Global Spatial Data Infrastructure
Latin America and the Caribbean Newsletter

SDI-LAC **July 2009** **Vol. 6, No. 7**

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.

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.

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Message from the Editor

Now, SDI-LAC Newsletter is available in Portuguese! Portuguese Translation of SDI-LAC is possible thanks to Eduardo Freitas-Oliveira, a cartographic engineer, MSc in GIS, editor of MundoGEO Web Portal and InfoGEO Magazine.

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 Nancy Aguirre cnaguirre@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, cnaguirre@ipgh.org

Input to this Issue

Thank you for their contributions to this issue of the SDI-LAC newsletter to:

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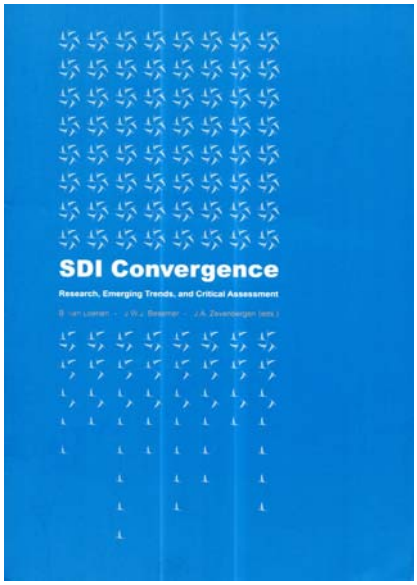
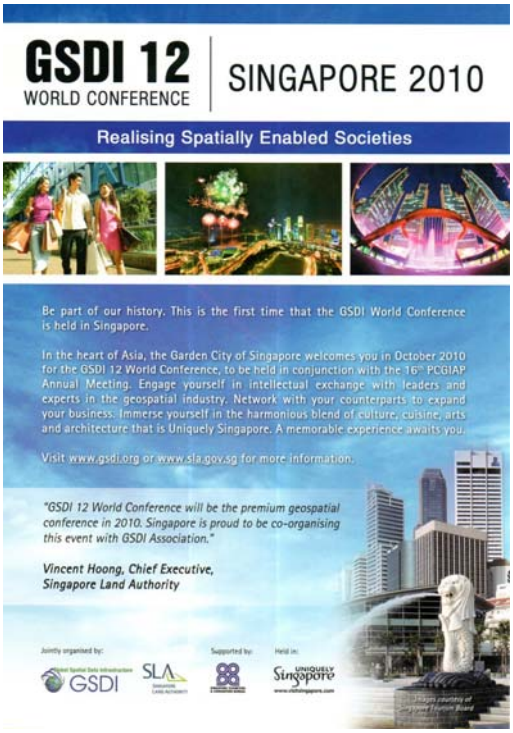
SDI News, Links, Papers, Presentations

Joint GSDI-11 / INSPIRE / Geonovum RGI Word Conference a Success!

The joint GSDI-11 / INSPIRE / Geonovum RGI World Conference held in Rotterdam, the Netherlands, on June 15-20, 2009 was a great success; and the newly established GSDI's Outreach and Membership Committee, Chaired by Mark Reichardt of the Open Geospatial Consortium (OGC) and Co-Chaired by John Moeller, will soon make available the post-Conference Report. In the meantime, the geospatial community is already looking forward to participating in the GSDI-12 World Conference that will take place on October 18-22, 2010 in Singapore.



A book containing various peer reviewed articles was distributed to all who registered to the joint World Conference. "This book is a collaborative initiative of the Global Spatial Data Infrastructure Association (GSDI), the European Commission's Joint Research Centre, the European Umbrella Organization for



Global Spatial Data Infrastructure
GSDI

Geographic Information (EUROGI), the Dutch Innovation Programme Space for Geo-Information (RGI) and Geonovum, the Netherlands SDI Executive Committee. In addition to the traditional call for papers for the joint GSDI-11 / INSPIRE / Geonovum RGI conference "Spatial Data Infrastructure Convergence: Building SDI Bridges to Address Global Challenges" contributions of full articles were solicited for publication in this peer reviewed volume. In several instances, the articles submitted addressed the theme of the conference. In others they stuck to the more traditional fields of SDI. The reviewing process resulted in twenty articles that together can be summarized as Spatial Data Infrastructure Convergence: Research, Emerging Trends, and Critical Assessment. These topics are represented well in this volume" (p.vii).

GSDI-11 Parallel Session 2.10: Regional Newsletters Open Meeting

GSDI Regional Newsletters Open Meeting during GSD11 World Conference was moderated by Al Stevens, Santiago Borrero, Abbas Rajabifard, and Hussein Farah. It allowed, discussing face to face suggestions for coordinating efforts towards improving or expanding the newsletters and related services, between editors and collaborators to the GSDI Regional Newsletters. Short term tasks were agreed which would be reflected in the future newsletters' form and contents. We want to increase direct contributions of the geospatial community to the newsletters and to broaden the group of correspondent members of different countries in these regions. We welcome your suggestions and comments to continuously improving our newsletters. Please send your comments directly to the regional newsletter's editors (Editor SDI-LAC Newsletter: Nancy Aguirre cnaguirre@ipgh.org).

GSDI-11 Parallel Session 6.1 on National Experiences of Latin America

GSDI-11's Parallel Session on National Experiences of Latin America and the Caribbean was a success! It was moderated by Santiago Borerro, Secretary General of the Pan American Institute of Geography and History (PAIGH). The session included four presentations from nationals of Chile, Cuba, Mexico and Trinidad Tobago. The moderator asked presenters to share their main challenges and achievements on advancing SDI initiatives in their countries. Perceptions on main challenges included: the need for increasing governmental awareness on developing SDIs; conducting bottom-up SDI approaches; and the partial understanding on constructing SDIs in small (island) countries. Responses to main achievements included: increasing capacity building; the establishment of alliances; and accomplishing of legal frameworks at highest national levels. Recommendations on issues that could help increasing political support to SDIs included: developing sound SDIs models for main stakeholders, and taking advantage of any opportunity that could lead to raising awareness in those grounds. This session helped sharing ideas, best practices and concerns about current SDIs developments in the LAC region [Papers on these presentations may be found at http://www.gsdi.org/gsdi11/prog_details.html].

GSDI Photo Report
Source: http://www.gim-international.com/
Last week Rotterdam (Netherlands) provided the venue for the 11th GSDI Conference, themed “Building SDI Bridges to Address Global Challenges”. About 1,200 delegates heard keynote speakers, attended workshops and informal meetings, and contributed to the sharing of knowledge about geospatial data infrastructures and their uses. A lively trade show offered opportunities to learn about various service providers. Go to the Photo Album

SDI Cookbooks
Source: http://caribbean-gis.blogspot.com/
The latest Global Spatial Data Infrastructure Conference (GSDI-11) ended in June in Rotterdam. This event could be a good marker for time elapsed in the building of a Spatial Data Infrastructure(s). Has there been sufficient progress? Can people in various parts of the world say that there's an infrastructure serving them or some of their needs as yet? Here are a couple of resources for those still trying to get an SDI up and running:
GSDI Cookbook version 2 (English); version 1.1. (Spanish)
Open Geospatial Consortium (OGC) Cookbooks - WMA and WFS
Center for Spatially Integrated Social Science (CSISS) GIS Cookbook - Methods in ArcView and ArcGIS from the University of California (SB)
Philippines Housing & Land Use Regulatory Board GIS Cookbook - Written from a User perspective

19th General Assembly and Consultative Technical Meetings of PAIGH
Source: http://www.ipgh.org/

The 19th General Assembly and Consultative Technical Meetings of the Pan American Institute of Geography and History (PAIGH) will be held in Quito, Ecuador, on October 26-30, 2009. Detailed information, including the schedule of events is available at http://www.ipgh.org/19-Asamblea-General/default.htm

4th ICG Session Concludes in Martinique
Source: NEMO News, Santa Lucia
Significant progress has been made towards the establishment of a Caribbean Tsunami and other Coastal Hazards Early Warning Centre (CTWC) and that of a Caribbean Tsunami Information Centre (CTIC). This was announced on June 5, at the conclusion of the 4th Session of the Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE EWS-IV) in Fort de France, Martinique (Caribbean region). Chairman of the ICG, Dr. Lorna Inniss of Barbados, reiterated the body's commitment to the establishment of the CTWC by 2010 and acknowledged a phased approach offer by the USA to determining the feasibility of hosting the Centre in Puerto Rico. Regarding the establishment of CTIC, she stated that Barbados had led the ICG member states in endorsing the establishment of the Centre and reiterated its commitment to entering into negotiations with the IOC on the initial tasks towards its successful launch in the region. She further revealed that funds

have already been identified under the United Nations Development Programme and within the IOC budget for the start up of the Centre. It urged states to work to standardize national protocols and operating procedures to reduce response time and to inform the development of response protocols based on the results of the Caribbean Disaster Emergency Response Agency (CDERA) Tsunami and Coastal Hazards Warning System Project.

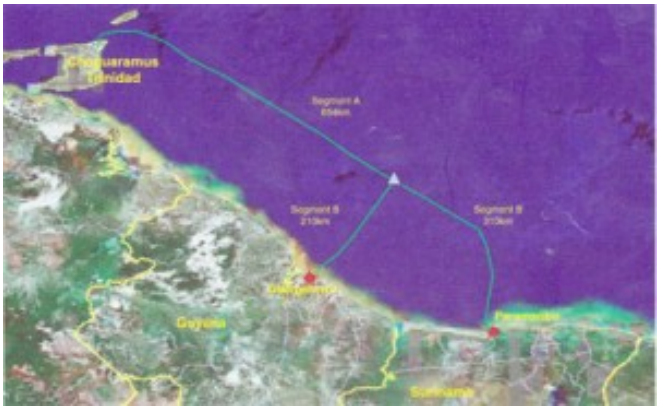
New website of the Spatial Data Infrastructure Coordinating Committee of Peru

Source: Max Lazaro

The new website of the Spatial Data Infrastructure Coordinating Committee of Peru (in Spanish CCIDEP) is available at: http://www.ccidep.gob.pe. CCIDEP is currently advancing processes for the generation of geographic information catalogs, and will soon issue their directives. The site includes information about CCIDEP Data and Services, Standards and Metadata, Training, links to other Websites and Events, among others. Section on Liaison Portals to projects is relevant and includes 1) the IDEP Portal Version 0.0 which will display data and services developed by the various participating institutions, following an inter-institutional pilot project; and 2) the Spatial Information Integrator System on MapServer version 0.1, which integrates various WMS spatial information layers.

New fibre optic cable will put Guyana on brink of ICT breakthrough

Soure: http://www.stabroeknews.com/



As the Guyana Telephone and Telegraph Company (GT&T) continues to work towards its deadline of the second quarter of 2010 for the operationalizing of a new multi-million dollar fibre optic cable to service the country's telecommunications sector, the company's Chief, Joe Singh, has told that the completion of the project will place the country's Information and Communications Technology (ICT) sector on the threshold of a significant breakthrough. Singh said that the local telecommunications company's US$30m investment in the new cable system will, among other things, create the long-awaited additional and cheaper bandwidth that is critical to the expansion of the country's ICT sector. "The cable will help realize everything that the President has been saying about a national ICT strategy, including the creation of an Information Technology village, marketing Guyana as a destination for the establishment of Call Centres; retooling the system of administration using e-governance; dealing with and addressing issues like Distance Learning. All of these things will be facilitated because of the reliability, capacity, redundancy and affordability arising from the installation of the cable," Singh said. While the benefits of the new fibre optic cable could still be a year away, GT&T has already initiated a programme to sensitize both the public and private sectors to its potential to enable the enhanced application of IT to the various facets of national life.

Barbados embraces ICT
Source: http://www.itweb.co.za/
A cabinet subcommittee has been established to develop a comprehensive Information Communication Technology (ICT) plan for Barbados. The Barbados Advocate Minister of Health, Donville Inniss, says the committee represents the major economic sector inclusive of health and education and was created because government recognized the need for a national approach to integrating ICT in its developmental programmes and strategies. The Ministry has made significant headway in formulating an ICT policy through the work of an information management and information technology task force.

New name of the IGM, Argentina
Source: http://www.prosiga.gob.ar/

Bienvenido al Instituto Geográfico Nacional
República Argentina
Ministerio de Defensa | Secretaría de Planeamiento

Upon Decree 554/2009 of the President of the Republic of Argentina, published in the Official Gazette 31665, the name of the Military Geographic Institute (IGM) has changed for National Geographic Institute (IGN) as of May 18 this year. The Decree also appointed Liliana Weisert as the new Director General of IGN.

Now ready regulatory policies that govern technology and telecommunications, Colombia
Source: http://www.eltiempo.com/
Colombia finally adopted the so-called Law of Information and Communications Technologies (ICT) which establishes a new regulatory framework for telecommunications. This initiative, is the result of ten years of analysis inside the Ministry of Communications and Industry, and becomes the Government's reference for public policy development on ICTs.

Regional Government of Atacama officially launches first national Geonode, Chile
Source: http://www.snit.cl/
On June, in the city of Copiapo, of the Atacama Region, was officially launched the "Geonodo" already available to all users as a platform for publishing online territorial information to state institutions and the general public. Geonodo is a tool developed by the Executive Secretariat of the National Territorial Information System of Chile (SNIT), whose main objective is to enable institutions publishing spatial information which can be loaded and deployed locally, providing further information published on the SNIT's Geoportal central node. This is a first step to building a web based national network of digital cartography, information exchange and publication. In the short term, other state institutions will join this important initiative for the production and publication of spatial information through the Web. The Atacama Geonodo may be found at: www.goreatacama.cl

SNIT visited Chilean Magellan and Antarctic Regions

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

On May 2009, a SNIT delegation traveled to the Magellan region as part of its coordination system work plan. A technical regional meeting took place with participation of more than thirty representatives of the City and Regional Services in Punta Arenas, who presented progresses of the SNIT's work plan. The implementing o the Geoportal and other products developed by the entity that coordinates the national land information were shown. Pertinent activities ended with a training and dissemination workshop on the National Catalog, where participants created and published metadata files. Attendees were also trained on information management, and mapping publishing tools within the "Geonodo".

SDI for the Island of La Palma, Spain

(Article by J.A. Bermejo Dominguez and A. Anguix, of Cabildo Insular de La Palma)
Source: GeoConnexion, *Geo: International* Magazine (http://www.geoconnexion.com/)

The Spatial Data Infrastructure of the island of La Palma involves collaboration, training and information dissemination. One of the basic building blocks for Spatial Data Infrastructure (SDI) is establishing cooperation between the various producers, integrators and users of data. In the case of the SDI of La Palma, the Cabildo Insular de La Palma, as the governing body of the SDI, is well aware of this challenge and is mitigating it by establishing a framework of mutual cooperation agreements with the various public administration entities in the island, and agreements that promote a variety of actions [The complete article may be found at http://www.geoconnexion.com/uploads/sdilapalma_intv8i6.pdf].

Australian Geospatial Economic Impact Report Update

Source: http://www.directionsmag.com/
In November 2007, ACIL Tasman, an economic consultancy in Australia, released a ground-breaking study on the impact of geospatial technology on the Australian Gross Domestic Product (GDP). That report stated, "The impact on GDP in 2006-07 of the spatial information industry is estimated to range between $6.43 billion and $12.57 billion for the quantifiable lower bound and estimated realistic scenario respectively." Alan Smart, lead author of the report, said: "We have not rerun the economic assessment for Australia. However, a new set of data from the Australian Bureau of Statistics revealed that the revenue from the industry had increased from around $926 million in 1998-1999 to $2,223 million in 2005-2006".

Handbook of Research on Geoinformatics

Source: http://www.icde.org.co/
See the electronic version of this publication by Hassan A. Karimi, which highlights the need of research to facilitate semantic interoperability of SDIs' services and to streamline activities at the institutional level. This book is available at: http://books.google.com/books?id=CQ5If9TQQ-EC&printsec=copyright&dq=spatial%2Bdata%2Binfrastructure&lr=#PPP1,M1

Invitation to ISDE 6

Source: ISDE6 Secretariat
You are cordially invited to attend the 6th International Symposium on Digital Earth (ISDE6) with the theme of Digital Earth in Action and to visit Beijing, China in September 9-12, 2009. Digital earth is a virtual representation of our planet and a global initiative aimed at harnessing the world's data and information resources to develop a virtual 3-D model of

the Earth in order to monitor, measure, and forecast natural and human activity on the planet. More information at: http://www.isde6.org/

Call for Papers - First Call: Terra Cognita 2009 Workshop
Source: UCGIS list

This is a 5 hour workshop on Monday, October 26, 2009. Submissions: **24 July**. The goal of this workshop is to bring together researchers in an increasingly growing field of Semantic Web research - geospatial semantics and applications. Enabling synergy between Semantic Web and geospatial researchers encourages spatially-related semantic research on formal methods and better knowledge representations as well as the use of geospatial semantics in applications. First call for papers for Terra Cognita 2009 Workshop http://asio.bbn.com/terracognita2009/. In Conjunction with the 8th International Semantic Web Conference, (ISWC 2009), http://iswc2009.semanticweb.org/, near Washington, D.C., U.S.A.

2nd World Copyright Summit
Source: http://www.copyrightsummit.com/

Some 500 delegates from more than 55 countries attended the 2nd World Copyright Summit held on June 9-19 in Washington D.C. The future of copyright is a hotly reported and debated issue as the digital era poses many challenges that affect all creators and creative industries. The 2nd World Copyright Summit was a 2 day event where the shape and impact of the new creative, economic, technological and legal environment were discussed.

What is the Role of Education in Building a Digital City?
Source: http://www.vector1media.com/
"Education plays a key role in the development of a digital city. New technologies, new approaches, changing social patterns and improved infrastructure are important aspects of a digital culture. The journey is already under way and we can see parts of it in terms of geospatial products and services as well as communication technologies. But for the highest levels of digital cities to take shape will also require suitable policies, funding and commitment." The complete article may be found at: http://www.vector1media.com/dialogue/perspectives/what-is-the-role-of-education-in-building-a-digital-city?/ [Written by Jeff Thurston, editor Europe, Middle East & Africa].

Presentations and Recordings - Open Source GIS UK Conference 2009
Source: Suchith Anand

For those of you unable to attend the conference, the presentations and recordings will be available on the OSGIS 2009 Conference site http://www.opensourcegis.org.uk/ after the conference for the benefit of the wider Geospatial Community.

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Articles and Books of the Month

Changing Notions of a Spatial Data Infrastructure
By Ian Masser (Article and refereed book chapter presented to the Joint GSDI-11/ INSPIRE/ Geonovum RGI Word Conference, held on June 15-20, in Rotterdam, The Netherlands)
Abstract by the author
This article examines some of the changes that have taken place in the notion of a Spatial Data Infrastructure (SDI) over the last 15 years. The discussion is divided into five parts. The first of these considers the impacts of innovations in communications and information technology during this period on the nature of SDIs. The second examines the changes that have taken place in the conceptualization of SDIs while the third discusses the changing nature of SDI implementation in the context of the concepts of multi level governance that have been developed by political scientists. Underlying this discussion is the realization that SDI development and implementation is very much a social process of learning by doing. This process is explored in the fourth section of the article with reference to the experience of the State of Victoria in Australia. The concluding section of the article considers the challenges facing SDI implementation and identifies a number of dilemmas that have yet to be resolved [The complete article may be found at: http://www.gsdi.org/gsdi11/papers/pdf/375.pdf].

Small Islands Spatial Data Infrastructure
By Alan Mills (Published by GeoConnexion, *Geo: International* Magazine, June 2009 http://www.geoconnexion.com/)
Excerpts from original article
GIS for Spatial Data Infrastructure (SDI) is used throughout the world to instill cooperation and collaboration in spatial data to better address social, economic and environmental issues. It seems logical that large countries like the United States have invested in SDI, such as the GeoSpatial One-Stop and unions come together to share data and resources via the Infrastructure for Spatial Information in Europe (INSPIRE). Does SDI make sense for smaller countries and communities? Arguably, even smaller nations benefit from land ownership being carefully mapped, public works and utilities documented, environments and biodiversity protected, and resources assess and strategic planning completed. Thanks to special funding through the joint United Kingdom Foreign Office/Department for International Development (DFID) Environment Programme, a group of UK Overseas Territories and the Organization of Eastern Caribbean States are able to rely on GIS for SDI; using the solution for data quality and control, information sharing and delivering finished products for use between governmental agencies and private organizations. Calling themselves “tiny SDI”, these small islands use ArcGIS as the backbone for spatial data sharing [The complete article may be found at: http://www.geoconnexion.com/uploads/smallislands_intv8i6.pdf].

Building Data Infrastructures at the Local Level
By Tatiana Delgado Fernández and Rafael Cruz Iglesias (Delgado, T. and Cruz, R. 2009. *Construyendo Infraestructuras de Datos a Nivel Local*. Havana, Cujae)
Excerpts from the introduction by the authors (translation)

During year 2008 the project "Spatial Data Infrastructure to support the local level" has progressed. It is a project sponsored by the United Nations Development Program, aimed to develop a Spatial Data Infrastructure (SDI) at the local level, as a pilot stage for "deployment" of territorial SDIs in Cuba, upon Agreement No. 5535 of the Executive Committee of the Council of Ministers that created the National Spatial Data Infrastructure of the Republic of Cuba (in Spanish CIDERC) and guides its deployment at local levels: provinces and municipalities. The book is divided into five chapters. The first, relates to a definition based on five perspectives that explain an SDI approached as a business, the information contained, services involved, distribution of these services, and technologies to be used. In the second approach, the definition focuses more on the distinction regarding infrastructure systems and networks, with a strong emphasis on the coordination aspects. A third chapter is devoted to laying bare the current state of the Spatial Data Infrastructure of the Republic of Cuba from its legal framework, and a set of core projects that are now being faced. Fourth chapter seeks to cover methods of building a SDI at the local level (provincial), which can be used as a guide to current aspects faced by the provincial commissions of SDIs in Cuba; describing some challenges IDERC must confront to enhance the deployment of local SDIs from a "top down" perspective; as well as some characteristics of "bottom up" approaches, where the crucial role is of local players and in particular the users of geographic information. Finally, some conclusions are offered as a summary of the most important aspects covered in the book highlighting key messages for the reader.

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Geospatial Research and Applications

Global Roads Open Access Data Set (gROADS) Solicits Improved Roads Data
Source: Alex de Sherbinin
The current lack of high quality public domain roads data in Latin America has seriously hampered disaster response by humanitarian agencies and resulted in many inefficiencies as organizations have had to obtain proprietary data or build their own roads data to suit specific applications (e.g. for development research, regional planning, etc.). The Global Roads Open Access Data Set (gROADS) is an initiative of the International Council of Science's CODATA Global Roads Working Group that seeks to fill this gap. gROADS has been endorsed by the Global Spatial Data Infrastructure Association (GSDI), GISCorps of the Urban and Regional Information Systems Association (URISA), and the United Nations Global Alliance on Information and Communication Technology for Development (UN-GAID). The goal is to create a global roads data set that is: (a) globally consistent (using the UNSDI-Transport data model); (b)

spatially accurate (~50m positional accuracy); (c) topologically integrated; (d) up-to-date; (e) well documented; and (f) freely distributed but with acknowledgement to those who have contributed to its creation.

As a first step in creating this data set, gROADS is soliciting spatially accurate data with at least minimal attribute information (e.g., specification of road type or quality) for inclusion in gROADS. gROADS is creating the infrastructure necessary to update these data in a distributed manner, so that those who contribute data can expect, within a three to four year time frame, to see improvements to their original dataset through the inputs of a wider community. These data will then be available to their organization/agencies as well as others who may have need of updated data. Semi-automated means for facilitating distributed contribution of GPS tracks and digitizing tracks off of imagery are both being pursued as well as efficient means for gathering information about road characteristics. Any enhancements will be clearly documented in terms of the source of the updates. Thus, contributors obtain continuing visible credit for any contributions because each data source will be documented in the accompanying data documentation. Furthermore, organizations will be listed as a supporting data contributors on the gROADS Web site. You may highlight on your own website that your organization is a recognized official contributor of gROADS, and your organization will be granted authority to use the trademarked gROADS contributor logo in conjunction with this statement.
For more information, or to contribute data, please contact Alex de Sherbinin at CIESIN, Columbia University, at adesherbinin@ciesin.columbia.edu and tel. +1-845-365-8936, or visit http://www.groads.org.

CATHALAC launches first comprehensive Tropical Carbon Stock Monitoring System
Source: CATHALAC List

The Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC, Spanish acronym) proudly announces the launch of the Tropical Carbon Stock Monitoring System (TROPICARMS 2.0.). TROPICARMS 2.0 is a simple, easy to use monitoring tool which provides end users with the latest information on land carbon stocks within the world's tropical ecosystems. It includes three interlinked dynamic modules covering monitoring, modeling and reporting of carbon stocks. The development of this system represents an important step towards addressing the carbon monitoring needs of resource managers, investors, policy makers alike. TROPICARMS 2.0 takes a multi-scale approach, providing a modular framework for measuring and periodically reporting on carbon storage at the local, national or regional scales. The System also addresses the carbon stored both above and below ground, and across varying climatic zones, altitudes, terrains, and soils. It can also provide carbon stock projections based on policy and climate change scenarios. For more information visit www.cathalac.org or contact: Jennifer Croston, Development and International Cooperation Officer, e-mail jennifer.croston@cathalac.org, Phone + 507-3173200 ext. 245, fax +507-3173299, or contact us at tropicarms@cathalac.org.

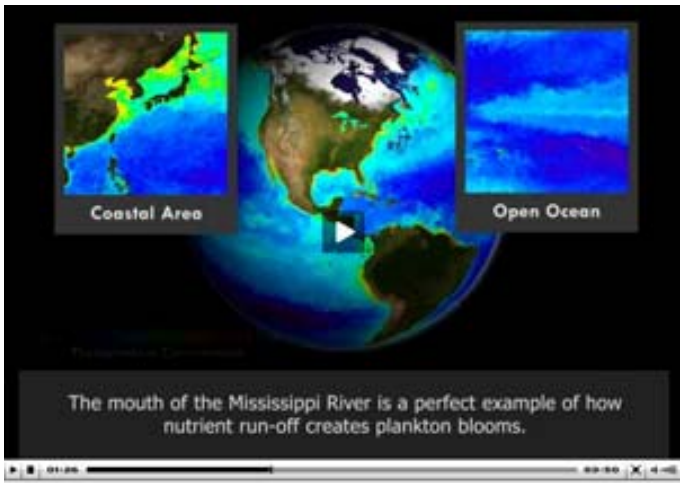
MESA: Improving predictability of the South American monsoon systems
Source: Kate Lance

The annual cycle of precipitation over tropical South America features distinct wet and dry seasons between the equator and 25°S. Many areas within that region receive more than half of their annual rain during the austral summer, the "monsoon season". The Monsoon Experiment in South America (MESA), a component of the WCRP-CLIVAR/GEWEX programme on monsoon research, will focus on understanding the main characteristics and variability of the South American monsoon systems to improve its predictability on timescales spanning from diurnal to interannual and longer. See MESA Science and Implementation Plan http://www.clivar.org/organization/vamos/Publications/MESA_ImplementationPlan_April_2009.doc

State of Play of the Operational and Legally Bound Spatial Planning SDI in The Netherlands
Arie Duindam, Ron Bloksma, Hennie Genee, Jeroen van der Veen (Article and refereed book chapter presented to the Joint GSDI-11/ INSPIRE/ Geonovum RGI World Conference)

Abstract
In the period 2000 to 2006, much work was carried out to prepare an SDI for spatial planning information in the Netherlands. From 2006 onwards, the implementation of this infrastructure has taken place by means of a dedicated E-Government programme. The Spatial Planning SDI (SP-SDI) is now being implemented at three governmental levels and will be fully operational by the end of 2009. This paper gives an in-depth overview of crucial aspects of this thematic SDI. The operational characteristics of the SP-SDI at three separate governmental levels are described. Moreover, the development of new national legislation as a supporting fundament of the SDI is discussed. The new Spatial Planning Act forces national, provincial and local governments to publish digital geographic datasets as authentic sources of information. Another main topic is the standardization processes that have taken place in the field of spatial planning in the Netherlands over the last nine years. A crucial force underpinning the success of this process was the involvement of a broad range of stakeholders over a sustained period. As a result, the spatial planning standards have come to the maturity level required to implement an operational SDI. The last major area is the development of Spatial Planning Online, a national spatial planning facility. A web portal and a set of web services have been implemented to provide aggregated and cartographic information as well as an interface to the national SDI of the Netherlands and Inspire. Furthermore, a national validation service based on the spatial planning standards has been developed to assure operational interoperability. This paper gives an overview of all necessary collaborations to make the infrastructure work. For each topic above, crucial success factors as well as the most important lessons learned are discussed, with a focus on operational requirements. The knowledge accumulated over the last decade could be of great benefit for other SDI initiatives, and national and regional SDIs may derive important drivers for their own realization from this experience.

NOAA Forecast Predicts Large "Dead Zone" for Gulf of Mexico this Summer



Source: http://www.noaanews.noaa.gov/

A team of National Oceanic and Atmospheric Administration NOAA-supported scientists from the Louisiana Universities Marine Consortium, Louisiana State University, and the University of Michigan is forecasting that the "dead zone" off the coast of Louisiana and Texas in the Gulf of Mexico this summer could be one of the largest on record. The dead zone is an area in the Gulf of Mexico where seasonal oxygen levels drop too low to support most life in bottom and near-bottom waters. Scientists are predicting the area could measure between 7,450 and 8,456 square miles, or an area roughly the size of New Jersey. However, additional flooding of the Mississippi River since May result in a larger dead zone. The largest one on record occurred in 2002, measuring 8,484 square miles. The information is available on the NOAA's Gulf of Mexico Hypoxia Watch Web page. The objective of Hypoxia Watch is to develop new near-real-time data and map products using shipboard measurements of bottom-dissolved oxygen and to disseminate them over the Internet. These products form the basis for summertime advisories to fishermen in the North-central Gulf of Mexico, indicating where fish and other living marine resources may not be found due to low or non-existent oxygen levels. An animation is available at: http://www.nnvl.noaa.gov/MediaDetail.php?MediaID=84&MediaTypeID=2

Tools for Coastal Marine Ecosystem-Based Management and Geographically Referred Data Integration – The Santos Region Case Study

Silvia Maria Sartor, Anne Sartor Palm, Lia Palm, Eduardo Jun Shinohara, Jose Alberto Quintanilha (Article presented to the Joint GSDI-11/ INSPIRE/ Geonovum RGI Word Conference)

Abstract

This paper proposes an SDI data integration model with the focus on facilitating the knowledge and management of coastal regions. It is focused on the Santos Basin Region (Brazil), integrating information from a variety of sources, including all that is available about vegetation, geomorphology, biodiversity, transportation links, hydrodynamic patterns, hydrography, housing, pollution, and social resources. A multidisciplinary team developed a data bank gathering previously existing information. That information covers nine municipalities and 246 km of coastline. Linked to geography this product acts as a shared information bank that can be accessed and managed, improving the examination and monitoring of the areas. Furthermore, studies are being integrated in a SDI tool, to make sure the data bank will be systematically updated. This study shortens the time to analyze and understand the ecosystem, and helps to define new areas to be protected. A case study about layers integration as a tool to improve management policy in Ecological-Economic Zones (EEZ) is presented.

USGS: Good Resource During Hurricane Season

Source: http://spatialnews.geocomm.com/

When hurricanes strike, you can find critical information to help protect lives and property at the U.S. Geological Survey (USGS) hurricane Web site (http://www.usgs.gov/hazards/hurricanes/). The USGS hurricane Web site highlights important storm information, such as flood levels; pictures of the coastline before and after the storm; information on

the timing, extent and magnitude of storm tide; and much more. USGS research and analysis supports the National Oceanic and Atmospheric Administration (NOAA), which is responsible for monitoring and issuing warnings for hurricanes and tropical storms in the United States and its territories. Science to forecast hurricane impacts is a collaborative effort among various organizations.

New Programs Put Crime Stats on the Map
Source: http://online.wsj.com/
Many crime sites, including CrimeReports.com and CrimeMapping.com, began sprouting up in 2007, with the launch of Google Maps. The Web sites are free for consumers. An Internet-enabled mapping service that provides satellite images for most urban areas, Google Maps gave crime mapping a cost-effective foundation. The crime-mapping services were then able to focus exclusively on software that recognized addresses and build systems capable of pulling data from police records. The Web services remain small -CrimeReports.com says it has 70,000 users and CrimeMapping.com says it has 3,000 users- but consumers who use them say the services have made them feel safer.

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GIS Tools, Software, Data

Recent Information Layers added to IGM's Geoportal, Ecuador
Source: http://www.geoportaligm.gov.ec/
On June 2009, the Military Geographic Institute of Ecuador (IGM) has included in its web portal more than 18 gravimetric circuits of the Fundamental Gravimetric Network of the country, various Vertical Control lines, and a Map on the Ecuadorian Infrastructure at scale of 1:250.000. For detailed information on each of these layers please log on to: http://www.geoportaligm.gov.ec/

CatMDServices now available
Source: GeoSpatiumLab and the Advanced Information Systems Group from the University of Zaragoza by way of Javier Zaragoza-Soria

CatMDServices – OpenSource project at OSOR.eu

We proudly announce that the new application CatMDServices is officially available under an open source license. It has been developed by GeoSpatiumLab and the Advanced Information Systems Group from the University of Zaragoza with the sponsorship of IGN (National Geographic Institute, Spain). CatMDServices is a Web application for describing and searching web services by means of metadata.
The tool has been implemented with J2EE and GWT technology and has the following features:

- Multi-platform (Windows, Unix). As it has been developed with J2EE and the storage of metadata records is managed directly through the file system, the application can be deployed in any platform with the requirements of having installed Tomcat and a Java virtual machine. On the client side users only need a web browser with Javascript support.
- Multilingual. The application has been developed following the Java internationalization methodology. Nowadays, there is support for Spanish, English, French, Portuguese, Catalan, Galician and the Basque language. With little effort, other languages can be supported.
- Description of services by means of metadata in compliance with the metadata implementing rules of the INSPIRE directive. The metadata model proposed follows the guidelines for mapping the metadata implementing rules to ISO 19115/19119.

- Web services searching of metadata stored in the local metadata repository according to different criteria such as the geographic extension of the data provided by the service, the keywords, the service type or the services provider.
- Automatic metadata generation from the "getCapabilities" operation supported by a service that complies with the OGC Specifications (WMS, CSW, WFS, WCS or WPS).
- Thesaurus and controlled list utilities to facilitate the edition of metadata. This enables metadata creators to use them in order to fill in some metadata elements. The use of controlled keywords facilitates the mapping between a selected vocabulary and a large collection of records.
- On-line help.

CatMDServices can be downloaded from OSOR at the following web sites:
https://forge.osor.eu/projects/catmdservices/ ; http://catmdservices.forge.osor.eu/

MapServer 5.4.1 is Released
Source: http://mapserver.org/

MapServer 5.4.1 has been released. See the Change log for more details and head to Download to obtain a copy. MapServer is a project of the Open Source Geospatial Foundation. MapServer is an Open Source platform for publishing spatial data and interactive mapping applications to the web. Originally developed in the mid-1990's at the University of Minnesota, MapServer is released under an MIT-style license, and runs on all major platforms (Windows, Linux, Mac OS X). The MapServer Project Steering Committee (PSC), sanctioned by OSGeo, manages and administers the project which is maintained, improved, and supported by developers from around the world. MapServer is not a full-featured GIS system, nor does it aspire to be.

Geomajas.org to Unveil Version 1.4.0 of Open Source, Web-based, Editable GIS Software
Source: http://spatialnews.geocomm.com/

Developers from Belgium have released today Geomajas version 1.4.0. This new version is the stable release of version 1.3.0, announced in September 2008. Geomajas is the open source GIS software enabling geographical editing and support for complex relation models in the web browser. The software has an open architecture enabling easy sharing, integrating and updating of GIS data on multiple servers. Geomajas can be used to build web-mapping applications providing GIS solutions which have a need for complex analysis, editing and integration of geographic data. Geomajas 1.4.0 can be downloaded for free via www.geomajas.org Also on the website a technology demonstration can be found showing how Geomajas becomes a full desktop application inside a browser.

Internet in Braille
Source: http://www.institutodeengenharia.org.br/
The reading and writing for people with visual impairment occurs mainly through the system invented by the Frenchman Louis Braille (1809-1852). It is an alphabet whose characters are indicated by points in relief, distinguished by the touch. The six salient points allow 63 possible combinations to represent letters simple and bold, scores, numbers, musical notes and algebraic signs. A research project, conducted at the State University 'Paulista' (UNESP) in São José do Rio Preto, has developed a console in Braille to enable access for visually impaired people to the content of Web sites. The work aims at building an electromechanical device, reconfigurable in real time, capable of displaying all the different signs of the Braille alphabet in a matrix of points that rise and descend on a surface of reference. The project is in the process of building the hardware.

Discovering cities with the Google Transit Layer
Source: http://google-latlong.blogspot.com/
Earlier this year, we announced the launch of the Transit Layer, a feature that makes it easier for citizens and tourists around the globe to access public transportation line information in their cities. We're continuously expanding the coverage of Transit Layer, and have added support for transit systems in China, Japan and Russia, which are some of the most complex and remarkable metro lines in the world. The Transit Layer is not only useful to plan a visit, but also to see a city's history, structure of transportation systems, and daily life.

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Training Opportunities

First SIRGAS School on Reference Systems, Bogota, Colombia
Source: Claudio Brunini and Laura Sánchez by way of PAIGH's Pan-American Network

As an initiative of the Working Group II SIRGAS (SIRGAS-WGII: Geocentric Datum), the first SIRGAS School on Reference Systems will take place next July in Bogota, Colombia. This School is sponsored by the Pan-American Institute of Geography and History (PAIGH) and the International Association of Geodesy (IAG). It is oriented to producers and users of precise geodetic data in the SIRGAS member countries. Its central objective is to strengthen the fundamental concepts associated with Geodesy of Reference. This includes:

- Geodetic reference systems and frames;
- Determination of coordinates based on Global Navigation Satellite Systems (GNSS);
- Relationship between the heights obtained from GNSS positioning and those derived from geodetic leveling;
- SIRGAS: Geocentric Reference System for the Americas;
- Availability and use of the SIRGAS products.

The SIRGAS School on Reference Systems will take place between 13 and 17 July 2009 at the Oficina Centro de Investigacion y Desarrollo de Informacion Geografica (CIAF) at the Instituto Geografico Agustin Codazzi (IGAC), Bogota, Colombia. Attendance to the School is free of charge, but is limited to one hundred (100) participants. The registration from, as well as details about agenda, content, lecturer, and travel conditions for entry to Colombia are available at the website: http://www.icde.org.co/web/guest/sirgas

Course on Spatial Data Infrastructures-SDI's, Colombia
Source: http://www.icde.org.co/

The aim of this course is to inform professional participants on the meaning of Spatial Data Infrastructure (SDI), the development context, components, initiatives and progresses at different levels, in order to understand the importance of standardization in geographic information management, and the impact of SDIs in promoting production, exchange, access and use of geographic information for social, economic and environmental territorial development. The course will be held on September 7- 18. Registration deadline is **August 14**. More information at: http://www.icde.org.co/web/guest/ides.

Hazard and Risk Assessment of Natural Disasters, Bolivia
Source: ITC Alumni Coordinator

Application Deadline is **July 2**, 2009. The annual short course "Threat and Risk Assessment for Natural Disasters" will be organized at CLAS, Bolivia (6 - 24 July). The theory part of this course will cover concepts on disasters, risk, vulnerability, hazard and elements at risk. The use of spatial data for hazard, vulnerability and risk assessment will be dealt with in group exercises. Specific hazards as landslides, flooding and earthquakes will be lectured in more detail later on in the course. Exercises from the "Risk-City" course are mainly used for this course. For more information: http://www.itc.nl/education/courses/course_descriptions/_pdf/C09-NRS-IME-01.pdf
For application: http://www.clas.umss.edu.bo/cursos/formulario_riesgo.asp

Workshop on Spatial Data Infrastructure (SDI) 2009, Ecuador
Source: http://www.geoportaligm.gov
This Spatial Data Infrastructure (SDI) 2009 Workshop has the objective of preparing practitioners responsible for the production of geographic information at various institutions in Ecuador, and for implementing a Spatial Data Infrastructure (SDI) at the institutional level. The workshop takes place between June 29 and July 7, 2009, at CEPEIGE, at the IGM Building in Quito, Ecuador.

ICT Center offers internationally accredited courses, St. Kitts and Nevis
Source: http://www.zizonline.com/
Locals can now gain an internationally certified competency level in various computer fields by participating in training and/or examinations at the National Information and Communication Technology (ICT) Center. During an appearance on SKNIS Perspectives, ICT Policy Advisor, Pierre Bowrin revealed that the facility gained accreditation as an authorized test center for the electronic testing company Pearson VUE a few weeks ago, completing a process which began late last year. Mr. Bowrin stated that while there are many training subject areas, he was particularly excited about the courses on computer hardware support, internet security, Linux management, web development and CISCO networking. He added that internet competency was also offered. He explained that the National ICT Center was poised to continue meeting its mandate of being an engine of growth and training in the Information Technology sector.

Course on Ecological Flow Modeling, Panama
Source: list CATHALAC
This course will take place on July 20- 24, 2009 at the headquarters of the Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC), in Ciudad del Saber, Edificio 111, Clayton, Panama, Republic of Panama. Please register online until **July 10** 2009 at www.cathalac.org/educacion/registro. Contact: educacion@cathalac.org.

UN-SPIDER International Workshop- Quito, Ecuador, September 29-October 2
Source: Juan Carlos Villagran by way of Santiago Borrero

The UN-SPIDER Programme is pleased to announce that it will be conducting the International Workshop: "Space Applications in the context of Risk Management and Disaster Response" on 29 September – 02 October 2009 in Quito, Ecuador. This workshop constitutes the first event of this type conducted by UN-SPIDER in Latin America with the goal of establishing the basis for its programme of activities in this region. Here is found an Information Note for this workshop, including the application form. The Note is drafted in Spanish language, as the event will be held using this language. Looking forward to your participation in this event.

ESRI Chile hosts seminar on Geographic Information Systems (GIS) role in new Governmental Challenges
Source: Ma Eugenia Pozo

ESRI Chile has organized a seminar titled "The Role of GIS in the new Governmental challenges ", which will be held on **July 29-30,** and Sheila Steffenson, Director of Federal Science Business ESRI USA will be the main reporter. This seminar will focus on space technologies and their implementation in a variety of workflows that improve the processes of each government. This because in Chile the central government, and regional and local authorities manage significant investments in infrastructure and labor so that these should be administered efficiently based on appropriate planning. This seminar is aimed at directors and deputy directors of government institutions (both central and regional executives), transportation industry, education, infrastructure, natural resources, mining, forestry, electricity, telecommunications, mapping and health professionals, analysts, technicians and ICT application developers and GIS, and government advisors and consultants who seek to innovate and enhance the implementation of ICT and GIS inside these organizations. The event is free and will be held at San Antonio 65, Santiago Centro, Chile. More information and registration at the following link: http://www.esri-chile.com/Sem_EsriGobierno2009/index.htm.

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Funding Opportunities, Awards, Support

SNIT published three new tenders in Public Market, Chile
Source: http://www.snit.cl/
As part of this year's activities for development processes, the Executive Secretariat of the National Territorial Information System of Chile (SNIT) had published the following bids:

- Maintenance & Optimizing of SNIT's Website. ID: 3553-32-LE09 (*)
- Maintenance and Optimization of SNIT's Metadata Catalog ID: 3553-33-LE09 (*)
- Maintenance and Optimization of SNIT's Geoportal. ID: 3553-34-LE09 (*)

(*) Identification Code on the purchase process. More information at: www.mercadopublico.cl

Canadian Geospatial Data Infrastructure Technical Workshop
Source: info-geoconnections list
GeoConnections is sponsoring a Canadian Geospatial Data Infrastructure (CGDI) technical workshop to be held Friday, July 24 immediately preceding the GeoWeb 2009 conference. The workshop will gather together CGDI technical stakeholders to foster dialogue related to current CGDI technical activities and future directions for the CGDI. To register for this free event, please send an e-mail to Afonso Malungo Afonso.Malungo@NRCan.gc.ca by **July 3rd**, indicating your intention to participate and your language of choice.

Student Scholarship in Digital Field Mapping
Source: http://www.earthworks-jobs.com/
The Center for Computational Sciences at the Johannes Gutenberg Universität, Mainz, Germany proposes a one-year student scholarship, with a possible two-year extension, in digital field mapping. The student must have a Masters in science or computing, with a strong background in scientific programming, preferably in a geoscientific subject area. The code will be developed in C/C++. The student will be primarily based in Mainz, but will spend 2 months in Toulouse during the first project year. Please send an application (PDF-file) to cpasschi@uni-mainz.de. Deadline is the **15th of July**.

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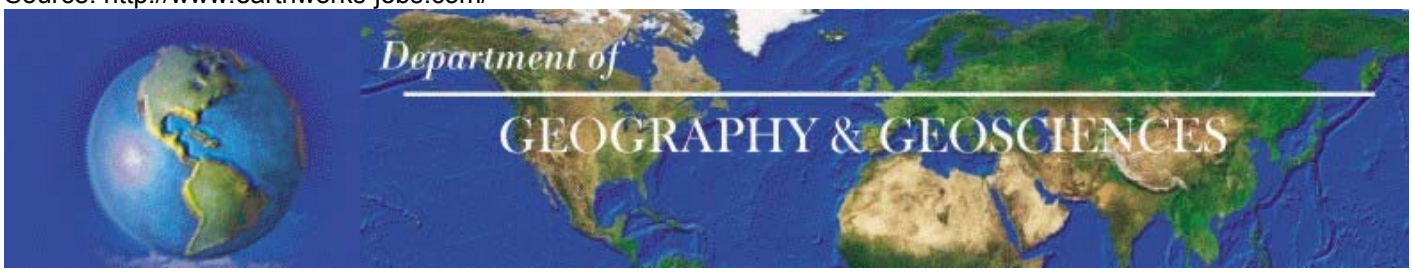
Employment Opportunities

Visiting Assistant Professor - Remote Sensing and Geographic Information Systems
Source: http://www.earthworks-jobs.com/
The Department of Geography of the University of Oklahoma invites applications for a Visiting Assistant Professor beginning August 17, 2009 and ending May 14, 2010. The department is searching for an individual with primary teaching interests in Remote Sensing and Geographic Information Systems. Ability to teach introductory human and/or physical geography courses also desired. A PhD or ABD in Geography or closely related field is required. Further information on the department is available at www.geog.okstate.edu. Applicants must submit a letter of application, curriculum vitae, and a list of three references by **July 10**, 2009. Letters of reference will be solicited for short-listed candidates. OSU is an EEO/AA/E-Verify employer committed to diversity. OSU-Stillwater is a tobacco-free campus. Apply: Dr. Jon Comer, Personnel Committee Chair, Department of Geography, Oklahoma State University, Stillwater, OK 74078-4073. Voice: 405-744-6250. FAX: 405-744-5620. E-Mail: jon.comer@okstate.edu.

Assistant Professor Position in GIS/Geospatial Technologies and Physical Geography
Source: http://www.earthworks-jobs.com/



The Elmhurst College Department of Geography and Geosciences announces a full-time tenure-track Assistant Professor position in GIS/Geospatial Technologies and Physical Geography to begin at the start of the academic year 2010-2011. Information about the Department can be found at www.elmhurst.edu/~geo. The Search Committee will start considering applications immediately, and will consider applications until Spring 2010 before an official hiring in preparation for the 2010-2011 academic year. To apply direct your submission to Search Committee, Department of Geography and Geosciences, Elmhurst College 190 Prospect Avenue, Elmhurst, IL 60126-3296 or apply online at www.elmhurst.edu.

GIS Specialist, Cowlitz County PUD
Source: http://www.cowlitzpud.org

PUD COWLITZ COUNTY

The GIS Specialist will routinely and independently perform tasks, with technical and policy guidance on unusual or complex problems. Skills, knowledge and abilities include:
•Thorough knowledge of cartography including scaling and converting cartographic information to digital format is required. Must have advanced knowledge of and demonstrated ability in using ESRI ArcGIS and ArcFM mapping programs and related database systems.
•Knowledge of ArcSDE and Geodatabase concepts and database design is highly desirable.
Web Site: http://www.cowlitzpud.org. E-mail Contact: Katrina Perkins: employment@cowlitzpud.org

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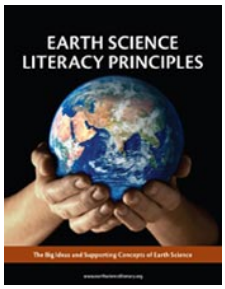
Other

Mexico seeks help for developing nations on climate change
Source: http://www.terradaily.com/
Mexican President Felipe Calderon called for financial help for developing countries to meet their climate change commitments under a new treaty set to replace the Kyoto Protocol. The Major Economies Forum (MEF), including environment ministers from the world's largest polluters, met in central Mexico as part of a US push to speed up work towards the key new United Nations accord to curb greenhouse gases. The new agreement must include "adequate instruments so that all the world's nations, particularly developing countries, can count on sufficient (economic) stimulus and incentives to meet their commitments," Calderon said at the start of the two-day meeting. The talks come as international support is growing for a Mexican proposal to raise billions of dollars to fight climate change through a so-called "Green Fund." The plan would oblige all governments to pay in cash based on a formula reflecting the size of each nation's gross domestic product, greenhouse gas emissions and population.

New Report Sets Forth Principles of Earth Science Literacy



Source: NSF News

Earth's rocks and other materials provide a record of its history. Our solar system formed from a vast cloud of gas and dust 4.6 billion years ago. Earth's crust has two distinct types: continental and oceanic. These and other concepts are the major ideas of Earth science that all citizens should know, according to a newly released report "Earth Science Literacy Principles: The Big Ideas and Supporting Concepts of Earth Science" funded by the National Science Foundation. More at http://www.nsf.gov/news/news_summ.jsp?cntn_id=114904&govDel=USNSF_51.

Earth Science Literacy Initiative and Link to Report: http://www.earthscienceliteracy.org/

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Americas: Conferences, SDI Events – Year 2009

Year 2009 January February March April May June July August September October November December
Year 2010 January February March April May June July August September October November December

JULY 2009		
June 30th –July 2nd *NEW*	Buenos Aires, Argentina	**Seminar on Information Technology in Geosciences (CGI - IUGS 2009) First Meeting of Latin American Specialists in Geoinformation Geological Services** Web: http://www.cgi-iugs-2009.org/
2-15	Rio de Janeiro, Brazil	**XXVII General Assembly IAU** Web: www.iau.org
5-8	St. John's (Newfoundland), Canada	**6th International Symposium on Spatial Data Quality (ISSDQ 2009),** "Quality: From Process to Decisions" Contact: Rodolphe Devillers / E-mail: issdq2009@mun.ca
6-10	Viçosa, MG, Brazil	**13th Brazilian Symposium on Applied Physical Geography** E-mail: 13sbgfa@ufv.br
6-10	Havana, Cuba	**7th International Convention on Environment and Development;** The following congresses will be part of: VII Congress on Environmental Educational, VI Congress on Protected Areas, IV Congress on Environmental Management, I Congress on Climate Change, and II Congress on Ecosystems and Biodiversity Management. Contact: MsC. Isabel Torna Falco / E-mail: convencion@ama.cu
6-26	Los Angles CA, USA	**UCLA Certificate Program in Geospatial Information Systems & Technology**

7-10	Hunt Valley MD, USA	**Mapping Maryland Communities Workshop - Intro to GIS**
8-9	São José dos Campos, Brazil	**SICINPE 2009** Contact: José Carlos Becceneri - becce@lac.inpe.br
9 *NEW*	Vancouver BC, Canada	**MapInfo Professional 10 Roadshow: Vancouver**
9-10	Washington DC, USA	**Mapping MDC Communities Workshop - Intro to GIS**
10-13	Orlando FL, USA	**The 2nd International Symposium on Academic Globalization: AG 2009 Jointly with the 13th Multi-conference on Systemics, Cybernetics and Informatics: WMSCI 2009** E-mail: ag@mail.iiis2009.org
10-13	Orlando FL, USA	**IMETI 2009, Engineering and Technological Innovation** E-mail: imeti@mail.iiis2009.org
10-13	Orlando FL, USA	**AG 2009 Academic Globalization (AG)** E-mail: ag@mail.2009iiisconferences.org
10-13	Orlando FL, USA	**CCCT 2009 Computing, Communications and Control Technologies (CCCT),** E-mail: ccct@mail.2009iiisconferences.org
10-13	Orlando FL, USA	**KGCM 2009 Knowledge Generation Communications Management (KGCM)** E-mail: kgcm@mail.2009iiisconferences.org
11-14	San Diego CA, USA	**2009 ESRI Survey & Engineering GIS Summit**
11-14	San Diego CA, USA	**2009 ESRI Education User Conference**
11-14	San Diego CA, USA	**2009 ESRI Homeland Security GIS Summit**
12-15	San Diego CA, USA	**2009 ESRI Business GIS Summit**
13-17	San Diego CA, USA	**29th ESRI International User Conference**
14-16	São Paulo, Brazil	**GEOBrasil Summit 2009** 10° International Geoinformation Congress and Exhibition Brazil Contact: info@geobr.com.br
15-16	Olympia WA, USA	**Mapping Washington Communities Workshop - Intro to GIS**
17	Kirkland WA, USA	**Mapping Washington Communities Workshop - Intro to GIS**
17 *NEW*	Edmonton AB, Canada	**MapInfo Professional 10 Roadshow: Edmonton**

18-21	Big Bear Lake CA, USA	**2009 Society for Conservation GIS (SCGIS)** Web Page: https://www.scgis.org/ConfReg.aspx
19-29	Montreal, Canada	**iaMas-iapsO-iaCs-Assembly-2009 (MOCA-09)** Web: http://iamas-iapso-iacs-2009-montreal.ca/
20-24	São José dos Campos, Brazil	**12th Course of Scholarly Use of Remote Sensing for Environmental Study** / Further information: Elisabete Caria de Moraes / E-mail: bete@dsr.inpe.br
21-22	Arlington VA, USA	**Geospatial Analysis and Intelligence for Homeland Security Workshop**
21-23	São Paulo, Brazil	**2nd Expo GPS - 2009**
21-23	São Paulo, Brazil	**Geosummit Latin-American 2009** Web Site: http://www.geobr.com.br
21-24	Presidente Prudente, Brazil	**6th International Symposium on Mobile Mapping Technology - MMT'09** E-mail: mmt2009@fct.unesp.br
22	Nashville TN, USA	**Mapping Tennessee Communities Workshop - Intro to GIS**
22-24	São José dos Campos, Brazil	**9th Meeting of Scholarly Use on Remote Sensing** Information: Elisabete Caria de Moraes Correo electrónico: bete@dsr.inpe.br
24	Memphis TN, USA	**Mapping Tennessee Communities Workshop - Intro to GIS**
27-31	Vancouver BC, Canada	**GeoWeb 2009** E-mail: info@geowebconference.org chiebert@galdosinc.com
28-30	Bogotá D.C, Colombia	**First National Congress on Protected Areas** Contact: Fanny Suarez V E-mail: lcano@parquesnacionales.gov.co

AUGUST 2009		
2-5 *NEW*	Foz do Iguaçu PR, Brazil	**III International Conference on Urban Development in Border Towns** Details: http://www.iabpr.org.br/3conferencia E-mail: inscricoes@alvoeventos.com.br
2-6	San Diego CA, USA	**SPIE Conference "Videometrics X"** Dr. Fabio Remondino, E-mail: fabio@geod.baug.ethz.ch

2-15	Rio de Janeiro, Brazil	**XXVII General Assembly International Astronomical Union (IAU)** Web: www.iau.org
3-7	New Orleans LA, USA	**SIGGRAPH 2009**
4-6	Fairbanks AK, USA	**Circumpolar Conference on Geospatial Sciences and Applications**
4-6	Providence RI, USA	**2009 URISA/NENA Addressing Conference**
6-7	Guatemala City, Guatemala	**2009 ESRI Central America User Conference**
10-12	Raleigh NC, USA	**3rd Annual HAZUS Conference**
10-13	Washington DC, USA	**AUVSI's Unmanned Systems North America 2009**
12-14	Fairfax VA, USA	**The 17th International Conference on Geoinformatics (Geoinformatics 2009)** Contact: info@geoinformatics2009.org
19-22 *NEW*	New Orleans LA, USA	**The Tenth Crime Mapping Research Conference**
24-26 *NEW*	Houston TX, USA	**Oil and Gas Boot Camp™**
24-28	Salvador Bahia, Brazil	**11th International Congress of the Brazilian Geophysical Society (SBGf)** E-mail: salvador2009@sbgf.org.br Web: http://congresso.sbgf.org.br
August 31 – September 4	Buenos Aires, Argentina	**SIRGAS Meeting 2009** In the framework of the International Association of Geodesy Scientific Assembly IAG 2009
August 31 – September 4	Buenos Aires, Argentina	**International Association of Geodesy Scientific Assembly IAG 2009 "Geodesy for Planet Earth"** Contact: Dr. Charles K Toth- /, E-mail: toth@cfm.ohio-state.edu

SEPTEMBER 2009		
2-3	Sao Paulo, Brazil	**Interop**
7-11 *NEW*	Uberlândia MG, Brazil	**II International Congress and IV National Symposium on Geography of Health** Details: http://www.geosaude.com.br/

10-11	Regina SK, Canada	**ESRI Regional User Conference**
13-16	Columbus OH, USA	**APWA's 2009 International Public Works Congress and Expo**
13-17	Houston TX, USA	**GIS for Oil & Gas Conference and Exhibition**
14-16	National Harbor, MD, USA	**25th Annual Air & Space Conference and Technology Exposition** Details: www.afa.org/events/conference/2009
15-17	Loveland CO, USA	**GIS in the Rockies**
15-18 *NEW*	São Paulo SP, Brazil	**First International Congress of Underground Environment** Details: http://www.abas.org/cimas/ E-mail: cimas@abas.org
16-18	Denver CO, USA	**GIS in the Rockies**
17-18	Edmonton AB, Canada	**ESRI Regional User Conference**
21-23	Nashville TN, USA	**2009 ESRI Health GIS Conference**
22-23	Montréal QC, Canada	**ESRI Regional User Conference**
22-23	Plymouth MI, USA	**PLM Road Map 2009**
September 27 - October 4	Morelia, Michoacán, México	**Multidisciplinary International Volcanology Congress to Commemorate the 250th Anniversary of Volcán Jorullo's Birth in Michoacán, México** E-mail: csiebe@geofisica.unam.mx / m.guilbaud@geofisica.unam.mx / gbocco@ciga.unam.mx / mtramirez@berkley.edu / vgmonroy@zeus.umich.mx
28-29	Vancouver BC, Canada	**ESRI Regional User Conference**
September 29 - October 2	Anaheim CA, USA	**URISA's 47th Annual Conference & Exposition**
September 30 - October 1	Penticton BC, Canada	**ESRI Regional User Conference**
September 30 - October 2 *UPDATED*	Santa Catarina, Brazil	**CoastGIS 2009, V Congress on Planning and Management of Coastal Zones of the Portuguese-speaking countries** Contact: contato@coastgis.com.br

OCTOBER 2009		
4-7	Campos Do Jordão, São Paulo, Brazil	**Latin American Conference IALE 2009** **"Landscape Ecology in Latin America: Challenges and Perspectives"** Contact: Congress Secretariat and Information E-mail: ialebr2009@eventus.com.br
5-7	Curitiba, Brazil	**Meeting of the Global Partnership on Cities and Biodiversity**
5-7	Westin Westminster CO, USA	**Location Intelligence 2009**
5-9	Antigua, Guatemala	**Iberoamerican Workshop on Geographic Information Systems applied to Renewable Energy**
6-7	Toronto, Ontario, Canada	**ESRI Regional User Conference**
6-9	Santa Maria RS, Brazil	**7th Working day on Remote Sensing Education in the frame of Mercosur**, Web Page: http://www.ltid.inpe.br/selper E-mail: tania@ltid.inpe.br
6-10 *NEW*	Bogotá D.C., Colombia	**IV Ibero-American Congress on Development and Environment** Web: http://www.cisdaiv.unal.edu.co/ Contact: María Andrea García Valencia, Nohra León y Norma Sabogal; Correos electrónicos: infocisdaiv@javeriana.edu.co, documentocisdaiv@javeriana.edu.co, cursocisdaIV@unal.edu.co
7-9	Bogotá, Colombia	**ESRI Latin American User Conference** Details: www.procalculoprosis.com/lauc09/
8-25	Buenos Aires, Argentina	**13th World Forestry Congress**
11-14	Atlanta GA, USA	**2009 Electric & Gas User Group (EGUG) Conference** Details: www.esri.com/egug
11-15	San Francisco CA, USA	**Oracle Open World**
13-16	SJ Campos, SP, Brazil	**Workshop on Space Weather** Information: Hisao Takahashi / E-mail: hisaotak@laser.inpe.br
15-16	Winnipeg MB, Canada	**ESRI Regional User Conference**
16-17	Miami FL, USA	**Mapping Florida Communities: An Introduction to GIS & Community Analysis - One Day Workshops**
16-19	San Antonio TX, USA	**ASPRS/MAPPS 2009 Fall Conference** E-mail: asprs@asprs.org

18-21	San Antonio TX, USA	**GEOINT 2009**
19-20 *NEW*	Caracas, Venezuela	**WG VI/5 Workshop "Airborne Laser Scanning & Data Processing"** Web: www.fii.org/fii/html/jornadas.html Contact: Emmanuel Baltsavias(Chair WG VI/5) E-mail: manos@geod.baug.ethz.ch
19-23 *NEW*	Aguascalientes, México	**2009 National Geography Convention,** Further information: http://mapserver.inegi.org.mx/geografia/espanol/eventos/cng2009/ E-mail: convencion.geografia@inegi.org.mx
19-23 *NEW*	Florianópolis - SC Brazil	**Geography: Teaching and Performance** Further Information: http://www.simgeo2009.cjb.net E-mail:simgeo2009@gmail.com
20-21	Ottawa, Ontario, Canada	**ESRI Regional User Conference**
21	São Paulo, Brazil	**InfoGEO and InfoGPS Seminar – Transportation Management** Web page: http://www.mundogeo.com/seminarios/GF/ E-mail: seminario@mundogeo.com
21-23	Pueblo CO, EUA	**ESRI Southwest User's Group Conference - 2009**
23-24	Tallahassee FL, USA	**Mapping Florida Communities: An Introduction to GIS & Community Analysis - One Day Workshops**
25-29 *NEW*	Washington, DC, USA	**8th International Semantic Web Conference (ISWC 2009)**
26-30 *NEW*	Quito, Ecuador	**19th General Assembly and Technical Consultative Meeting of PAIGH** Detailed information available at: http://www.ipgh.org/19- Asamblea-General/default.htm
27-30	Popayán, Colombia	**XVIII Colombian Congress of Geography** Contact: Martha Martínez Rubiano E-mail: ccgeografia2009@unicauca.edu.co, ccgeografia2009@gmail.com .
28-29	Halifax NS, Canada	**ESRI Regional User Conference**
28-31	Chihuahua, Mexico	**I6th Symposium on Geography Teaching in Mexico, Chihuahua 2009** Contact: Álvaro Sanchez Crispin - asc@igg.unam.mx

NOVEMBER 2009		
2-6 *NEW*	Quebec, Canada	**ISO/TC 211 Meeting week**
3-4	Calgary, Alberta, Canada	**2009 GIS for Oil & Gas Calgary Conference** Details: gita.org/events/ogca/2009/index.asp
3-4	St. John's NL, Canada	**ESRI Regional User Conference**
3-4 *NEW*	Baltimore MD, USA	**Smart Grid Road Show**
4-6	Seattle WA, USA	**17th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM GIS 2009)**
5	Orlando FL, USA	**Mapping Florida Communities: An Introduction to GIS & Community Analysis - One Day Workshops**
7	Jacksonville FL, USA	**Mapping Florida Communities: An Introduction to GIS & Community Analysis - One Day Workshops**
7-11	Corumbá MS, Brazil	**2º GeoPantanal – Symposium on Swamp Geo-technologies**
9-12	Gramado, Brazil	**3rd International Workshop on Semantic & Conceptual Issues in GIS (SeCoGIS2009) in conjunction with the 28th International Conference on Conceptual Modeling (ER2009)** Contact: Prof. Esteban Zimanyi E-mail: estebanzimanyi@gmail.com
10-12	St. Petersburg FL, USA	**2009 GIS in Transit Conference**
14-19	San Antonio TX, USA	**MAPPS/ASPRS Joint Specialty Conference**
15-21	Santiago, Chile	**ICC2009- 24th International Cartographic Conference 2009** http://www.icc2009.cl/
15-21	Kingston, Jamaica	**Geography Awareness Week**
16-19	San Antonio TX, USA	**ASPRS/MAPPS 2009 Fall Conference**
16-20	New York NY, USA	**Interop New York**
November 29th- December 4th *NEW*	Las Vegas NV, USA	**Autodesk University 2009 Exhibition**

DECEMBER 2009		
1-4	Las Vegas NV, USA	**Autodesk University**
7-11	Mountainview CA, USA	**OGC Technical and Planning Committee Meeting**
14-18	San Francisco CA, USA	**Fall Meeting AGU** Web: http://www.agu.org/meetings.shtml

YEAR 2010

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

JANUARY 2010		
5-7	Cuenca, Ecuador	**Sixth International Conference on Environmental, Cultural, Economic and Social Sustainability**
23-28	San Francisco CA, USA	**SPIE Photonics West** Contact: peterb@spie.org

FEBRUARY 2010		
10-15	St. Maarten, Netherlands Antilles	**2nd International Conference on Advanced Geographic Information Systems, Applications, and Services GEOProcessing 2010**

MARCH 2010		
23-25	Tampa FL, USA	**DistribuTECH 2010 Conference & Exhibition**

APRIL 2010		
18-22	Kansas City MO, USA	**MAGIC 2010 Symposium**
25-29	Phoenix AZ, USA	**GITA's 2010 Geospatial Infrastructure Solutions Conference**
26-30	San Diego CA, USA	**ASPRS Annual Conference** E-mail: asprs@asprs.org

JUNE 2010		
16-18 *NEW*	Calgary, Canada	**Commission I Symposium "Image Data Acquisition - Sensors & Platforms"** Contact: Naser El-Sheimy (President Commission I) E-mail: elsheimy@ucalgary.ca

JULY 2010		
26-30	Los Angeles CA, USA	**SIGGRAPH 2010**

SEPTEMBER 2010		
19-24	Montreal, Canada	**IWA World Water Congress and Exhibition**

OCTOBER 2010		
18-22 *NEW*	Singapore, Singapore	**GSDI 12 World Conference 2010: Realizing Spatially Enabled Societies**

NOVEMBER 2010		
16-18	Orlando FL, USA	**Commission IV Symposium "Geodatabases & Digital Mapping"** Marguerite Madden (President Commission IV) E-mail: mmadden@uga.edu

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