

Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

SDI-LAC

December

2010

Vol. 7, No.12

Spatial Data Infrastructure-Latin America and the Caribbean (SDI-LAC) is a regional, monthly, and free, electronic newsletter from the [Global Spatial Data Infrastructure Association](#) (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.



Global Spatial Data Infrastructure

GSDI

[GSDI Definition](#)

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

[Message from the Editor](#)

[Input to this Issue](#)

[Global and Regional SDI, News, Presentations](#)

[National SDI, News, Links, Presentations](#)

[Articles and Publications of the Month](#)

[Geospatial Research, Applications, Software, Data](#)

[Training and Funding Opportunities, Awards](#)

[Employment Opportunities](#)

[Other](#)

[Americas: Conferences, SDI Events \(Year 2010\) \(Year 2011\)](#)



Message from the Editor

From PAIGH, to the wide community on geospatial information, we thank you very much your affiliation, contributions, and suggestions, which made possible the publication of GSDI regional Newsletter for Latin America and the Caribbean (SDI-LAC) in 2010. We wish you all a happy and successful year 2011! And look forward for continuously and mutually supporting ready global access to geographic information in the region.

Inside this SDI-LAC issue, the Global and regional section highlights a report on the current SDI status in the region; the recent UN initiatives related to UNSDI and the Global Geospatial Information Management (GGIM); key activities to foster installation of the Global Ocean Monitor System as a marine component of GEOSS; and progresses on the Central American Land Use and Land Cover Map, among others. The National SDI section includes news from Argentina, Chile, Colombia, Costa Rica, Cuba, Jamaica, and Mexico. Among them the Argentinean Law on the mandatory use of a Bi-continental map comprising the Argentinean Antarctica; information on the Aerial Photographs and GIS layers now downloadable from the SINIAT's portal of Chile; the launching of the Colombian Forum on Definition of Custody and Custodian Duties in GI Management; the Design and Implementation of the National Land Information System (SNIT) of Costa Rica; the New Geographic Names Application of Cuba; the launching of the Facebook page GIS Jamaica; and the results of the 3rd Meeting of the Committee

on the National Geographic and Environmental Information Subsystem, Mexico. On the Articles/Publications section are found the launching of the booklet "*Geoinformation for Disaster and Risk Management*" proudly supported by GSDI; and selected papers from the Official GSDI Journals IJSDIR and JOSIS, this time on "*Conceptualizing people in SDI literature*", and on "*Exploring place through user-generated content*". Geospatial research and applications from OAS/Haiti, Belize, Uruguay, and Argentina, are included together with most current OGC standards adoption and the formation of the GeoSynchronization Service Standards Working Group. Lastly, current training and funding opportunities brings information on the GEO Workshop "Earth Observation Support for Sustainable Tourism in Small Island States" to be held in Puerto Rico; the Geosciences for Development Week 2010 in Jamaica; and a course on Ecology and Conservation of Neotropical Rivers, Costa Rica.

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: <http://www.gsdi.org/events/upcnf.asp>

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

Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

Nancy Aguirre cnaquirre@ipgh.org. 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: <http://www.gsdi.org/newsletters.asp>

Editor, Nancy Aguirre, Pan-American Institute of Geography and History (PAIGH), <http://www.ipgh.org>, cnaquirre@ipgh.org

Input to this Issue

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

José Achache
Santiago Borrero
Ellen Hines

Niti Mishra

Abbas Rajabifard
Kenneth Young

GEO Secretariat Director
Secretary General, Pan-American Institute of Geography and History, PAIGH, Mexico
Chair of the IMCC2011 Congress, Associate Professor, Department of Geography and Human Environmental Studies, San Francisco State University, USA
Doctoral Student, Department of Geography and the Environment, University of Texas at Austin, USA
President, GSDI Association
Chair of the Department of Geography and the Environment, University of Texas at Austin, USA

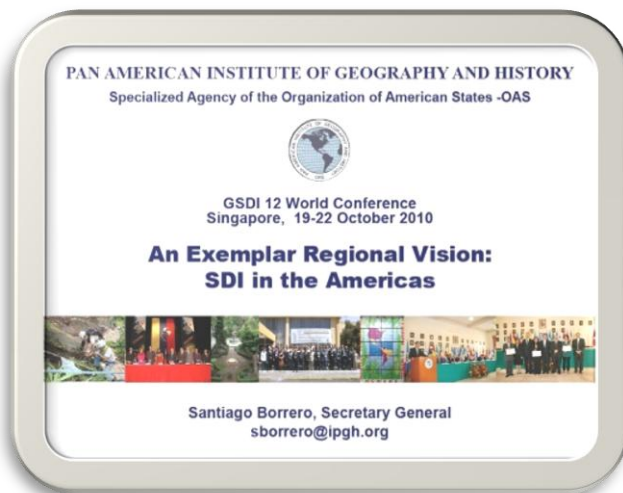
[\(Back to top\)](#)

Global and Regional SDI, News, Presentations

SDI: An Exemplar Regional Vision

By Santiago Borrero, Pan-American Institute of Geography and History (PAIGH). Presentation at GSDI-12 World Conference, Singapore, October 19-22, 2010.

Abstract: The author informs on the current SDI status in the region, in addition to the situation at the national level, giving priority to regional on-going projects, such as the Andean Development Bank (CAF) and the Pan-American Institute for Geography and History's (PAIGH) initiative GeoSUR, an SDI related program of a supranational nature, currently in its third year of implementation and with a good level of success, including a geoportal for South America and a good number of geo services already in place. By comparing with the presentation submitted at GSDI 10 in Trinidad and Tobago, the author explores some trends at the national level and refers especially to two: (1) The need for a sound modernization initiative comprising capacity building at the institutional level, beyond current educational practices, providing new attention to key SDI aspects such as interoperability certification and validation of standards in the Americas; and (2) Reference is made to two different situations, the cases of Chile and Haiti in the context of SDI and natural disasters. Given the need to raise the level of participation within the international geospatial community, including SDI and IGS, the presentation concludes with a reference to this situation in the case of the Americas [The presentation slides are available at: <http://www.gsdi.org/gsdiconf/gsdi12/slides/P3b.pdf>]



Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

[FIG Attends the GSDI-12 World Conference](#)

Source: FIG e-Newsletter, November 2010



The International Federation of Surveyors (FIG) and GSDI signed a Memorandum of Understanding at the FIG Congress in Sydney outlining a framework for co-operation between the two organizations and identifying a range of activities for mutual benefits: The FIG contributions to the Conference are in line with this agreement. The MoU is available at: http://www.fig.net/admin/ga/2010/minutes/app_15_mou_gsd_i_final.pdf. The GSDI-12 World Conference was attended by about 600 participants from 65 countries throughout the world. It included a range of workshops, 5 plenary sessions and 35 technical sessions with about 150 presentations. Proceedings are available at: http://www.gsd_i.org/gsd_i12/. The conference included three Joint FIG/GSDI sessions. Paul Kelly, Chair of FIG WG 3.2 organized a very successful session on SDI and Cities based on the new FIG publication no. 48 on *Rapid Urbanization and Mega Cities: The Need for Spatial Information Management*. The session included three short presentations of Paul Kelly, Halmuth Müller, and Yearch Doytsher, followed by a panel discussion with Abbas Rajabifard, GSDI President, Stig Enemark, FIG president, and Victor KHOO, Singapore Land Authority. Proceedings are available at the conference website under session 4.1. The closing session including a [sum-up presentation of Prof. Ian Williamson](#), Australia, with a very catchy statement: ...Spatially enabled society is about managing information spatially – not managing spatial information...[See also the [Closing Statement of Abbas Rajabifard](#), President, GSDI Association].

[UNSDI Back on Track](#)

Source: <http://www.unsdi.nl/>



United Nations Spatial Data Infrastructure - UNSDI

The United Nations Geographic Information Working Group (UNGIWG) Co-chairs recently sent a message to all UNGIWG members and partners reporting that the outcome of the consultative process they have been engaged in over the past year to move UNGIWG's UNSDI agenda forward has culminated with a majority decision: UNGIWG's decision is to establish the Centre of Excellence for UNSDI under the auspices of the Office of Information Communication Technology (OICT) of the UN Secretariat. They strongly believe that the work of the Centre of Excellence for UNSDI will strengthen the entire UNGIWG community. The message continues: "We have a lot of good work ahead of us and we want to move fast on UNSDI now. To begin with UNGIWG Principals agreed to hold a closed meeting in Geneva on November 29-30 2010 when we focused on developing the roadmap for implementing the Center of Excellence for UNSDI. We will also plan for UNGIWG-11 in March 2011 when new Chair(s) will take over the leadership of UNGIWG." "It is now critical for all of us to unite and channel our energy and resources to make UNSDI successful. We invite all UNGIWG members to become actively engaged in the UNSDI process strengthening the Centre of Excellence for UNSDI helping it begin to produce tangible results to benefit the UN System as well as its partners."

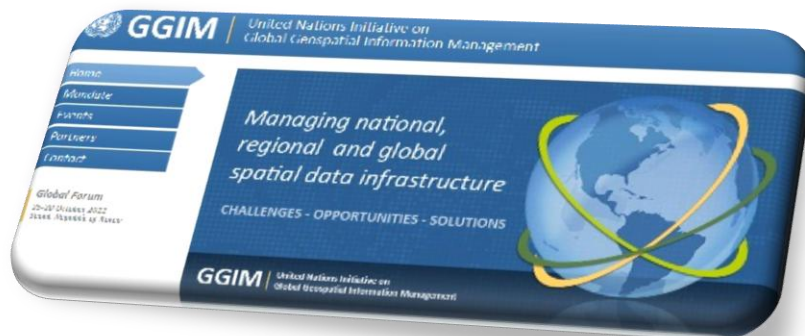
Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

[United Nations Initiative on Global Geospatial Information Management \(GGIM\)](#)

Source: <http://unstats.un.org/>

What is Global Geospatial Information Management? There is general agreement of an urgent need for an inter-government consultative mechanism that can play a leadership role in setting the agenda for the development of global geospatial information and to promote its use to address key global challenges; to liaise and coordinate among Member States, and between Member States and international organizations. In 2009, the United Nations Statistics Division/DESA (UNSD) convened in New York, on the side of the 9th United Nations Regional



Cartographic Conference- Americas (UNRCC-A), an informal consultative meeting with geospatial information experts from different regions of the world and discussed how to better coordinate the various regional and global activities on geospatial information and the related management issues. Subsequently, UNSD, jointly with the UN Cartographic Section, convened two preparatory meetings on Global Geographic Information Management (GGIM) - the first in Bangkok in October 2009, prior to the 18th UNRCC-AP, and the second in New York, in May 2010. At the 18th United Nations Regional Cartographic Conference- Asia Pacific (UNRCC-AP) and the 41st session of the UN Statistical Commission, the issue of global geospatial information management was discussed and the UN Secretariat was requested to initiate discussion and prepare a report, for the approval of ECOSOC on global coordination of geospatial information management, including the consideration of a possible creation of a United Nations Forum on GGIM. In July 2010, Economic and Social Council (ECOSOC) decided to request the Secretary-General to submit to the Council at its 2011 substantive session a report on global geographic information management (see the full text E/2010/L.23); this decision paved the way for subsequent GGIM preparatory activities. [Overview of the UN Initiative on Global Geospatial Information Management \(GGIM\)](#), presented by Mr. Hiroshi Murakami, Co-Chair of the second preparatory meeting on GGIM and Vice-President of the Permanent Committee on GIS Infrastructure for Asia & the Pacific (PCGIAP).

[Scientists Urge Faster Installation Of Global Ocean Monitor System](#)

Source: <http://www.terraily.com/>



Partnership for Observation of the Global Oceans



The ocean surface is 30 percent more acidic today than it was in 1800, much of that increase occurring in the last 50 years - a rising trend that could both harm coral reefs and profoundly impact tiny shelled plankton at the base of the ocean food web, scientists warn. Despite the seriousness of such changes to the ocean, however, the world has yet to deploy a complete suite of available tools to monitor rising acidification and other ocean conditions that have a fundamental impact on life throughout the planet. The Partnership for Observation of the Global Oceans (POGO), representing 38 major oceanographic institutions from 21 countries and leading a global consortium called Oceans United, will urge government officials and ministers meeting in Beijing Nov. 3-5 to help complete an integrated global ocean observation system by target date 2015. It would be the marine component of a Global Earth Observation System of Systems (GEOSS) under discussion in Beijing by some 71 member nations of the intergovernmental Group on Earth Observations. The cost to create an adequate monitoring system has been estimated at \$10 billion to \$15 billion in assets, with \$5 billion in annual operating costs.

Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

OGC offers value-added Membership for Governments around the World

Source: OGC press release

The Open Geospatial Consortium (OGC®) announced a new revised Associate Membership option for local and state/provincial government agencies worldwide. The new OGC GovFuture membership category (<http://www.opengeospatial.org/ogc/join/levels#associate>)



reflects the OGC's increased emphasis on knowledge transfer as OGC standards become widely accepted in the marketplace. The OGC GovFuture membership category includes Local Government and Sub national Government membership levels. It offers public sector organizations an opportunity to learn about and benefit from new developments in geospatial technology, and to understand and address legal and policy issues related to these technology developments. GovFuture provides an opportunity for government organizations across the globe to discuss common issues related to the new level of interoperability enabled by open standards. GovFuture provides a platform for peer-to-peer knowledge transfer among local and sub-national governments to advance wider use of the standards. OGC GovFuture yearly membership fees: GovFuture Local Government USD \$200, and GovFuture Sub national Government USD \$500. Visit the OGC website at <http://www.opengeospatial.org/contact>. Contact: Lance McKee lmckee@opengeospatial.org

[CATHALAC presents progress of Land Cover/Land Use Central American Map](http://www.cathalac.org/)

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



CATHALAC organized the regional workshop to “Verify Progress of Land Cover/Land Use Regional Map and Activities Follow up” aimed at sharing the materials produced for the map, which was held in El Salvador, on November 17-19, 2010. The workshop was held under the Regional Program for the Reduction of Vulnerability and Environmental Degradation (in Spanish PREVDA), within which runs the PREVDA/UGR/SER/14/08 Regional Project "Implementation of Central American Region Integrated Geographic and Hydrometeorological Platform and Practical Applications", run by the CATHALAC/SIMEPAR Consortium. This activity was held in order to obtain feedback from regional specialists while launching the preliminary results of the “Updated Central American Land Use and Land Cover / Change Map” and the definition of 16 land cover and use categories. In addition, during this second consultation workshop, there were two parallel products developed within the project, the "American Atlas for Sustainable Management of the Territory" and the Learning Community for Central America Sustainable Development. The [Learning Community for Central America Sustainable Development](#), and for strategic regional planning, is a virtual forum for discussing and sharing information, data, methodologies, experiences and best practices on processes that affect the territorial configuration and development in Central America.

[INPE Supports Sharing of Satellite Data in the Group on Earth Observations](http://www.mundogeo.com.br/)

Source: <http://www.mundogeo.com.br/>

The National Institute for Space Research (in Portuguese INPE) of Brazil participated in the Group on Earth Observations (GEO), between November 3 and 5 in Beijing, China, and supported the free access to satellite data global policy. The GEO is an intergovernmental organization that brings together 84 countries, the European Commission and 56 international organizations. Brazil supported the free distribution of satellite data, called Data Democracy, and the program on Capacity Building which is being implemented by INPE. Capacity Building encompasses not only data availability, but also building capacity to receive, interpret, and use data, and to easily bring it to end users.

[\(Back to top\)](#)

Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

National SDI, News, Links, Presentations

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

[Agreement between the IGN and Survey Department of Tucumán Province, Argentina](#)

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

On November it was held a deed of agreement between the Director of the National Geographic Institute of Argentina (in Spanish IGN), Liliana Weisert, and the Director General of Cadastre of the province of Tucumán, Dr. Felix Herrero. Both institutions expressed their intention and commitment to the implementation of a methodology for the joint preparation of a series of maps at scale of 1:100,000 covering the territory of the Tucumán province. Thus, it was formally established the cooperation and assistance activities between the parties through the reciprocal exchange of information and knowledge to both entities. The agreement with the General Directorate of Cadastre of the Province of Tucumán is a step in the new integration policy being advanced by the IGN, aimed at the joint production of the national cartography, and geographic and geodetic information.



The agreement with the General Directorate of Cadastre of the Province of Tucumán is a step in the new integration policy being advanced by the IGN, aimed at the joint production of the national cartography, and geographic and geodetic information.

[Law on the Mandatory Use of Bi-continental Map of Argentina](#)

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

The Honorable Senate of Argentina, passed Law 26.651 (dated 10/20/2010), published in the Official Gazette No. 32.029 (dated 11/16/2010), which makes it mandatory to use at all levels and modalities of the educational system, and the public display in all national and provincial agencies, of the bi-continental map of Argentina. No longer will it be seen in schools, that the representation of Antarctica is just a small triangle to the right margin of the map. Now, with the map prepared by the National Geographic Institute, it is shown the Argentinean Antarctica in its real proportion in relation to the continental and insular sectors. The bill passed shows the Argentinean Antarctica following the Isla Grande de Tierra del Fuego, including its current boundaries.

[NATIONAL TERRITORIAL INFORMATION SYSTEM OF CHILE \(SNIT\)](#)

[Aerial Photographs and GIS Layers Downloadable from SINIAT Portal, Chile](#)

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

From the website of the National Territorial-Environmental Information System (in Spanish SINIAT), of the Ministry of Environment, you may download free aerial photographs and information layers (shapefile) related to environmental issues. These include among others: Information on soil erosion (Source: CONAMA (2002), Scale 1:250,000); and digital aerial photographs at scale of 1:115,000 of the area between the Fourth and Ninth Chilean Regions. The only restriction on the use of this information is to cite the source of information which is the Ministry of Environment, and the year of production. Territorial SINIA may be accessed at: <http://territorial.sinia.cl>



[COLOMBIAN SPATIAL DATA INFRASTRUCTURE \(in Spanish ICDE\)](#)

First Diffusion Workshop on the SIG-OT Project, Colombia

Source: <http://www.igac.gov.co>

The first workshop for designing the Geographic Information System for Planning and Territorial Ordering (in Spanish SIG-OT) Strategic Diffusion Plan, developed by the Colombian Geographic Institute "Agustin Codazzi" (in Spanish IGAC), was held on October. SIG-OT is developed in the framework of the Colombian Spatial Data Infrastructure (in

Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

Spanish ICDE). Progress was made in the definition of the project's publishing and media strategies for optimizing its use by partner institutions, and for supporting decision makers at all levels in easy and quick ways without needing a GIS platform. In SIG-OT, users may find in single web page information needed for planning and managing the environmental, economic, social, cultural and institutional development. User-friendly information at no cost is represented by maps with integrated analyses and reports at <http://sigotn.igac.gov.co/sigotn/>. The SIG-OT program aims to strengthen the culture of using geographic information in public policy drafting and management, primarily related to territorial development and administration processes. The above goes together with the consolidation of a coordinating agency that could facilitate decision making by national and territorial planning authorities. Applications of this system include supporting territorial ordering processes in all regions, allowing the identification of development inequalities, and supporting the definition of policies and strategies in all sectors. It also enables the public spending assessment according to priorities identified by the above authorities



[Forum on Definition of Custody, and Custodian Duties in Geographic Information Management](#)

Source: <http://www.icde.org.co/>

Within the strategy of strengthening the regulatory framework laid down in CONPES 3585 of 2009, it is the need for defining guidelines for geographic information products' custody, including the duties of institutions as information custodians in order to allow regulated management processes. These guidelines are intended to:

- Define the concept of custodian and custody in the context of the Colombian Spatial Data Infrastructure (in Spanish ICDE)
- Establish basic rights and duties of custodians of geographic information products
- Determine allocation processes, control, monitoring and reallocation of custodians

For the ICDE is very important to learn different views on the applicability of rules on geographic information products' custody: its definition, duties and allocation processes. Therefore, we invite the community to participate in the Forums on the Definition of Custody, and the Definition of the Custodian Duties, which are considered essential elements of the geographic information management processes:

[Key Elements for the Definition of the Term Custody](#)

[Main Duties of the Custodian](#)

PROGRAM FOR REGULARIZATION OF CADASTRE AND REGISTRY, COSTA RICA– UNDER CONSTRUCTION

[Design and Implementation of National Land Information System \(SNIT\), Costa Rica](#)

Source: <http://www.uecatastro.org/>

The Program for Regularization of Cadastre and Registry in Costa Rica, Component 1, includes the National Land Information System (in Spanish SNIT), which will go together with the SIRI (Property Registry Information System). The SNIT will enable exchange of spatial information between all institutions requiring it. SNIT is intended to be the platform for territorial administration, so as to allow proper territorial planning, use and control. SNIT will be an open system that allows access to the data contained therein, in a simple and clear WEB platform in order to ensure universal access to spatial data. Likewise, SNIT will enable a high degree of interoperability with other information systems, for it is based on standards allowing such condition. The SNIT is viewed primarily as a Spatial Data Infrastructure (SDI), and therefore it must be understood as the sum of policies, standards, organizations and technology resources that facilitate the collection, use and access of the country's geo-referenced information. This system will have a national character and hence its importance as an aid to decision making in the country's economic and social development. The SNIT will enable municipalities' access to the cadastral-registry database contained in SIRI, with the aim of combining the basic information layer information for consolidating other purposes of land registration, mainly the fiscal and administrative measures that are the municipalities' competence. Given the information demand and interest on SNIT's products, a pilot implementation is in progress based on available cartographic information and will include other products such as Value Homogeneous Areas, and other sources of information.



Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

[SPATIAL DATA INFRASTRUCTURE OF THE REPUBLIC OF CUBA \(IDERC\)](#)

[Now Available New Geographic Names Application, Cuba](#)

Source: <http://www.iderc.co.cu/>

The National Office of Hydrography and Geodesy and the National Geographical Names Committee have a publication titled *The Dictionary of Geographical Names*; the result of several years of work on data collection and research on place names is contained therein. For each place name there is a brief description. It was developed a web application capable of managing the Cuban Geographic Names Dictionary that offers a graphical interface where users perform searches in an intuitive way. Users may specify different attributes such as name, and type or location of the entity, for which they want to perform the query. This is done by sending the gazetteer service an HTTP request containing all information relating to the search. In addition, the application displays the geographic entities that have been returned by that service in an easy and user-friendly way, allowing users to interact with the application. The primary objectives of this project are to improve and expand services in the Spatial Data Infrastructure of the Republic of Cuba (in Spanish IDERC). These results will allow wider access to IDERC - which is already increasing -, thus helping to disseminate and share the country's cartographic heritage.



[NATIONAL SPATIAL DATA INFRASTRUCTURE OF JAMAICA \(NSDI\)](#)

GIS Jamaica

Source: <http://www.licj.org.jm/>

GIS Jamaica now may be visited at their Facebook page at: <http://www.facebook.com/GIS.Jamaica>. GIS Jamaica is being promoted by the Land Information Council of Jamaica. It is designed for people who have a love affair for Geography and the technology behind it.



[GIS Business Executive Forum in Kingston, Jamaica](#)

Source: <http://www.jis.gov.jm/>

The fourth annual GIS forum held on November 10, 2010 in Kingston, Jamaica, was organized by the National Spatial Data Division in the Office of the Prime Minister under the theme: "Seeing the 'S' in GIS: Sharing, Solving, Sustaining". National GIS Coordinator, Cecille Blake, said that the annual forum aims to sensitize the public about the importance of GIS technology. "We thought it was important to have an annual event to try to sensitize other members outside of the GIS fraternity of what GIS is all about and to also learn something new in an ever changing and evolving area of discipline in the spatial sciences," Miss Blake said. She noted that GIS technology allows for persons or organizations to "collect, analyze, manage and share information to support decision making." Some of the topics discussed at the forum include: GIS on Blackberry; the new age of GIS: doing more with less; GIS and the national plan and GIS for traffic management.

[MEXICO, NATIONAL STATISTICAL AND GEOGRAPHIC INFORMATION SYSTEM \(in Spanish SNIEG\)](#)

[Third 2010 session of the Executive Committee of the National Geographic and Environmental Information Subsystem, Mexico](#)

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

On November 18, 2010 it was held the third meeting of the Executive Committee of the National Geographic and Environmental Information Subsystem in Mexico City. After a follow-up of agreements, the Technical Standard on Geographical Addresses and the Standard on Basic Statistics Production were presented. Reports on other draft standards submitted for consultation to the State Units such as the National Geodetic System, Positional Accuracy Standards, Development of Geographic Metadata, and Cadastral Data Production and Integration, were also p. As for the National Statistics and





Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

Geography Program 2010-2012, it was informed on its publication in the Official Journal of the Federation (DOF), on October 14, 2010; which is of great importance because it directs both SNIEG's development and information production, aimed at having best knowledge of the country's territory and its economic, social and environmental realities.

[\(Back to top\)](#)

Articles and Publications of the Month

Geoinformation for Disaster and Risk Management

Source: Abbas Rajabifard by way of Santiago Borrero
GSDI Association has proudly supported and contributed to the production of booklet for "Geoinformation for Disaster and Risk Management" published by Joint Board of Geospatial Information Societies and United Nations Office for Outer Space Affairs. This booklet explores the current role of geospatial information and technologies for disaster management and emergency response with broad range of examples and provide directions on future applications. It also offers impetus for emergency relief teams, local administrators and international coordinating response teams to further develop applications of geospatial information and technologies for disaster management and emergency response. Available from this website:

[http://www.isprs.org/documents/announcements/Geoinformation for Disaster and Risk Management.pdf](http://www.isprs.org/documents/announcements/Geoinformation%20for%20Disaster%20and%20Risk%20Management.pdf)

Conceptualizing People in SDI Literature: Implications for SDI Research and Development

By Christine Richter, Gianluca Miscione, and Yola Georgiadou. Article under review of the *International Journal of Spatial Data Infrastructure Research (IJSDIR)*, Vol. 5 (2010).

Abstract: People have always played an important role in SDI research. SDI researchers discuss in their papers the role of people explicitly or refer to people implicitly and from different angles. For example, they view people as users of SDI, as evaluators, as learners of SDI, as champions driving development, among others. In this article, we conduct an interpretive analysis of 142 peer-reviewed articles on SDI research from 1999 to 2010 and classify these on the basis of how SDI researchers view people. Our classification of the literature reveals that our field does not yet engage deeply in the everyday work of people as practitioners: planners, policy makers, and administrators. We discuss the implications for research of a shift in perspective towards "people as practitioners," that is in

their relation to the things, objectives and rationales that underlie their day-to-day work. To illustrate the relevance of these questions to SDI research and development we draw on our own empirical data from a seven month qualitative study of urban planning practices in southern India and on empirical findings and literature outside of mainstream SDI [The complete article may be found at: <http://ijsdir.jrc.ec.europa.eu/index.php/ijsdir/article/view/178/241>]

Exploring Place Through User-generated Content: Using Flickr tags to Describe City Cores

By Livia Hollenstein, and Ross Purves. Article published in the *Journal of Spatial Information Science (JOSIS)*, No 1 (2010)

Abstract: Terms used to describe city centers, such as Downtown, are key concepts in everyday or vernacular language. This article explores such language by harvesting georeferenced and tagged metadata associated with 8 million Flickr images and thus consider how large numbers of people name city core areas. The nature of errors and imprecision in tagging and georeferencing are quantified, and automatically generated precision measures appear to mirror errors in the positioning of images. Users seek to ascribe appropriate semantics to images, though bulk-uploading and bulk-tagging may introduce bias. Between 0.5--2% of tags associated with georeferenced images analyzed describe city core areas generically, while 70% of all georeferenced images analyzed include specific place name tags, with place names at the granularity of city names being by far the most common. Using Flickr metadata, it is possible not only to describe the use of the term Downtown across the USA, but also to explore the borders of city center neighborhoods at the level of individual cities, whilst accounting for bias by the use of tag profiles [The complete article may be found at: <http://www.josis.org/index.php/josis/article/view/13/26>]

[\(Back to top\)](#)

Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

Geospatial Research,
Applications, Software, Data

[MTOP Launched Digital Survey Maps Service, Uruguay](#)

Source: <http://www.mtop.gub.uy/>



The National Land Survey of the Ministry of Transportation and Public Works (in Spanish MTOP) of Uruguay launched on November the digital, high-quality cadastral maps for the metropolitan area (Montevideo, Canelones and San Jose) since 1970. These survey maps are graphic documents required for cadastral acts aimed at determining, confirming or adjusting pertinent geometric and legal aspects. A total of 104,868 images of digitized maps, from which 28,399 (from 1965 to 2007) belong to the Department of Canelones, 8,499 (from 1963 to 2005) to San Jose, and 67,970 (from 1971 to 2009) to Montevideo, will be useful for stakeholders. The metropolitan area survey maps are available via internet at www.dntopografia.gub.uy to facilitate data query. It will also be possible to access digital images of survey maps across the country and of the metropolitan area before 1970 in a lower resolution.

[OAS and the Government of Haiti Receive Funds from the Private Sector for Cadastral Project](#)

Source: <http://www.mundogeo.com.br/>

The Organization of American States (OAS) and the Haitian Government announced on November the contribution by the private sector for US\$1.5 million for the Haiti Foncier cadastre project, prepared by the ONACA (National Cadastre Office) and the international organization. According to a statement released by OAS, the contribution from the companies Stewart Global Solutions, ESRI and Trimble Navigation, will soon allow the Government of Haiti to obtain hardware and software through Foncier Haiti, as well as training and consulting services. The OAS said this contribution is in addition to the strategic work that the institution has been advancing on cadastre and registration since June this year in Haiti. The OAS Secretary General, Jose Miguel Insulza, recalled the importance of the cadastre modernization in Haiti. "Less than five percent of the land is recorded or registered, and while there are only traditional customs, there is no possibility of attracting foreign investment," said Insulza. He added that the completion of the project will impact the country's economic development, particularly crucial after a devastating earthquake on January 12. The project Foncier Haiti, for the cadastre and property rights infrastructure modernization, has the technical support of experts and institutions such as the Directorate General for Cadastre of Quebec, the National School of Public Administration of Quebec (ENAP), GeoQuebec, Stewart Global Solutions and the Institute for Liberty and Democracy (ILD). The project is scheduled to be implemented in two phases which will be held for a period of seven years.

[Belize Savannah Ecosystem Map](#)

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



Savanna Ecosystem Assessment Belize 2009-2012

Is a [project](#) by Edinburgh University, Royal Botanic Garden Edinburgh, the University of Belize, Belize Botanic Gardens, Program for Belize and other institutions is completing a [Map of Savannah Ecosystems in Belize](#). The team

Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

combined SPOT and ALOS PALSAR data, and also utilized IKONOS and LandSat imagery. Field checking is still ongoing and the final revision is expected out in March 2011, but the 1st and 2nd links mentioned above provide details of the work and results. The project is also building up local capacity in GIS in Belize, and a variety of resources should also become available for GI professionals to access in the coming year. This project follows one by the EEO in 2008 estimating [carbon sequestration using radar imagery](#), projects on mangroves and forests in Belize to provide a body of current, quantitative work on remote sensing in the neotropics.

[First Workshop on the National Interactive Atlas of Argentina \(ANIDA\)](#)

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

In order to create a participatory environment for exchange and discussion between experts, local researchers and social managers, the National Geographic Institute of Argentina (in Spanish IGN) organized the First National Workshop on the Interactive Atlas of Argentina (ANIDA). On November 17 and 18 at headquarters of the IGN, it was held this event as a space for reflection on new concepts, methodologies, and production and knowledge dissemination tools, for the territorial spaces. Experts from different agencies met with the aim of designing and building a National Atlas to analyze, explain and interpret the socio-spatial reality of Argentina, from the most relevant maps at different scales. The National Atlas should be a scientific tool for policy management, directed towards the country's geographic depiction for a harmonious and sustainable development that will guarantee the future generations welfare.

[OGC Announces Web Coverage Service 2.0 Standard](#)

Source: <http://www.opengeospatial.org/>

The Open Geospatial Consortium (OGC®) announces adoption and availability of the OGC Web Coverage Service (WCS) Interface Standard, Version 2.0. The WCS 2.0 standard is available for free download at <http://www.opengeospatial.org/standards/wcs>. The OGC WCS 2.0 standard defines a standard interface and operations that enable interoperable access to geospatial coverages. "Coverages" (<http://www.opengeospatial.org/ogc/glossary/c>) are digital geospatial information representing space/time-varying phenomena, such as sensor data, satellite imagery, digital elevation models, and climate/ocean data. Services implementing this standard provide an interface with a standard set of operations for accessing original or derived sets of geospatial coverage information. An important aspect of the WCS standard is that it allows access and retrieval of raw, unprocessed data, which is often required by rendering and processing services. Further information can be found at the WCS Service page of the OGC Network (<http://www.ogcnetwork.net/wcs>).



[OGC Forms GeoSynchronization Services Standards Working Group](#)

Source: <http://www.opengeospatial.org/>

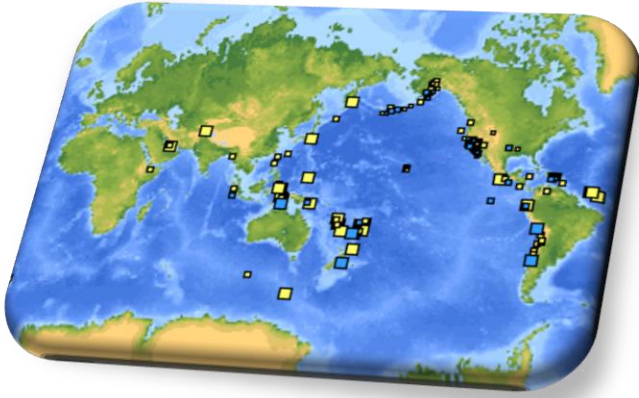
The Open Geospatial Consortium (OGC®) announces the formation of a GeoSynchronization Service Standards Working Group (SWG) (http://portal.opengeospatial.org/files/?artifact_id=39476). Frequently, geospatial content providers must collaborate with outside entities to collect new data and/or update their existing data holdings. This may be the case, for example, when municipal, state/provincial and/or federal agencies synchronize their data with closest-to-source providers. Another case is when content providers are crowd-sourcing (see <http://en.wikipedia.org/wiki/Crowdsourcing>) their data production or supporting Volunteer Geographic Information (VGI). There is a need for an open interface to services that mediate interaction between geospatial data providers, the content repositories, and the external entities acting as data collectors. The service must support data entry with validation and notification of changes to interested parties, and also must allow replication of the data content submitted to multiple repositories. The OGC Candidate GeoSynchronization Service Standard describes an open standard interface to a software service that allows data collectors to propose changes to be made to a data provider's geospatial features (such as data about property lines, city population, vehicle location, etc.). A change proposal can be made to create new data or to modify/delete existing data. Proposed changes are reviewed (either manually or automatically) and are either accepted or rejected. Accepted changes are applied to the appropriate repositories. The service also maintains a log of all changes applied to each feature. Charter Members of the new standards activity are CubeWerx, The Carbon Project, GeoConnections - Natural Resources Canada, U.S. Army Geospatial Center (AGC), U.S. Geological Survey, Ministère des Ressources Naturelles et de la Faune du Québec (MRNF), and the U.S. National Geospatial-Intelligence Agency (NGA).

Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

[Global Earthquake Alerts to Include Economic Loss and Casualty Information](#)

Source: <http://www.usgs.gov/>



Estimated economic loss and casualty information will now be included in earthquake alerts sent out by the U.S. Geological Survey (USGS) following significant earthquakes around the world. These earthquake alerts are widely recognized and used by emergency responders, government and aid officials, and the public to understand the scope of the potential disaster and to develop the best response. The USGS automated system, PAGER (Prompt Assessment of Global Earthquakes for Response), rapidly assesses earthquake impacts by estimating the shaking distribution, the number of people and settlements exposed to severe shaking, and the range of possible fatalities and economic losses. The estimated losses trigger the appropriate color-coded alert, which determines levels of response: no response needed (green); local or regional (yellow), national (orange) or international (red). "The two

recent earthquakes in Haiti and Chile are good indications that earthquake magnitude alone is not a reliable predictor of human and economic loss," said Dr. Marcia McNutt, director of the USGS. "The smaller magnitude 7.0 Haiti earthquake caused significantly more damage and loss of life than did the larger magnitude 8.8 Chile earthquake. PAGER is designed to rapidly and automatically take into account the differences in proximity to populated areas, depth of the earthquake, and building standards that are so critical in determining the human and economic toll so that emergency responders can act promptly and accordingly." PAGER results are generally available within 30 minutes of a significant earthquake, shortly after scientists determine the location and magnitude of the event. PAGER also provides important supplementary information, including comments describing the dominant types of vulnerable buildings in the region, fatality reports from previous nearby earthquakes, and a summary of regionally specific information concerning the potential for secondary hazards, such as earthquake-induced landslides, tsunamis and liquefaction. [PAGER](#) results are available on the [Earthquake Hazards Program website](#). Users who wish to receive customizable magnitude and location-based earthquake alerts can sign up for the [USGS Earthquake Notification Service](#)

[\(Back to top\)](#)

Training and Funding Opportunities, Awards

GEO Workshop "Earth Observation Support for Sustainable Tourism in Small Island States", Puerto Rico

Source: José Achache by way of Santiago Borrero



The GEO Coastal Zone Community of Practice regional workshop (CZCP) on Earth Observation Support for Sustainable Tourism in Small Island States will be held in San Juan, Puerto Rico, on March 9-11, 2011. The workshop aims to facilitate a dialog between the providers of Earth observations and derived information on the one side, and a

Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

wide range on the other of stakeholders of tourism in small island states with a particular focus on the Caribbean regions. The dialog will focus on the specific needs, challenges, and capabilities related to sustainable tourism while exploring how Earth observation-based services could support decision making related to all facets of tourism. The topics covered include improving the sustainability of tourism through Earth observations, sustaining tourism under climate change, using Earth observations to enhance relationships and support resolution of conflicts between tourism and environment/ecosystems, increasing and sustaining the economic value of tourism, and augmenting resilience of tourism through support for planning and information on environmental impacts and coastal hazards. Please see the [Letter of Invitation](#) and the [Scope and Expected Outcomes](#) of the workshop. Additional details and registration information may be obtained from the workshop website (http://www.czcp.org/workshops/Puerto_Rico).

[Geosciences for Development Week 2010](#)

Source: <http://www.jis.gov.jm/>



President of the Geological Society of Jamaica (GSJ), Gavin Gunter, says that activities for Geosciences for Development Week 2010 were largely focus on legislation. Mr. Gunter said that the lack of a specific legislative and regulatory framework relating to the practice of geosciences in Jamaica is a major concern, because public safety, as it relates to both life and property, can be greatly impacted by the proper application of the knowledge of geosciences. November 15 to 19 has been declared Geosciences for Development Week by Governor General, His Excellency the Most Hon Sir Patrick Allen. In 2011, the GSJ will observe the 50th anniversary of the University of the West Indies (UWI) Geology Department. To mark the event, the GSJ and the department plan to host a conference that will provide an opportunity to reunite persons who have been trained in the geological sciences at the UWI.

Ecology and Conservation of Neotropical Rivers, Costa Rica

Source: Kenneth Young

This two-week course is oriented towards graduate students and early career conservation scientists from both U.S. and Latin American institutions with interest in applied research on current conservation issues for Neotropical rivers. The course will be held at La Selva Biological Station, with field trips to the surrounding Sarapiquí River basin. This region offers opportunity to observe diverse river types and aquatic biota along elevational and longitudinal riverine gradients. Additionally, as in many parts of the tropics, rivers in the Sarapiquí basin are increasingly being altered as a consequence of human activities. Partial need-based scholarships may be available to Latin American applicants. When and Where: La Selva Biological Station, Costa Rica. Course dates: May 8 - 22, 2011. Arrive May 7, depart May 23, 2011 Application Deadline: **February 1, 2011** for priority admission, followed by rolling admission until fully enrolled. For registration contact: Barbara Lewis barbara.lewis@ots.ac.cr. For course content contact: Elizabeth Anderson elizabeth.anderson@fiu.edu.

[\(Back to top\)](#)

Employment Opportunities

[STATIN accepting applications for Census Takers, Jamaica](#)

Source: <http://www.jis.gov.jm/>

The Statistical Institute of Jamaica (STATIN) is now accepting applications from suitably qualified persons to fill the posts of Census Takers for the 2011 Population and Housing Census. STATIN is urging Jamaicans from across the island to offer themselves for this project, as the Census is essential for effective development planning and one of the most important statistical endeavours that a country undertakes. The 2011 Population and Housing Census, which is themed: "Every one Counts You, Me, All a Wi!", will begin on April 4, 2011 and last until July 2011. More information [here](#).

Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

[Postdoctoral Scientist, University of Alaska, Anchorage](#)

Source: <http://www.gjc.org/>



Post Doctoral Fellow for interdisciplinary research related to spatial analysis, modeling, and visualization of social-ecological systems. The successful candidate will work with social and environmental scientists in analyzing and visualizing social and ecological data as part of an NSF-funded study on water and society in the North. Requirements include a PhD degree (already received, or having completed requirements) in interdisciplinary spatial or quantitative analysis of the environment (e.g., anthropology, geography). The successful candidate should have familiarity with GIS, remote sensing and/or agent-based modeling, with preference for individuals with data visualization skills. Candidates should have the ability to work independently while functioning as part of a close-knit research team. Publications on social or ecological analysis, mapping, modeling, or visualization are a plus. The position is based in Anchorage, Alaska, and will include regular visits to Fairbanks, Alaska for collaboration. Opportunities for 4-6 week fieldwork in remote areas of Alaska. Preferred start date is **January 12, 2011** but is negotiable. To apply, go to www.uakjobs.com and click on the "Advanced Job Search" button; input #0060111 in the "Posting Number" box. Click on "View" and follow the steps to apply. Also send CV and cover letter to anhm1@uaa.alaska.edu. Call (907) 786-7765 for more information or for assistance applying.

FAO Department of Natural Resources Management and Environment offers two positions

Source: FIG e-Newsletter, November 2010

[Senior Land Administration Officer \(IT\)](#): Deadline for applications: **15 December** 2010. The Senior Land Administration Officer will be responsible for the provision of high-level advice on Information Technology in support of the ongoing programme of land registration and cadastre projects and for the design and preparation of innovative projects addressing the new challenges of the information age in the Europe and Central Asia (ECA) region.

[Land Tenure Officer](#): Deadline for applications: **15 December** 2010. Duties and responsibilities of the position include among others: to contribute to FAO's program on land tenure and land administration to support food security and rural development; monitor key developments in land tenure and land administration, and provide guidance in areas of technical specialization; Support member countries in the analysis and formulation of policies on land tenure and land administration; and define and develop information products including technical and policy reports, guidelines and manuals for land tenure and land administration.



[\(Back to top\)](#)

Other

[Recovery in Saint Lucia](#)

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



Saint Lucia has set about getting broken infrastructure and other problems caused by Hurricane Tomas fixed. If you could offer any assistance please contact the Saint Lucia [NEMO](#) and get maps of the situation on the [MapAction website](#).

Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

[Gil Grosvenor: Why We Need Geography](#)

Source: Niti Mishra

During Geography Awareness Week 2010, National Geographic Society Chairman of the Board Gil Grosvenor discusses why effective democracy requires geographic literacy, and other benefits of a thorough geographic education.

[\(Back to top\)](#)

Americas: Conferences, SDI Events

[2nd International Marine Conservation Congress](#)

Source: Ellen Hines



The 2nd International Marine Conservation Congress: Making Marine Science Matter, will be held from 14-18 May 2011 at the Victoria Convention Centre, Victoria BC, Canada. For additional information please log on to the IMCC web site: <http://www.conbio.org/IMCC2011/> or contact the program committee at IMCCprogram@gmail.com

will host the Conference under the theme “CDM: Strengthening Partnerships for Resilience”.

[GEOProcessing 2011](#)

Source: <http://www.iaia.org/>



The Third International Conference on Advanced Geographic Information Systems, Applications, and Services

GEOProcessing 2011
February 23-28, 2011 - Gosier, Guadeloupe, France

GEOProcessing 2011: The Third International Conference on Advanced Geographic Information Systems, Applications, and Services, February 23-28, 2011 - Gosier, Guadeloupe

General page:

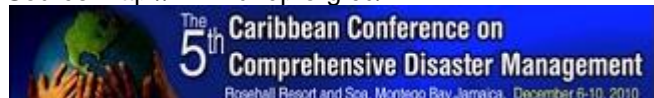
http://www.iaia.org/conferences2011/GEOProcessing1_1.html

Extended versions of selected papers will be published in IARIA Journals: <http://www.iaiajournals.org>. The topics suggested by the conference include concepts, state of the art, research, standards, implementations, running experiments, applications, and industrial case studies on: Geo-spatial fundamentals, GIS, Geo-spatial simulation and visualization, Geo-modeling, Digital cartography data, Earth Geo-observation, Geo-sensing, Geo-spatial domain applications, and Managing geo-spatial data.

[\(Back to top\)](#)

[5th Caribbean Conference on Comprehensive Disaster Management](#)

Source: <http://www.undp.org/cu/>



Montego Bay (Jamaica), December 6-10, 2010. The Caribbean Conference on Comprehensive Disaster Management is celebrating five years as the signature disaster management event in the region. This year the Caribbean Disaster Emergency Management Agency (CDEMA), in association with its partners, and in collaboration with the Office for Disaster Preparedness and Management (ODPEM), Jamaica,

YEAR 2010

[Year 2010](#) January February March April May June July August September October November [December](#)
[Year 2011](#) [January](#) [February](#) [March](#) [April](#) [May](#) [June](#) [July](#) August September October [November](#) December

DECEMBER 2010

1	Salvador BA, Brazil	National Seminar - Documentation of Architectural Heritage with the Use of Digital Technologies
2-3 *NEW*	Praia da Costa, Vila Velha ES Brazil	Southeast Regional Seminar: National Directions for Multipurpose Territorial Cadastre (MTC)
1-4	São Paulo SP, Brazil	II International Symposium New Paths to Cartography within Geography
4 *NEW*	Campinas SP, Brazil	Updated Wokshop on Geo-referencing Further information: rita@cpetecnologia.com.br

Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

5-12	Florianópolis, SC, Brazil	15th International Biometric Conference
6-7	Montego Bay, Jamaica	The Fifth SIG Caribbean Conference on Comprehensive Disaster Management
NEW		
6-10	Port of Spain, Trinidad and Tobago	URISA's 5th Caribbean GIS Conference
12-17	Uberlândia MG, Brazil	II Brazilian Symposium on History of Geographical Thought
NEW		
14-17	Foz de Iguaçu, Brazil	Third Symposium on Spatial Statistics and Modeling Pictures III - SEEM 2010
17	Pres. Prudente SP, Brazil	Annual GEGE 2010 - Study Group on Space Geodesy
NEW		

YEAR 2011

[Year 2011](#) [January](#) [February](#) [March](#) [April](#) [May](#) [June](#) [July](#) [August](#) [September](#) [October](#) [November](#) [December](#)

JANUARY 2011

19-21	Washington DC, USA	ESRI Federal User Conference (FedUC)
-------	--------------------	--

FEBRUARY 2011

2-4	Washington DC, USA	ESRI Federal User Conference (FedUC)
7-9	New Orleans LA, USA	International LiDAR Mapping Forum
7-11	La Havana, Cuba	VII International Congress GEOMATICS 2011
23-24	Redlands CA, USA	2011 ESRI California/Hawaii/Nevada Regional User Group Conference
23-28	Gosier Guadeloupe, France	GEOProcessing 2011: The Third International Conference on Advanced Geographic Information Systems, Applications, and Services

MARCH 2011

6-8	Palm Springs CA, USA	2011 ESRI Worldwide Business Partner Conference (BPC)
7-10	Palm Springs CA, USA	2011 ESRI Developer Summit
21-24	Myrtle Beach SC, USA	Coastal GeoTools 2011
28-31	Fresno CA, USA	17th Annual California GIS Conference - Meeting California's Challenges

APRIL 2011

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
Apr.30 - May 5	Curitiba PR, Brazil	XV Brazilian Symposium on Remote Sensing (SBSR)

MAY 2011

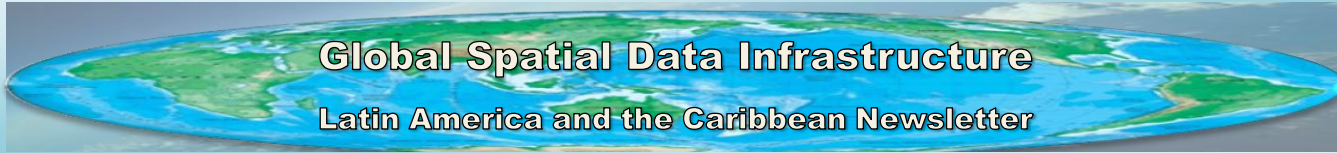
1-5	Milwaukee WI, USA	ASPRS 2011 Annual Conference "Ride On The Geospatial Revolution"
2-4	Jacksonville FL, USA	2011 ESRI Southeast Regional User Group
11-14	Paraty, Brazil	I Brazilian Symposium of Historical Cartography
14-18	Victoria BC, Canada	International Marine Conservation Congress
19	Botucatu SP, Brazil	II Symposium on Geostatistics Applied to Agrarian Sciences
19-24	Washington DC, USA	Second International Marine Conservation Congress - Making Marine Science Matter
NEW		
23-25	Washington DC, USA	COM.Geo 2011: 2nd International Conference and Exhibition on Computing for Geospatial Research and Application
NEW		
25-27	Toluca, Mexico	XIII Latin American Conference on Geographic Information Systems (CONFIBSIG) E-mail: confibsigXIII@uaemex.mx

JUNE 2011

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)



Global Spatial Data Infrastructure

Latin America and the Caribbean Newsletter

NOVEMBER 2011

14-18

Santiago, Chile

[UGI 2011 Regional Geographic Conference](#)

YEAR 2012

MAY 2012

14-17

Quebec City, Canada

[GSDI-13](#)

[\(Back to top\)](#)

Please mention SDI-LAC as source of information in any correspondence you may have on items on this issue

To subscribe to SDI-LAC, please do so online at:
<http://www.gsd.org/newslist/gsdsubscribe.asp>
Nancy Aguirre, PAIGH, Editor cnaguirre@ipgh.org
Global Spatial Data Infrastructure Association,
<http://www.gsd.org>

DISCLAIMER:
GSDI, PAIGH and the Editor will not be held liable for any errors, mistakes, misprints or incorrect information. Copyright © 2010. All rights reserved.