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Spatial Data Infrastructure-Latin America and the Caribbean (SDI-LAC) is a regional, monthly, and free, electronic newsletter from the <u>Global Spatial Data Infrastructure Association</u> (GSDI). It focuses on aspects related with Spatial Data Infrastructure, and on GIS, remote sensing, and data management issues, related with SDI in Latin America and the Caribbean. It aims to raise awareness, provide useful information to strengthen national SDI initiatives, and support synchronization of regional efforts.



The <u>Pan-American Institute of Geography and History</u> (PAIGH), member organization of GSDI, and the <u>Permanent Committee on Geospatial Data Infrastructure for the Americas</u> (PC-IDEA), promote SDI development in the region. The newsletter is prepared by PAIGH for GSDI.

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### Message from the Editor

Current SDI-LAC issue emphasizes capacity building opportunities. The Global and Regional SDI section includes GSDI's information on its 13 World Conference, and calls for participation on both a doctoral research Survey on Sharing Spatially-Referenced Data, and the Summer School on "Advanced Spatial Data Infrastructures" to take place in Leuven, Belgium; a Call for the Second Joint Technical Commissions Meeting of the PAIGH to be held in Panama; a note on GEOSS initiatives on Supporting Sustainable Tourism in the Caribbean; and information on CoastGIS 2011 and ICAST 2011 conferences to be held internationally. The IGS piece highlights the support of the Ministry of Interior of Taiwan for its contribution to capacity building of its members. The National SDI section highlights activities of Argentina and Jamaica, including: The First Annual Meeting of the City of Rosario's Platform Coordination Team in Argentina; and progresses made by the Jamaican NSDI with support of the GSDI Small Grant Program. Articles and Publications of the month contain papers on the ATLAS of INSPIRE -Conceptualizing SDI Implementation through an Inventory of Experiences, Successes and Headaches of European National Mapping Agencies published in IJSDIR Journal; and on The Effects of Spatial Population Dataset Choice on Estimates of Population at Risk of Disease, also published in the Population Health Metrics Portal. Geospatial Research and Applications comprise notes on a Cooperation

Agreement on Spatial Information signed by MARN Guatemala and CATHALAC; the improved efforts for National Rural Land Registry Modernization in Mexico; the First-Ever Global Map of Surface Permeability; the Land Administration Domain Model that is currently at Draft International Stage; UN-SPIDER LAC Thematic Partnership; NGDC's New Bathymetric Data Viewer; and the Android-Powered Satellite to be launched to Space. The Training and Funding Opportunities section encompasses calls for international and national programs, among them the Graduate Scholarship of PAIGH's Commission on Geophysics; a Workshop on Application of SDI and Risk Management on Natural Emergencies for Haitian students to take place in Dominican Republic; an opportunity for a Post-Doctoral Research Associate at Harvard University's CGA; and the Symposium to Focus on Space-Time Integration in Geography and GIScience during AAG Annual Meeting, among others. Finally, several Events taking place in the **Americas** are highlighted in the last section.

Back issues of the newsletter are at the GSDI website: <a href="http://www.gsdi.org/newsletters.asp">http://www.gsdi.org/newsletters.asp</a>

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### Input to this Issue

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# Global and Regional SDI, News, Presentations

#### GSDI 13: Spatially Enabling Government, Industry and Citizens (Quebec City, Canada, 13-17 May 2012)



GSDI 13 WORLD CONFERENCE



GEOIDE SCIENTIFIC CONFERENCE



CANADIAN GEOMATICS CONFERENCE



#### Spatially Enabling Government, Industry and Citizens

Quebec City, Canada, 13-17 May 2012

The joint GSDI World Conference (GSDI 13), Canadian Geomatics Conference (CGC 2012), and GEOIDE National Scientific Conference (GEOIDE 2012) will take place in historic Quebec City, Canada at the Quebec City Conference Center in the heart of the city. Primary partners in organizing this conference include the GSDI Association and GEOIDE.

The theme for this conference is Spatially Enabling Government, Industry and Citizens.

Geographic information technologies and spatial data infrastructure play critical roles in allowing governments, local communities, non-government organizations, the commercial sector, the academic community and common people to make progress in addressing many of the world's most pressing problems. Further, use of spatial data in conjunction with mobile technologies is becoming pervasive within many nations. While mapping and spatial data infrastructure development was previously accomplished only by governments, this is no longer the case. All sectors of society are becoming spatially enabled and contributing to the development of the global spatial data infrastructure. Whether using hand-held devices incorporating phones, cameras, GPS, maps and location services or using sensors and wireless communications embedded within our homes, offices, stores, vehicles and along our travel paths, citizens are helping to build the next generations of spatial data infrastructure through their contributions of location and descriptive data.

This conference will explore the complementary roles of government, private industry and the academic community in realizing better means for sharing geographic data and technologies and developing improved location-based services for meeting real world needs.

Quebec City is a dynamic city rich in contrast and color, you'll find a harmonious blend of culture, cuisine, arts and architecture. We invite you to come and engage yourself in intellectual exchange with leaders and experts in the geospatial industry.

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#### Call for Papers

GSDI 13 invites presentations covering the full range of practice, development and research experiences that advance the practice and theory of spatial data infrastructure development and spatial enablement of society. Consult the suggested Conference Topics (forthcoming). Deadline for submission of abstracts: to be announced. The submissions accepted through this call for papers will be orally presented in the parallel session tracks shown in the Program Overview. Conference website: <a href="http://www.gsdi.org/gsdiconf/gsdi13/">http://www.gsdi.org/gsdiconf/gsdi13/</a>

#### Survey on Sharing Spatially-Referenced Data

Source: GSDI Executive Committee

The sharing of spatially-referenced data is a key concern among all in our geospatial community. Current sharing efforts range from local to national government efforts, sharing internationally within disciplinary and scientific sectors, sharing through global efforts such as the Global Earth Observation System of Systems (GEOSS), and sharing through public participation efforts such as Open Street Maps and similar citizen-sensor initiatives.

Research is ongoing to better understand what allows and/or constrains individuals and agencies from sharing their spatially-referenced data. In an effort to better understand sharing dynamics, the GSDI Association encourages you to help such research whenever you can. The survey below is part of an effort to confirm conclusions reached through other forms of investigation. By taking a few minutes to respond to such surveys, you help the academic community to move forward our knowledge base of lessons learned.

#### Survey on Sharing Spatially-Referenced Data

Do you use spatially-referenced data? Do you generate spatially referenced data that you own or for which you are in a position to influence the data sharing policies of an organization? If your answer to either of those questions is yes, please consider spending 10 minutes or less answering a short online questionnaire that will help provide input for the possible construction of online commons environments for sharing spatially-referenced data. This is part of a research project by Jim Campbell, a doctoral candidate in the Department of Spatial Information Science and Engineering at the University of Maine advised by Harlan Onsrud. To participate the survey. qo http://geodatacommons.umaine.edu/limesurvey/index.php?sid=33229&lang=en

#### Summer School "Advanced Spatial Data Infrastructures", Leuven, Belgium

Source: Joep Crompvoets

This event will take at the Irish College in Leuven between 8 and 15 July 2011, and is organised by the University of Melbourne (Australia), Leuven University and Brussels University (both Belgium), and supported by Global Spatial Data Infrastructure (GSDI) Association. The key objective of this Summer School is to



enhance the knowledge about the current developments in the field of spatial data infrastructures. For more background information and registration, see <a href="http://www.spatialist.be/201101-school/index.ht">http://www.spatialist.be/201101-school/index.ht</a>

#### Call for Second Joint Technical Commissions Meeting of the PAIGH

Source: Santiago Borrero



### PAN AMERICAN INSTITUTE OF GEOGRAPHY AND HISTORY

Specialized Organization of the Organization of American States - OAS

PAIGH

"PAIGH: An organization ready, via its related sciences, to rethink America in the 21 st Century"

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The Technical Meetings of each PAIGH's Commission are held every half quadrennial, two years after the Consultation Meetings. In 2007 the meetings were held together at a single site for the first time (Itu, Brazil). In response to the results achieved and the provisions of Resolution 7 (Peru, 2010) "Organization and venues of the Technical Commissions' Meetings - 2011", the Secretary-General convened the Second Joint Technical Meeting, to be held in the City in Panama on June 15-17, 2011.

The main purpose of the meeting will be to evaluate a multidisciplinary implementation of the Pan American Agenda 2010-2020 and recommend adjustments as necessary to fulfill its purposes. Thus, the Agenda priorities related to environmental history, land use, climate change and natural disasters will be considered, as well as the consolidation of specialists networks, and in particular, the research program to be undertaken during the following biennium. The general agenda of this meeting will be developed and diffused in the coming weeks.

Financial support for selected participants will be awarded for supporting this Technical Meeting; preference will be given to those who are able to pay for part of its participation. Applications for financial support should be submitted to the Commission Chairmen no later than **April 15**, 2011.

As for technical aspects, this time the meetings seek to stimulate a more coherent vision of the organization, multidisciplinary activities, innovation and relevance of the projects supported each year by the Commissions. The technical program and the overall agenda are being drawn.

The meeting will take place in Panama under the local coordination of the PAIGH's National Section in Panama, based on the National Geographic Institute "Tommy Guardia." For more information please contact: Aracely Franco <a href="mailto:afranco@mop.gob.pa">afranco@mop.gob.pa</a> and the General Secretariat of PAIGH at <a href="mailto:secretariageneral@ipgh.org">secretariageneral@ipgh.org</a>

Two technical events of interest to the Pan American community will be held prior to the Second the PAIGH's Joint Technical Commissions Meeting:

- 1. -A workshop on "Supporting the attention of crises caused by disasters," June 13, 2011 (contact: Leslie Armstrong larmstrong@usgs.go); and
- 2. 4th Meeting of the CAF PAIGH GeoSUR Program, June 14, 2011 (Contact: Eric van Praag <u>EVANPRAAG@caf.com</u>)

The Commission Chairs E-mail addresses are as follows: Cartography: Alejandra Coll Escanilla acoll@utem.cl

Geography: Prof. Héctor Oscar Pena presidencia@ipgh.org

History: Dr. Maria Cristina Mineiro Scatamacchia scatamac@usp.br

Geophysics: Dr. Walter Fernández walter2109@gmail.com

See the registration form and more detailed information at www.ipgh.org

#### GEO Work Plan Symposium to focus on 2012-2015 Plan

Source: GEO News issue #13

From 4-6 May in Geneva, Switzerland, the 2011 Work Plan Symposium will advance the development of the 2012-2015 Work Plan. The Symposium will also give participants the opportunity to discuss progress, exchange information, and strengthen coordination across the current 2009-2011 Work Plan. The draft agenda and other information have been posted <a href="https://example.com/here-nc/market-1209-2011">here-nc/market-1209-2011</a> Work Plan. The draft agenda and other information have

### Implementing GEOSS: Supporting sustainable tourism in the Caribbean

Source: GEO News issue #13



■ EARTH OBSERVATIONS



The workshop on "Earth Observation Support for Sustainable Tourism in Small Island States," held in San Juan, Puerto Rico, from 9 to 11 March, focused on the specific needs, challenges and capabilities related to sustainable tourism in the small island states of the Caribbean. It brought together more than 55 participants from most of the small Island States in the Caribbean as well as from the United States for a dialog between the stakeholders in island tourism and the providers of Earth observation data and services. It focused on how Earth observation-based services could support decision making related to all facets of tourism and enable operational and planning practices for sustainable tourism. Recognizing that regional tourism organizations adhere to the United Nations World Tourism

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Organization (UNWTO), the recommendations urge GEO to invite UNWTO to consider becoming a Participating Organization. During the workshop, close links were established between representatives of regional organizations such as the Intergovernmental Oceanographic Commission (IOCARIBE), the Caribbean Disaster Emergency Management Agency (CDEMA), and the Coastal Zone Community of Practice (CZCP) and the GEO Secretariat. These new links are expected to rapidly lead to pilot projects which, on the one hand, will make GEOSS facilities available to the end users in the region and, on the other hand, provide user feedback to GEO from end-user groups not yet sufficiently linked to GEOSS. The workshop presentations and other workshop documentation are available on the workshop web page.

### **Better Mapping of Human Settlements to Support Crisis Management Operations**

Source: WALIS March 2011 eNews

When a major disaster strikes in remote parts of the world, knowing if the area is populated, and how densely, is crucial for the effective organization of humanitarian operations. The Global Human Settlements Layer (GHSL), developed by the European Commission's Joint Research Centre (JRC), will soon provide this detailed information for the first time on a global scale. The breakthrough is new advanced algorithms, developed by the JRC, that allow automatic analysis of medium resolution data provided by European satellites. The first test results confirm that the combined use of ICT technologies permit fast and precise mapping of built-up areas, anywhere in the world. Web link to full article: <a href="http://www.earthtimes.org/articles/press/support-crisis-management-operations,1664398.html">http://www.earthtimes.org/articles/press/support-crisis-management-operations,1664398.html</a>

### Online Registration Opens for CoastGIS 2011

Source: SEA-GIS List



CoastGIS 2011 will be in Oostende, Belgium, 5-8 September 2011, hosted by the Intergovernmental Oceanographic Commission (IOC) of UNESCO, International Oceanographic Data and Information Exchange (IODE) Project Office and Flanders Marine Institute (VLIZ). CoastGIS 2011 is the tenth in the Conference series – a special occasion that we hope to make especially interesting and useful to the coastal and marine science, research and management

communities. Many governments, including the European Commission acting at pan-European level, now formally recognize the importance of holistic Marine and Coastal Spatial Planning in order to meet the challenges presented in managing our coastlines more effectively – and preserving them for future generations in a time of climate change, associated global sea level change and economic uncertainty. In 2011, CoastGIS will focus on spatial planning, as well as many other themes - technical and non-technical, thematic and educational, focusing on ICAM methods and applications. Submissions for paper abstracts and posters, as well as workshop topics, are open until **30 April**. So visit the CoastGIS 2011 web site at <a href="https://www.coastgis.info">www.coastgis.info</a> now to learn more about this exciting event and how you can participate, or contact the Local Secretariat at coastgis2011@coastgis.net

### Call for papers for the 3rd International Conference on Advances in Space Technologies (ICAST)



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The 3rd International Conference on Advances in Space Technologies will take place from 6 to 8 July 2011 in Islamabad, Pakistan. This conference will focus on the use of space technologies for hydrologic disasters and climate change research. ICAST will raise awareness on the applications of space-borne sensors for hydro-meteorological extremes, water resources management and climate change studies. This conference will improve international collaboration on scientific and technical research on emerging issues of the region. If interested to participate, please submit your abstract by **4th April** 2011. For further information please log on to the conference website at: <a href="ICAST">ICAST</a>

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### **IGS News, Links, Publications**

IGS member participates in a seminar on Geographical Information Systems and Land Management in Taiwan Source: Mabel Alvarez

Last January, Jeremy Shen, Director of the Information Center, Ministry of the Interior of Taiwan and Vice-Chairman of the Societal Impacts Committee of the Association for Global Spatial Data Infrastructure (GSDI), informed the International Geospatial Society (IGS) the nomination of an applicant to attend the seminar on "Geographical Information System and Land Management" at the International Center for Land Policy Studies and Training (ICLPST), between 16 and 30 March 2011, held in Taoyuan City, Taiwan, Republic of China (this country was paying the respective tuition, transportation and meals during the seminar).

The International Geospatial Society (IGS) called for participating in this seminar, requesting the submission of the documentation required by Taiwan. As a result of this process, Dr. Luis Alberto Reynoso of the Province of Neuquén, Argentina, was nominated and has traveled to Taiwan.

Notably, Mr. Jeremy Shen, during the GSDI12 Conference that took place in October 2010 in Singapore, expressed his intention to convene members of GSDI and IGS to participate in a seminar organized by that country, which already has been fulfilled.

IGS expresses its deep appreciation to Mr. Jeremy Shen and other officials of the Ministry of Interior of Taiwan for the opportunity given to IGS, and to contributing to the development of its members, which is one of the objectives of the this International Society.

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# National SDI, News, Links, Presentations

### SPATIAL DATA INFRASTRUCTURE OF THE REPUBLIC OF ARGENTINA (IDERA) - UNDER CONSTRUCTION

#### First Annual Meeting of the City of Rosario Platform Coordination Team, Argentina

Source: http://www.idera.gob.ar/

The first annual meeting of the city of Rosario Platform Coordination Team took place on February 22, 2011. The team was joined by representatives of the Education Map Project of the Ministry of National Education and representatives of the Public Investment Secretariat of Planning under the Ministry of Federal Planning, Public Investment and National Services. On the other hand, the activities and goals of each of the 7 working groups for the first half of this year were defined. For full information on the topics discussed at the meeting click here.



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#### NATIONAL SPATIAL DATA INFRASTRUCTURE OF JAMAICA (NSDI)

#### **GSDI Small Grant Program, Jamaica**

Source: The National Spatial Data Management Division, Office of the Prime Minister, Land Information Council of Jamaica, by way of Cecille Blake

The Office of the Prime Minister-National Spatial Data Management Division / Land Information Council of Jamaica (LICJ) was one of 15 organizations around the globe to receive a Global Spatial Data Infrastructure (GSDI) small grant of US\$2,500 for the "NSDI Awareness Campaign" project. This is the 4th grant that the Ministry, LICJ has received. The grants have been used to build key components of Jamaica's emerging Spatial Data Infrastructure (SDI) such as the preparation of a cooperative framework agreement and the collection of metadata in six (6) spatial data creation entities.

Central to the development of Jamaica's National Spatial Data Infrastructure (NSDI) was the establishment of metadata and geospatial portals built on opensource software Geo-network. The portals allow for search, retrieval, updates and management of metadata records and the discovery and viewing of selected spatial data sets. These services are provided via the LICJ website at <a href="http://www.licj.org.jm/geonetwork">http://www.licj.org.jm/geonetwork</a>



Screen shot of the national geospatial data clearing house/portal

The GSDI small grant will be used to prepare, produce and print NSDI awareness raising materials that will inform, educate and sensitize key stakeholders inclusive of senior government officials, the private sector, educational institutions, professional bodies and the general public. These materials will outline the objective, benefits, achievements and future plans for Jamaica's NSDI. It is hoped that through this medium there is greater awareness and appreciation of the objective and benefits of the NSDI and it is communicated that the NSDI is the primary mechanism for assuring access to reliable geospatial data.

The funds will also be used to employ two (2) tertiary level students who will be assigned to collect GIS success stories from key LICJ member entities. The Ministry, LICJ recognises the importance of documenting the work being done in a multiplicity of sectors in the island and archiving the progress of GIS development in Jamaica. The information will be used as a teaching aid and to support future NSDI work as it relates to challenges and solutions employed.

The Ministry, LICJ has a long-term perspective for the continued development of the NSDI. It can only be effectively sustained and enhanced through the well-coordinated and concerted effort of key stakeholders. The GSDI small grant will enable the Ministry, LICJ to continue to communicate the role, importance and value of the NDSI to stakeholder groups and increase awareness of the work of the LICJ to foster the longevity of Jamaica's SDI.

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### Articles and Publications of the Month

of INSPIRE -Conceptualizing SDI ATLAS **Implementation Through** an Inventory of Successes Experiences, and Headaches of **European National Mapping Agencies** 

By Walter Timo De Vries, Joep Crompvoets, Jantien Stoter, Ingrid Vanden Berghe. *International Journal of Spatial Data Infrastructures Research*, Vol. 6 (2011)



#### Abstract:

The paper describes the current results of a EuroSDR (European Spatial Data Research) project "Atlas of INSIPRE implementation methods". Aim of the project was to make an inventory of experiences when implementing INSPIRE. This inventory shows the variance and communalities regarding implementation of INSPIRE by national mapping agencies and national INSPIRE contact points. This inventory formed the basis for the generation of the prototype Atlas for all national mapping agencies, policy makers and other stakeholders who have to implement INSPIRE. The Atlas formed the first step towards the conceptualization of SDI implementation approaches. The inventory of INSPIRE implementation experiences relied on a qualitative data collection through a survey and two workshops. The data collection derived primary data on experiences of representatives from twelve European countries (Belgium, Bulgaria, Croatia, Cyprus, France, Germany, Netherlands, Poland, Slovakia, Sweden, Switzerland and United Kingdom). The data analysis compared the inventory of INSPIRE implementation experiences to two theoretical information infrastructure approaches, derived from organizational and information sciences literature: cultivation approaches and design approaches. The comparison showed that conceptualization of cultivation reflects the INSPIRE implementation strategies and experiences closer than conceptualization of a design approach. Consequently, institutionalizing INSPIRE is likely to require a gradual approach towards increasing flatter inter-organizational working relations, and a scaling up strategy by iteratively linking (supra) national implementation plans to local implementation plans, and vice versa [The complete article may be found http://ijsdir.jrc.ec.europa.eu/index.php/ijsdir/article/view/ 208].

## The Effects of Spatial Population Dataset Choice on Estimates of Population at Risk of Disease

By Andrew J Tatem, Nicholas Campiz, Peter W Gething, Robert W Snow and Catherine Linard Source: Andrew Tatem by way of Kate Lance Abstract

Background: The spatial modeling of infectious disease distributions and dynamics is increasingly being undertaken for health services planning and disease control monitoring, implementation, and evaluation. Where risks are heterogeneous in space or dependent on person-to-person transmission, spatial data on human population distributions are required to estimate infectious disease risks, burdens, and dynamics. population Several different modeled human distribution datasets are available and widely used, but the disparities among them and the implications for enumerating disease burdens and populations at risk



have not been considered systematically. Here, we quantify some of these effects using global estimates of Populations At Risk (PAR) of P. falciparum malaria as an example.

Methods: The recent construction of a global map of P. falciparum malaria endemicity enabled the testing of different gridded population datasets for providing estimates of PAR by endemicity class. The estimated population numbers within each class were calculated for each country using four different global gridded human population datasets: GRUMP (~1 km spatial resolution), LandScan (~1 km), UNEP Global Population Databases (~5 km), and GPW3 (~5 km). More detailed assessments of PAR variation and accuracy were conducted for three African countries where census data were available at a higher administrative-unit level than used by any of the four gridded population datasets.

Results: The estimates of PAR based on the datasets varied by more than 10 million people for some countries, even accounting for the fact that estimates of population totals made by different agencies are used to correct national totals in these datasets and can vary by more than 5% for many low-income countries. In many cases, these variations in PAR estimates comprised more than 10% of the total national population. The detailed country-level assessments

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suggested that none of the datasets was consistently more accurate than the others in estimating PAR. The sizes of such differences among modeled human populations were related to variations in the methods, input resolution, and date of the census data underlying each dataset. Data quality varied from country to country within the spatial population datasets.

Conclusions: Detailed, highly spatially resolved human population data are an essential resource for planning health service delivery for disease control, for the spatial modeling of epidemics, and for decision-making processes related to public health. However, our results highlight that for the low-income regions of the world where disease burden is greatest, existing datasets display substantial variations in estimated

population distributions, resulting in uncertainty in disease assessments that utilize them. Increased efforts are required to gather contemporary and spatially detailed demographic data to reduce this uncertainty, particularly in Africa, and to develop population distribution modeling methods that match the rigor, sophistication, and ability to handle uncertainty of contemporary disease mapping and spread modeling. In the meantime, studies that utilize a particular spatial population dataset need acknowledge the uncertainties inherent within them and consider how the methods and data that comprise each will affect conclusions

[The complete article may be found at: http://www.pophealthmetrics.com/content/9/1/4].

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# Geospatial Research, Applications, Software, Data

#### MARN Guatemala and CATHALAC Sign Cooperation Agreement on Spatial Information

Source: http://www.cathalac.org/



Through this agreement, geospatial information will be used for environmental monitoring. The Minister of the Ministry of Environment and Natural Resources (in Spanish MARN) in Guatemala, Luis Alberto Ferraté and Emilio Sempris, Director of the Center for the Humid Tropics of Latin America and the Caribbean (in Spanish CATHALAC) signed a cooperation agreement in this Guatemala city last March 9, 2011, in order to share academic knowledge, technology transfer and conduct joint studies for environmental monitoring, which will be disseminated among indigenous communities through a pilot program. The Minister undertook to create a pilot program that allows indigenous communities, access to such information, which CATHALAC will made available to the public for free as a result of team work of the Centre, within which it has Guatemalans, like other nationalities.

Similarly, using these images, you can observe the increase of deforestation in Central America on which Sempris commented that "in March and April, the image of the region is like a Christmas tree for the red lights because it governs land clearing and burning. This information, product of the analysis prepared by the CATHALAC team, is available on the webpage of the <u>Regional Visualization and Monitoring System (SERVIR)</u>, thanks to the cooperation of USAID and NASA.

### Mexico improved efforts for National Rural Land Registry Modernization

Source: http://www.catastrolatino.org/

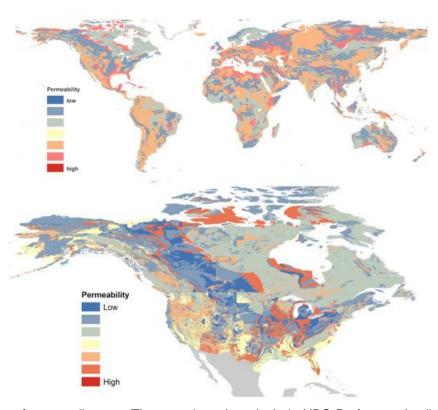


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#### First-Ever Global Map of Surface Permeability Informs Water Supply, Climate Modeling

Source: http://www.sciencedaily.com/

University of British Columbia researchers have produced the first map of the world outlining the ease of fluid flow through the porous surface rocks sediments. The maps and data, published in Geophysical Research Letters, could help improve water resource management and climate modeling, and eventually lead to new insights into a range of geological processes. Using recent world-wide (rock lithology type) results researchers at the University of Hamburg and Utrecht University in the Netherlands, Gleeson was able to map permeability across the globe to depths of approximately 100 meters. Typical permeability maps have only dealt with the top one to two meters of soil, and only across smaller areas. The study's maps include a global map at a resolution of 13,000 kilometers squared, and a much more detailed North American map at a resolution of 75 kilometers squared. The research also improves previous permeability on databases by compiling regional-scale hydrogeological models from a variety of



settings instead of relying on permeability data from small areas. The paper's authors include UBC Professors Leslie Smith and Mark Jellinek, as well as researchers from the US Geological Survey in Denver, Colorado, the University of Hamburg, and Utrecht University.

#### The Land Administration Domain Model is at Draft International Stage

Source: FIG e-Newsletter March 2011

The Land Administration Domain Model (LADM) has been published as a Draft International Standard by the International Organization for Standardization (ISO), as ISO 19152. P-Members of ISO/TC 211, Geographic Information / Geomatics, can comment on the draft and are in the position to vote on continuation of the development. Liaisons to ISO/TC 211, such as FIG, can also comment on the draft. The deadline for voting and comments is **20 June** 2011. The development of this standard is an initiative from FIG. It is a comprehensive, extensive, formal process with a continuous review and a continuous, creative approach to find common denominators in land administration systems and included data sets. More information at: www.fig.net/news/news 2011/ladm feb 2011.htm

## <u>Thematic Partnership for Latin America and the Caribbean Taking Shape: 3D-UDOP Geo-viewer Demonstrated in Guatemala</u>

Source: UN-SPIDER February 2011 Updates

To illustrate the capacity of geo-viewers to enhance situational awareness, the Southern Command and Thermopylae Sciences and Technology of the United States, the National Coordinating Agency for Disaster Reduction (CONRED), Mariano Galvez University, and CIMDEN from Guatemala have joined forces to upload information into the 3D-UDOP geo-viewer. The geo-viewer has been adapted to display information relevant to seismic risk in Guatemala through a dynamic and collaborative environment that visualizes earthquakes' real and potential effects on local areas. The geo-viewer was demonstrated in Guatemala on 1 March 2011. A detailed description of the project and the project partners can be found on the UN-SPIDER Knowledge Portal. Further information at <a href="UN-SPIDER LAC Thematic Partnership">UN-SPIDER LAC Thematic Partnership</a>, 3D UDOP

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### NGDC Announces a New Bathymetric Data Viewer



**NGDC** released new. combined bathvmetric interactive data map (http://www.ngdc.noaa.gov/maps/bathymetry) that provides discovery and delivery of all the National Oceanic and Atmospheric Administration (NOAA) and non-NOAA bathymetric data and derived digital elevation models archived and delivered by the National Geophysical Data Center (NGDC). The viewer includes NOS Hydrographic Survey data, non-hydrographic NOAA bathymetric data, bathymetric data from the U.S. academic fleet, and international bathymetric track line data. It is based on ArcGIS Server 10 and is significantly faster and more responsive than the old individual map servers. You can select from several different backgrounds and each survey is color coded by year (see Legend). When you select an area, an "additional information box" launches with the survey name, survey attributes, and a link to acquire the data. Upcoming developments include the ability to switch to an Arctic map projection, the addition of advanced search and filter tools, and seamless scrolling around the world. The viewer is based on individual web services for each of the map layers on the right. If you are interested in ingesting any or all of these services into your own map viewer, please contact Jesse Varner Jesse, Varner @noaa.gov at NGDC. Comments and suggested improvements are welcome.

#### **Android-Powered Satellite Headed to Space**

Source: WALIS February 2011 eNews

First came web browsing, then multitasking, now Android is ready to go where no smartphone platform has gone before: Outer space. Researchers at the University of Surrey and Surrey Satellite Technology Limited (SSTL) are dissecting Google's mobile operating system to create the first ever satellite powered by a smartphone. The 11.8-inch satellite STRAND-1 (Surrey Training Research and Nanosatellite Demonstrator) will be launched into lower-earth orbit, snapping pictures of Earth on a mission later this year. Where does Android fit into this equation? The commercial smartphone's guts make up the satellite's electronic controls. SSTL cannot say which phone they are using. The SSTL team hopes to prove that the relatively inexpensive components of the Android phone can power a satellite. Satellites and smartphones have a lot in common. Both have cameras, GPS navigation and Wi-Fi connections. The difference is that smartphones accomplish the same functions with much smaller, lighter and cheaper components. The SSTL team hopes to find out if these smartphone pieces can hold-up in space.

Latin America and the Caribbean Newsletter

### Training and Funding Opportunities, Awards

#### Call for Graduate Scholarship of PAIGH's Commission on Geophysics

Source: http://www.ipgh.org/

Deadline for receipt of applications: **June 15**, 2011. As part of the PAIGH's Technical Cooperation in relation to the training of specialists with high academic standards, the PAIGH Commission of Geophysics opens the period for awarding two scholarships to Latin-American students to advance postgraduate studies in Earth Sciences at the National Autonomous University of Mexico (in Spanish UNAM). For detailed information see the <u>announcement</u>.

#### PAIGH National Section of Dominican Republic

Source: http://www.ipgh.org/

The PAIGH National Section of the Dominican Republic, with the support of Spain's National Geographical Institute (IGN-E) will held the Workshop on Application of Spatial Data Infrastructures and Risk Management on Natural Emergencies for Haitian students on April 4-8, 2011.

#### IAG-PAIGH-SIRGAS School on Reference Frames

Fuente: http://www.sirgas.org/

In order to divulge and to promote the adequate use of SIRGAS as reference frame in the different countries of the region, the Working Group II of SIRGAS (in charge of the SIRGAS activities at national level) coordinates a capacity building activity oriented



to strengthen the fundamental concepts associated with the Geodesy of Reference. This activity is sponsored by the International Association of Geodesy (IAG) and the Pan American Institute of Geography and History (PAIGH). The first IAG-PAIGH-SIRGAS School was hold in Bogotá (Colombia), between 13 and 17 July 2009. It was hosted by the Instituto Geográfico Agustín Codazzi and attended by 120 participants from 12 Latin American and Caribbean countries. The second IAG-PAIGH-SIRGAS School was carried out in Lima (Peru), between 8 and 10 November 2010. It was supported by the Instituto Geográfico Nacional of Peru and was attended by 112 participants from 13 countries. The third IAG-PAIGH-SIRGAS School will be carried out together with the SIRGAS2011 General Meeting in August 2011 in Heredia, Costa Rica.

#### **GIS Development Geospatial Excellence Awards**

Source: http://www.lagf.org/2011/conference/award.htm



GIS Development is proud to announce GIS Development Geospatial Excellence Awards for Best Applications in Latin American Region. Last date for sending nominations is **May 31**, 2011. The aim is to promote and propagate the best applications of geospatial technologies all over Latin America. The awards will be granted in the form of a trophy to meritorious projects which have made significant and measurable contributions towards the development of new geospatial applications, or innovative modification of existing geospatial technology practices to substantially reduce project costs and bring in efficiency in the workflow. The Objective is to recognize, highlight and honor the best applications or uses of geospatial technologies in various walks of life to promote these in other parts of the world and also encourage stakeholders to make optimum use of these technologies. GIS Development is inviting nominations for excellence awards from organizations who have made a significant and measurable contribution. Nominations will be screened by a Jury to select winners for each of the application areas.

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### Post-Doctoral Research Associate at the Center for Geographic Analysis (CGA), Harvard University

Source: Santiago Borrero

This two-year position will be responsible for introducing spatial reasoning and geographic analysis into the core curriculum at Harvard College and other schools at Harvard University. Starting with selected General Education courses at Harvard College, the incumbent will interview the faculty members, determine the appropriate geographic contents and spatial analysis tools, design specific geographic modules for the courses, gather and prepare the materials, select and customize the tools, train and supervise teaching fellows, and provide instructions and technical support in classrooms and beyond. Additional responsibilities include participating in and enhancing the various geospatial technology training programs by the CGA, and contributing to geospatial technology monitoring, evaluation, introduction and implementation in support of teaching and research activities across departments and schools at Harvard University. The successful candidate must have a recent doctor's degree in geography or an equivalent program, with a strong component in geospatial technology. The candidate must have excellent oral and written communication skills. Previous teaching experience strongly preferred. Apply: please send application letter, CV and three recommendation letters to wguan@cga.harvard.edu

### Symposium to Focus on Space-Time Integration in Geography and GIScience during AAG Annual Meeting

Source: AAG communication



## **AAG Annual Meeting**

The AAG (Association of American Geographers) Annual Meeting will take place on April 12-16, 2011 in Seattle, Washington. A special Symposium exploring recent advances and research needs of space-time integration, modeling and analysis in geography and GIScience has been

organized within the AAG Annual Meeting. Nearly 60 sessions are scheduled on four concurrent tracks from Wednesday-Friday of the conference featuring geographers, GIScientists, modelers, computer programmers, GPS/GIS scientists, climate change scientists, epidemiologists, ecologists, planners, transportation experts, and others with active research expertise in integrating space-time in GIS and geography. The Symposium will open with a "Space-Time Integration in Geography and GIScience: Opening Plenary" on Wednesday morning, April 13, at 8:00 a.m. (Grand Ballroom ABCD - Sheraton Hotel, Second Floor). This plenary will include presentations on current research trends by prominent theorists and pioneers in space-time GIScience and technology research, including Michael Goodchild, Mei-Po Kwan, and Tomoki Nakaya. Concurrent sessions are organized into four tracks: Diverse Perspectives on Advancing Theory; Modeling, and Methods; Developments in Key Topical Areas; and A Focus on the Environment; and Historical GIS and Gazetteers. A concluding session, "Space-Time Integration in Geography and GIScience Discussion: Trends and Directions," will be held on Friday, April 15 at 1:45 p.m. (Willow B - Sheraton Hotel, Second Floor). For details on this special session track, visit <a href="https://www.aag.org/annualmeeting/tracks/giscience.">www.aag.org/annualmeeting/tracks/giscience.</a> For more information about the annual meeting program and events, visit <a href="https://www.aag.org/annualmeeting/tracks/giscience.">www.aag.org/annualmeeting/tracks/giscience.</a>

### 52°North Announces this Year's Student Innovation Prize

Source: http://52north.org/

The 52°North Student Innovation Prize encourages students to contribute to innovation in the field of Geoinformatics. The prize will acknowledge and financially reward outstanding innovative and trendsetting concepts and announce them to a greater audience. 52°North invites all students of Geoinformatics and related fields, who have not yet completed a Master's Degree or Diploma in either Geoinformatics, Informatics or a related field, to submit a paper outlining their innovative concept. In addition, the paper must emphasize the innovative quality of the concept and convincingly



describe its feasibility and practical use. Students may apply as individuals or in small teams (2 - 3 members). The deadline for submitting digital applications is **May 1**, 2011. More detailed information on the prize here.

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### **Employment Opportunities**

#### Geology and Geography: Earth Sciences

Source: Kenneth Young

Gustavus Adolphus College invites applications for a one-year, non-tenure-track position of Visiting Assistant Professor of Earth Sciences, shared between the departments of Geology and Geography to begin September 1, 2011. We seek candidates who have an earned doctorate, but will consider candidates who have achieved ABD status. We encourage candidates to describe their experience using a variety of teaching methods and curricular perspectives. Primary responsibilities will include teaching weather and climate, water resources management, and laboratory sections for principles of geology. There is also the opportunity to teach an additional topical course in the successful candidate's area of expertise. We are particularly interested in candidates who can offer a course in hydrogeology and/or geographic information systems. To apply, send letter of application, curriculum vitae, statements of teaching philosophy and research interests, transcripts (photocopies acceptable), and three letters of professional recommendation to: Dr. Julie Bartley, Earth Science Search Committee, Gustavus Adolphus College, 800 West College Avenue, Saint Peter, MN 56082-1498, electronic files will also be accepted at jbartley@gustavus.edu. For information. www.gustavus.edu/humanresources the department more visit or websites www.gustavus.edu/geography and www.gustavus.edu/geology Review of applications will begin on April 15, 2011 and continue until the position is filled.

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### Americas: Conferences, SDI Events

## <u>First South American FOSS4G Working days in Chile</u>

Source: http://snitchile.blogspot.com/



Next April 8 begins in Chile South the FOSS4G American Working cycle Days (Conference for Geospatial Open Source Software) associated with

mapping technologies linked with free and open software. The event is hosted in the Faculty of Engineering at the Universidad Mayor, located on Avenida Manuel Montt 367, Providencia, Chile. Among the objectives pursued by these days, is to learn, promote and share, different open technologies associated with the digital information visualization and mapping, and Web Geographic Information Systems, at the governmental and private levels. Contact: info@openmaps.cl. More information at:

http://www.foss4gchile.org/blog/primer-foss4gsudamericano/

# Meetings on the Technological Modernization of Cadastre, and Fourth General Assembly of the CPCI

Source: http://www.catastrolatino.org/

The Presidency of the Permanent Committee on Cadastre in Latin America (CPCI) salutes its distinguished partners and is pleased to call to the meeting on "Technological Modernization of Cadastre" and the "Fourth General Assembly", which will take place on the premises of the Geographic Institute Agustin Codazzi (in Spanish IGAC) in Bogota , Colombia, on April 12-15, 2011. Among the activities scheduled for the Assembly, is the appointment of the new Committee Directives. The balance of the current presidency management, main achievements, and future CPCI project development will also be presented. For more information regarding the event and the submission of papers please contact: catastrolatino@igac.gov.co

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### **YEAR 2011**

<u>Year 2011</u> January February <u>March April May June July August September October November December Year 2012</u> January February March April <u>May June July August September October November December</u>

		APRIL 2011	
Mar. 30- Apr. 1	Tucuman - Argentina	Working Days on Geographic Information Systems in Tucuman - Argentina For further information go to:http://tucumansig.com.ar	
*NEW*			
Mar.31-Apr.1	New York, NY USA	MAPublisher Training	
5-7	Montana, USA	11th Wildland Fire Safety Summit	
*NEW*			
6-7	London MN, USA	GEO-11: A World of Geomatics and GIS Innovations	
8	Santiago de Chile, Chile	First South American FOSS4G Working Days in Chile	
*NEW*			
10-14	Grapevine, Dallas TX, USA	GITA's 2011 Geospatial Solutions Conference	
11-12	Campinas, São Paulo,	5th South American Symposium on Wild Land Fire Control	
*NEW*	Brazil		
12-15	Bogotá, Colombia	4 <sup>th</sup> Annual Meeting of the Permanent Committee on Cadastre in Ibero- America	
*UPDATE*		(in Spanish CPCI), Meeting on Technological Modernization of Cadastre	
12-16	Seattle WA, USA	Conference: The Association of American Geographers 2011 Annual Meeting	
12-16	Seattle WA, USA	Space-Time Integration in Geography and GIScience	
11-14	Montreal, Canada	Expert Meeting on the Modalities of Operation of the ABS Clearing House	
11-23	Havana, Cuba	Public Health Course on Emergencies and Disasters Situations	
13-16	Comodoro Rivadavia, Chubut, Argentina	VIII Patagonian Woking Days on Geography	
14-15	Resistencia, Chaco, Argentina	First National Congress of Geographic Information Technologies and Fourth Meeting of Members of Geographic Information Technologies of the NEA Contact: labtig@hum.unne.edu.ar	
16	Seattle WA, USA	Urban adaptation 2 - 2011 AAG Annual Meeting	
*NEW*	,		
18-21	Houston TX, USA	2011 ESRI Petroleum User Group Conference	
19-21	Santa Clara CA, USA	O'ReillyWhere 2.0 Conference	
22-27	Montreal, Canada	IPY 2012 Conference 'From Knowledge to Action'	
25-29	SJ Campos-SP, Brazil	LADC 2011 - Fifth Latin-American Symposium on Dependable Computing	
*NEW*		More at: http://www.inpe.br/ladc2011	
26-29	Chandler AZ, USA	Field Service 2011	
Apr.30 - May 5	Curitiba PR, Brazil	XV Brazilian Symposium on Remote Sensing (SBSR)	

MAY 2011				
1-5	Milwaukee WI, USA	ASPRS 2011 Annual Conference "Ride on The Geospatial Revolution"		
2-4	Jacksonville FL, USA	JSA <u>2011 ESRI Southeast Regional User Group</u>		
9-11	Reno NV, USA	Nevada GIS Conference 2011		
*NEW*				
9-12	San Diego CA, USA	2011 National Hydrologic Warning Council Training Conference		
*NEW*				
9-13	Washington D.C, USA	GEOINT Community Week		
*NEW*				
10-13	Lakewood CO, USA	The National Map Users Conference and the Geospatial Information Science		
,		Workshop		
10-14	Dallas TX, USA	GITA's 2011 Geospatial Solutions Conference		
11-13	Orlando FL, USA	2nd International Conference on Disaster Management and Human Health		
*NEW*				
11-13	Santiago de Cuba, Cuba	4th International Conference on Integrated Management of Coastal Zones		
11-14	Paraty, Brazil	I Brazilian Symposium of Historical Cartography		
14-18	Victoria BC, Canada	International Marine Conservation Congress		
16-20	St Louis MO, USA	URISA Leadership Academy		
19	Botucatu SP, Brazil	Il Symposium on Geostatistics Applied to Agrarian Sciences		
19-20	Chicago IL, USA	MAPublisher Training		
19-24	Washington DC, USA	Second International Marine Conservation Congress - Making Marine Science		
		<u>Matter</u>		

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23-25	Washington DC, USA	COM.Geo 2011: 2nd International Conference and Exhibition on Computing for		
		Geospatial Research and Application		
24-25	Grantville PA, USA	19th Annual Pennsylvania GIS Conference		
25-27	Toluca, Mexico	XIII Latin American Conference on Geographic Information Systems		
		(CONFIBSIG) / E-mail: confibsigXIII@uaemex.mx		
May 28 - Jun.4	Puebla, Mexico	Impact Assessment and Responsible Development for Infrastructure,		
*NEW*		Business, and Industry (IAIA'11)		

	JUNE 2011				
6-10	Orlando FL, USA	Hexagon 2011			
*NEW*					
8-11	Las Vegas NV, USA	Insights 2011			
*NEW*					
13-17	St Louis MO, USA	URISA Leadership Academy			
14-15	Washington DC, USA	Forum on Earth Observations V: Creating a National Strategy for			
*NEW*		Environmental Intelligence			
14-16	Sao Paulo SP, Brazil	MundoGEO#Connect / Further information: http://mundogeoconnect.com/en			
*UPDATED*					
15-17	City of Panama, Panama	Second Meeting of the PAIGH Joint Technical Committees			
19-26	Chestertown MD, USA	Computer Mapping Technology Summer Camp			
*NEW*					
Jun 26-Jul 1	Bolton Landing NY, USA	MAPPS Summer Conference			
*NEW*					
27-30	Atlanta GA, USA	2011 URISA GIS in Public Health Conference Contact: IMCCprogram@gmail.com			

JULY 2011			
4-8	La Havana, Cuba	VIII International Convention on Environment and Development	
7-12	San Diego CA,USA	The Survey Summit Arranged by ESRI and the American Congress on	
		Surveying and Mapping (ACSM)	
9-12	San Diego CA, USA	2011 ESRI Homeland Security GIS Summit	
9-12	San Diego CA, USA	2011 ESRI International User Conference	
10-11	San Diego CA, USA	ESRI Business GIS Summit	
14-15	San Diego CA, USA	MAPublisher Training	
16-19	Big Bear Lake CA, USA	14th Annual Conference Society for Conservation GIS (SCGIS)	
19-22	Mayaguez, Puerto Rico	SAGES/FIG Workshop on Curriculum and Core Survey Knowledge	
*NEW*			
27-29	SJ Campos SP, Brazil	2nd Sao Paulo Regional School of High Performance - ERAD 2011	
*NEW*		More at: www.lev.ieav.cta.br/erad2011	
Jul 30 – Aug. 6	Fayetteville State NC, USA	6th ISPRS Student Consortium and WG VI/5 Summer School	
*NEW*		Advanced LIDAR Data Processing and Applications	

		AUGUST 2011
3-10 * <b>NEW</b> *	Heredia, Costa Rica	SIRGAS Meeting 2011
7-12 * <b>NEW</b> *	Rio de Janeiro, Brazil	International Conference on Atmospheric Electricity More at: http://www.icae2011.net.br/
15-18	New Orleans LA, USA	URISA/NENA Addressing Conference Abstract Submissions due April 4 <sup>th</sup> , 2011
10-12	Burnaby, Canada	WG IV/5 2nd International Workshop on Pervasive Web Mapping, Geoprocessing and Services, in conjunction with 4th ICA Workshop on Geospatial Analysis and Modeling (ICA GAM 2011)
10-13	Cali, Colombia	XIX Colombian Congress of Geography Contact: 19CongresoGeografía@gmail.com
17-19 * <b>NEW</b> *	Rio de Janeiro, Brazil	Latin American Geospatial Forum
24-26	Minneapolis, MN, USA	12th International Symposium on Spatial and Temporal Databases
29-31	Calgary, Canada	WG V/3 Laser Scanning 2011

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	SEPTEMBER 2011			
9-11	Denver CO, USA	State of the Map (SotM)		
*NEW*				
11-14	Santa Fe NM, USA	WG VIII/2 Symposium on "Advances in Geospatial Technologies for Health"		
12-14	St. Petersburg FL,USA	GIS in Public Transportation Conference		
12-16	Denver CO,USA	FOSS4G 2011		
*NEW*				
13-15	Herndon VA, USA	FOSE Institute Geospatial Summit		
*NEW*				
15-16	Washington DC,USA	MAPublisherTraining		
16	Belfast Maine, USA	Call for Papers:10th International Conference on Spatial Information Theory COSIT'11Deadline:September 16 <sup>th</sup> , 2011		
17-27	Chantilly VA, USA	2011 GXP User Conference Discover. Learn. Advance		
19-23	Boulder CO, USA	OGC Technical and Planning Committee Meeting		
*NEW*				
23	Boulder CO, USA	GEOSS Workshop XLIII – Climate		

	OCTOBER 2011				
	3-7	Morelia, Mexico	XIX National Meeting SELPER-Mexico		
Į			Contact: selper2011@ciga.unam.mx		
	16-20	San Antonio TX, USA	<u>GEOINT 2011</u>		
	*NEW*				

NOVEMBER 2011			
1-4	Indianapolis IN, USA	GIS-Pro 2011: URISA's 49th Annual Conference for GIS Professionals	
1-4	Chicago IL, USA	ACM SIGSPATIAL GIS 2011	
3-4	Seattle WA, USA	MAPublisher Training	
7-12	Pará - Belém (PA), Brazil	V International Symposium on Agricultural Geography and VI National Symposium on Agricultural Geography	
8-11 *NEW*	Rio de Janeiro, Brazil	1st Latin American Seminar of Geography and Gender: Space, Gender and Power / Pre-meeting of UGI Regional Conference	
14-18	Santiago, Chile	UGI 2011 Regional Geographic Conference	

### **YEAR 2012**

Year 2012 January February March April May June July August September October November December

MAY 2012			
14-17	Quebec City, Canada	<u>GSDI-13</u>	
TO BE DETERMINATED	Rio de Janeiro, Brazil	UN Conference on Sustainable Development (commonly called Earth Summit 2012) or 'Rio+20'	

JULY 2012			
7-12	San Diego CA, USA	The Survey Summit	

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