## SDI-LAC

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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</u> <u>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.

Message from the Editor Input to this Issue SDI News, Links, Papers, Presentations SDI and XXIV FIG Conference Articles and Publications of the Month Geospatial Research and Applications GIS Tools, Software, Data Training Opportunities Funding Opportunities, Awards, Support Employment Opportunities Other Americas: Conferences, SDI Events



Message from the Editor

Due to an increasing volume of information on events, the respective section will be restricted to those events taking place in the Americas. However, for "The Rest of the World: Conferences, SDI Events", please find a link to upcoming events of global or major international interest in GSDI webpage at: <a href="http://www.gsdi.org/events/upcnf.asp">http://www.gsdi.org/events/upcnf.asp</a>

We kindly inform that SDI-LAC Newsletter is taking correspondent members in each country of the LAC region. Next issues will include their contributions. If you would like to become a correspondent for your country please contact Nancy Aguirre <u>cnaguirre@ipgh.org</u>. In principle the only requirement is that you are an active member in the Spatial Data Infrastructure activities of your country.

If you have news or information related to GIS, remote sensing, and Spatial Data Infrastructure that you would like to highlight (e.g., projects, conferences, workshop announcements, publications, reports, websites of interest, etc.), kindly send them in. We would be happy to include them in the newsletter.

We also encourage you to send to the editor your comments and suggestions for the continuous improvement of SDI-LAC Newsletter. PLEASE share this newsletter with colleagues who may find the information useful, and ideally they will subscribe themselves.

Back issues of the newsletter are at the GSDI website: <u>http://www.gsdi.org/newsletters.asp</u> Editor, Nancy Aguirre, Pan-American Institute of Geography and History (PAIGH), <u>http://www.ipgh.org</u>, <u>cnaguirre@ipgh.org</u>

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#### Input to this Issue

#### Thanks for their contributions to this SDI-LAC Newsletter issue to:

Maria B. Benito	Professor of University College, Universidad Politécnica de Madrid, Spain
Peder Klith Bøcher	Senior scientist, Department of Agroecology and Environment, Faculty of Agricultural
	Sciences, Aarhus University, Denmark
Santiago Borrero	Secretary General, Pan-American Institute of Geography and History, PAIGH;, Mexico
Arturo Brun-Martínez	Architect, Bogota, Colombia
Sandra Buján	University of Santiago de Compostela, Escuela Politécnica Superior, Lugo, Spain
Sarah Carr	Network Coordinator, Ecosystem-Based Management Tools, Arlington, VA, USA
James Gunter	Graduate Coordinator, Department of Geography and the Environment, University of
	Texas at Austin, USA
Jennifer Miller	Assistant Professor, Department of Geography and the Environment, University of
	Texas at Austin, USA
Yolanda Torres	Tec Engineering Surveying, ETSI Surveying, Geodesy and Cartography, Universidad Politécnica de Madrid, Spain

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#### SDI News, Links, Papers, Presentations

#### GSDI 12 World Conference now on Twitter Source: http://www.gsdi.org/gsdiconf/gsdi12/



The GSDI 12 World Conference will take place in the garden city of Singapore from 19 to 22 October 2010. The Partners in organizing this conference include the GSDI Association (<u>http://www.gsdi.org/</u>), Permanent Committee on GIS Infrastructure for Asia & the Pacific (<u>http://www.sbsm.gov.cn/pcgiap/index.htm</u>) (PCGIAP) and Singapore Land Authority (<u>http://www.sla.gov.sg/htm/hom/index.htm</u>) (SLA). The conference is now on twitter at <u>http://twitter.com/gsdi12</u>. Conference website: <u>http://twiw.gsdi.org/gsdiconf/gsdi12/</u>

There are three major components in this conference:

•The 12th edition of the GSDI Conference

•The 16th annual meeting of the Permanent Committee on GIS Infrastructure for Asia & the Pacific (PCGIAP); and •Trade Exhibition

The theme for this conference is "Realising Spatially Enabled Societies"

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 roles 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

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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.

Singapore is a dynamic city rich in contrast and colour, you'll find a harmonious blend of culture, cuisine, arts and architecture here. Brimming with unbridled energy, this little dynamo in Southeast Asia embodies the finest of both East and West. We invite you to come and engage yourself in intellectual exchange with leaders and experts in the geospatial industry.

#### Internet Portal will Integrate Geospatial Information of Brazil



The design of a new highway, the construction of a hydroelectric power plant, the installation of an industrial complex. Decisions on resource planning and management, as well as the elaboration of public and private policies, will be facilitated with the introduction of the National Spatial Data Infrastructure (in Portuguese INDE), to which users will have access by means of an internet portal, the "SIG Brasil". Initially, the portal will integrate geospatial data of federal institutions of the Brazilian government and will allow information visualization and access, making it possible to mix geospatial information in the internet environment. During the next decade, other national organizations -at state and municipal level, for example- will be able to join INDE. The signing of INDE launch minutes marked the portal inauguration on April 8, at the auditorium of the Ministry of Planning, Budget and Management, in Brasília, with the presence of minister Paulo Bernardo Silva; the president of CONCAR and secretary of Strategic Planning and Investments Afonso Oliveira de Almeida; the substitute president of the National Commission of Cartography (in Portuguese CONCAR) and president of the Brazilian Institute of Geography and Statistics (in Portuguese IBGE) Eduardo Pereira Nunes; the executive secretary of CONCAR and director of Geosciences of IBGE Luiz Paulo Fortes, besides representatives of other entities. The SIG Brasil portal is a practical result of the introduction of INDE, an initiative of the Federal Government aimed at cataloging, integrating and harmonizing geospatial data produced or kept by institutions of the Brazilian government, so that they are easily located, handled in their characteristics and accessed for more diverse uses, by any client with internet access. INDE foresees the establishment of norms and standards for data production, storage, share and dissemination. Also, the celebration of inter-institutional agreements of data share, besides qualification and training for producers and users of such information. Instituted by Decree no. 6.666, on November 27, 2008, INDE is being implanted under the coordination of the CONCAR, a collegiate organ of the Ministry of Planning, Budget and Management, counting on the participation of several ministries, federal and state institutions, and enterprise associations involved in geospatial information production and use. It is up to IBGE, as the entity responsible for technical and administrative support to CONCAR, to construct, make available and operate INDE access portal, the SIG Brasil. INDE aims at arranging the generation, storage, access, share, dissemination and use of geospatial data of federal, state, district and municipal origin; promoting the utilization, in geospatial data production, of standards and norms ratified by CONCAR; and avoiding double actions and resource wasting in the attempt to obtain geospatial data by public administration organs, through the publishing of metadata related to these available data at

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public entities and organs. INDE implantation plan is aimed at 10 years and three cycles: the first began in August of last year, and its conclusion is expected for the end of this year; Cycle II will take place from 2011 to 2014; and Cycle III, from 2015 to 2020. At the end of Cycle I, SIG Brasil portal is expected to have a minimum infrastructure of hardware, software and telecommunications, with engines of geospatial data and metadata search, handling and access. The portal will be fed and updated with geospatial information from diverse organs. Geospatial information are, for instance, cartographic and topographic data that represent territory, satellite images, orthophotographs, the network that represents transport infrastructure, the location and descriptions that represent protected areas, the description and representation of urban and rural properties, as well as the distinct uses of soil. Also considered geospatial information is that of statistical nature describing demographic aspects, as well as the population distribution or socioeconomic variables. INDE information is classified in three groups: Reference Data, related to Geodetics, topographic and registry charts; Thematic Data, related to vegetation, soils, geology, land coverage and use and other themes, defined especially by the physical environmental characteristics and by the action of economic sectors; and Value Added Data. This group originates from the previous two, added by users or producers (public or private) to the Reference Data, due to a certain interest and specific utilization, and may have a wide diversity of thematic detailing and geographic coverage. You may access the portal at: www.inde.gov.br

#### Provincial Geospatial Portal for Villa Clara, Cuba

#### Source: http://www.iderc.co.cu/portalvc/

Is now available the first provincial geoportal for Villa Clara in Cuba. Villa Clara comprises 13 municipalities; the most densely populated Santa Clara has 444.7 inhabitants per km<sup>2</sup>; and the largest land area of 1062.8 km<sup>2</sup>; Manicaragua, is located in the southern mountain area, being part of the natural complex Escambray which extends through the central part of the country. Through this provincial geoportal you may access information on the different municipalities of the province of Villa Clara. More information at: <a href="http://www.iderc.co.cu/portalvc/index.php">http://www.iderc.co.cu/portalvc/index.php</a>



#### The BNGIS Centre and the USGS Grant, Bahamas

Source: http://www.bahamas.gov.bs/



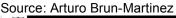
When it comes down to the practical and efficient use of modern technologies such as Geographic Information Systems (GIS) the Bahamas National Geographic Information Systems Centre (BNGIS) vision is to create a system for the collection and sharing of non-confidential spatial information on the Bahamas. As such the Technology Infrastructure Improvement project was designed and implemented in June 2008. This project is the IT component of the larger proposed Bahamas Spatial Data Infrastructure (BSDI) system. BSDI is a system comprising skillful people, IT assets, GIS software, standards, procedures, policy and legislation all working in unison to develop and maintain a repository of spatial data freely shared across government and through other sharing mechanisms with other interests. The BSDI system proposed for the Bahamas is a strategic national plan to develop a readily available set of basic geographic data. It includes the information, operational environment, and technology to provide access to these data, and the institutional setting to sustain its development. The benefit of the BSDI and technology improvements is that staff across government can access much more information than ever before, faster, while enabling a broader and simultaneous analysis of interrelated departmental information. This benefit is not possible under manual or disconnected system and only realized through the BSDI initiative now under consideration. This means policy makers within the government hierarchy can shape better policies, faster, to deal with current social issues like crime or land administration, environmental and heritage protection as well as streamline government services through automation the many manual processes currently performed. The BNGIS Centre secured a grant from the United States Geological Survey (USGS). In meeting its mandate to promote the use of modern technologies, the Centre recognized that: there is need to use and propagate/promote modern technologies such as GIS and remote sensing as a decision

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support tool for disaster preparedness; that the machinery of government in particular the Centre must be strengthened in order to provide technical expertise in remote sensing to all governmental agencies; and that geospatial/remote sensing data is needed for research and analysis. The Grant will include among other things, a remote sensing workshop, and imagery and exploring future areas of collaboration. Planning onsite meetings were scheduled for March 2010.

### Idec@ Geoportal, Colombia





Spatial Data Infrastructure of the Capital District (of Bogota, Colombia) IDEC@, is defined as the sum of policies, standards, organizations and technology resources that facilitate access and use of spatial information covering the District, aimed at supporting the social, economic and environmental development of the Capital District, with the optimization of geographic information production and use in a timely manner and with a high degree of accuracy and quality. IDEC@ is a combined effort to build Geographic Information Policies, Information Standards, Metadata, Fundamental Geographic Data, and Information Network. In many countries, including Colombia and the Colombian Spatial Data Infrastructure (in Spanish ICDE), similar initiatives are being developed. It is accepted that a functional spatial data infrastructure is a basic requirement for developing a highly organized society, based on geographic information policies, implemented through standards adopted by mutual agreements between producers and users. The IDEC@ is constructed by forming a network of online geographic information services, based on institutions, standards, fundamental data and metadata, geographic information systems and electronic communication networks, in a policy framework for geographic information management and human resources. The portal is a strategy of the IDEC@ that will support the management of geographic information services of the Capital District through:

- Public awareness of existing information through geographic metadata
- The integration of web information services through WMS, WFS and WCS OGC standards
- Integration of metadata catalog servers
- Managing inter-agency information sharing
- Establishing conditions for information access
- Providing Official Spatial Information of the Capital District

More information at: http://www.catastrobogota.gov.co/portel/libreria/php/x\_frame\_detalle.php?id=31771

# Official Journal of the Federation Publishes Strategic Program of the National Statistical and Geographical Information System (PESNIEG), Mexico

Source: http://www.snieg.mx/



On April 16 the Official Journal of the Mexican Federation published the National Statistical and Geographic Information System Strategic Program (in Spanish PESNIEG) approved last February by the Board of Governors of the National Institute of Statistics, Geography, and Informatics (in Spanish INEGI). The PESNIEG is now the guiding

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instrument for integration and coordination of the National Statistical and Geographical Information System; it establishes the system's objectives and goals to be achieved within a 24 year period, and the general necessary actions. It also defines the policies that the subsystems Executive Committees should follow in conducting statistical and geographical activities. For its drafting was considered proposals of different governmental units, and suggestions from social and private institutions. See the <u>SNIEG Strategic Program</u>.

#### CATHALAC supports the United Nations Platform for Space-based Information for Disaster Management and

#### Emergency Response

Source: CATHALAC Communication The United Nations Office for Outer Space Affairs (UNOOSA) and the Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC) signed a cooperative agreement in which CATHALAC assumes the role of Regional Support Office of UN-SPIDER for Latin America and the Caribbean. The Platform for the Space-based



Information for Disaster Management and Emergency Response (UN-SPIDER) is implemented by the United Nations to guarantee that all countries and international organizations have access to the use of space based information in support of disaster response activities. CATHALAC's participation as a Regional Support Office for UN-SPIDER includes promoting the development and strengthening of national capacities in Latin American and the Caribbean countries, providing horizontal cooperation and technical assistance to the countries and organizations involved in disaster prevention and mitigation, as well as generating and sharing knowledge for the use of valuable space based information in the decision making processes. CATHALAC, as an executing organization, has carried out an important mission in the context of the Regional Visualization and Monitoring System (SERVIR), in close cooperation with the environmental authorities of the region, the US Agency for International Development (USAID), the National Aeronautics and Space Administration (NASA) and other members of the international scientific community. SERVIR has developed products for continuous regional monitoring, has provided primary information and impact assessment maps to countries affected by disasters, and has executed a permanent schedule of training and capacity building for the use of satellite information in government, academic and public activities. It is important to point out that the cooperation between UNOOSA and CATHALAC initiated several months ago, with the participation of CATHALAC's experts in the Technical Advisory Missions of UN-SPIDER to Jamaica and the Dominican Republic in 2009 and support during the earthquake in Haiti in 2010. UNOOSA has been created to facilitate the peaceful uses of outer space, to support the intergovernmental discussion in the subject, and to assist the countries in using space information for development. In addition, it follows legal, scientific and technical developments relating to space activities and applications in order to provide technical information to Member States and other International Organizations. The UN-SPIDER programme acts as a gateway for access to space information during disasters, connecting the disaster management and space communities, and facilitating capacity building and institutional strengthening, particularly for developing countries. CATHALAC is an International Organization at the service of the humid tropics of Latin America and the Caribbean. Its primary purpose is to promote sustainable development through applied research and development, education and technology transfer, in integrated water resource management, climate change, risk management and environmental modeling and analysis. For more information: Eloisa Dutari, Manager - International Cooperation and Development Division, eloisa.dutari@cathalac.org and Francisco Delgado, Manager - Information and Communication Technologies Division, francisco.delgado@cathalac.org, CATHALAC, 111 City of Knowledge, Clayton, Ancon, Panama, Panama.

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#### **OICT Institutional Home for UNSDI?**

#### Source: http://www.unsdi.nl/

Assistant Secretary-General / Chief Information Technology Officer (CITO) Choi Soon-hong has extended his offer to the United Nations Geographic Information Working Group (UNGIWG) to host a Center of Excellence (CoE) for UNSDI at the Office of Information and Communications Technology (OICT) of the United Nations Secretariat. In January the UNGIWG Secretariat made a call to UNSDI Focal Points in the various UN organizations, to begin updating the Interim UNSDI Framework deliverables their organizations are coordinating in 2009-2010. Currently the updated document of the Interim UNSDI Framework deliverables is being edited by Mr. Ülgen, Senior Adviser on Spatial Data Infrastructure (SDI), Office of ASG/CITO, as to convert the document to a project proposal suitable for acquiring donor funding. We expect the proposal to be finalized and ready for donor submission shortly. To create an SDI Center of Excellence within the OICT is a natural consequence of the fact that OICT is responsible for bringing together information technology with the information processing needs of the Organization. It is common practice in developing SDIs around the world to differentiate the development of infrastructural ICT tools from the generation of content, thus creating the opportunity for other UN organizations to solely focus on the thematic content.

#### ForestSAT 2010 (Operational Tools in Forestry Using Remote Sensing Techniques)

Source: Sandra Buján by way of Santiago Borrero



The ForestSAT 2010 organizing committee has the pleasure to invite you to be part of this International Conference to be held in the city of Lugo (Spain) between the 7th and 9th of September 2010. ForestSAT 2010 (Operational tools in Forestry using remote sensing techniques) aims to present techniques and methodologies, based on the use of Remote Sensing and GIS, which have reached an operational state in forestry or have the potential to do so. This event seeks the participation of scientists, industry and government organizations to explore synergies and to bridge gaps in order to reach areas of common understanding. As a result, this forum will provide you with the means to present the latest scientific and technological advances which are likely to have a positive impact on industry and the management of spatial information. The plenary sessions will be complemented by round table discussions, a wide range of commercial exhibits, practical demonstrations and hand-out materials provided by sponsors. Poster sessions, conference dinner and a day-trip to Santiago de Compostela will provide a positive atmosphere for encouraging discussions and interaction. All the necessary information about this event (including location, registration, the organizing and scientific committee), can be found at the following address: http://forestsat2010.usc.es. Based on the experience from previous ForestSAT conferences in Scotland (2002), Sweden (2005) and France (2007), we expect the participation of prestigious speakers and leading companies. The typical level of participation is approximately 150 attendees, equally distributed between application developers, data providers, academia and end-users. The organizing committee would like to invite you to actively participate in the success of the ForestSAT 2010 conference by sponsoring our activities, promoting your own products and sharing your scientific and technological experiences with an international audience. Furthermore, please do not hesitate to contact our technical secretaries for additional information. We look forward to hearing from you and welcoming you at this event. CONTACT: e-mail: forestsat2010@usc.es ; Website: http://forestsat2010.usc.es

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Geo Standards Wiki Opened

Source: http://www.gim-international.com/



In the Netherlands an innovation programme took place aimed to bring geo specialists and geo users together. This programme was called Space for Geo-Information (in Dutch Ruimte voor Geo-Informatie, RGI). Main programme objectives were to improve administrative efficiency and extend the knowledge of expertise within the industry of the Geo-society within the Netherlands. One of the projects had as specific task the exploration of innovations in geo-standards for SDI, RGI-116. The use of standards plays a crucial role in the realization of a successful working national geo-information infrastructure. To an increasing extent, the standards are internationally developed and put into practice and sometimes into legislature. That is a well known reality for years when it comes to "technical geo-standards". Now it is also reality in the field of the "geo-information content" standards. An example of an important initiative in the European context is INSPIRE. The INSPIRE standards have a great impact for the design and organization of a SDI. To use these standards training amongst the Geo-specialists and users is required. Within the RGI-116 programme a mix of the following activities took place:

- active participation in international/European standardization projects
- organizing of standardization workshops and study courses
- export of standardization test beds with Dutch applications (stakeholders)
- publishing a standardization manual (framework) for the other RGI projects specifically and for the Netherlands in general
- export of applied research on standardization issues and realization of continuous maintenance

These activities created a strong belief amongst the participants to share the activity outcomes world-wide with the Geo-community. Consequently it was decided to create and support a geo-standards wiki with these project materials. The main objectives in doing so are to make information and study material available not only to geo-standard trainers in educational- but also public institutes and commercial companies and to stimulate an active participation to edit and comment on the created materials and as ultimate goal make contributions. Hence you are welcome to not only visit the unique wiki environment but also actively contribute. If you wish further information please contact the wiki-moderator John Stuiver, John.Stuiver@wur.nl. Website: <a href="http://geostandards.geonovum.nl/index.php/Main\_Page">http://geostandards.geonovum.nl/index.php/Main\_Page</a>

#### Latest Issue of ArcNews Now Available Online from ESRI News Feed

#### Source: http://www.esri.com/

Highlights include articles about the UN using GIS to promote peace and provide aid, ArcGIS in the cloud, and Philadelphia Police using GIS tools for high-tech crime mapping. Featured sections are entitled Humanitarian GIS, GIS Help Local Economies, Hydro Solutions with GIS, and Better Transportation and Routing with GIS. This issue includes the article *Building INSPIRE: The Spatial Data Infrastructure for Europe* by Max Craglia of the Joint Research Centre of the European Commission.

#### Call for papers: 1st Venezuelan Congress on Geographic Information Systems (COVESIG)

#### Source: COVESIG Organizing Committee

Second announcement and call for papers to the First Venezuelan Congress on Geographical Information Systems GIS (COVESIG) to be held from September 29 to October 1, 2010, at the Andes University, in Merida, Venezuela. COVESIG could be the main activity of the Venezuelan Society of Geographers and their students in areas related to©

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Geographical Sciences and Engineering. The Congress aims to disseminate and discuss main GIS research and applications through scientific presentations, poster sessions, project exhibition, and workshops. The Andes University is the event organizer, through School of Geography, and the Department of Forestry and Environmental Sciences (in Spanish ASECIAM). Deadline for paper submission is **July 30**, 2010, and for poster submission is **August 1**, 2010. Contact: Frank Angulo <u>aseciam@gmail.com</u> or <u>aseciam@ula.ve</u>. More information at http://www.forest.ula.ve/forest/aseciam.htm

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The XXIV International Federation of Surveyors (FIG) International Congress 2010: Facing the Challenges - Building the Capacity, took place in Sydney Australia, on April 11-16, 2010. Framed within this Congress, it was signed a Cooperation Agreement between the Pan-American Institute of Geography and History (PAIGH) and the FIG. Presentations on the themes of Spatial Data Infrastructure (SDI) were relevant, from which the following selection is highlighted. Technical Program and Proceedings may be found at: <a href="http://www.fig.net/pub/fig2010/techprog.htm">http://www.fig.net/pub/fig2010/techprog.htm</a>.

#### **PAIGH-FIG Reach Agreement**

#### Source: Santiago Borrero

During the XXIV Congress of the International Federation of Surveyors (in French FIG), held from 11 to 16 April in Sydney, Australia, was signed a cooperation <u>agreement</u> between FIG and the Pan-American Institute of Geography and History (PAIGH) whereby relationship of the two entities will continue, allowing a greater exchange of scientific, technical, academic, professional and training opportunities through a continuous cooperation program for the benefit of the land management and surveying specialized community.

#### **Spatially Enabled Society**

Paper presented to XXIV FIG International Congress held on April 11-16 in Sydney, Australia; by Ian Williamson, Abbas Rajabifard, and Peter Holland, Australia Summary

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"Spatially enabled society" is an evolving concept where location, place and other spatial information are available to governments, citizens and businesses as a means of organizing their activities and information. In particular spatial



International Federation of Surveyors Fédération Internationale des Géomètres Internationale Vereinigung der Vermessungsingenieure

enablement is usually used in a ubiquitous and transparent manner by a wide cross section of society. By its very nature spatial enablement demands a "whole-of-government" approach. Popular uses of spatial technology involve displaying imagery, then tracking assets and inventory through an increasing array of devices, the most common being the ubiquitous mobile phone. Remarkable as these applications are, spatial technology can be used in even more dynamic ways. Transformational use of spatial technology occurs when it is used to improve business processes of government and the private sector, including equitable taxation, allocation of services, conservation of natural resources, and planning for rational growth. This paper explores the evolving concept of spatial enablement by drawing on international trends as well as focusing on developments in Australia. The paper highlights the importance that the cadastre and land administration plays in spatial enablement and particularly the role that the street address plays. A model is proposed that shows the role of the cadastre and spatial data infrastructure in supporting spatially enablement in society. Spatial enablement has the potential to revolutionize the way governments do business and the way they interact with society. The only limitations are creativity and development of a shared vision of what is possible [The paper found complete may be at http://www.fig.net/pub/fig2010/papers/inv03/inv03 williamson raiabifard et al 4134.pdfl

#### Spatially Enabled Society – Role of the Cadastre

Paper presented to XXIV FIG International Congress held on April 11-16 in Sydney, Australia; by Daniel Steudler, Switzerland and Abbas Rajabifard, Australia

Summary

The evolution from paper to digital maps was a significant step in the use of spatial data and information. The many technologies and gadgets available nowadays on the web as well as in our hands provide spatial information to more people for increased use and functionality. Modern societies are as much in need of spatial information in order to make the right decisions the right time. Concepts such at as eGovernment, good government, civic participation, land administration and land management play an increasingly important role,



mainly in regard of the urgent issues of sustainable development. The key to attain sustainable development is sound land governance based on reliable land information. Land governance is about the policies, processes and institutions by which land, property, and natural resources are managed, while land information is providing basic information about land use, land ownership and land values. Especially the documentation of land ownership through a reliable cadastral system and the consequential accountability is a crucial element not only from a social and economic point of view, but also from an environmental point of view. Such factors are at the base of a spatially enabled government and society, in which "location" –provided by a positioning infrastructure– and "spatial information" –provided by a spatial data infrastructure– are readily available to citizens and businesses. The cadastre in its own right and with its information on land ownership underpins any nation's ability to manage land and its resources. The cadastral data, however, need to be integrated in broader land administration systems in order to contribute to the overall goal of sustainable development. This paper will investigate what a spatially enabled society entails, how the cadastre and the

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cadastral land surveyors fit in and what their contributions look like [The complete paper may be found at <a href="http://www.fig.net/pub/fig2010/papers/inv03/inv03">http://www.fig.net/pub/fig2010/papers/inv03/inv03</a> steudler rajabifard 4164.pdf]

#### Convergences Between Geo Spatial Communities: A key Condition for Decision Making

Paper presented to XXIV FIG International Congress held on April 11-16 in Sydney, Australia; by Bas Kok, The Netherlands

#### <u>Summary</u>

This paper describes the effectiveness of the convergence process in global decision making. That is why the GSDI Association has launched the convergence issue in its Strategic Plan 2009-2013. One of the main conclusions at the GSDI 11 Conference held in 2009 was that successful convergences in the SDI community can be made between the various regions of the world. In this paper will be explained in more detail that the current SDI's are in a high stage of institutional maturity. A roadmap for further convergences between the SDI community and the geospatial community is currently in preparation The complete paper mav be found at http://www.fig.net/pub/fig2010/papers/ts06b/ts06b kok 4041.pdf

#### Regional SDI Cooperation – SEE Inspiration in South-Eastern Europe

Paper presented to XXIV FIG International Congress held on April 11-16 in Sydney, Australia; by Željko Bačić, Croatia, and Željko Obradović, Bosnia and Herzegovina

#### <u>Summary</u>

The development of the National Spatial Data Infrastructure (NSDI) and the involvement of individual countries in global activities, such as the establishment of the European Spatial Data Infrastructure (ESDI) through the implementation of the INSPIRE Directive and the Global Spatial Data Infrastructure (GSDI), require from any country and its institutions, regardless of the level of their development, to build significant scientific, organizational and financial capacities. The challenge of the NSDI establishment in the transitional countries, e.g. in the area of South-Eastern Europe, is greater because these countries face in parallel the development of the market economy, State structures and institutions, including the modern National Mapping and Cadastre Agencies (NMCA), by regulating the situation in obsolete registers (cadastre and land registers) as well as a number of other problems. Aware of these facts and having realized that the lack of knowledge and capacities is the main constraining factor to building the NSDI, the NMCA's of South-Eastern Europe have agreed to cooperate and thus accelerate the development of the SDI in their respective States as well as the implementation of land administration reforms. Apart from exchanging the information and documents, and organizing regional annual conferences, the agreement encompasses the implementation of joint projects and the strengthening of regional and bilateral ties between the agencies. The first project, formed as part of the cooperation established between eight NMCA's, is the SEE Inspiration Project. This regional project aims at establishing the legislative framework for the NSDI in the countries of the region, their mutual harmonization as well as their harmonization with the EU INSPIRE Directive, and at accelerating the land administration reform by implementing a number of activities and developing joint bodies such as the Permanent Technical NMCA Commission. The quality of the project has also been recognized by the European Commission so the project has been accepted as part of the multifunctional component of the Instrument for pre-accession assistance (IPA) assistance program of the European Commission, targeting the countries of the region. The South-Eastern Europe (SEE) Inspiration Project define, in a certain sense, the regional strategy for developing and establishing the Spatial Data Infrastructure (SDI) that enables to concentrate regional capacities and for systematically accelerating the SDI establishment through joint activities and mutual cooperation. This paper describes the genesis of the regional cooperation, the basic principles defined by the participants as well as the SEE Inspiration Project itself and its expected results. By implementing this and other follow-up projects, we can see that a quality framework for the regional cooperation has been established, enabling the achievement of a number of important objectives for each implemented elsewhere NMCA. and fit to be [The complete paper mav be found at http://www.fig.net/pub/fig2010/papers/ts07b/ts07b bacic obradovic 4044.pdf

Digital Cartographic Generalization for Database of Cadastral Maps

#### **SDI-LAC Newsletter**



Paper presented to XXIV FIG International Congress held on April 11-16 in Sydney, Australia; by Mariane Alves Dal Santo, Brazil; Carlos Loch, Brazil; and Francisco Henrique de Oliveira, Brazil Summary

Potential users of Geographic Information Systems (GIS), among them private companies and public institutions, have different necessities in terms of quality, quantity and type of data stored in the spatial database, especially in the development of their land planning and management. With the recent city halls computerization process, the Geographic Information Systems represent one of the most important tools for manipulating cadastral data. The Cadastral Cartography has benefited from this technology, once it needs mapping in different scales which serve the prerogatives of the Multipurpose Technical Cadastre and the territorial management. Currently, the automated cartographic generalization is one of the most utilized techniques in the scale transforming of geo-



referenced geographic data. In this context, this paper aimed to develop methods of cartographic generalization using GIS. Thus, the generalization models were generated, evaluated, and presented through different criteria. Among these criteria, the structure of the digital data storage, the effectiveness of the recovery operations in the generalization process, and the necessity of a spatial perception for applying the operations. This study used the Criciuma cadastral cartographic base maps (scale 1:5,000, year 2003). The method was applied through the following steps: evaluation of the scientific and technical knowledge development in the cartographic generalization, development of automated cartographic generalization models, the applying of generalization processes, multi-scale spatial data base generation (1:10,000 and 1:25,000), evaluation of the geometric and topological quality data derived and finally, validation of the methodology as a support to territorial planning and management [The complete paper may be found at http://www.fig.net/pub/fig2010/papers/ts06i/ts06i dalsanto loch et al 4276.pdf]

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#### Articles and Publications of the Month

#### Book on Seismic Hazards in Central America

Source: Maria Belen and Yolanda Fernández Torres by way of Santiago Borrero

We are pleased to inform on the recent completion, editing and publication of the book Seismic Hazards in Central America (in Spanish Amenaza Sísmica en América Central). This book presents a comprehensive study of seismic hazards in the region carried out under the RESIS II project, funded by the Norwegian Government under the management of the Coordination Centre for the Prevention of Natural Disasters in Central America (in Spanish CEPREDENAC). This is the first study on hazards conducted for the entire Central American region during the first decade of 2000, with participation of specialists from all countries of the area, and based on local information updated from strong motion seismology databases. The resulting maps are regional and seamless. The edition also includes national results for the six Central American countries that participated in the study. It may be purchased at the website of ENTIMEMA, the publisher at: www.entimema.com

#### Book Highlights IBGE's Participation on the Construction of Brasília

Fuente: http://www.ibge.gov.br/

On the 50th anniversary of the founding of Brasilia, celebrated on June 21, IBGE (Brazilian Institute of Geography and Statistics) releases the book *Paths of Brasilia: Geographic Expeditions in Search of a Dream* (Veredas de Brasilia: las expediciones geográficas en busca de un sueño), which resembles its participation in construction of the new capital of Brazil. The Institute served in geographic expeditions undertaken to determine the place where the city would be erected, in the first statistical surveys conducted in the region, and in drafting

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the first official map of Brasilia. The book was released on April 19, 2010, in Rio de Janeiro / RJ. Round table discussions with authors and the organizer of the publication were conducted. After its release, the book *Pathways of Brasilia: Geographic Expeditions in Search of a Dream* will be available in offices of the IBGE across the country (which may be found at <a href="http://www.ibge.gov.br/home/disseminacao/locaisdeatendimento/default.shtm">http://www.ibge.gov.br/home/disseminacao/locaisdeatendimento/default.shtm</a>) and the Institute's online store (<a href="http://www.ibge.gov.br/lojavirtual/">http://www.ibge.gov.br/lojavirtual/</a>). The idea of changing the Brazilian capital of Rio de Janeiro to the central region dates back much before the inauguration of Brasilia, dating from the colonial period. There were numerous proposals in its defense before the independence of Brazil and throughout the Empire. This new capital would meet strategic (security against invasions) and demographic (people inside) advantages. The first concrete activity for the change would occur in the early Republic, but until 1946, little would be done effectively in that direction. Thus, the conditions for the construction of the new capital were made when President Juscelino Kubitschek decided to make the transfer. More than just defining the location, there were other key information available. Telling this story is the central proposal of the authors.

#### **Coastal Management Special Issue**

Source: http://caribbean-gis.blogspot.com/

The EU Directorate-General for Environment News Service has put out an interesting Special Issue on Coastal Management (377KB PDF). It summarizes the EU experience with Integrated Coastal Zone Management (ICZM) including costing economic benefits, the importance of participatory approaches and strategic planning and the use of GIS (Thanks J. Townend).



#### Free Book Offers Great Introduction to Sensor Web Enablement Standards

Source: OGC Newsletter - April 2010

A new book SANY - an open service architecture for sensor networks, available free at <a href="http://sany-ip.eu/publications/3317">http://sany-ip.eu/publications/3317</a>, provides an excellent introduction to OGC's Sensor Web Enablement (SWE) standards. SANY stands for "Sensors Anywhere" As a major Integrated Project in the Sixth Framework Programme (FP6) of the European Commission, SANY extends the interoperability advances of an earlier European project, ORCHESTRA, into the domain of environmental sensor networks and standards-based sensor web enablement to support decision-making.

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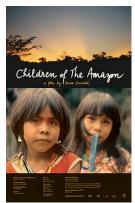
#### **Geospatial Research and Applications**

#### "Children of the Amazon" airs on PBS on Earth Day

Source: http://google-latlong.blogspot.com/

In 2008, Brazilian filmmaker Denise Zmekhol joined the Google Earth Outreach team to train the Surui people of the Brazilian rainforest on Google tools to help preserve their way of life. One year later, in 2009, another team went back to the Amazon to teach the indigenous people how to use GPS-enabled mobile phones and mobile data collection tools, including <u>Open Data Kit on the Android platform</u>, to show the world where and when illegal logging is taking place within their protected territory. <u>Trading Bows and Arrows for Laptops -- One Year Later</u>, documents the story.

On the 40th anniversary of Earth Day 2010, Denise's film, "Children of the Amazon", was air on over 100 PBS stations, as well as on Link TV. <u>Check your local listings</u> for your PBS affiliate's local screening. Learn more about the film, view a <u>trailer</u>, watch a video about <u>deforestation in</u> <u>Rondonia</u> using Google Earth's historical imagery and <u>explore maps</u> inspired by the film at <u>www.childrenoftheamazon.com</u>



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#### OGC Hosts Haiti Toolkit Web Portal

Source: OGC Newsletter - April 2010

Industry representatives are working with the US National Institute of Building Sciences (NIBS) to develop a reconstruction coordination toolkit for the earthquake-devastated nation of Haiti. The Open Geospatial Consortium (OGC) agreed to host a web portal to help committees who are working on the project to share information and documents quickly and efficiently. The Haiti portal is based on the portal developed by the OGC for its own use. The OGC is already hosting a web page (<u>http://www.ogcnetwork.net/networks/haiti</u>) that provides links to Earth images, maps and other geospatial data that are being used in Haiti earthquake disaster relief. If you have information about other OGC-enabled data portals, clients or services being used to support the Haitian relief effort, please let us know by posting a comment (Click on the red "add new comment" link at the bottom of the page). We want aid workers to know about all of these, we want owners of web-based catalogs that use OGC's catalogue Service Web standard to harvest and publish these links, and we want to raise awareness of how OGC's open standards help mobilize information and applications for improved response to disasters. OGC has sent information about these resources to information technologists at the Red Cross, UN, and other relief groups. If you know of others who might find these resources helpful, please forward this information to them.

#### Iceland: Volcano Activity and Plum Distribution Monitoring

Source: http://unsdihu.blogspot.com/

HUNAGI's Icelandic partner NGIA called LISA <u>http://www.landupplysingar.is/index.php?lang=en</u> shared already information on the effective meteorological and seismic monitoring and visualization for the wider public provided by the local meteorological service. Please visit: <u>http://en.vedur.is/</u><u>http://brunnur.vedur.is/pub/hroi/dust\_micro\_aska.gif</u>





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#### GIS Tools, Software, Data

<u>New geoportal for Bogota, Colombia</u> Source: Arturo Brun-Martinez



The Special Administrative Unit of the District Cadastre (Bogota) and the Embassy of France in Colombia launched in April the official geographic portal for the city <u>http://mapas.bogota.gov.co/</u>. This new virtual tool collects and standardizes all geographic information produced by organizations of the District and will be vital in the planning of urban development, allowing the administration to have a very effective tool for decision making in the city. The primary objective of Bogotá portal is to facilitate geographic information access and discovery at different levels such as district roads, neighborhoods, towns, underground networks, cultural icons, among others, as in portals to main capitals of the world. This tool will help the Administration to

answer key questions such as: Where are the children who require public schools?, Where should we locate a hospital to achieve the greatest impact?, How much land should the city buy to expand a street?, How many people will benefit from a new park?, What kind of public service networks will be affected by a subway line?, among others. Cadastre director, Gustavo Adolfo Morales Marulanda, said the information that gives life to the Bogotá portal is produced by all organizations of the District and is under the technical coordination of the Special Administrative Unit of District Cadastre (in Spanish UAECD), which is responsible for data standardization and unification in one place. He explained

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that "this tool will be essential for all types of users, from ordinary citizens, to businesses, private organizations, curators, solicitors, planners, investors, researchers, among others.He added, "This portal is part of the draft Spatial Data Infrastructure of the Capital District (IDEC@), which for several years now collects, processes, standardizes and analyzes the spatial information that is produced in Bogotá to avoid red tape and duplication of functions in the production of technical data within the District. Design and implementation of this virtual tool was supported by the French consulting firm Memoris, funded by the Government of France. More information at <a href="http://www.catastrobogota.gov.co/">http://www.catastrobogota.gov.co/</a>

#### SIG-IGN, Argentina

Source: http://sig.ign.gob.ar/

The Geographic Information System of the Geographic Institute of Argentina (in Spanish SIG-IGN) is drawn from the official maps of the country and has the following specifications:



- It is the only seamless national coverage
- It is at scale of 1:250,000, upon the national topographic map (227 sheets)
- Information is stored using geographic coordinates WGS 84, 94 POSGAR Framework
- Each object has a unique identifier, which allows a custom update

Information update is performed periodically based on the reception of data from sources including fieldwork of IGN's Division of Geodesy (GPS tracks and in situ data update), and / or using data from agencies and institutions having cooperation agreements with IGN. The information contained inside SIG-IGN is distributed into 18 layers. More information at: <a href="http://sig.ign.gob.ar/">http://sig.ign.gob.ar/</a>

#### National Information System of Ecuador (SNI)

#### Source: http://www.sni.gov.ec/

The National Information System of Ecuador (in Spanish SNI) seeks to satisfy the information needs of different levels of the government and public administration for a more transparent progress in the construction of the "Good Life Society." SNI has three components, (i) the National Land Information System (in Spanish SNIT) for the production and dissemination of spatial data and information in accordance with guiding principles of geographic and cartographic activity aimed at facilitating decision making, planning and land use planning in the country; (ii) the Statistical Information System (in Spanish SNIE) that contains figures on socio-demographic and economic issues showing the reality of the country at a given period; and (iii) the Integrated Query System (in Spanish SNIS) collects information from administrative records of institutions in any sector that is produced at various state agencies, thus providing a public service. More information at <a href="http://www.sni.gov.ec/">http://www.sni.gov.ec/</a>

#### SNIT releases final Satellite Image Catalog, Chile

#### Source: http://www.snit.cl/

The Ministry of National Assets through the Executive Secretariat of the National Territorial Information System (in Spanish SNIT), compiled a catalog of satellite imagery in the context of the earthquake that struck central and southern Chile on February 27. The magnitude of the earthquake, forced a number of State technical institutions to develop their own information management plans. The Ministry of National Assets through the Executive Secretariat of SNIT immediately began an exhaustive collection of satellite images to identify the most affected areas by this natural disaster. The work plan was agreed in conjunction with other institutions that are part of the SNIT coordination, especially ONEMI (agency in charge of the International Disaster Charter of the UN), the



Chilean Space Agency, National Service of Geology and Mining, the Information Center of Natural Resources, among others. This task resulted in an image catalog intended for all public services and directed to the national community on territorial information. It was made possible with support of international organizations such as the UN and the World Bank. The information has been provided by various sources. One of them is the United Nations Platform UN-SPIDER, created to facilitate the use of satellite technologies for disaster management and emergency response. Through this

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valuable platform, it was possible to obtain satellite images that may be used by any governmental institution in the context of the disaster, whether emergency, post-earthquake reconstruction, and planning. The mass dissemination and commercial use of these images are not allowed.

#### Podcast: OpenAddresses.org Building a free Worldwide Database of Addresses

Source: http://www.directionsmag.com/

A shiny new user driven effort, OpenAddresses.org, aims to build a worldwide database of addresses from American Society for Photogrammetry and Remote Sensing. Will it work? Will citizens of the world participate? What will it be used for? And will it encourage address development in areas without existing addresses?

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Training Opportunities

#### Basic Course on Geographic Information Standardization and Quality, Argentina

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

On April 12-15 a Course on Fundamental Geographic Information Standards and Quality was held at headquarters of the National Geographic Institute (in Spanish IGN) in Buenos Aires. The seminar was opened by the Director of IGN, Ms. Liliana Weisert, who welcomed over eighty participant professionals on geographic sciences. The

interdisciplinary classes were in charge of faculty members of the National University of Catamarca: Amalia Argerich, Marcela Montivero, María Alejandra Barrera and Chayla Carolina. The meeting aimed to address basic principles, conceptual framework, and characteristics defining procedures of Geographic Information Standards, and general concepts of Geographic Information, Spatial Data and Spatial Data Infrastructure, among other topics relevant to the activity.



Regional Tele-Center on Geospatial Technology, Colombia Source: <u>http://geoservice.igac.gov.co/moodle/</u>



## Telecentro Regional en Tecnologías Geoespaciales



The Regional Tele-Center on Geospatial Technology of Colombia develops and manages knowledge transfer processes through Information and Communication Technology (ICT) applications, using virtual learning environments, and new teaching pedagogy, thus contributing to human resource development for countries in Latin America and the Caribbean. Please log on to the Tele-center at: <u>http://geoservice.igac.gov.co/moodle/</u>

Workshop on Concepts, importance and progress in development of strategies for the ICDE, Colombia Source: http://www.icde.org.co/



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On March 24, 2010 was held a workshop on concepts, importance and progress in the development of strategies for the Colombian Spatial Data Infrastructure (in Spanish ICDE), which was attended by persons from more than 40 organizations. The event was held at the Geographic Institute "Agustin Codazzi" (in Spanish IGAC) in Bogotá, which called for different geographic information institutions, producers and users. Through these activities, IGAC seeks to create spaces that facilitate the integration of institutions around the concepts, developments and experiences in the development of themes related to geographic information management, such as geographic information standards, geographic information policy, geoportals and geo-services. The material used in the workshop is available for download at: <a href="http://www.icde.org.co/web/guest/descargas">www.icde.org.co/web/guest/descargas</a>. More information at: <a href="http://www.icde.org.co/web/guest/descargas">http://www.icde.org.co/web/guest/descargas</a>.

#### Cyberseminar on remote sensing for population-environment research

Source: GEO News (Issue #8, 28 April 2010)

The Population-Environment Research Network (PERN) Cyberseminar will run from 10-21 May. Co-sponsored by the Group on Earth Observations (GEO) and the National Aeronautics and Space Administration (NASA) Socioeconomic Data and Applications Center, the Cyberseminar aims to identify the past use of remote sensing data products in population-environment research, to explore challenges of remote sensing data integration, and to begin to think about the specifications of future remote sensing data products that would meet the needs of the research community. All who are interested in cyberseminar topics are invited to participate and subscription is free. For more information, visit the <u>PERN web site</u>.

#### Online Demonstration on NatureServe Vista 2.5 in Spanish (Webinar)

Source: Sarah Carr



Network Management Tools for Coastal Marine Ecosystems and Watersheds is pleased to announce that it is organizing an online demonstration (webinar) on NatureServe Vista 2.5 in Spanish, on Tuesday, May 11, 2010, 2:00 pm to 3:00 pm (U.S. Eastern). The demonstration of Vista 2.5 will be undertaken by Ian Varley and Carmen Josse, and moderation will be carried out by Alexandra Sanchez de Lozada of NatureServe. NatureServe Vista is a decision support system for conservation planning and to integrate conservation with other assessment and planning activities, such as land use, transportation, energy, natural resources and ecosystem management in any ecosystem. NatureServe Vista allows users to evaluate, create, implement, and monitor usage scenarios of land and natural resource management that operate within the framework of the economic, social and political context, to achieve conservation goals. The tool operates on the ArcGIS platform. The latest version (Vista 2.5) integrates the interoperability with N-SPECT (Nonpoint-Source Pollution and Erosion Comparison Tool) and other hydrological models to support assessments and integrated planning both terrestrial and aquatic. More information about NatureServe Vista 2.5 is on the website of Latin America and the Caribbean of NatureServe. To participate in this online demo for NatureServe Vista 2.5 in Spanish, you must register at https://www1.gotomeeting.com/register/991966913. The webinar is free, will take an hour and includes time for questions from participants. Participants see a demonstration on your own computer and listen to the presentation by using speakers and microphones, or by telephone conference Median (long distance call to the U.S.). The connection to the webinar will be held one hour before the start of the presentation to allow participants to assess their systems. If you have further questions about this demonstration, please contact Sarah Carr sarah carr@natureserve.org

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International Seminar on Multidimensional Measurement of Poverty in Latin America " Source: http://www.eclac.cl/



The Economic Commission for Latin America and the Caribbean (ECLAC), in conjunction with the Ministry of Planning of Chile (in Spanish MIDEPLAN), the Foundation for Overcoming Poverty (FSP) and the Initiative on Poverty and Human Development at the University of Oxford (OPHI) have organized the international seminar "Multidimensional Measurement of Poverty in Latin America." The seminar will be held on **May 13 and 14**, 2010 in Santiago, Chile. <u>Preliminary Agenda</u> and <u>related documents</u> are available. The purpose of this meeting, which will feature national and international experts, is to discuss existing proposals for the measurement of poverty from a multidimensional perspective and analyze their empirical applications in several countries, relieving the challenges to address and establishing guidelines action to overcome them.

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#### Funding Opportunities, Awards, Support

Two Postdoctoral Fellows: Coupled Natural-Human Systems Modeling and Climate/Environmental System Modeling Source: James Gunter

#### MAINE'S SUSTAINABILITY SOLUTIONS INITIATIVE

#### Connecting knowledge with action to strengthen our economic, social & ecological future

The University of Maine is launching an international search for two Sustainability Science Postdoctoral Fellows. Organized under a theme of landscape change, the Sustainability Solutions Initiative (SSI) supports multiple research projects focused on urbanization, forest ecosystem management, and climate change. SSI is recruiting for this Postdoctoral Fellow position with tentative start dates beginning as early as July-August, 2010. The initial appointment will be for a one-year duration with an opportunity for fixed-length renewal.

Position #1: Coupled Natural-Human Systems Modeling Responsibilities: The postdoctoral fellow will become an active member of the SSI research team with a major role in research design; data collection, analysis, and, especially, modeling; and publishing. Core research responsibilities will include planning and completion of modeling research projects, preparation of manuscripts for publication in collaboration with SSI researchers, presentation of research findings at public and professional meetings, and working with SSI researcher to pursue additional research funding. The successful candidate will also have the opportunity to contribute to the development and implementation of SSI curricula and mentoring programs for graduate and undergraduate students. Qualifications: A Ph.D. with specialization in modeling or computer science is required by the time of appointment. The following experience and skills will be given preference: coupled natural-human systems research experience; expertise in modeling approaches appropriate to coupled systems (e.g., artificial intelligence, systems, agent-based, spatial); data management and programming expertise; and experience developing models of land use change, climate change or forest ecosystems.

<u>Position #2: Climate/Environmental System Modeling Responsibilities:</u> We seek a postdoctoral fellow with core competencies in the following areas: linking terrestrial environmental process models (for example, surface hydrologic processes, water quality, groundwater flow, regional climate), sensitivity and uncertainty analyses, downscaling climate projections to local and regional scales, risk analyses to support planning and multi-criteria decision-making. The postdoctoral fellow will be expected to participate in ongoing team projects and SSI-wide research activities, such as statewide sustainability problem

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assessments within the areas of urbanization, forest ecosystem management, climate change, and stakeholder engagement. Core research responsibilities will include planning and completion of research projects, preparation of manuscripts for publication in collaboration with SSI researchers, and presentation of research findings at public and professional meetings, and working with SSI researchers to pursue additional research funding. The successful candidate will also have the opportunity to contribute to the development and implementation of SSI curricula and mentoring programs for graduate and undergraduate students. Qualifications: A Ph.D. with specialization in earth science, environmental sciences, civil and environmental engineering, systems engineering or a closely related technical or scientific discipline is required by the time of appointment. Experience working on interdisciplinary research teams is preferred.

Applications for both positions: Candidates must demonstrate the capacity to support their research programs, produce highquality scholarship and publications, and advance the SSI research program. Applications must include all of the following materials for consideration: (1) A letter of interest (2-3 pages) that summarizes the candidate's: research program, qualifications for the position, interests in sustainability science, and plans for addressing the Fellowship responsibilities. When describing your qualifications, please provide a summary of your modeling skills and your long term scientific interests, including discussion of modeling, data management and programming expertise; (2) curriculum vitae; (3) undergraduate and graduate transcripts; (4) a sample of research (e.g., peer-reviewed publication); and (5) names and contact information of three professional references. Please send materials in PDF form to hallsworth@maine.edu or in hard copy form to: Ruth Hallsworth, Senator George J. Mitchell Center, 5710 Norman Smith Hall, University of Maine, Orono, ME 04469-5710. Review of applications will begin May 15, 2010. Details about the SSI research project and program can be found at: http://www.umaine.edu/sustainabilitysolutions/

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#### **Employment Opportunities**

#### Interdisciplinary Geospatial Informatics Post Doc position

Source: Peder Klith Bøcher by way of Jennifer Miller

An interdisciplinary Post Doc position is available at Aarhus University, Denmark, starting August 2010 or later. The responsibilities of the Post Doc will include work on geospatial problems on the boundary between computer science and biology, more specifically between algorithms and ecology/biodiversity. Modest teaching responsibilities may also be required. The Post Doc will be affiliated with the Danish National Research Foundation Center MADALGO (Center for Massive Data Algorithmics http://www.madalgo.au.dk) under the supervision of computer science Professor Lars Arge (person.au.dk/en/large@cs), but will also work extensively with researchers in the Ecoinfomatics & Biodiversity group at the Department of Biological Sciences under the supervision of Professor Jens Christian Svenning (person.au.dk/en/svenning@biology). The Post Doc should focus on problems in relation to computationally efficient use of modern detailed (and thus massive) topographic data in various global change relevant modeling applications. These problems include the computation of fine resolution topography derived variables on a global scale, as well as local and global scale flooding scenario modeling and impact assessment. Applications are welcomed from computer science researchers with clearly demonstrated skills in the design, analysis and implementation of algorithms (preferably also with I/O efficient algorithms), as well as from geoinformatics or biology researchers with clearly demonstrated skills in ecoinformatics, GIS, and programming. Researchers with interdisciplinary research experience will be preferred. Applicants should apply by uploading a letter of interest and a CV, as well as indicate at least two names of references for recommendations, using the application form available at http://www.madalgo.au.dk. To be assured of full consideration, applications must arrive by May 17, 2010. Applications will be considered until the position is filled. For further information contact Professor Lars Arge at large@madalgo.au.dk or Professor Jens Christian Svenning at svenning@biology.au.dk.

#### Two Visiting Assistant Professor Positions in Geography and Urban Studies, Temple University Source: Jennifer Miller

Temple University's Department of Geography and Urban Studies (GUS) invites applications for two full-time non-tenure track Assistant Professors (Teaching/Instructional) for the academic year 2010-2011. The initial appointment will be for one year. One

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or both of the positions may be renewable based on funding and performance. A PhD in Geography, City and Regional Planning, Natural Resources, Urban Studies, or a related field should be completed by the start of employment. The successful candidate will have an active role in GUS (www.temple.edu/gus), which offers two interdisciplinary undergraduate majors (Geography and Urban Studies and Environmental Studies), an MA in Geography and Urban Studies, and a Ph.D. in Urban Studies. We have about 225 undergraduate students and 30 graduate students. For both positions we are looking for individuals who are comfortable with interdisciplinary approaches and can teach large and small classes in the undergraduate curriculum. Position one: The successful candidate will be a specialist in international development and urban geography (able to teach courses like Global Cities, Urban Geography and Comparative International Development). Position two: The successful candidate will be able to teach a range of courses with a GIS focus (Introduction to GIS and/or Digital Mapping) and courses in Environmental Studies, Please send a letter that addresses teaching and research interests, curriculum vitae, and contact information for three references to Ben Kohl, Department of Geography and Urban Studies, 309 Gladfelter Hall, Temple University (025-27), Philadelphia, PA 19122. In your application indicate which position you are applying for. Review of applications will begin May 3 and continue until the position is filled. Electronic applications are required and should be sent to bkohl@temple.edu. Temple University is an Affirmative Action/Equal Opportunity Employer and the University especially encourages applications from women and minorities.

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#### Other

# ECLAC member countries analyzed statistical development in Latin America and the Caribbean Source: http://www.cepal.org/

Authorities and experts from 19 countries in America and Europe, members of the Economic Commission for Latin America and the Caribbean (ECLAC), met in Santiago de Chile to analyze the development of statistics in the region on issues such as censuses, Millennium Development Goals, gender, and poverty measurement, among others. During the Ninth Executive Committee of the Statistical Conference of the Americas of ECLAC (SCA-ECLAC), participants reviewed the regional and international cooperation agenda in statistics from 2009 to 2011 and assessed the activities of various working groups at the Conference. The Statistical Conference of the Americas is a subsidiary body of ECLAC, which promotes the development and improvement of national



statistics and international comparability, as well as international, regional and bilateral matters in the region. During the meeting, which was extended until Thursday April 22, delegates also discussed progress and future goals and tasks of major international statistical cooperation initiatives, such as the 2011 round of International Comparison Program (ICP), a global initiative that seeks to collect data on prices of goods and services of a comparable basket of goods from one country to another and to estimate rates of Purchasing Power Parity (PPP), which serve to compare the values in real terms at the international level. The meeting provided a forum to promote the region in various events and activities to celebrate World Day of Statistics, established by the Statistical Commission of the United Nations on October 20, 2010. Finally, the Executive Committee discussed the priorities of the Conference to be presented at the Thirty-third session of ECLAC, to be held in Brasilia, Brazil from May 30 to June 1.

#### IBM Research Creates World's Smallest 3D Map

#### Source: http://www-03.ibm.com/

IBM (NYSE: IBM) scientists have created a 3D map of the earth so small that 1,000 of them could fit on one grain of salt. The scientists accomplished this through a new, breakthrough technique that uses a tiny, silicon tip with a sharp apex - 100,000 times smaller than a sharpened pencil - to create patterns and structures as small as 15 nanometers at greatly reduced cost and complexity. This patterning technique opens new prospects for developing nanosized objects in fields such as electronics, future chip technology, medicine, life sciences, and optoelectronics. To demonstrate the technique's unique capability, the team created several 3D and 2D patterns, using different materials for each one as reported in the scientific journals Science and Advanced Materials: A 25-nanometer-high 3D replica of the Matterhorn,

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a famous Alpine mountain that soars 4,478 m (14,692 ft) high, was created in molecular glass, representing a scale of 1:5 billion. Complete 3D map of the world measuring only 22 by 11 micrometers was "written" on a polymer. At this size, 1,000 world maps could fit on a grain of salt. In the relief, one thousand meters of altitude correspond to roughly eight nanometers (nm). It is composed of 500,000 pixels, each measuring 20 nm<sup>2</sup>, and was created in only 2 minutes and 23 seconds.

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#### Americas: Conferences, SDI Events

Year 2010 January February March April May June July August September October November December

		MAY 2010
3-6	Indian Wells/Palm	PLANS 2010: IEEE/ION Position Location and Navigation Symposium
	Springs CA, USA	
4-5	Santa Maria RS, Brazil	Geomatics Symposium
4-6	Los Angeles CA, USA	GPS Partnership Council Meeting 2010
10-12	Calgary, Alberta,	GeoAlberta 2010 Conference
	Canada	
10-13	Banff, Alberta, Canada	Disaster Forum 2010: Plan to Succeed
10-15	Santa Cruz de la	IX International Congress of Wildlife Management (IXCIMFAUNA)
	Sierra, Bolivia	
11	Whitehorse YT,	ESRI Regional User Conference
	Canada	
11-12	Johnstown PA, USA	Pennsylvania GIS Conference 2010
*NEW*		
12-13	Kamloops BC, Canada	ESRI Regional User Conference
12-14	Miami FL, USA	Pitney Bowes Business Insight
12-14	Miami FL, USA	Insights 2010
*NEW*		
13-14	Santiago, Chile	International Seminar on Multidimensional Measurement of Poverty in
*NEW*		Latin America
13-14	Tampa FL, USA	MAPublisher Training
16-18	Montego Bay, Jamaica	2010 International Conference on Information Resources Management
16-20	Aracaju SE, Brazil	24 <sup>th</sup> Cartographic Brazilian Congress
17-20	Philadelphia PA, USA	Be Communities LIVE Conference
*NEW*		
17-20	Puebla, Mexico	11th International Digital Government Research Conference
		(DGO2010)
17-21	Reston VA, USA	GEOINT Community Week
*NEW*		
17-24	Valparaiso-Viña del	AGU Chapman Conference "Giant Earthquakes and their Tsunamis"
	Mar and Valdivia, Chile	E-mail: atwater@usgs.gov
18-19	Calgary AB, Canada	ESRI Regional User Conference
19	Bethesda MD, USA	NGA Tech Day
20	Vaughan, Ontario,	Taking the Geospatial Mystery out of Asset Management
*NEW*	Canada	
20	Anchorage AK, USA	Mapping Alaska Communities Workshop: Intro to GIS
*NEW*		
20	Reston VA, USA	USGIF Industry Tech Day
20	Reston VA, USA	GEOINT Tech Days
20		OLONAT TOOT Days

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*NEW*		
20-22	Punto Fijo, Venezuela	4th International Seminar "Linking Communities to Disaster Reduction Programs"
21	Juneau AK , USA	Mapping Alaska Communities Workshop: Intro to GIS
*NEW*		
22	Montreal, Canada	International Day for Biological Diversity
24-25	Towson MD, EUA	TUgis 2010
*NEW*		
24-27	Toronto, Canada	American Canadian Conference for Academic Disciplines
24-28	Ciudad de Piura, Peru	Peru Second National Congress on Sea Sciences
25	Indianapolis IN, USA	Iron GIS Tech: Mobile GIS Solutions Workshop
*NEW*		
26	Chicago IL, USA	Mapping Illinois Communities Workshop: Intro to GIS
*NEW*		
25-26	Washington DC, USA	National Geographic Bee
25-27	São Paulo, Brazil	GEOBrazil Summit 2010
*NEW*		
25-28	São Paulo SP, Brazil	GEO Summit Latin America 2010
26-28	Bogota, Colombia	Conference of Latin Americanist Geographers (CLAG) 2010
27	Chicago IL, USA	Mapping Illinois Communities Workshop: Intro to GIS
*NEW*		

JUNE 2010		
1	Las Vegas NV, USA	Consumer Telematics Show
1-4	Ithaca NY, USA	36th Annual Conference of the International Association for Social
		Science Information Service and Technology (IASSIST)
1-4	Washington DC, USA	Global Earthquake Model (GEM) Outreach Meeting 2010
1-5	Regina SK, Canada	Canadian Association of Geographers National Meeting
2-3	Chicago IL, USA	People Tracking and Location USA 2010
3-4	Winnipeg MB, Canada	ESRI Regional User Conference
3-4	Kiana Lodge Poulsbo	2010 Indigenous Mapping Network Conference
*NEW*	WA, USA	
7-9	Rosemont, IL, USA	Sensors Expo & Conference
8-9	Novi MI, USA	Telematics Detroit 2010
8-11	Washington DC, USA	COM.Geo 2010: 1st International Conference and Exhibition on
		Computing for Geospatial
9	Indianapolis IN, USA	Mapping Indiana Communities Workshop: Intro to GIS
*NEW*		
10	Indianapolis IN, USA	Mapping Indiana Communities Workshop: Intro to GIS
*NEW*		
14-17	Nashville TN, USA	Intergraph 2010
14-18	Calgary, Alberta,	Canadian Geomatics Conference 2010 and ISPRS Com I Symposium
*NEW*	Canada	
14-18	Baltimore MD, USA	URISA Leadership Academy
*NEW*		
14-18	Silver Spring MA, USA	OGC Technical and Planning Committee Meeting
15-18	Calgary, Alberta,	Canadian Geomatics Conference (CGC) "Convergence in Geomatics -
	Canada	Shaping Canada's Competitive Landscape"
16	Dallas TX , USA	Mapping Texas Communities Workshop: Intro to GIS
*NEW*		
16-18	Calgary, Alberta,	Commission I Symposium "Image Data Acquisition - Sensors &

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	Canada	Platforms" Contact: elsheimv@ucalgarv.ca
18	Austin TX, USA	Mapping Texas Communities Workshop: Intro to GIS
*NEW*	, ,	
20-24	Chicago, Illinois, USA	<b><u>129th Annual Conference and Exposition of the American Water</u></b> Works Association: Show Me the Water
21-23	Quebec, Canada	Canadian Hydrographic Conference
21-23	Boston MA, USA	ENZEE Universe
21-25	Santo Domingo, Dominican Republic	International Meeting "Virtual Educa" – 2010
21-25	San Francisco CA, USA	2010 SEMANTIC
22-25	Calgary, Alberta, Canada	103rd Air and Waste Management Association Conference and Exhibition: Energy and the Environment
23	Columbus OH, USA	Mapping Ohio Communities Workshop: Intro to GIS
*NEW*		
23-25	Las Vegas NV, USA	Nevada Geographic Information Society Annual Conference
*NEW*		
25	Cleveland OH , USA	Mapping Ohio Communities Workshop: Intro to GIS
*NEW*		
28-30	Quebec City, Canada	IC WG II/IV 7th International Symposium on Voronoi Diagrams in
*NEW*		Science & Engineering (ISVD2010)
		E-mail: Mir-Abolfazl.Mostafavi@scg.ulaval.ca
Jun.28-Jul.2	Santa Fe, Argentina	Fifth Congress on Cartographic Science, Argentina E-mail: <u>congresocienciacartograficasfe@gmail.com</u>
Jun.29-Jul.2	Orlando FL, USA	2nd International Symposium on Optical Engineering and Photonic Technology: OEPT 2010
Jun.29-Jul.2	Orlando FL, USA	4th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2010

		JULY 2010
3-7	Edmonton Alberta,	24th International Congress for Conservation Biology
	Canada	
8-11	Monterrey CA, USA	2010 Society for Conservation GIS (SCGIS)
8-12	San Diego CA, USA	ESRI International User Conference
10-13	San Diego CA, USA	2010 ESRI Education User Conference
10-13	San Diego CA, USA	2010 ESRI Survey & Engineering GIS Summit
10-13	San Diego CA, USA	2010 ESRI Homeland Security GIS Summit
11-12	San Diego CA, USA	2010 ESRI Business GIS Summit
11-15	San Diego CA, USA	ESRI International User Conference
12-16	Caracas, Venezuela	2nd Latin America and the Caribbean gvSIG Working Days: "Uniting
		People Around the World"
12-16	San Diego CA, USA	2010 ESRI International User Conference
12-16	Houston TX, USA	The Fifth International Conference on Environmental Science and
		Technology 2010
15-16	San Diego CA, USA	MAPublisher Training
18-21	Denver CO, USA	10th International Conference on Precision Agriculture
23-27	San Diego CA, USA	ESRI User Conference
25-30	Honolulu, HI, USA	IGARSS'10: IEEE International Geoscience & Remote Sensin
		Symposium
26-30	Vancouver, B.C.	GeoWeb 2010
	Canada	Contact: info@geowebconference.org

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26-30	Los Angeles CA, USA	SIGGRAPH 2010
27-30	Recife PE, Brazil	3 <sup>rd</sup> Brazilian Symposium on Geodesic Sciences and Geoinformation Technologies - III SIMGEO
28-30	Baltimore MD, USA	Intelligent Spatial Decision Analysis ISDA '10 in conjunction with International Symposium on Intelligent Decision Technologies (IDT'10) http://idt-10.kesinternational.org/ Email: beniamino.murgante@unibas.it
28-30	Vancouver, Canada	GeoWeb 2010 - 3D City Modeling Academic Track E-mail: h.ledoux@tudelft.nl
28-30	Vancouver, Canada	IC WG IV/II GeoWeb 2010 - Sensor Web Academic Track E-mail: steve.liang@ucalgary.ca
Jul 29-Ago 2 *NEW*	Incline Village NV, USA	MAPPS 2010 Summer Conference

		AUGUST 2010
2-6	Orange County CA, USA	Accela User Conference 2010
3-6	Arequipa, Peru	Applied Geoinformatics for Society and Environment (AGSE)
*NEW*		
3-6	Buenos Aires, Argentina	Scientific Committee on Antarctic Research (SCAR) Open Science Conference (OSC)
3-7	Toledo OH, USA	Local Food Systems in Old Industrial Regions: Challenges and Opportunities (IGU Commission on the Dynamics of Economic Spaces)
8-13	Foz do Iguassu, Brazil	American Geophysical Union (AGU) Joint Assembly
13-19	Foz do Iguassu, Brazil	Managing Waveform Data and Related Metadata for Seismic Networks
15-18	Boston MA, USA	2010 APWA International Public Works Congress & Exposition
16-18	Charlotte NC, USA	2010 URISA/NENA Addressing Conference
16-20	Fortaleza, Brazil	2nd International Conference on Climate, Sustainability and Development in Semi-arid Regions (ICID 2010)
23-25	Indianapolis IN, USA	FEMA - 4th Annual HAZUS Conference
26	The Woodlands TX,	GeoGathering 2010
*NEW*	USA	
Aug.29-Sep.1	São Carlos SP, Brazil	<u>Ibero-American Symposium on City and Culture: New Urban</u> Spatialities and Territorialities (SILACC 2010)

		SEPTEMBER 2010
9-10	Philadelphia PA, USA	MAPublisher Training
12-14	Washington DC, EUA	IMTA (AMERICAS) Conference & Trade Show 2010
*NEW*		
12-16	Minneapolis MN, USA	National States Geographic Information Council (NSGIC) Annua Conference
12-16	Vancouver BC, Canada	15th International Union of Air Pollution Prevention and Environmental Protection Association's World Clean Air Congress Achieving Environmental Sustainability in a Resource Hungry World
14-17	Loveland CO, USA	GIS in the Rockies 2010
*NEW*		
15-17	Columbus OH, USA	2010 Ohio GIS Conference
*NEW*		
16-17	Edmonton AB, Canada	ESRI Regional User Conference
16-18	San José, Costa Rica	11 <sup>th</sup> International Congress on Geomatics: Geodesy and Topography in Real Time
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19-24	Montroal Canada	WA World Water Congress and Exhibition
	Montreal, Canada	IWA World Water Congress and Exhibition
22	Washington DC, USA	LI Geocloud 2010
22	Washington DC, USA	Location Intelligence 2010
*NEW*		
23-24	Calgary, Alberta,	GIS for Oil & Gas Conference and Exhibition
*NEW*	Canada	
23-24	Daytona Beach FL,	4th Annual Central Florida GIS Workshop
*NEW*	USA	
27-30	Jackson Hole WY,	Remote Sensing & Hydrology Symposium 2010
	USA	
28-29	Plymouth MI, USA	PLM Road Map 2010
Sep.28-Oct.1	Orlando FL, USA	GIS-Pro 2010: URISA/48th Annual URISA Conference & Exposition
Sep.29-Oct.1	Merida, Venezuela	1st National Congress on Geographic Information Systems SIG
*UPDATED*		(ConaSIG)" E-mail: <u>aseciam@gmail.com</u> or <u>aseciam@ula.ve</u>
Sep.29-Oct.3	Savannah GA, USA	National Conference on Geography Education
Sep.30-Oct.1	Regina SK, Canada	ESRI Regional User Conference
Sep.30-Oct.2	Tempe AZ, USA	International Associations for the Study of the Commons USA
		Regional Meeting

	OCTOBER 2010		
3	Santiago, Chile	GEOSS Workshop XXXIX – Forest and Bio-energy	
4-8	Santiago, Chile	Latin American Remote Sensing Week	
6-7	Toronto ON, Canada	ESRI Regional User Conference	
6-8	Binghamton NY, USA	Race, Ethnicity and Place Conference	
8-12	Guanajuato, Mexico	14 <sup>th</sup> SELPER International Symposium	
17-20	Dearborn MI, EUA	2010 ESRI Electric & Gas User Group Conference	
18-20	Denver CO, USA	2010 ESRI Health GIS Conference	
18-22	Singapore, Singapore	GSDI 12 World Conference 2010: Realizing Spatially Enabled Societies	
18-22	Orlando FL, USA	E-Learn 2010	
19-20	Ottawa, Canada	ESRI Regional User Conference	
19-21	Curitiba Paraná, Brazil	IX Updated Seminar on Remote Sensing and Geographic Information Systems Applied to Forestry Engineer	
20-21	Naperville IL, USA	ILGISA Fall Conference	
20-22	La Cumbre, Cordoba, Argentina	First International Conference on Advances in New Technologies, Interactive Interfaces and Communicability (ADNTIIC 2010)	
20-22	Santiago, Chile	IAOS/Scorus Conference on Official Statistics and the Environment: Approaches, Issues, Challenges and Linkages	
24-26	Saratoga Springs NY,	2010 New York State Geographic Information Systems (GIS)	
*NEW*	EUA	<u>Conference</u>	
24-27	Lake Buena Vista FL,	Pictometry FutureView 2010	
*NEW*	USA		
25-28	Nashville TN, USA	GEOINT Symposium 2010	
26-27	Fredericton NB, Canada	ESRI Regional User Conference	

NOVEMBER 2010		
1-4	Nashville TN, EUA	<u>GEOINT 2010</u>
*NEW*		
2-3	Vancouver BC, Canada	ESRI Regional User Conference
2-5	San Jose CA, USA	ACM SIG SPATIAL GIS 2010
*NEW*		

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4	Oakville, Ontario, USA	GITA Ontario Chapter Fall Forum 2010
4-5	Denver CO, USA	MAPublisher Training
8-12	Guanajuato, Mexico	XIV International SELPER Symposium "Observation & Monitoring of the Earth Related to Climate Change" (An ISPRS Regional Conference) E-mail: silvia.casas757@gmail.com
15-19	Orlando FL, USA	AutoCarto 2010
15-19	Orlando FL, USA	ASPRS/CaGIS 2010 Fall Specialty Conference
*NEW*		
16-17	Huntsville AL, USA	Rocket City Geospatial 2010
*NEW*		
16-18	Orlando FL, USA	Commission IV Symposium "Geodatabases & Digital Mapping" / Marguerite Madden (President Commission IV) / mmadden@uga.edu
16-19	Havana, Cuba	IV Conference of the Latin American Population Association "Cultural conditions and transformations, economic factors, and demographic trends in Latin America"
17-18	St. John's NL, Canada	ESRI Regional User Conference
22-26	San Miguel de Tucumán, Argentina	First Latin-American Congress (IV Argentinean) on Biodiversity and Conservation 2010, Coming soon at: <a href="http://www.biodiversidad2010.com.ar">www.biodiversidad2010.com.ar</a> / <a href="http://www.biodiversidad2010.com.ar">info@biodiversidad2010.com.ar</a> / <a href="http://www.biodiversidad2010.com.ar">www.biodiversidad2010.com.ar</a> / <a href="http://www.biodiversidad2010.com">www.biodiversidad2010.com</a> / <a href="http://www.biodiversidad2010.com"></a> www.biodiversidad2010.com </th
8-12	Lima, Peru	Joint Meeting of PAIGH Directing Council, the Geocentric Reference System for the Americas (SIRGAS), and IAG-SIRGAS School of "Reference Systems"
Nov. 30-Dec 2 *NEW*	Las Vegas NV, USA	Autodesk University 2010 Conference and Exhibition
Nov.30-Dec.3	Port of Spain, Trinidad	URISA's 5th Caribbean GIS Conference

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