5
Papers to be announced

Theme: To be announced
Room: S-6
Papers to be announced
Session Moderators

Every Technical Session for the oral presentation of papers has two Moderators present to introduce the session, to introduce each speaker and to chair the audience questions. Each pair of Moderators will consist of one Moderator nominated by the ICA and the other Moderator nominated by LOC.

ICA Moderators include several Chairs of the ICA Commissions and Working Groups, plus co-chairs and leading authors proposed either by these Commission chairs or by the ICA Executive Committee. In most cases the ICA Moderators are assigned to sessions by their affinity with the theme and will stay with all or several sessions associated with that theme.

LOC Moderators have been selected mainly from local figures including those who have contributed to the review and selection of submissions, plus some authors.

At the date of publication of this Program, many Moderators have already been designated and the final list of Moderators, with the Sessions they are assigned to, will be announced during the conference. ICC 2009 attendees who have been designated as Moderators are requested to cooperate with the schedule for their participation in this important task.

To be scheduled (date, time and room to be announced)

- “Werenskiold Glacier (SW Spitsbergen) - morphometric characteristics” Małgorzata Wieczorek (Poland)
- “Multilingual-Multi Script Place Name Information System for Web Mapping in Xinjiang” Alishir Kurban (rep. Kristien Ooms) (China)
- “History of the Bible cartography as an example of the cartography of history”: Adam Linsenbath (Poland)
**Poster Sessions**

**16th Monday**

**First Poster Session**

**12:30 - 13:15**

**Theme Nº 1: Production Systems**
- "Creation of an individually-configured model for optimizing editing times": César Rozas Cid (Chile)

**Theme Nº 14: Atlases**
- "Atlas de la Ville de Niter": Cigagna Marli (Brazil)
- "The political atlas of Switzerland": Schulz Thomas (Switzerland)
- "Complex Regional Atlases": Sossa Rostyslav (Ukraine)
- "Cartosemiotic analysis of ecological atlases": Alexander Wolodtschenko (Germany)
- "Human occupation evolution in the chilean semiarid coastal zone, by Gis": Hermann Manriquez Tirado (Chile)
- "Digital Glaciological Atlas – snow and ice on the Earth": Tatiana Khromova (Russian Federation)
- "Earth: from concept to production, the challenges of producing the worlds largest Atlas": Damien Demaj (Australia)

**Provisionally Scheduled (to be confirmed):**
**Theme Nº 1: Production Systems**
- "Digital mapping of toponym placement": Wang Mingchih (Taiwan – China)

**Theme Nº 14: Atlases**
- "The social-economic Atlas of Tunisia": Mohsen Dhieb (Tunisia)

****Second Session****

**17th Tuesday**

**Second Session**

**12:30 - 13:15**

**Theme Nº 10: Map Projections**
- "Direct-transformation of map coordinates": Cengizhan Ipubuker (Turkey)

**Theme Nº 11: Geospatial analysis**
- "Classification of multiatribute objects in environmental research": Katarzyna Galant (Poland)
- "Simulation of the changes of land use in poland using cellular automata and map algebra": Elzbieta Kozubek (Poland).
- "A new way of network analysis supporting huge spatial data based on Dijkstra": Fuhao Zhang (China)
- "Cells v/s objects and scale issues in terrain-based environmental modeling": Dragut Lucian (Austria)
- "Data mining of population distribution rules: an attribute-oriented approach": Deqin Liu (China)
- "Re-examining the topological pattern of urban street networks using the maximum likelihood estimation": Bin Jiang (Hong Kong)

**Theme Nº 22: Maps and Society**
- "Virtual globe games for participatory Gis": Ahlqvist Ahlqvist Ola (United States)

**Theme Nº 26: Planets and Space**
- "Multilingual virtual globes of Venus and Mars": Henrik Hargitai (Hungary)

**Theme Nº 27: Critical Cartography**
- "Historical atlas of armed conflict violence in Colombia": Sebastián Diaz Angel (Colombia)

**Provisionally Scheduled (to be confirmed):**
**Theme Nº 25: Cartographic Heritage**
- "A trajectory through art, science, history and cartography: globe as plural source of knowledge": Ramalho Oliveira Mónica (Portugal)
Theme Nº 7: History
- “Razón Cartográfica, The colombian network for history of geography and history of cartography” Diaz Angel Sebastian (Colombia)
- “Producing military maps from farm surveys”. Elri Liebenberg (South Africa)

Theme Nº 17: Users
- “Information for in car route guidance and navigation systems selection presentation and evaluation”. Edmur Pugliesi (Brazil)
- “Assessing usability of an existing geographic information product”. Jenny Harding (United Kingdom)

Theme Nº 20: Geovisualization.
- “Cartographic visualisation of health data”. Jan Jezek (Czech Republic)
- “A test framework for the development of common specification for a european reference map at scale 1:250.000”. Anja Hopfstock (Germany)
- “Cartograms for the presentation of hungarian statistical data”. José Jesús Reyes Núñez (Hungary)
- “Evaluating the influence of tweening on human change perception in animated choropleth maps”. Carolyn Fish (United States)

Provisionally Scheduled (to be confirmed):
Theme Nº 7: History
- “Río de Janeiro city (Brazil) - historical center evolution under a cartographic approach”. Miceli Bruna Santos (Brasil)
- “Historical-geographical- cartographical study of environmental impacts caused by landfills in the bay of Ilha do Fundo, Río de Janeiro – Brazil”. Vanessa Ferraz Godoy (Brazil)
- “Implementing of GIS support in the inventory of archaeological sites in Mallorca (Spain)”. Raquel Rodríguez Gomila (Spain)
- “Representation of material objects of cultural heritage in the national topographic database”. Elzbieta Wyczalek (Poland)

Theme Nº 9: Research and Development
- “Improved K-median clustering algorithm based on wavelet”. Xie Ming-xia (China)

Theme Nº 13: Internet
- “Geological Information Systems”. Paulina Gana Fuentes (Chile)

Theme Nº 17: Users
- “Simbology and geographical orientation as elements of language for 3D cartographic representations”. Juliana Moulin Fosse (Brazil)

Theme Nº 20: Geovisualization.
- “Meshed geovisualization patterns for geo-spatial data”. Frank Heidmann (Germany)

Theme Nº 21: Virtual Reality.
- “3D pedestrian navigation reality view”. Mario Kluge (Germany)
- “Perception of cultural landscape of Guanabara Bay - Río de Janeiro, Brazil and representation in virtual reality”. Vanessa Ferraz Godoy (Brazil)
- “A research on 3D terrain simulation in embedded operating systems”. Du Ying (China)

Theme Nº 30: Theory
- “What a journal for theoretical cartography would be about”. Florian Hruby (Mexico)

Theme Nº 1: Production Systems
- “Digital mapping of toponym placement”. Wang Mingchih (Taiwan – China)
Poster Sessions

Fourth Poster Session
12:30 - 13:15

Theme Nº 3: Infrastructures (sdi)
- “Semantic spatial data infrastructures”. Tatiana Delgado Fernández (Cuba)

Theme Nº 6: Satellite Imagery
- “Three dimensional vegetation structure map using lidar survey data”. Mamoru Koarai (Japan)
- “Digital geomorphologic mapping based on RS and DEM”. Xiang Ni Shao (China)
- “Approaches to detecting and monitoring the emerald ash borer in North America”. Janet Mersey (Canada)
- “Integrated Radarsat monitoring of marine oil spills in canadian waters”. Jonathan Li (Canada)
- “Methodology for the horizontal validation of a satellite orthoimage to be used for updating IGM base topographic cartography at 1:50,000 scale”. Claudio Morales Arancibia (Chile)
- “Spectral recognition of Guanajuato city from Aster images”. Cristina Noyola Medrano (Mexico)

Theme Nº 18: Education
- “Use Google Maps for the construction of knowledge of location and orientation for children's education key”. Raquel Fonseca; Alves Fonseca (Brazil)

Theme Nº 23: Tourism
- Cartographic production of hiking paths of Lesvos Island, Northern Aegean, Greece”. George Tataris (Greece)

Theme Nº 31: Other
- “The geodetic observatory Tigo in Concepción, Chile”. Hayo Hase (Germany)

Provisionally Scheduled (to be confirmed):

Theme Nº 3: Infrastructures (sdi)
- “The network distribution and Service System of Surveying and mapping products based on the Internet”. Ruomei Liu (China)

Theme Nº 6: Satellite Imagery
- “Remote sensing and GIS for combating desertification”. Mongi Ben Zaied (Tunisia)
- “Technology of on-line environmental monitoring in premises of the fuel and energy complex based on remote sensing data”. Alexander Kirsanov (Russian Federation)
- “Complement of optical satellite image and radar satellite image in the construction of cartographic bases”. Orlando Cifuentes A. (Chile)
- “Soil erosion modelling and soil moisture monitoring by using remote sensing”. Berk Üstün (Turkey)

Theme Nº 11: Geospatial Analysis
- “The MATLAB based ARCMAT spatial data analysis toolbox”. Xingjian Liu (United States)
- “Use of transgaussian krigging for soil and water geochemical mapping in an agricultural catchment south Portugal”. Mariela Yevenes (Holand)
- “Cartography of potential areas for the identification and quantification of ecosystem services and mechanisms for compensation in Mexico”. Rafael Bermudez (Holand)
- “Routine to obtain real surface observations of geocological elements”. Manoel Fernandes Do Couto (Brazil)
- “Potentiality to wildfire occurence geocological mapping in Pedra Branca Massif, Rio de Janeiro, Brazil”. Gustavo Mota de Sousa (Brazil)

Theme nº 18: Education
- “Geographic Information Technology Training Alliance (gitta): pro-viding open educational resources for higher education in GIS and cartography”. Robert Weibel (Switzerland)
- “Experiences involving tactile cartography in the further education of teachers”. Waldirene Ribeiro Do Carmo (Brazil)

Theme Nº 23: Tourism
- “Synergizing effect from the simultaneous presentation of existing and lost objects on tourist maps”. Lyubov Zelenskaya (Ukraine)

Theme Nº 31: Other
- “Consequences for the adoption of a Geocentric Reference System on the large scale cartography in Brazil”. Vivian Fernandes (Brazil)
Theme Nº 2: Basic Cartography.
- “Proposal of nomenclatures of the new official map sheets of the Republic of Croatia”. Željko Hećimović (Croatia)
- “The method of presentation of the land use changes based on cross-tabulation matrix”. Jacek Drchal (Poland)

Theme Nº 4: Hazards and Disasters.
- “Digital cartography serving flood control purposes on the territory of the Czech Republic”. Tomas Fojtík (Czech Republic)
- “Towards a spatial decision support system for emergency management - a case study of the croatian island of Rava. Ana Kuvezdic (Croatia)
- “Expert Earthquake data base - geographic shell for seismological researches”. Anna Mikheeva (Russian Federation)
- “Cartographic representation of the results of the different phases of a seismic hazard assessment in Central America” Yolanda Torres Fernández (Spain)

Theme Nº 5: Gis
- “Slope: restrictive morphometric parameter for the location of urban equipment in the average cities. Case study: Municipality of Jiquilpán, Michoacán. Mexico”. González-Flores América Violeta (Mexico)
- “Humanities GIS in an interactive online mapping environment: a public education project for Grand Canyon National Park, Arizona, U.S.A.”. Yolanda Youngs (United States)
- “GIS and Systematic Conservation Planning in Chile”. Vanezza Morales (Chile)
- “Map-matching problems in transportation-related applications”. Carola Blazquez (Chile)

Theme Nº 8: Physical Handicap.
- “Implementations of multi-touch interaction for non-visual map exploration and manipulation”. Douglas Hagedorn (Canada)

Theme Nº 12: Toponymy
- “New arab cities geographical names electronic database”. Saif Al Qaydi (U. Arab. Emirates)

Theme Nº 29: Children
- “Mapping-in-a-shoebox a grassroots approach for developing the geospatial literacy of elementary children?”. Jacqueline Anderson (Canada)

Provisionally Scheduled (to be confirmed):
Theme Nº 2: Basic Cartography.
- “The reappraisal of cartography as a means of communication concerning environmental problems”. María Graciela Borozuki (Argentina)
- "Le projet de réalisation du RGG : Referentiel Geographique Guyanais”. Michel Pausader (France)

Theme Nº 4: Hazards and Disasters.
- “Gis-based approaches to the sharing of disaster information”. Liu Gang-jun (Australia)
- “Assessing an urban interface zone for compliance with bushfire protection measures”. Liu Gang-jun (Australia)
- “Cartografía de sectores sensibles a fuegos vegetales en un área costera de Chile mediterráneo”. Víctor Quintanilla (Chile)
- “Cartographic techniques for representing regional-scale seismic risk: application to northern Spain” Alicia Rivas Medina (Spain)
- “Development and implementation of a web-based GIS with Application to the evaluation of Earthquake-triggered landslides hazard and risk”. María José García Rodríguez
Theme Nº 5: Gis
- “Gis Today”. Pietro Grimaldi (Italy)
- “Research on expression method of GDP data”. Rong Zhao (China)
- “Data coherence evaluation in cartographic databases used by paran state municipalities Brazil”. Henrique Firkowski (Brazil)
- “Geoinformation retrieval based on ontology and its application in disaster geoinformation service” Jiping Liu (China)
- “Geocoding for the common platform of geographic information”. Jie Yin (China)
- “Mapping of soil erosion risk in Croatia with application of GIS technology”. Stjepan Husnjak (Croatia/Hrvatska)

Theme Nº 8: Physical Handicap
- “Tactile mapping in the learning of geography: a methodology for development and combination of teaching resources suitable for people with visual disabi”. Carla Cristina R. Gimenes de Sena ((Brazil)

Posters and authors to be announced
Meetings

The Scientific Mission of the International Cartographic Association is coordinated in the work meetings, which are a fundamental part of the ICC conferences.

**16th Monday**

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<tr>
<th>Time</th>
<th>Room</th>
<th>Meeting</th>
<th>Convenor</th>
</tr>
</thead>
</table>
| 09:00 – 17:30 | R-3  | Latin American Remote Sensing and Spatial Information Systems (SELPER): 28th Meeting of SELPER Coordinators | Dr. Eloy Perez Garcia (President)  
Dr. Gina Ghio (Convenor) |

**17th Tuesday**

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<tr>
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<th>Room</th>
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<tbody>
<tr>
<td>09:45 – 10:30</td>
<td>R1</td>
<td>Intellectual Property Working Group</td>
<td>Lucia Lovison-Golobb</td>
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<td></td>
<td>R2</td>
<td>Satellite Imagery Commission</td>
<td>Xiaojun Yang</td>
</tr>
<tr>
<td>11:00 – 12:30</td>
<td>R1</td>
<td>Education and Training Commission</td>
<td>David Fraser &amp; Laszlo Zentai</td>
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<tr>
<td></td>
<td>R2</td>
<td>Planetary Cartography Commission</td>
<td>Kira Shingareva</td>
</tr>
<tr>
<td>12:30 - 13:15</td>
<td>S-2</td>
<td>National Committees of the ICA (I)</td>
<td>ICA Executive Committee</td>
</tr>
<tr>
<td>14:00 – 15:30</td>
<td>R1</td>
<td>Marine Cartography Commission</td>
<td>Patricio Carrasco</td>
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<tr>
<td></td>
<td>R2</td>
<td>History Commission</td>
<td>Elri Liebenberg</td>
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<tr>
<td>16:00 – 17:30</td>
<td>R1</td>
<td>Standards Commission</td>
<td>Anthony Cooper</td>
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<td></td>
<td>R2</td>
<td>Mapping Africa Working Group (I)</td>
<td>Derek Clarke</td>
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**18th Wednesday**

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<th>Time</th>
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<th>Meeting</th>
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<tbody>
<tr>
<td>09:45 – 10:30</td>
<td>S1 – Main Auditorium</td>
<td>Meeting of Cartographic Agencies – Opening and Presentations by ICA Executive Committee</td>
<td>ICA Executive Committee</td>
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<tr>
<td></td>
<td>R1</td>
<td>Children and Cartography Commission (I)</td>
<td>Jesús Reyes &amp; Temenoujka Bandrouva</td>
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<tr>
<td>11:00 – 12:30</td>
<td>S1</td>
<td>Meeting of Cartographic Agencies – Presentations by Agencies</td>
<td>ICA Executive Committee</td>
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<tr>
<td></td>
<td>R1</td>
<td>Children and Cartography Commission (II)</td>
<td>Jesús Reyes &amp; Temenoujka Bandrouva</td>
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<tr>
<td>14:00 – 15:30</td>
<td>S1</td>
<td>Meeting of Cartographic Agencies – Presentations &amp; Round Table</td>
<td>ICA Executive Committee</td>
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<tr>
<td></td>
<td>R1</td>
<td>Art &amp; Cartog. Working Group (I)</td>
<td>Barbara Piatti &amp; Sébastien Caquard</td>
</tr>
<tr>
<td>16:00 – 17:30</td>
<td>S1</td>
<td>Meeting of Cartographic Agencies – Round Table &amp; Conclusiones</td>
<td>ICA Executive Committee</td>
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<td></td>
<td>R1</td>
<td>Art &amp; Cartog. Working Group (II)</td>
<td>Barbara Piatti &amp; Sébastien Caquard</td>
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### Thursday

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<th>Time</th>
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<tbody>
<tr>
<td>09:45 – 10:30</td>
<td>R1</td>
<td>Cartog. Projections Commission</td>
<td>Frank Canters &amp; Lynn Usery</td>
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<td></td>
<td>R2</td>
<td>Mountain Cartog. Commission</td>
<td>Karel Kriz</td>
</tr>
<tr>
<td>11:00 – 12:30</td>
<td>R1</td>
<td>Atlasses Commission</td>
<td>Peter Jordan</td>
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<tr>
<td></td>
<td>R2</td>
<td>Cart. and Society Commission (I)</td>
<td>Chris Perkins</td>
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<tr>
<td>12:30 - 13:15</td>
<td>R1</td>
<td>Scientific Commissions and Working Groups of the ICA</td>
<td>ICA Executive Committee</td>
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<tr>
<td></td>
<td>R2</td>
<td>Orienteering Competition – Preparatory Meeting</td>
<td>LOC – Orienteering Sub-Committee</td>
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<tr>
<td>14:00 – 15:30</td>
<td>R1</td>
<td>Internet Commission</td>
<td>Michael Peterson</td>
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<tr>
<td></td>
<td>R2</td>
<td>Cart. and Society Commission (II)</td>
<td>Chris Perkins</td>
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<tr>
<td>16:00 – 17:30</td>
<td>R1</td>
<td>Use and Users Commission</td>
<td>Corné Elzakker</td>
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<td></td>
<td>R2</td>
<td>Mapping Africa Working Group (I)</td>
<td>Derek Clarke</td>
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### Friday

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<tbody>
<tr>
<td>09:45 – 10:30</td>
<td>R1</td>
<td>Theory Commission</td>
<td>Alexander Wolodtschenko</td>
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<tr>
<td></td>
<td>R2</td>
<td>Ubiquitous Cartog. Commission</td>
<td>Takashi Morita</td>
</tr>
<tr>
<td>11:00 – 12:30</td>
<td>R1</td>
<td>Generalization Commission</td>
<td>Julien Gaffuri &amp; Patrick Revell</td>
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<tr>
<td></td>
<td>R2</td>
<td>Africa Working Group (II)</td>
<td>Derek Clarke</td>
</tr>
<tr>
<td>14:00 – 15:30</td>
<td>R1</td>
<td>Census Working Group</td>
<td>Timothy Trainor</td>
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### Saturday

<table>
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<th>Time</th>
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<th>Meeting</th>
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<tbody>
<tr>
<td>09:00 – 10:30</td>
<td>R1</td>
<td>National Committees of the ICA (II)</td>
<td>ICA Executive Committee</td>
</tr>
<tr>
<td>09:00 – 10:30</td>
<td>R2</td>
<td>Crime Mapping Meeting (tentative; to be confirmed)</td>
<td>Peter Schmitz</td>
</tr>
</tbody>
</table>

**Other Meetings of the ICA**

Attendees at ICC are entitled to enter and observe the meetings announced above; in some cases they will be able to participate directly. Additionally, some closed meetings are scheduled where participation is by invitation or membership only; these include:
- Meetings of the ICA Executive Committee, some of these in conjunction with groupings of participants.
- Meetings of the Jury of the International Cartographic Competition.
- Closed meetings of some Commissions.

The meetings announced here are those that have been scheduled to date; it is possible that other additional meetings will be scheduled and announced during the conference.
Panels for ICA Member Nations: Classified and grouped according to the countries of origin, each country that is a member of the ICA has a set of panels presenting maps and cartography.

Panels - Chilean sector: Chile, as host country, will present a sample of cartography produced by Chilean institutions.

Panels - other categories: Cartography from ICC 2009 sponsors, from ICA affiliate members and from international scientific organizations will be exhibited.

Cartography on alternative media: Sector set up for exhibiting atlases, globes of the earth and digital cartography shown through computerised media.

An international jury of the ICA will judge and award recognition to the best pieces in a series of categories. ICC 2009 attendees are invited to see this exhibition; the maps are displayed on panels and the atlases and globes on tables in a long passage or corridor, while the digital cartography is in a room specially set up for display on a screen; these display areas are located in the northern sector of the conference. The Catalogue of this Exhibition is to be found in a separate document among the materials given to registered attendees, together with this program.

Program


Monday 16th: Inauguration of Exhibition, in the morning before 11:00.

Tues. 17th – Fri. 20th: Meetings of the Jury of the Competition.

Saturday 21st: Announcement of winners and prize-giving in the Closing Ceremony. At the end of the Ceremony, exhibition material will be removed from Exhibition Area.

Participation of Attendees in the Exhibition Management

Attendees to the ICC 2009 registered as participants who fulfill special tasks at the exhibition (in the cases of (i) acting as representatives of the exhibiting institutions and (ii) trasporting material to the exhibition from country of origin) should check the above-mentioned Catalog for instructions.
The Barbara Petchenik exhibition is a presentation of pictures related to cartographic concepts, made by children, in coordination with the ICA Commission ‘Cartography and Children’, with the aim of encouraging the creative portrayal of the world by children. The maps created by children are related to the theme “Living in a globalized world”.

The first phase of this process has been carried out; during the first months of 2009 national competitions were held by local organizers; usually these are the local representatives of the above-mentioned ICA Commission and/or the National Committee of each country. Each local organizer in each country has selected six pieces as winners, two for each level, and sent them to a group of contributors to the ‘Cartography and Children’ Commission, which has set up an international jury to choose the best pieces of work at world level in the second phase, that is, the international competition. The third phase consists of the exhibition of all the winning pieces (national and international) within the framework of the Exhibitions of the ICC 2009.

All ICC 2009 attendees are invited to see this exhibition, mounted on panels in the second floor of the cafeteria/light refreshments area (eastern sector of the conference premises). The Catalogue of this Exhibition is in a separate document to be found among the materials given to registered attendees, together with this program.

Program

9th – 15th of November: Setup of Exhibition

Monday 16th: Inauguration of Exhibition, in the morning before 11:00

Saturday 21st: Announcement of winners and prize-giving in the Closing Ceremony. After the Ceremony, the exhibition pieces will be removed.
The Technical-Commercial Exhibition is one of the main activities of the ICC 2009, where the organizations related to cartography and Earth sciences present their products and/or services to ICC 2009 attendees and invited members of the public.

The ICA calls this event the “Technical Exhibition”. FISA S.A. - a highly prestigious firm known for the organization of commercial exhibitions - has implemented it as a trade show within the venue. It will be inaugurated officially at 7:30 pm on Monday 16th, and will be open from the early morning of Monday 16th to mid-day Saturday 21st.

The exhibiting organizations represent a wide range of public institutions as well as private companies operating internationally and/or locally. According to their participation at ICC 2009, they can be classified into three groups:

A) Sponsors (see page 48)
B) Organizations renting space or booth.
C) Organizers (see page 60) and Patrons (see page 63)

Full information about this Technical-Commercial Exhibition is found in a catalog especially prepared by FISA S.A. which will be included in the attendees’ bags.
Sponsors are organizations whose financial contributions help the organization of the ICC 2009, also participating actively in the event through a corporate presence. The full list of sponsors is found in the cover page of this programme; and a detailed description of these entities can be found in the Commercial Catalog published by FISA S.A. The COL and the organizers of the ICC 2009 wish to express their sincere gratitude to the sponsors for their contribution to the success of the ICC 2009.

**Corporate Workshops:** The sponsors have organized some corporate presentations for the ICC 2009 attendees. Corporate talks about products and services will be held. The program is:

### Monday

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:00 – 09:45</td>
<td>S-3</td>
<td>INTERGRAPH</td>
</tr>
<tr>
<td>09:45 – 10:30</td>
<td>S-2</td>
<td>ERDAS: Brad Skelton</td>
</tr>
</tbody>
</table>

### Tuesday

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>09:45 – 10:45</td>
<td>S-5</td>
<td>ESRI: Clint Brown, Mark Cygan, Makram Murad</td>
</tr>
<tr>
<td>10:45 – 11:45</td>
<td>S-5</td>
<td>Government of Navarra / TRACASA: Maria Cabello</td>
</tr>
<tr>
<td>11:45 – 12:45</td>
<td>S-5</td>
<td>AUTODESK: Geoff Zeiss</td>
</tr>
</tbody>
</table>
Technical visits during the conference are offered so that attendees can tour three institutions involved in geo-information. To participate, the cost of the trip should be paid separately from the cost of registration for the conference. Transport in buses is included in this cost; the departure point is always from the conference venue at the Military School. In each visit, the participants will be received by staff of the host institution and then start a tour of the main technological facilities and production areas.

**MILITARY GEOGRAPHIC INSTITUTE (IGM)**

- **Date**: Tuesday, 17th of November, 2009
- **Time**: 09:45 – 12:30
- **Place**: Central Santiago
- **Cost**: $ 8,000 (Chilean pesos)
- **Deadline**: Registrations accepted until 19:00 Sunday 15th Nov.

The IGM is the main cartographic agency and geographic institute of Chile, being the official authority representing the State in all matters involving geography, cartography and surveying.

The IGM satisfies the needs for Basic Territorial Information (ITB) of the nation by creating and maintaining the base and topographic cartographic map series that constitute the official portrayal of Chile’s land territory. Moreover, it maintains the National Geodetic Network, produces orthophotos and atlases, and provides technical information services concerning the geography and cartography of Chile.

<table>
<thead>
<tr>
<th>VT-1</th>
<th>MILITARY GEOGRAPHIC INSTITUTE (IGM)</th>
<th>Tuesday, 17th of November, 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Date</td>
<td>Date</td>
</tr>
<tr>
<td>Time</td>
<td>Time</td>
<td>Time</td>
</tr>
<tr>
<td>Place</td>
<td>Place</td>
<td>Place</td>
</tr>
<tr>
<td>Cost</td>
<td>Cost</td>
<td>Cost</td>
</tr>
<tr>
<td>Deadline</td>
<td>Deadline</td>
<td>Deadline</td>
</tr>
</tbody>
</table>
### Technical Visits

#### VT-2

**AERO-PHOTOGRAMMETRIC SERVICE OF THE AIR FORCE (SAF)**

**Date**
Wednesday, 18th of November, 2009

**Time**
09:45 – 12:30

**Place**
Santiago International Airport

**Cost**
$8,000 (Chilean pesos)

**Deadline**
Registrations accepted until 19:00, Monday 16th Nov.

The SAF is the technical and official authority of the State that fulfils needs for remote sensing, aerophotogrammetry, and similar techniques, as well as the creation of the official aeronautical navigation cartography of Chile. Its mission is to contribute to aeronautical safety, to the security and development of the nation, by means of images and territorial information. Since its beginnings it has been the main Chilean agency active in the fields of aerial photography, photogrammetric restitution and the creation of products based on these techniques. In recent years it has increasingly used data captured by satellites from space and has inaugurated a Satellite Ground Station.

#### VT-3

**A HYDROGRAPHIC AND OCEANOGRAPHIC SERVICE OF THE NAVY (SHOA)**

**Date**
Thursday, 19th of November, 2009

**Time**
09:20 - 17:00

**Place**
City of Valparaiso

**Cost**
$20,000 (Chilean pesos)

**Deadline**
Registrations accepted until 19:00, Monday 16th Nov.

The SHOA is the institution belonging to the Chilean Navy whose mission is to ensure safety in navigation around the coast and Chilean territory through cartography of the sea, rivers, and lakes. Since the 19th century, it has been in charge of the creation of the official nautical charts of Chile; however, it broadened its role in the 20th century. Nowadays, it draws the nautical charts of all the territory, conducts research, and publishes documents about oceanographic topics. It uses advanced software and modern printing techniques to create and publish both analogue and digital cartography.

The round trip covers a distance of about 120 km between Santiago and the city of Valparaiso, located on the coast. Lunch is included in this visit.
For those interested in orienteering events, an orienteering competition will be held in which attendees will be able to practice their skills of map use in the field. To participate, the cost of the trip should be paid separately from the cost of registration for the conference; this is $10,000 in Chilean pesos. Participants are recommended to read the document with the complete description of this competition, available for download on the Conference Web Site (‘Activities’ section). The calendar is as follows:

- Deadline for registrations: 19:00 Tuesday 17th Nov.
- Preparatory meeting: 12:30 Thursday 19th Nov.
- Orienteering Competition: 09:20 – 13:00 Friday, 20th of November
- Winners announced: Closing Ceremony 21st Nov.

For this event, LOC for ICC 2009 has established a partnership with the “School of Services and Physical Education”, which is part of the Army of Chile, being active in the area of physical education, exercise and sports. The LOC and ESEFE will manage this event, applying the methodologies of the International Orienteering Federation. Competitors should bring with them to the event the following:

- Compass suitable for Orienteering
- Sports or athletes clothes suitable for cross-country running
- Sunscreen cream and/or cap (for shade)

On the 20, the participants will be transported to the competition location by bus and receive the orienteering map. There will be three alternative race lengths to choose from; 5.5 km, 4.5 km and 3 km. Competitors will be separated into classes by sex and by race length. Competitors must complete the race, passing through the number of control points set for the race length chosen, within a period not more than 90 minutes.

Competitors will enjoy the natural landscape in which this competition is to be held, in a rural area between the Santiago urban area and the Andes mountains to the east. The competition is to be held on the grounds of the "Hacienda Santa Martina"; this is a club and resort facility that has generously agreed to host this event on its estate, located in the La Dehesa borough. Further information at www.santamartina.cl.
The ICC 2009 offers social and entertaining events to complement the technical-scientific activities. They are offered to all registered attendees; and especially recommended to accompanying persons.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Place</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reception</td>
<td>19:30 – 21:30</td>
<td>Cafeteria and Terrace</td>
<td>This event, together with the Inauguration of the Technical-Commercial Exhibition, constitute the welcoming event.</td>
</tr>
<tr>
<td>Opening Cocktail</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equestrian Gala</td>
<td>18:00 – 18:45</td>
<td>Equestrian Center, Conference Venue</td>
<td>The Equestrian Gala is a demonstration through which the high level of horse training is shown. This event is presented by the Section of High Performance Horse Riding and the Equestrian Jumping Team of the School of Equestrian Art of the Chilean Army.</td>
</tr>
<tr>
<td>Videos (Art G.T.)</td>
<td>18:00 – 19:00</td>
<td>S-1: Main Auditorium</td>
<td>The working group of the ICA, Art and Cartography will show a video.</td>
</tr>
<tr>
<td>Gala Dinner</td>
<td>19:30 – 23:00</td>
<td>Lo Curro Military Club</td>
<td>This is the main social event of the conference, which will be held at Lo Curro Military Club, located in the west part of the city. Registered attendees for the Gala Dinner will enjoy the culture of our society in a warm, friendly atmosphere. This event includes transportation, dinner and a spectacular show. (Participation requires paid registration $38,000, not included in the general registration for the conference). Last call for registration will be until 19:00 pm, Tuesday 16th at the conference venue.</td>
</tr>
</tbody>
</table>

Notice: Additionally, an event associated to the XXV ICC (2011) has been programmed. This event is restricted to a selected group of guests.
Together with the traditional meetings of the Commissions and Working Groups held during the conference at the venue, some of these groups hold events pre and post conference. This is the updated schedule of four events programmed so far:

<table>
<thead>
<tr>
<th>Date</th>
<th>Place</th>
<th>Meeting</th>
<th>Coordinator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friday 13th and Saturday 14th, November</td>
<td>Metropolitan Technological University</td>
<td>Geospatial Data Standards Committee</td>
<td>Antony Cooper</td>
</tr>
<tr>
<td>Friday 13th to Sunday 15th, November</td>
<td>Coraceros Hotel, Vina del Mar and SHOA (see page 50), Valparaiso</td>
<td>Seminar: “The Future of Maps and the Internet”. For further information, see <a href="http://valparaiso2009.eventbrite.com/">http://valparaiso2009.eventbrite.com/</a></td>
<td>Michael Peterson and the ICA Internet and Cartography Committee</td>
</tr>
<tr>
<td>Sunday 15th, November</td>
<td>Military School, Room R2</td>
<td>Management and Economic Aspects of Cartographic Production Commission</td>
<td>Philippe de Maeyer</td>
</tr>
<tr>
<td>Sunday 22nd, and Monday 23rd, November</td>
<td>Army War Academy (CEOTAC)</td>
<td>ICA Working Group: Early Warning and Crisis Management</td>
<td>Milan Konecny</td>
</tr>
</tbody>
</table>
### Registration and Participation of Attendees

Attendees should complete the process of registration and payment of the registration charge before receiving this Program in the Bag of conference materials. Registration, accreditation, payment and provision of materials is carried out at the entrance to the conference venue, where there are counters, equipment and personnel for this process. Attendees should carry their conference accreditation tag at all times while within the conference venue.

The charges for registration at the conference, in Chilean pesos, are the following:

<table>
<thead>
<tr>
<th>Category</th>
<th>Charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendee</td>
<td>$380,000</td>
</tr>
<tr>
<td>Student or Senior</td>
<td>$220,000</td>
</tr>
<tr>
<td>Accompanying person</td>
<td>$150,000</td>
</tr>
<tr>
<td>Participation for one day</td>
<td>$80,000</td>
</tr>
</tbody>
</table>

At this registration and payments center, attendees can also register and pay for the Technical Visits (see page 49), the Orienteering Competition (see page 51) and the Gala Dinner (see page 52). Here also, attendees who have paid for registration previously, through the on-line system, can receive the corresponding receipts and invoices. Registrations made at the conference venue are paid in Chilean pesos; attendees from other countries are recommended to exchange money and obtain enough Chilean currency before paying for registration.

### Benefits for Participants

The registration fee includes:
- Attendance at the Conference, including all technical and plenary sessions
- Attendance, as observer, at the meetings of the ICA
- Attendance at the opening and closing ceremonies and welcome reception event
- Access to all the exhibitions

Additionally, the following articles and services are provided (by category):
- For attendees in categories for Participants, Students, Seniors, and 1 Day attendance: bag with conference documents, conference proceedings DVD, and attendance certificate
- For all attendees and Accompanying Persons: Lunch from Monday 16th to Saturday 21st at the Conference Venue
- For One-day Participants: Lunch on one day only
- For Accompanying Persons: Tourist brochures, city maps

Definitions of the categories of paid registration:

- **“Participant”**: This is the standard category for participating in the conference.
- **“Senior”**: Attendees who are more than 65 years old during the conference.
- **“Student”**: Attendees who are studying courses for technical or professional training, that is, in further education or leading to a first university degree.
- **“Accompanying persons”**: These are attendees who accompany another attendee registered in a different category (participant, senior or student), for example a spouse or family member. Accompanying persons cannot present nor be authors of papers or posters, act as session moderator nor chair meetings.
- **“Participation for 1 day”**: Participants for one day only. Registration can be repeated for a second day, but two days is the maximum.
Definitions of other Attendee Categories:

**Guests:** A large number of people have been invited to attend the conference at a low charge; however, they have access only to the technical-commercial exhibition, central courtyard and cafeteria during a restricted period of time. They are not entitled to conference bags nor lunch and they are not allowed to attend plenaries, technical sessions and meetings. Registered attendees are kindly requested not to encourage any person in this Guest category to attend any meeting or session. A separate group of guests are those invited especially to the Ceremonies (see page 9).

**Booth Personnel:** In the Technical-Commercial Exhibition, personnel (from the organisations renting space there) will be at their respective booths in order to respond to the requirements of attendees.

Services for Attendees

**Information Desks:** In the registration center (entrance area), there are information counter where the attendees can ask about any aspect of the conference, also the alternatives for accommodation and transport available in Santiago.

**LOC Office:** At the Operations Center of the Local Organizing Committee, all participants who perform specific tasks for the conference can request assistance. These attendees include:
- Meeting coordinators
- Representatives of the exhibitors in the Cartographic Exhibition
- Authors of Papers and Posters
- Technical Session Moderators

**Refreshment Services:** There is a Cafeteria located in the eastern side of the conference where attendees can buy food and drink. Open from 09:00 am. to 6:00 pm.

**Internet Services:** Two rooms with Internet facilities are available to attendees in the northern sector of the conference venue.

**Parking Areas:** Two parking lots are available to participants with vehicles. One of them is next to the main entrance and the other one is north of the Military School Chapel.

**Lunch Service:** In the catering area (known as “comedores” in Spanish) located in the eastern sector of the venue, registered attendees can have lunch. The service is between 12:30 and 2:00 pm.
Accommodation and Tourist Services

To define the Hotels and the Pre- and Post Conference Tours associated with ICC 2009, the firm CTS Turismo has worked (jointly with FISA and LOC) to select the services to recommend to attendees. Those participants who have not decided yet may contact CTS Turismo staff in the registration area or through the following contact information:

E-Mail: cartografia@ctsturismo.cl
maritza.gonzalez@ctsturismo.cl
cts@ctsturismo.cl
grupos@ctsturismo.cl
Tel.: (56) 2 – 2510400 / (56) 2 – 2510423 / 2510518
Website: www.ctsturismo.cl / www.chileantravelservices.com
Executives: Mrs. Maritza González / Miss Cecilia Poeck
Address: Antonio Bellet 77, Of. 202, Providencia, Santiago

Accommodation: CTS Turismo has selected a list of hotels with availability for the dates of the conference; this list can be obtained in .pdf format from the conference website (click on “hotels”). Their websites are included in the list, so attendees can make their reservations directly. At the same time, CTS Turismo staff can be requested to recommend hotels and make the reservation. Some hotels are closer to the venue, the rest are next to Line 1 of the Subway (Metro) which guarantees a fast and direct means of transportation to/from the conference venue.

The following chart will give attendees an idea of maximum and minimum hotel rates.

<table>
<thead>
<tr>
<th>Type of Room</th>
<th>Rates</th>
<th>***** Pesos</th>
<th>***** Euros</th>
<th>**** Pesos</th>
<th>**** Euros</th>
<th>*** Pesos</th>
<th>*** Euros</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Room</td>
<td>Maximum</td>
<td>193,029</td>
<td>239</td>
<td>185,308</td>
<td>229</td>
<td>97,801</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>Minimum</td>
<td>103,592</td>
<td>128</td>
<td>68,204</td>
<td>84</td>
<td>40,536</td>
<td>50</td>
</tr>
<tr>
<td>Double Room</td>
<td>Maximum</td>
<td>203,324</td>
<td>251</td>
<td>185,308</td>
<td>229</td>
<td>103,592</td>
<td>128</td>
</tr>
<tr>
<td></td>
<td>Minimum</td>
<td>111,313</td>
<td>138</td>
<td>44,397</td>
<td>55</td>
<td>37,319</td>
<td>46</td>
</tr>
</tbody>
</table>

Tourism

Pre or Post conference, participants visiting Chile will have the opportunity to see the country through the tour packages organized by CTS Turismo especially for ICC 2009 attendees. These include:
- Airport-Hotel-Airport transportation
- Tours through Santiago (one day or half a day)
- Tours to places of interest outside Santiago (one day)
- Tours to extremes places of Chile (several days)
Information for Travellers

- **Currency:** The Chilean peso ($) is the currency of Chile. However, there are numerous exchange houses and banks where major currencies such as US dollars and Euros can be easily converted to pesos. Credit cards are accepted in most hotels, restaurants and major shops; the credit card payment involves subsequent conversion to Chilean pesos.

- **Climate:** Santiago has a Mediterranean climate.

- **Electricity:** The power supply in Chile is 220 volts, 50 hertz.

Complete information for attendees visiting Chile from other countries is available in the conference web site (“Information” section). As follows a brief summary:

- **Time:** Local time is GMT (-) 3 hours in the southern hemisphere summer.

- **Transport:** Santiago has a large, modern airport, one of the safest and most efficient in the world served by a wide range of airlines. For getting around in the city of Santiago, there is a subway system, also taxis and a recently modernized bus system. For your transport between the airport and the hotel there are a range of services, among them that provided by “CTS Turismo”; (see page 56). Outside Santiago, Chile has a good road network, together with comfortable long distance bus/coach transportation. Most major car rental companies have representatives in the capital.

Responsibilities of Attendees

The responsibilities of participants entering Chilean territory include:

- Complete all formal requirements for entering Chile. This includes having a currently valid passport for those countries where Visa or passport is a requirement.
- Take insurance policies to cover against medical, travel and property risks while at the conference.
- Make necessary travel arrangements to/from Chile.
- Comply with sanitary controls according to the Chilean Agricultural and Livestock Service (SAG) regarding transportation of animals, vegetable and food products.
- Pay the reciprocal tax upon arrival (if necessary; only certain countries)
- Present all the necessary documents to Immigration officials (stamped visa, passport or ID according to country of origin)
- Confirm return flight upon arrival in Santiago so as to ensure the return date.
- Pay boarding tax when leaving Chile from the international airport.

For further information, the following sites are available:
*www.extranjeria.gov.cl*: legal requirements to enter Chile.
*www.sag.cl*: transportation of animals, vegetable and food products.
*www.aeropuertosantiago.cl* and *www.dgac.cl*: airport regulations
International Cartographic Association

The ICA is the prime international body for cartography and geographic information. Its mission is to promote the discipline and profession of cartography in an international context. The ICA has, at international level, managed the series of cartographic conferences in which the ICC 2009 is placed. All the entities within the ICA, the Executive Committee, Scientific Commissions, National Committees, Affiliate Members, among others, participate in the organization of this event and have made important contributions. In this context the National Committee of the ICA in Chile (IGM) and also one of the current Vice-Presidents of the ICA with Chilean nationality have a special role. Further information is at the ICA web site www.icaci.org.

Military Geographic Institute of Chile

The Military Geographic Institute (IGM) is the main state cartographic agency and geographic institute of Chile. The IGM represents State of Chile before several international organizations, including the ICA and the PAIGH. The IGM has hosted a series of major international meetings and conferences, among them GSDI-9 in 2006; in the future it is responsible for hosting the next regional conference of the International Geographic Union (IGU) in 2011. The IGM is, at this time, the headquarters and center of operations of the Local Organizing Committee for ICC 2009 (LOC). Further information is at the IGM web site www.igm.cl.

Fisa S.A.

FISA is the prime organizer of international trade shows and conferences in Latin America. At the 24th International Cartographic Conference, it works in conjunction with IGM and LOC, being responsible for the commercial projection of the event, receiving registrations, selling booth spaces and managing the service providers such as catering, hotels, tourism and interpreters. It also produces the conference infrastructure: exhibition panels, trade show booths, audiovisual equipment, conference ID/accreditation tags, among others. See their web site at www.fisa.cl.

LOCAL ORGANIZING COMMITTEE OF THE I.C.C. 2009

ICC 2009 is being organized through the Local Organizing Committee (LOC). The operational nucleus of LOC is made up of IGM personnel, organized hierarchically. The ICA, FISA and the Scientific Sub-Committee participate in the tasks of the LOC, so that the preparation and execution of this event has been achieved collectively by these bodies. The Scientific Sub-Committee of LOC, led by representatives of six Chilean organizations involved with Cartography, handles the program of scientific submissions and presentations.
ICC 2009 Personnel

Local Organizing Committee / IGM

The following is the list of people working at the ICC 2009 conference venue, who will interact with attendees and the public:

- President (Director of the IGM): Colonel Juan Vidal Garcia-Huidobro
- General Secretary: Colonel Alvaro Hermosilla Jarpa
- Conference Coordinator: Lt.Col.(Ret.) Pedro Mahuzier
- Executive Secretary: Pablo Larraín Rivas
- LOC Secretary: Valentina Segura Gandur
- Communications: Edwin Hunt Wallis
- Executive of LOC: Rodrigo García González
- Cartographic Exhibition: José Compan Rodríguez
- Children’s Maps Exhibition: Marcela Riveros Lagrèze
- Design of Website and Publications: Paula Olguín Olate
- Public Relations & Protocol: Marisol Basso Chacon
- Technical Visits: Hermann Manriquez Tirado
- Meeting Rooms & Posters: Pauline Murtagh Alvarado
- Other functions:
  - Lt.Col. Victor Pino Cuevas: Transport & Catering
  - Capt. Eduardo Jara Urrutia: Safety & Equestrian Display
  - May. Eduardo Cayul Aristondo: Technical Session Rooms
  - Capt. Lautaro Rivas Reveco: Orienteering Competition & Attention to VIPs
  - Cristian Salinas Bueno: I.T. announcements
  - Ricardo Urzúa Buadrand: I.T. Coordination
  - Ricardo Zamorano: Exhibition Inaugurations & Post-conf. Training Workshop
  - Jorge Olíd Martínez: Social Events
ICC 2009 Personnel
Scientific Sub-Committee

President:
Alejandra Coll
(Universidad Técnológica Metropolitana)

Scientific Scheduling:
José Ramirez Cabello
(ODEPA – Ministerio de Agricultura)

Coordination of Moderators:
Fernando Pino
(Universidad de Chile)

Coordination of Sessions:
Cintia Andrade Leiva
(Instituto Geográfico Militar - IGM)

Coordination of Sessions:
Juan Carlos Espinoza
(University of Santiago de Chile - USACH)

Coordination of Student Helpers:
Marcela Sanchez
(University Catolica - PUC)

FISA S.A.

General Manager of FISA:
Luis Schmidt

ICC 2009 Executive Manager:
Carlos Parada

Conference Finance:
Luis Canas

ICC 2009 Project Leader:
Victoria Belloni Symon

General Production:
Ximena Barra Aravena

Marketing & Bags:
Michele Pefaur

Public Relations & Communications:
Rebeca Uribe

Sponsors & Technical-Commercial Exhibition:
Katherine Becker

INTERNATIONAL CARTOGRAPHIC ASSOCIATION (ICA) – Executive Committee

Prof. William Cartwright: President (Australia)
Grl(R) Pablo Gran Lopez: Vice-President (Chile)
Zhillin Li: Vice-President (China)
Timothy Trainor: Vice-President (United States)
Menno Jan-Kraak: Vice-President (Netherlands)

Dr. David Fairbairn: General Secretary (United Kingdom)
Anne Ruas: Vice-President (France)
Derek Clarke: Vice-President (South Africa)
Georg Gartner: Vice-President (Austria)
Milan Konecny: Former President (Czech Rep.)
ARMY OF CHILE:
Is a direct Patron of the event by enabling it to be held and run by several Army institutions, among them the IGM (see page 60) and the conference venue (page 4). The Army has made ICC 2009 part of its program of activities that celebrate the Bicentenary of the Independence of Chile (1810 – 2010).

GOVERNMENT OF CHILE:
Gives the official recognition of the State to the conference.

HYDROGRÁPHICO AND OCEANOGRAPHIC SERVICE OF THE NAVY (SHOA):
To host one of the technical visits and a Pre-Conference Seminar.

METROPOLITAN TECHNOLOGICAL UNIVERSITY (UTEM):
Headquarters of the Scientific Sub Committee of the LOC. UTEM has a Cartography School and a Tactile Cartography Center.

UNIVERSITY OF SANTIAGO (USACH):
Participates directly in the Scientific Sub Committee of the LOC.

UNIVERSITY OF CHILE (UCH):
Participates directly in the Scientific Sub Committee of the LOC.

PAN-AMERICAN INSTITUTE FOR GEOGRAPHY AND HISTORY (PAIGH):

OFFICE FOR THE PROMOTION EXPORTS (PROCHILE):
Governmental agency that projects the commercial policy of Chile. Facilitates announcements of the event in industrial and commercial sectors.

MINISTRY OF DEFENCE:
Patron of ICC 2009 through the participation of those Armed Forces institutions involved with ICC 2009 that are within the scope of this ministry.

AERO-PHOTOGRAHMÉTRIC SERVICE OF THE AIR FORCE (SAF):
To host one of the technical visits.

AGRARIAN STUDIES AND POLICIES OFFICE (ODEPA) - MINISTRY OF AGRICULTURE:
Participates directly in the Scientific Sub Committee of the LOC; location of the online submissions system manager.

CATHOLIC UNIVERSITY OF CHILE (PUC):
Participates directly in the Scientific Sub Committee of the LOC.

COUNCIL OF RECTORS OF CHILEAN UNIVERSITIES (CRUCH):
Facilitates awareness of the conference in the academic sector.

LATIN AMERICAN SOCIETY FOR REMOTE SENSING AND SPATIAL INFORMATION SYSTEMS (SELPER):
Promotes ICC 2009 among the remote sensing specialists of Latin America; moreover it is holding a parallel event at ICC 2009.

OFFICE FOR THE PROMOTION EXPORTS (PROCHILE):
Governmental agency that projects the commercial policy of Chile. Facilitates announcements of the event in industrial and commercial sectors.

NATIONAL TERRITORIAL INFORMATION SYSTEM (SNIT):
This is the Chilean spatial data infrastructure (SDI). It facilitates awareness of ICC 2009 among the institutions participating in the Chilean NSDI.
Contact details for ICC 2009

Telephones:
- (56) – 2 -4109422 : LOC Coordination Office
- (56) – 2 -4109369 : LOC Secretariat
- (56) – 2 -4109314 : LOC Communications Sub-Committee

E-mail:
- info@icc2009.cl : General contact
- expocarto_icc2009@fisa.cl : Cartographic Exhibition
- mrozas@fisa.cl : Commercial Exhibition & Sponsors (FISA)

Conference Web Site: www.icc2009.cl

Future Conferences

Latin American Remote Sensing Week - LARS: Organized by the Aero-Photogrammetric Service of the Chilean Air Force (SAF), in conjunction with SELPER & ISPRS. Further information from www.lars.cl
4th – 8th, October, 2010 - Santiago, Chile

AutoCarto: Organized by the Cartographic and Geographic Information Society of the United States (CaGIS), with the support of the ICA and the ISPRS. Further information at: www.cartogis.org/autocarto
15th – 18th, November, 2010 - Orlando, Florida, USA

3rd – 8th, July, 2011 - Paris, France

Santiago Regional Conference of the International Geographic Union - IGU: organized by the IGU and the Military Geographic Institute of Chile (IGM). Further information from hmanriquez@igm.cl
November, 2011 - Santiago, Chile