

# Global Spatial Data Infrastructure Latin America and the Caribbean Newsletter

SDI-LAC

March

2014

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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 now UN-GGIM-Americas), promote SDI development in the region. The newsletter is prepared by PAIGH for GSDI.

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## Message from the Editor

This last Edition of SDI-LAC Newsletter (#120) highlights the following updates: The **Global and Regional SDI** section comprises notes on the Call of PAIGH for Pan-American Technical Cooperation Projects 2015; Completion of 1st integrated map of Mesoamerica 1:250.000; Launching of GeoSUR ArcGIS Online Site; the OGC ILAF Corner; the OGC's GeoPackage Standard for Mobile adopted; EU's first Sentinel to launch in April; and relevant conferences taking place worldwide. The **IGS section** includes comments on IGS Membership Renewal. The **National SDI** segment informs on the new site of the SDI of the Province of Formosa (IDEF), Argentina; Launching of GeoBolivia's Tool for Reporting Emergencies; A series of trainings for institutions wishing to join the NSDI of Brazil; Ministry of Justice now Interoperating with Chilean SDI; the Official Geodetic Reference System of Costa Rica; Courses on Metadata and Transformation Parameters by the Panamanian IPDE; and the GIS of Montevideo as an SDI node in Uruguay. **Articles and Publications** of the month include a paper on Assisted Generation and Publication of Geospatial Data and Metadata; Publication of a Guide on Geographic Information Quality; Launching of the Statistical e-Atlas of Colombia by DANE; Recent publications on the Grenadines' participatory habitat mapping, and the use of PGIS; and the UN-SPIDER Newsletter: "Space Technologies in the UN." **Geospatial Research and Applications** underline a Hydropower Assessment for Bolivia initiated by CAF; CATHALAC's support to Flood-stricken Eastern Caribbean islands; Digital Elevation Models, and a Spatial Analysis Software for Free Download produced in Mexico; IGAC's New Satellite Image Processing System, Colombia; and Google's Launching of the Global Deforestation Observatory. The **Training and Funding Opportunities** section encompasses remarks on the

Call for PAIGH Geophysics Commission Graduate Scholarship; OAS Scholarships for Online Courses on Cadastre; Master Scholarships in Early Warning and Emergency Response Space Applications in Argentina; and Final BEST Preparatory Action project for Europe overseas. Finally, several **Events taking place in the Americas** are listed in the last section.

Translation of SDI-LAC Portuguese is possible thanks to undergrad students **Esrom A. Rissate Jr.** and **Caroline Martins**, the geographer **Alexandre Scussel**, editorial assistant (MundoGEO) and cartographer engineers: **Alison Galdino**, Analist (Navteq – Recife); **Antonio J. Fazan**, Analist (AMS Kepler Engenharia de Sistemas); **Annette Pic**, MSc in Remote Sensing; **Camila B. Guedes**, Operations Department Advisor (DECEA); **Edilce F. Burity**, Technologist (IBGE/PE); **Edmilson M. Volpi**, Natural Resources Secretary in SP; **Eduardo Freitas**, editor (MundoGEO portal and magazine); **Flávio Porfírio**, Geoinformation Unit (ITEP); **Juan Carlos G. Mamani**, consultant in Geoinformation Technology; **Rodrigo Quirino** Technologist (IBGE/RJ); **Silvana Camboim** Professor (UFPR); **Silvane Paixão**, GIS Project Coordinator; **Tatiana Mendes**, Professor ICT (Unesp); Verônica Azevedo, Analist (Navteq- Recife); **Vivan Fernandes**, Professor (UFBA). Under the coordination of **Silvane Paixão** and review of **Eduardo Freitas**.

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](mailto:cnaguirre@ipgh.org)

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## Global Spatial Data Infrastructure Latin America and the Caribbean Newsletter

### SDI-LAC Newsletter Last Edition #120

We kindly inform you that this is the last edition of GSDI Regional Newsletter, SDI-LAC in PDF format, as GSDI Association is moving forward to other outreach strategies seeking to adapt to novel changes. GSDI regional Newsletter for Latin America and the Caribbean (SDI-LAC) was a monthly, electronic and freely distributed publication that was published for eleven consecutive years. Beginning in January 2004, Kate Lance edited fifteen issues. PAIGH consequently assumed its editorial responsibility. In July 2012 after GSDI 13 Conference in Quebec, the Newsletter reached its 100 edition, and this month, March 2014, its archive includes 120 editions.

The Pan-American Institute of Geography and History (PAIGH) has been responsible for the constant edition of 105 monthly issues from July 2005 to present (Nancy Aguirre, Editor on behalf of PAIGH) with several contributions to this endeavor. Among them was the consistent versioning of SDI-LAC Newsletter in Spanish and English and efforts towards translating the Newsletter into Portuguese both during 2007-2009 and since August 2011 to the date. Therefore, SDI-LAC Newsletter has produced 255 versions in these three languages including this issue. We thank the invaluable help from Brazilian nationals who partaken in this initiative, particularly Eduardo Freitas and Silvano Paixão. We are also grateful to correspondent members from countries including Trinidad and Tobago, Bolivia, and Brazil. Likewise, our appreciation goes to Julieta Garcia of PAIGH for her dedicated editorial support throughout these years.

Templates and organizing sections were modified recurrently with changes including a new subdivision devoted to the International Geospatial Society (the individual membership arm of GSDI Association), and a redesign to more geographically oriented information sections, particularly, Global and Regional SDI news structured in a different division than those of National SDI related outcomes. Ultimately, a total of ten sections were comprised in SDI-LAC Newsletters. Since GSDI 13, we benefited of more than 120 individual contributors yearly (roughly 40% women and 60% men out of the total), besides a myriad contributing organizations, and a nonstop monthly translation of SDI-LAC Newsletter into Portuguese.

Eleven years of continuous publication have reported more than 5,400 news, including geospatial, SDI, and capacity building initiatives of both the Americas and worldwide. In addition, around 2,500 Conferences and SDI events have been listed. We are sincerely grateful to all who have contributed to making visible these activities in opportunity, thus fostering valuable knowledge sharing throughout the geospatial community.

#### Relevant news shared through SDI-LAC Newsletters:

Important SDI endeavors at all territorial levels in Latin America and the Caribbean has been diffused by the multilingual SDI-LAC Newsletter. Outstandingly, we have seen throughout these years an increasing number of both national and sub national initiatives also responding to wider thematic interests: the booming of provincial and urban SDIs, as well as those oriented to different sectors including health, the environment, and agriculture are now more common. Likewise, more SDI publications are now originated locally. A steadily upsurge of SDI capacity building initiatives being developed in the region have been evident as well. Regionally, new partnerships and outreach efforts have also been prominent. In this level, significant undertakings include the *2013-2015 Joint Action Plan to Expedite the Development of Spatial Data Infrastructure of the Americas* signed by PAIGH, SIRGAS, PC-IDEA and GeoSUR on November 2012; and the PC-IDEA's change to UN-GGIM-Americas (United Nations initiative on Global Geospatial Information Management-Americas) resulting from its Plenary Meeting during the 10th United Nations Regional Cartographic Conference for the Americas (UNRCC-A) held last August in New York. It is worth noting that PC-IDEA will be chaired by Mexico during the 2013-2016.

Over all, we are obliged to all who have contributed to making evident SDI and associated activities through SDI-LAC Newsletter. Some historical landmarks for the LAC region follow:

In 2004, the Mexican Law on Statistical and Geographical Information (in Spanish LIEG) was published; the Bahamas Government signed an agreement to reactivate the National GIS Centre; the National Council on Geoinformatics of Ecuador (in Spanish CONAGE) was established; and the Guyana GIS Policy was born.

## **Global Spatial Data Infrastructure Latin America and the Caribbean Newsletter**

In 2005, SDI-LAC discussion list was established; the Spatial Data Infrastructure for the Capital District of Bogota, Colombia was created (in Spanish IDECA); the Brazilian National Geospatial Framework Project was launched; Cuba presented the GeoPortal for its National SDI (in Spanish IDERC); and a Caribbean workshops on SDI Performance Measurement and Evaluation took place.

In 2006, GSDI-9 Conference was held in Santiago, Chile; a Draft Government Bill to create the Territorial Information System of Peru was enacted; PAIGH approved Resolutions related to SDI for the Americas; the National Territorial Information Coordination System of Chile (in Spanish SNIT) was created; Grenada undertook the LIDAR Remapping Project; Virgin Islands GIS was ongoing; and the Andean SDI was being promoted.

In 2007, the GeoSUR Program initiated; the Portal of the Colombian SDI (in Spanish ICDE) was launched; it was held the 1st Argentinean SDI Day; the Official Street Atlas of Cayman Islands was published; St. Vincent and the Grenadines National GIS was established; Peru declares its NSDI Project viable (in Spanish IDEP); and the Latin-American Metadata Profile was proposed by the Geographic Institute "Agustín Codazzi" (in Spanish IGAC) and PAIGH.

In 2008, the Ecuadorian Geospatial Data Infrastructure (in Spanish IEDG) was launched; the Landsat Image Mosaic of Antarctica (LIMA) was available; Bonaire's Reef was mapped as benchmark for the entire Caribbean; Law on the National Statistical and Geographical Information System (in Spanish SNIEG) was approved in Mexico; NSDI of Uruguay was launched; LICJ (Land Information Council of Jamaica) launched the Official Website for Jamaican NSDI; PAIGH's Resolution on International Standards was published; GEO Summit Latin America 2008 took place; and United States Implemented a Free Access Data Policy for Landsat.

In 2009, the NSDI of Brazil (in Portuguese INDE) was established; the Geospatial Data Infrastructure of Venezuela (IDEGeoVen) was ongoing; Belize's 1st NSDI Conference was held; PAIGH established foundations for the "Pan-American Laboratory for the Observation of Natural Disasters" and supports the Creation of the Ibero-American Network of GI; GeoSUR launched a Remote Technical Assistance Program; the Experimental SIRGAS Processing Center began; an SDI Prototype Geoportals was launched in Guatemala; a Case study on the NSDI in Trinidad and Tobago was published; SDI activities and experiences of Suriname were published; and Brazil was elected to chair PC-IDEA during the 2009-2013 period.

In 2010, the Development of the Argentinean NSDI is ongoing; Brazil's 1st Version of Geospatial Metadata Profile was available; Haiti goes from zero to SDI in a week after a devastating earthquake; Committee on SDI of Peru (in Spanish CCIDEP) implemented the GEOIDEP Portal; the Provincial Geospatial Portal for Villa Clara (Cuba) was established; SDI of Venezuela (IDEVEN) was launched; iMap Jamaica was launched; the Mesoamerican Territorial Information System was ongoing; Ecuador Approved its National Geospatial Information Policy; 1st International Geospatial Society (IGS) Election for President and Vice-president were informed (Argentina and Colombia respectively); the 1st Uruguayan Congress on SDI took place; and OGC launched the Iberian and Latin American Forum (OGC ILAF).

In 2011, the Panamanian Spatial Data Infrastructure (in Spanish IPDE) was launched; GeoSUR joined GSDI; Costa Rica's Online Land Registry was established; SDI of the State of Bahia (IDE/Ba), Brazil was underway; a New FGDC (Federal Geographic Data Committee) Geospatial Platform in USA was published; the gvSIG Training Platform was launched; and the United Nations Committee on Global Geospatial Information Management (GGIM) was proposed.

In 2012, IGAC (Colombia) gave free access to the Country's Basic Geographic Information; the Open Source Geospatial Foundation (OSGeo) and the International Cartographic Association-ICA's MoU established the 1st Open Source Geospatial Laboratory in South America; IDERA (Argentina) launched a Virtual Campus; Cajamarca Local SDI in Peru was ongoing; 1st Edition of GeoSUR Award was launched; the Book of Ibero-American authors *SDI Fundamentals* was published; Cuba launched its Generic Map Viewer Version 3.0; the 1st Paraguayan National Geoportals is presented; and GIM International Interviews Santiago Borrero: "*Geomatics Still Incipient in Latin America*".

In 2013, a new SIRGAS Experimental Processing Centre in Central America was established; SDI for the community in the Region of Los Rios, Chile was launched; The National Registry Center of El Salvador develops its GIS in the Cloud

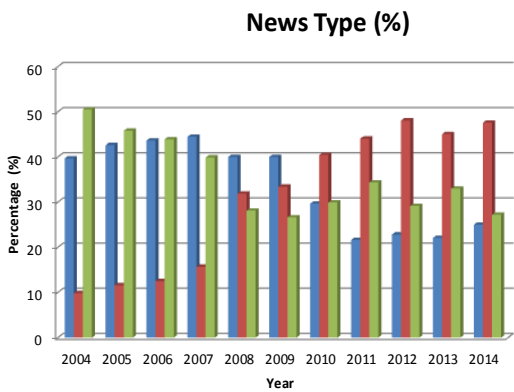
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with support from PAIGH, CAF, and ESRI; French Guyana presented GeoGuyane portal (in French); SDI Map Viewer of Chile is launched; Peru's GEOSERVER is operational; G8 Leaders Signed the Open Data Charter; the Ministry of Health, Brazil, began publishing data in INDE; the National Territorial Information System (in Spanish SNIT) in Costa Rica is created; Haiti's New Portal for Spatial and Environmental Data is available; New officers of PAIGH were elected for 2013-2017; PC-IDEA (now UNGGIM-Americas) published the *Americas SDI Manual*; the IPDE of Panamá launches its first website; and the new IDEuy (Spatial Data Infrastructure Uruguay) website is launched.

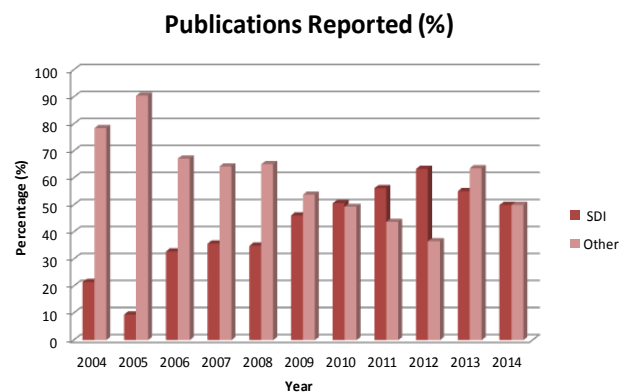
Finally, in first three months of 2014 the SDI-LAC Newsletter witnessed: the Approval of FGDC for the US-NSDI Strategic Plan 2014-2016; GEO's Open Data Mandate was Unanimously Endorsed for another 10 Years; the UNGGIM released a document on "Future trends in GI management: the 5-10 ten year vision"; URISA-GIS 1st Caribbean Regional Workshop was held in St Maarten; the Bahamas SDI Programme (BSDI) Bill moved in the House of Assembly; IGMs developed 1st regional map of Mesoamerica (1:250.000) supported by CAF, PAIGH and USGS; GeoSUR launched an ArcGIS Online Site; Ministries of Environment and Justice now interoperate with the Chilean SDI; Cuba's IDERC launched its new TJS as an extension of Geoserver; the Peruvian "Supreme Decree on Spatial Information Sharing among State agencies" was published; A new SIRGAS Experimental Processing Centre was established in Bolivia; A New Portal for the SDI of the Province of Formosa (in Spanish IDEF), Argentina was launched; GeoBolivia produced a Tool for Reporting Emergencies; the GIS of Montevideo, Uruguay was ongoing as an IDEuy node; and Google Launches the Global Deforestation Observatory.

## Statistics of SDI-LAC Editions:

Statistics of the reported news in SDI-LAC Newsletter for the 2004-2014 period depict interesting indicators. Please note that figures of 2014 include only the results of three months (January to March).

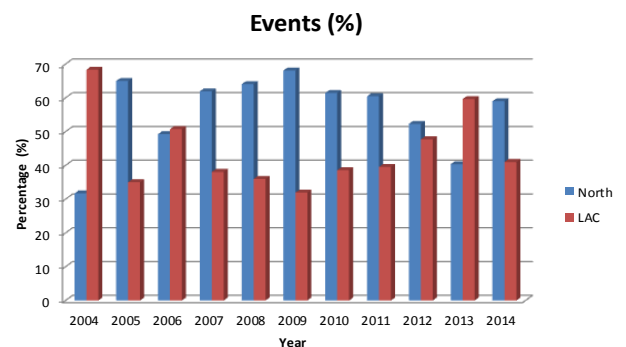


A)



B)

Figure A depicts the proportion of news reported in SDI-LAC Newsletter in three categories during the analyzed period: (i) those related to geospatial initiatives; (ii) those related to SDI initiatives properly; and (iii) those informing on capacity building (including workshops, courses, and undergraduate/graduate programs). SDI-LAC Newsletter reported a much lesser proportion of SDI-related news in comparison to the geospatial and capacity building types during 2004-2007. However, from year 2008 onwards the percentage of SDI news steadily increases until 2013 and 2014 when the considered news-types are more evenly distributed.



C)



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Figure B shows during 2006-2012 a sound growth on the percentage of publications specifically related to SDIs reaching in 2012 around 60% of the total publications reported. In 2013 the share (%) of reported SDI publications in SDI-LAC Newsletter slightly diminished. Notwithstanding, in few 2014 months the proportion of both SDI and other publications is almost even.

Pertinent events taking place in the Americas were reported in the bottom table of SDI-LAC Newsletters. Figure C illustrates the distribution (%) of SDI and Geospatial Conferences taking place in North America (North), and Central-South America, and the Caribbean (LAC). There is an increasing percentage of events reported for the LAC region from 2009 ahead. During 2010 and 2011 60% of North American events were reported in comparison to approximately 40% of LAC region's events. In 2013 however, reported events in the LAC region are 20% more than in North America and have a share of 60% of the total reported events. In 2014, only events collected until this edition are represented.

Although statistics on the contents of SDI-LAC Newsletter should not be analyzed independently of broader contexts, these may be used to support studies on SDI evolution in the LAC region over the analyzed period, and to help highlighting some pertinent milestones.

We hope that throughout these years SDI-LAC Newsletter has increased awareness on the state of the art of SDI initiatives in the region, thus contributing to establishing geographic baselines and partnerships, as well as to sharing knowledge, opportunities, best practices...

Thanks so much to all our readers, contributors and supporters!!

*Nancy Aguirre*  
*Editor on behalf of PAIGH*

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### Input to this Issue

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

|                          |   |
|--------------------------|---|
| Julian Mauricio Alvarado | DANE, Project Leader of SIGE Modernization Project, Geostatistics Information Division, Colombia  |
| Kimberly Baldwin         | Centre for Resource Management and Environmental Studies (CERMES), University of the West Indies, Barbados  |
| Rodrigo Barriga-Vargas   | Secretary General, Pan-American Institute of Geography and History, PAIGH, Mexico   |
| Arturo Brun-Martinez     | Architect, Colombia   |
| Joan Capdevila-Subirana  | Regional Service of the National Geographic Institute in Catalunya, Spain   |
| Carole Martinez          | Programme Coordinator Regional Seas - EU Outermost Regions & Overseas Countries & Territories, Global Marine & Polar Programme, IUCN, Switzerland |
| Pablo Morales            | Spatial Data Infrastructure, Chile  |
| Imma Serra               | National Geographic Information Center, National Geographic Institute, Spain  |
| Eric van Praag           | Regional Coordinator, GeoSUR Program- CAF, Venezuela  |

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### Global and Regional SDI, News, Presentations

#### Call for Pan-American Technical Cooperation Projects 2015 - PAIGH

Source: Rodrigo Barriga-Vargas



The Pan-American Institute of Geography and History (PAIGH) informs that the call is open for applications to Pan-American Technical Cooperation Projects to be implemented in 2015, which should be directly linked to the implementation of the "Pan-American Agenda 2010-2020 ."

The PAIGH's Technical Assistance Program aims at implementing dedicated actions in the fields of Cartography, Geography, History and Geophysics to contribute to regional integration and sustainable development.

In response to priorities identified in the Agenda of PAIGH, applications will be accepted in the following four areas:

1. Projects to support PAIGH Member States in the scheduled development of their fundamental spatial data bases and their interoperability;
2. Geographic Analysis to stimulate interdisciplinary approaches, and regional integration in priority areas for sustainable development: Natural resources, risk and vulnerability associated with disasters, climate change, land use and socio-economic progress in border areas adjacency.
3. Initiatives that promote innovative alternatives to the study of Pan-American development, and that encourage a broader view of American history as well as a plurality of approaches in areas such as environmental history, historiography, archeology, historical cartography, regional integration, climate change, cultural diversity, and conservation of tangible and intangible cultural heritage and historical preservation.
4. Projects aimed at the study and monitoring of geophysical processes, including the implementation of the declarations of PAIGH on "Risk and disaster prevention to volcanic events" and "Land Management and Natural Disasters".

All processes of preparation, assessment and approval of applications are done electronically, thus projects must be submitted in sufficient time to the respective National Section.

Deadline for receipt of applications at the General Secretariat of PAIGH: Wednesday **April 30**, 2014

The complete Call may be found at: [Pan-American Technical Cooperation Projects 2015](#)

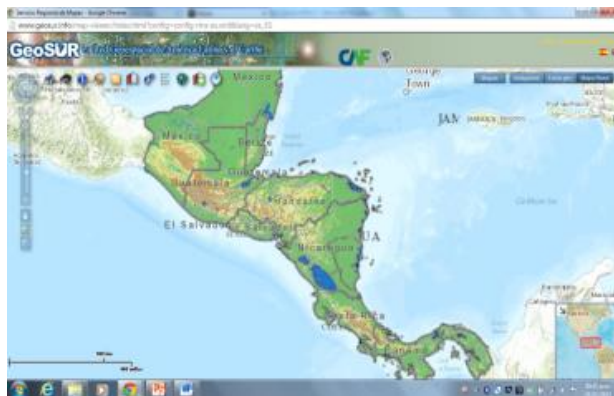
For more information please contact: [CooperacionTecnica@ipgh.org](mailto:CooperacionTecnica@ipgh.org) / [SecretariaGeneral@ipgh.org](mailto:SecretariaGeneral@ipgh.org)

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## The Integrated Map of Mesoamerica has been Completed

Source: Eric van Praag

The geographic institutes of Meso-America have developed the first regional map of Mesoamerica, at a scale of 1:250.000. The regional map is made up of four thematic layers: Villages and Urban Spots; Administrative Limits (three levels); Highways; and Rivers and Water Bodies. The institutes decided to adopt a practical working scheme to harmonize the national information at a regional level by organizing a series of regional workshops in Salvador and Costa Rica during 2012 and 2013. In these workshops geographers of each country corrected the information of the borders and coordinated the information associated to the maps. They were able to produce a comprehensive and harmonized regional map. The project was supported and financed by three institutions: Development Bank of Latin America (CAF), the Pan-American Institute of Geography and History (PAIGH, for its acronym in Spanish) and the United States Geological Service (USGS). The new regional map is available for consultation in the [regional map viewer of the GeoSUR Program](#).



## GeoSUR Launches ArcGIS Online Site

Source: Eric van Praag



The GeoSUR Program has now available all its public regional geographic information from Latin America and the Caribbean in the ArcGIS Online platform. The new platform offers access to a diversity of regional and national maps on different topics such as hydrography, protected areas, digital elevation models, road networks, vegetation height, and coral barriers, among others. To start, only regional maps have been placed in the ArcGIS Online system, but in the future more than 90 institutions will be invited to participate in GeoSUR and register their information on this platform. The new Portal available in [ArcGIS Online](#), complements the operations of the [Regional Portal of the GeoSUR Program](#), which offers a more advanced operation and is focused on users with some basic GIS skills.

## OGC ILAF Corner

Source: Imma Serra and Joan Capdevila

Did you know that ...

The Programmable Underwater Connector With Knowledge Standard (PUCK) is a standard instrument protocol to retrieve metadata and other information from the device itself. It defines an Ethernet interface and RS232 serial communication that identifies a device for measuring and storing information in it. The information can be stored on the instrument (metadata), driver software, configuration files, or any other type relating the observation system, and may include an electronic datasheet on the instrument in a known format (e.g. IEEE 1451 Transducer Electronic Data Sheet (TEDS) or OGC SWE SensorML).

Computers on the network can use the PUCK protocol to retrieve this information from installed instruments and utilize it appropriately, e.g. to automatically identify, configure and operate the instruments. Thus PUCK enables automatic self-configuring "plug-and-work" sensor networks. PUCK was originally developed by the Monterey Bay Aquarium Research Institute (MBARI) for oceanographic applications, but is useful in any sensor network containing RS232 or Ethernet-connected instruments. And now it is being considered for adoption in other projects. For more information please see the specification description at: <http://www.opengeospatial.org/standards/puck>.





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### OGC News

30/ 01: [OGC and Small Cell Forum Co-Operate to Develop Support for Indoor Location Based Services](#)

10/ 02: [OGC, Layar, Metaio and Wikitude invite Mobile World Congress attendees to AR Interoperability Demo](#)

17/ 02: [The OGC seeks comment on revised GML in JPEG 2000 Encoding Standard](#)

18/ 02: [OGC invites to GeoPackage and IndoorGML workshops and an Augmented Reality interoperability demo](#)

19/ 02: [The OGC invites comments on the candidate IndoorGML navigation standard](#)

24/02: [The OGC approves SensorML version 2.0](#)

25/02: [OGC Location Standards for a mobile world](#)

More on OGC at the Iberian and Latin American Forum of OGC [webpage!](#)

### OGC Adopts Important GeoPackage Standard for Mobile

Source: [announce@opengeospatial.org](mailto:announce@opengeospatial.org)

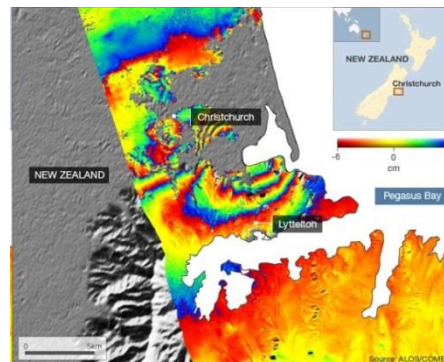
The Open Geospatial Consortium (OGC®) has adopted the OGC GeoPackage 1.0 (GPKG) Encoding Standard. The GeoPackage standard will make it much easier to exchange and share geospatial (or location) information across different devices, applications and web services throughout the mobile world. GeoPackage was developed for mobile application developers whose applications need to provide users with geospatial application services and associated data in disconnected or limited network connectivity environments, or whose applications depend on geospatial data and processing services from diverse sources. GeoPackage supports a wide variety of applications such as those that involve creation of geospatial data products in enterprise computing environments, data product distribution to other computing environments, mobile workforce data capture and updates, and volunteered geographic information. From a technical perspective, the GeoPackage standard defines an open, non-proprietary, platform-independent [SQLite](#) container for distribution and direct use of geospatial data, including vector features and tile matrix sets. This approach simplifies development and gives applications access to a very wide variety of Web-based geoprocessing services. The OGC GeoPackage (GPKG) Encoding Standard has been developed by OGC members with additional participation by interested developers on GitHub, a web-based hosting service for software development projects. The OGC GeoPackage Encoding Standard and associated resources can be found at <http://www.geopackage.org/>. All OGC standards are free and publicly available. Contact: [info@opengeospatial.org](mailto:info@opengeospatial.org)



### EU's First Sentinel to Launch 'in April'

Source: <http://www.bbc.co.uk/>

Copernicus will fly a constellation of satellites known as the Sentinels to take a continuous "health check" on the planet and to acquire data that can help inform and enforce EU policies. It has been announced that the first spacecraft in the series will go into orbit, most likely, in early April. Sentinel 1a will use radar to map the surface of the Earth. A key role also will be to provide rapid damage maps to enable emergency services and aid agencies to respond to natural disasters such as earthquakes and severe flooding events. A Sentinel 1b is already in production, with early discussions already taking place on the procurement of the 1c and 1d models. The Sentinels will produce prodigious volumes of data - all of it free and open. This has required not only considerable investment in computer storage and processing capability on the ground, but a new fast-link technology for bringing the satellites' information down to Earth. Whereas current Earth observation satellites use radio transmitters to downlink data when they pass over ground stations, the Sentinels will instead fire their data via a laser to a telecommunications satellite much higher in the sky before it is then passed to Earth. The laser relay will eventually permit two-gigabit-per-second connections. Sentinel 1a's task will be to fully demonstrate this technology before its use becomes routine on the later spacecraft.





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### Geospatial World Forum 2014

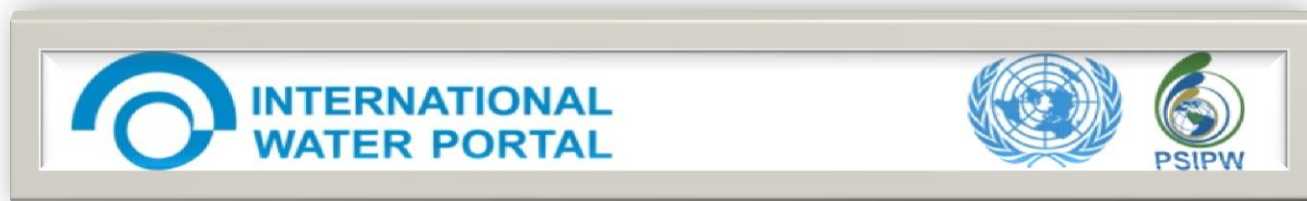
Source: Rodrigo Barriga-Vargas

This Forum will be held on **May 5-9**, 2014 in Geneva, Switzerland. A geoenery Conference will take place on May 9th aimed at addressing the Role of Geospatial Technologies in the Modern-day Electricity System and in functions like potential mapping of a region, site evaluation, evacuation planning, and environment impact assessment. Detailed information on Geospatial World Forum may be found at: [www.geospatialworldforum.org](http://www.geospatialworldforum.org). Contact: [info@geospatialworldforum.org](mailto:info@geospatialworldforum.org)



### [Third International Conference on the Use of Space Technology for Water](http://www.unoosa.org/)

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



The United Nations Office for Outer Space Affairs (OOSA), the Government of Morocco and the Prince Sultan bin Abdulaziz International Prize for Water (PSIPW) are jointly co-organizing the above Conference to promote the use of space technology for benefits of the developing countries. The Conference will be held in Rabat, Morocco, from **1 to 4 April** 2014. It will be hosted by the Royal Center for Remote Sensing (in French CRTS) on behalf of the Government of Morocco and cosponsored by European Space Agency (ESA) and the Inter-Islamic Network on Space Sciences and Technology (ISNET). The working language of the Conference will be English. In addition, interpretation to/from French will be provided by local co-organizers. The best papers presented at the Conference will be published at the special section of the International Water Portal run by PSIPW (<http://water-portal.com>). More information and the links for the online application are available on the [conference website](#).

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## IGS News, Links, Publications



### IGS Reminders – Membership Renewal

Source: News from the GSDI Association and the International Geospatial Society

Please renew your membership in the International Geospatial Society (IGS). As a member you played a vital role in making the past year a great success.

## Global Spatial Data Infrastructure Latin America and the Caribbean Newsletter

### Activities and Benefits

The International Geospatial Society is the global society for geospatial specialists who want to affiliate with, help support, learn from and communicate with peer professionals across the world. Without the base financial support and volunteered personal time and effort of members the numerous activities in which IGS engages would not be possible. See a description of member benefits and the range of activities in which members have been engaged at <http://www.igeoss.org/BenefitsOfJoining>

In terms of new initiatives, the organization was able to implement a program to allow geospatial specialists in developing nations to provide services in lieu of dues. Those services consist of providing or updating each year a personal professional profile in the geographic knowledge network. This effort has provided a much broader geographic distribution of representation in the organization. See the full list of members at <http://www.igeoss.org/members>.

We also expanded publication of GSDI and IGS Global News so it comes to you through email on a regular basis. The organization continues to advocate open access to geospatial conference proceedings, books, learning materials, newsletters and standards across global geospatial organizations to ensure that all are able to benefit from the resources being developed.

### Submitting your Dues or Maintaining Free Membership

In order to renew your membership, please go to <http://www.igeoss.org/join>. In the event that you are a citizen of and live within a qualifying economically disadvantaged nation, the online membership application at <http://www.igeoss.org/join> will provide you with the option of applying for free membership in IGS. The primary obligation is to provide the URL link to your professional profile in the GIKNetwork.

Information provided by Marilyn Gallant, GSDI Business Manager ([mgallant@gsdi.org](mailto:mgallant@gsdi.org))

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## National SDI, News, Links, Presentations

### ARGENTINA

#### New IDEF Portal

Source: IDERA Dissemination



Visit the new site of the Spatial Data Infrastructure of the Province of Formosa (in Spanish IDEF) [here](#). You can also find it on Facebook as [IDEF – SDI Formosa](#) or on Twitter as [@IDEFormosa](#), where news on the Portal, SDI, GIS software, and development tools related issues are published periodically. IDEF Map Viewer is a web application that displays information of both IDEF nodes and external WMS published layers. It has tools for navigation, search, measurement, printing, metadata access and others that allow queries and/or geographic information analysis. The site

also features a series of basic instructions as a reference for organizations that start as IDEF nodes, including some specific characteristics of gvSIG, or how to access WMS services and connect to a PostGIS database, among others. As it is today the IDEF has seven [member institutions](#).

# Global Spatial Data Infrastructure Latin America and the Caribbean Newsletter

## BOLIVIA

### GeoBolivia Launches Tool for Reporting Emergencies

Source: <http://geo.gob.bo/>

With recent disasters being experienced by Bolivia, the consequent result of rains in recent months, GeoBolivia makes available to the general public a tool that allows generating reports of emergencies (floods and landslides) in a simple and friendly way. Known as **USHAHIDI**, this tool allows to geographically locate disaster events that arise in a given area (rural or urban), taking as base a good resolution satellite image and a form where the reported events are recorded, with the possibility of including links to news, photos and videos. Each report is stored in a database and may be downloaded for further processing such as in a GIS among others. By accessing the website (<http://uc.geo.gob.bo/>) any person may report an event following few easy steps: locating it on the map, classifying it as flood or mass movement, attaching a photograph, link, or video, and finally sending the report. The [user manual can be downloaded here](#).



## BRAZIL

### INDE Training

Source: IBGE

The National Commission of Cartography (in Portuguese CONCAR) is conducting a series of trainings for civil servants of institutions that are part of, or wish to join, the National Spatial Data Infrastructure (in Spanish INDE). The training is directed to technical teams who will work directly with the publication process of geospatial data and its metadata into the INDE platform. Registration for INDE Training will be made through the INDE Community Training at: [www.sisp.gov.br](http://www.sisp.gov.br) by answering the questionnaire on "Enrollment in the INDE Training". Contents of Training:

- Introduction to INDE Concepts – 1st day
- Registration of Metadata (Geonetwork) - 2nd day
- Geoservices (GeoServer) - 3rd day

There will be 5 classes in 2014 according to the table below:

Class 1: **March 12 - 14**

Class 2: May 14 - 16

Class 3: July 16 - 18

Class 4: September 10 - 12

Class 5: November 19 - 21

Upon registration you should select an option for one of the classes.



## CHILE

### Ministry of Justice now Interoperates with Chilean SDI

Source: Pablo Morales



The Ministry of Justice now interoperates with the Spatial Data Infrastructure of Chile through its "[Atlas of Justice](#)." This Atlas provides information to the Chilean SDI Map Viewer through the Web Map Service (WMS) standard. Layers are found in the "Society and Culture" category "Justice" subfolder. One of main advantages of achieving interoperability through geoservice standards such as WMS is that it allows you to connect and display information from the data source, and thus, respective updates are not missed.



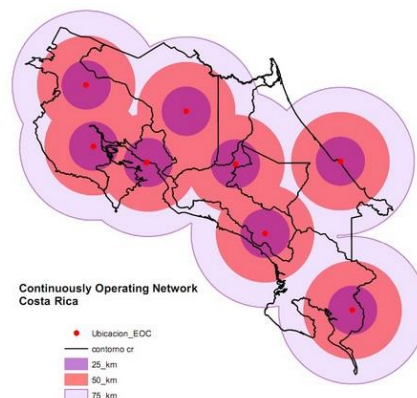
# Global Spatial Data Infrastructure Latin America and the Caribbean Newsletter

## COSTA RICA

### [Official Geodetic Reference System](#)

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

The horizontal coordinate system for Costa Rica, called CR05, has official status and replaces the Lambert Coordinate System - Ocotepaque Datum. It will be the framework for all topographic, cartographic, geodetic and cadastral works with official status. The CR05 coordinate system is tied to the International Terrestrial Reference Frame, completion of 2000 (ITRF00) reduced to the 2005.83 epoch, which is the time of the system definition. The CR05 system is realized by a network of 33 first order GPS stations (34 if the ETCG point is considered) distributed throughout the country; a second order network resulting of the first-order network densification; densifications of third order with geodetic coordinates referred to ellipsoid WGS84, and grid coordinates defined by a Gauss-Krüger projection. The geodetic datum is realized by a network of 34 stations, namely of first order filter, measured with GPS technology, distributed throughout the country and linked to the International Terrestrial Reference Frame (ITRF00), time of measurement 2005 83. The coordinate system of Costa Rica (mapping system) is based on the projection of the reference ellipsoid WGS84 to a Gauss- Krüger type mapping plane called CRTM05, which constitutes the official system for the whole country. The two fundamental tasks to maintain a current and accessible geodetic reference frame are its maintenance and densification. The respective publication and additional information in PDF format may be downloaded at: [Official Geodetic Reference System](#)



## PANAMA

### [Courses on Metadata and Transformation Parameters](#)

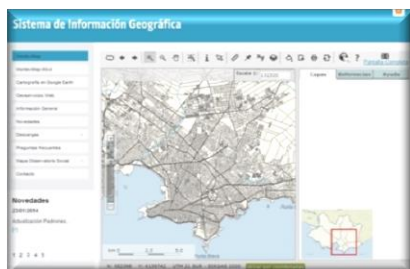
Source: <http://www.ipde.gob.pa/>

The Panamanian Spatial Data Infrastructure (in Spanish IPDE) offered a workshop on Using Transformation Parameters (NAD27 to WGS84) with Arcgis 10.1 software on the week of February 10-14, 2014 through the "Tommy Guardia" National Geographic Institute. This workshop was held to promote using the new coordinate system based on WGS84 or SIRGAS 2000. Likewise, in the week of February 17-21, 2014, the Institutional Strengthening Component of the IPDE organized a course on metadata for members of the National Atlas and the IPDE's Standards Component. The course objective was that geospatial information producer institutions could begin their metadata development process, considering that the Technical Regulations for Capture of Geographic Metadata are already under discussion in the Sectorial Committee of the Ministry of Commerce and Industry. Contact: [ipde@anati.gob.pa](mailto:ipde@anati.gob.pa)

## URUGUAY

### [Geographic Information System of Montevideo](#)

Source: <http://ide.uy/inicio/>



This system is one node of the Spatial Data Infrastructure of Uruguay (in Spanish IDEUy). On this site you may access the official georeferenced information of Montevideo. The data contained in this system can be freely accessed. On January 2014, information on the cadastral blocks, land registry folders in PDF format, and plots of the department of Montevideo were updated. This information is provided by the Land Registry and Assessment Service of the Municipality of Montevideo. The system's portal may be found [here](#).

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## Articles and Publications of the Month

### Assisted Generation and Publication of Geospatial Data and Metadata

By Sergi Trilles, Laura Díaz, José Gil, Joaquín Huerta. Article under review of the *International Journal of Spatial Data Infrastructure Research* (IJSDIR), Vol. 9 (2014).

**Abstract by the authors:** Today, the existence of metadata is one of the most important keys for an effective discovery of geospatial data published in Spatial Data Infrastructures (SDI). However, due to lack of efficient mechanisms, integrated in user daily workflow, to assist users in generating metadata, little metadata is produced. This paper presents a mechanism for generating and publishing metadata with a Publication Service. This mechanism is provided as a web service implemented with a standard-base interface, the Web Processing Service (WPS) specification to improve its interoperability with other SDI components. This paper extends previous research when designing a Publication Service in the framework of the European Directive INSPIRE as a solution to assist users in publishing geospatial data and metadata automatically in order to improve, among others, SDI maintenance and usability.

### Guide on Geographic Information Quality

Source: Masters on Geographic Information Quality Assessment and Management by way of Rodrigo Barriga-Vargas. The Guide on "Fundamentals of Geographic Information Quality Assessment," has been recently published. It is a collective work in which all teachers of the "Masters on Geographic Information Quality Assessment and Management" (<http://www.cartocalidad.com/>) participated. The Guide is only available in digital format at the following links: <http://www.une.es/Ent/Products/ProductDetail.aspx?ID=250057> and <http://www.casadellibro.com/ebook-fundamentos-de-evaluacion-de-la-calidad-de-la-informacion-geografica-ebook/9788484398134/2244577>. For more information please contact: [mastercv@ujaen.es](mailto:mastercv@ujaen.es).



Atlas Estadístico

PROSPERIDAD  
PARA TODOS

### DANE Launches the Statistical Atlas of Colombia for Internet and Android Mobile Devices

Source: Julian Mauricio Alvarado

The publication of the Statistical Atlas of Colombia that the National Administrative Department of Statistics (in Spanish DANE) presents to the Colombian and world citizens interested in the reality of this country, aims at providing through thematic mapping, texts, graphic semiology and supplementary visual aids, a profile of the main population and territorial configurations in Colombia on demographic, social and economic aspects. The electronic version may be found at: <http://sige.dane.gov.co/atlasestadistico/>. From the QR code you may download the application for viewing this Atlas on Android mobile devices.



### Recent Publications on the Grenadines' Participatory Habitat Mapping, and the Use of PGIS

Source: Kimberly Baldwin by way of carib-gis-users list

Find the latest publication about the Grenadines participatory habitat mapping published in *Coastal Management* (<http://www.tandfonline.com/doi/abs/10.1080/08920753.2013.863725#preview>), and another paper on the Stakeholder Engagement and the use of Participatory Geographic Information Systems (PGIS) for strengthening governance in Small Island Developing States (SIDS) published a couple of months ago in *Natural Resource Forum* (<http://onlinelibrary.wiley.com/doi/10.1111/1477-8947.12029/abstract>). More information about this research at: [www.grenadinesmarsis.com](http://www.grenadinesmarsis.com) and [www.kimberlybaldwin.tumblr.com](http://www.kimberlybaldwin.tumblr.com)

### UN-SPIDER Newsletter 1/14: "Space Technologies in the UN"

Source: The UN-SPIDER team by way of UN-SPIDER Mailing List

This issue focuses on the use of space technologies within the United Nations system in the context of disaster risk management and emergency response. It compiles some case studies of how and why space technologies are used by the United Nations to enable Member States to reduce disaster risks or to respond to disasters more effectively.

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These case studies are examples of the extremely valuable work carried out throughout the entire UN system. You can read or download the Newsletter at: <http://www.un-spider.org/about/newsletter/un-spider-newsletter-114-space-technologies-united-nations>. Feel free to submit any suggestions or remarks you might have on this Newsletter to [un-spider@unoosa.org](mailto:un-spider@unoosa.org)

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### Geospatial Research, Applications, Software, Data

#### CAF Initiates Hydropower Assessment for Bolivia

Source: Eric van Praag

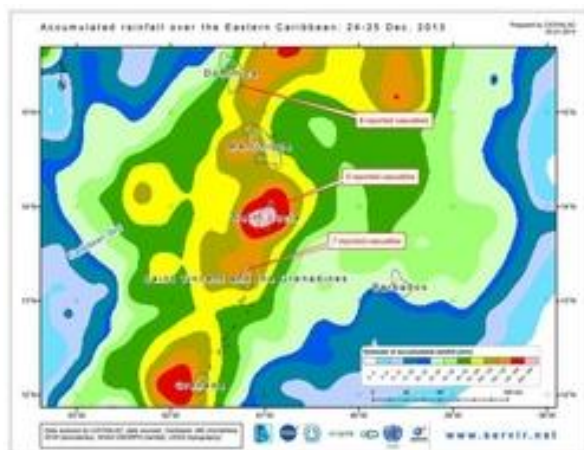
CAF has initiated the first phase of an innovative hydro power assessment for Bolivia. This initiative leverages the SRTM level-2 dataset (30 meter resolution) and hydrological data to undertake a detailed GIS analysis of the hydro power potential of more than 1,000,000 stream segments in this country. The study is being conducted with funding from CAF and in partnership with the U.S. Geological Survey (USGS), Center for Earth Resources Observation and Science (EROS), Bolivia's Ministry of Energy, the GeoSUR Program and CAF's Energy Program. USGS/EROS developed the methodology and is undertaking the GIS analysis required by the study. A similar study was previously undertaken for Sao Paulo State, Brazil in partnership with the Sao Paulo Energy Secretariat and in Peru in partnership with the Ministry of Energy. A second phase of this initiative

will undertake a feasibility study with local partners in Bolivia to estimate where this potential can be exploited, producing detailed technical sheets of potential hydro power projects. This type of hydro power assessment can now be conducted anywhere in Latin America and the Caribbean. Thanks to GeoSUR Program's relation with USGS access to the SRTM level-2 (30 m) dataset for the whole region is now possible, which is required for hydroelectric power assessment. Recently, a first phase of a similar study was finished in Peru and another in Haiti is forthcoming.



#### CATHALAC Support to Flood-stricken Eastern Caribbean Islands

Source: <http://www.un-spider.org/>



The eastern Caribbean islands of Dominica, Saint Lucia and Saint Vincent and the Grenadines were affected by torrential rains which triggered massive flooding and local landslides. The Associated Press reported that on the three islands, there were some 20 casualties. The Prime Ministers of those countries declared the state of national disaster, and even the Secretary General of the Organization of American States gave a statement on the tragedy. In response to requests coming from the affected countries, and in the context of CATHALAC's role as a UN-SPIDER Regional Support Office in the region, CATHALAC's Division of Applied Research and Development prepared an analysis of the events triggering the disaster. The analysis was based on satellite-derived estimates of rainfall, principally from NOAA's Satellite and Information Service (NESDIS), and climatology data from the WorldClim 1.4 database. The results of the analysis showed that a substantial quantity of rain fell over the eastern Caribbean in the 2-

day period well above normal. CATHALAC's analyses are [available on Facebook](#), and were shared with representatives of the disaster management agencies of the three affected countries, as well as the University of the West Indies (another UN-SPIDER Regional Support Office), and the Caribbean Community (CARICOM)'s Caribbean Public Health Agency (CARPHA).



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### Digital Elevation Models, Mexico

Source : <http://www3.inegi.org.mx/>

Data from continental and insular relief are height values that can represent, by means of Digital Elevation Models, the shapes of mountains, plateaus, valleys, depressions, terraces and alluvial fans. To this end, the altimetry data on the Earth's surface are captured by aircraft, satellite and/or terrestrial systems platforms. Digital Elevation Models allow topographic modeling in two and three dimensions, which can be used in various civil engineering, geodesy, photogrammetry, natural resource planning and management, Earth science, military and mapping applications. The following are currently available for viewing and downloading :

- 2,547 Digital Elevation Models at scale of 1:50.000 (bil format).
- 141 Digital Elevation Models at scale of 1:250.000 (bil format)

### Spatial Analysis Software for Free Download, Mexico

Source : <http://www.igeograf.unam.mx/>

The Geospatial Analysis Laboratory of the Institute of Geography of the National Autonomous University of Mexico (in spanish UNAM) has made three spatial analysis software freely available to the public, developed by Dr. Jean-François Parrot of the Institute of Geography. These are TLALOC (Local Operating Dimensional Landscape Analysis Computation), FROG (Fractal On Geosciences Research) and DEMONIO (Digital Elevation Model Interpolating Obtained by Numerical Operations). TLALOC can simulate processes such as landslides, tsunamis, earthquakes and flooding. FROG allows to study the evolution of phenomena that recur at different scales,

called fractal dimension, and has been used to analyze the growth of Mexico City. Meanwhile, with DEMONIO it is possible to generate three-dimensional models of the Earth's surface. Dr. Jean-François Parrot said that these technological developments represent a major effort to promote geographic research in Mexico, because "it is better to have an own bike, than depending on the neighbor's car." This refers to how expensive it is to purchase licenses for the use of such programs which are manufactured by foreign companies. Jean-Francois Parrot considered that by making publicly and freely available their creations he offers a gift to the geographic community with the confidence that these applications will be useful to society. These software is available for free download from the new website of the Geospatial Analysis Laboratory. You may also find other research and technological developments in this section of the Institute of Geography. Webpage address is: <http://www.igg.unam.mx/sigg/investigacion/lage/quienes.php>



### IGAC: New Satellite Image Processing System

Source: <http://www.un-spider.org/>

The UN-SPIDER Regional Support Office in Colombia, Instituto Geografico Agustin Codazzi (in Spanish IGAC), has enhanced its capacities to create accurate maps and baselines by acquiring a Geolmaging Accelerator (GXL) satellite and Aerial processing system from the remote sensing software provider PCI Geomatics. "The speed, accuracy, and multi-sensor support of the system were determining factors in selecting PCI's GXL for our projects," said Jaime Duarte, Assistant Director of Cartography and Mapping at IGAC. "Creating mosaics of over 1,000,000 km<sup>2</sup> is an enormous task that requires exceptional speed and automation (...)" IGAC develops and provides information and knowledge related to cartography, agrology, cadastral, geography and geospatial technologies. It is responsible, among others, for developing the official map of Colombia, creating a soil characteristics inventory, advancing geographic investigations in support of territorial development, and coordinating the "Colombian Spatial Data Infrastructure" or ICDE (in Spanish). It will use the GXL image processing system for example to produce accurately orthorectified basemaps. Read more: PCI Geomatics <http://pcigeomatics.blogspot.de/2014/01/pci-geomatics-delivers-gxl-satellite.html>

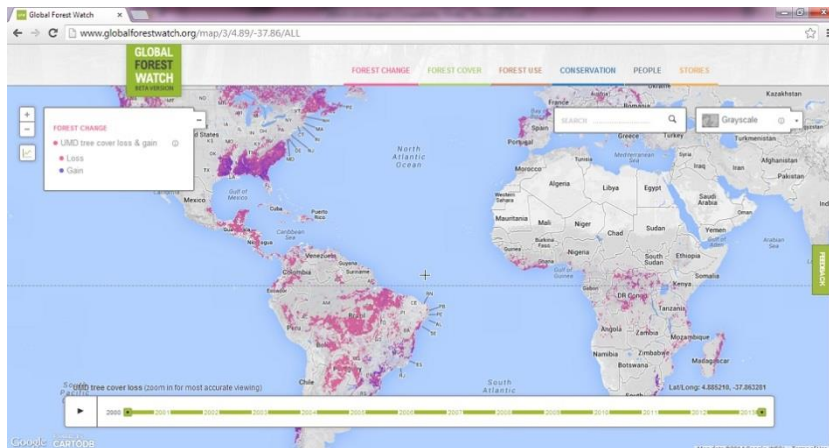
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### [Google Launches Global Deforestation Observatory](#)

Source: Arturo Brun-Martinez

Google the Internet giant, environmental organizations and many governments presented on February a sophisticated database to track deforestation in the world, hoping to intensify the fight against one of the main causes of global warming. From the site [www.globalforestwatch.org](http://www.globalforestwatch.org) information on the observation of disappearance of trees across the planet from frequently updated high resolution images may be accessed for free.

According to data gathered by Google and the University of Maryland, the Earth lost 2.2 million square kilometers of forest between 2000 and 2012. "The problem for collecting the figures has not been a lack of will or lack of laws to regulate deforestation. Trouble is, among others, the lack of ability to really know what is happening," said Andrew Steer, Director General of the World Resources Institute, a leader in the creation of databases. The database will allow anyone over the Internet to verify protected forests and even companies that buy palm oil from legal plantations, he added. Deforestation plays a crucial role in climate change and forests, which occupy a third of the planet and act as natural sinks of greenhouse gases that would otherwise go into the atmosphere. To build the database, Google compiled millions of satellite images preserved for more than 40 years by the U.S. Geological Survey. Rebecca Moore, an engineer of the company, explained that the biggest challenge of the project was to "create this mass of data" with a relevant and useful level of detail. The governments of Norway, Great Britain and the United States also participate in this initiative.



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## Training and Funding Opportunities, Awards

### [Call for PAIGH Geophysics Commission Graduate Scholarship](#)

Source : Rodrigo Barriga-Vargas



As part of the Technical Cooperation Program of PAIGH in relation to training specialists of high academic standards, the PAIGH Commission of Geophysics opens the period for granting a scholarship for a graduate Latin American student on Earth Sciences at the National Autonomous University of Mexico (in Spanish UNAM). Students from PAIGH member countries (excluding Mexico and the United States) are invited to submit applications to fill this scholarship, which will be implemented in line with the academic period beginning in August 2014 and will continue for a maximum of two years. Areas of Postgraduate study on Earth Sciences at UNAM include: Solid Earth Geophysics; Groundwater Exploration and Modeling; Geology; and Atmospheric, Space and Planetary Sciences. Scholarship applications are open to students from PAIGH member countries and must be submitted by the applicant together with a resume to the General Secretariat of the Institute [secretariageneral@ipgh.org](mailto:secretariageneral@ipgh.org) before **June 30, 2014**. Applicants should consult the website of the Postgraduate Earth Sciences at UNAM (<http://www.pctierra.unam.mx/>) to identify the requirements for

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admission, or contact [pctierra@unam.mx](mailto:pctierra@unam.mx). Once admitted to the Graduate Studies program in Earth Sciences at UNAM, the Geophysics Commission shall designate the beneficiary of the grant in September. According to PAIGH Regulations on Scholarships grantees must comply with work office at the General Secretariat of PAIGH during the course of their studies. Special conditions will be evaluated and coordinated directly between the PAIGH General Secretariat and the Commission of Geophysics.

### OAS Online Courses - Cadastre: Scholarships of up to 56% of the Value of the Course to Government Servants

Source : Rodrigo Barriga-Vargas

As to strengthen capacities of Cadastre in its member states, the Organization of American State (OAS) has developed a portfolio of online courses with a multi-purpose approach that transcends the traditional view of land for municipal, provincial and national planning with efficiency and transparency as a means to lay the foundation to sustainable socioeconomic development. The courses meet the needs of participants from introductory to advanced use of GIS (Geographic Information Systems).

Introduction to Cadastral Management. Ed 9: better preparation and greater knowledge of Cadastral Management will have a positive impact on the governments' efficiency and transparency ([more info](#)). [Registration opens from March 3](#)

Modernization of Cadastral Management. Ed.10: This course provides knowledge and tools to implement cadastral modernization projects that result in sustainable cadastral management ([more info](#)). [Registration opens from April 14](#)

Use of GIS Technology in Land Registry. Ed.12: Provides tools for implementing a GIS project in Cadastre. Due to its technical content this course is designed for technicians and managers ([more info](#)). [Sign up here](#).



### Online Conference on "Digital USGS National Map"

Source: Pan American Professional Network PAIGH

On Wednesday **March 12**, from 2:00 to 3:00 pm GMT will be held an online conference on "Digital USGS National Map". Mark DeMulder, National Member of the Commission of Cartography of PAIGH is the speaker. The conference is organized by MundoGEO, GeoSUR and USGS. All conference attendees will receive a certificate of participation. Registration at: <https://www2.gotomeeting.com/register/552035154>

### Scholarship Contest, Argentina

Source: IDERA dissemination

The National Commission on Space Activities (in Spanish CONAE) and the Italian Space Agency (*Agenzia Spaziale Italiana* ASI) announce the opening of a new call for scholarships to pursue the Master of Space Applications for Early Warning and Emergency Response, organized by the space agencies of Argentina and Italy, together with the National University of Córdoba (Argentina) Faculty of Mathematics, Astronomy and Physics (in Spanish FaMAF). The Master Program lasts two years and is aimed at professionals from various disciplines. Students are provided with scholarships to full-time studies at the Institute for Space Studies "Mario Gulich" located in CONAE Teófilo Tabanera Space Center in *Falda de Cañete*, Province of Córdoba, Argentina, and should also comply with a six months stay in other research centers in Argentina or Italy. Application deadline for Scholarships is **April 30**, 2014 for Argentinean applicants, and **March 28**, 2014 for foreign applicants. For more information please contact the "Gulich Institute" at: [ig@conae.gov.ar](mailto:ig@conae.gov.ar) / [Learn more](#).

### Final BEST Preparatory Action Project for Europe Overseas Launched

Source: Carole Martinez

The contract to implement the third year of the European BEST Preparatory Action was launched at the European Commission. This crucial phase of the initiative focuses on developing measures for sustaining the European BEST Initiative for conservation and the sustainable use of biodiversity and ecosystem services in EU outermost regions and overseas countries and territories. The four year project will develop a platform that shall profile BEST projects and facilitate information sharing on funding availability from a range of different sources. A lot of information will be available on the platform including description of current and BEST projects to come. The platform will serve as a clearinghouse for local actors and donors. It is envisaged that potential funders might include the European



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Commission, Member States and other possible partners, such as international financial institutions, NGOs and the private sector. Crucially, the project will also see the development of required support mechanisms including regional ecosystem profiles and BEST strategies including investment plans. These tools are essential in order to ensure that long term funding for projects for biodiversity in European overseas entities is dedicated to the most pressing conservation challenges and to support priority sustainable development needs and climate change adaptation. EU Outermost Regions (ORs) and Overseas Countries and Territories (OCTs) are home to exceptional biodiversity. The 34 political entities include more than 150 islands and one Outermost Region in South America; French Guyana. Together they cover a total land area equivalent to the EU area, and a marine territory, which is the largest of the world. For more information: [click here](#)

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### Employment Opportunities

#### Call for 16 PhD-Fellowships and 4 Post-Doc Positions in the Area of Digital Cultural Heritage

Source: IFP - uni stuttgart

All the calls are available under [www.itn-dch.eu](http://www.itn-dch.eu). The “Initial Training Network for Digital Cultural Heritage: Projecting our Past to the Future” with acronym ITN-DCH ( [www.itn-dch.eu](http://www.itn-dch.eu)), is the first and one of the largest Marie Curie fellowship projects in the area of the e-documentation / e-preservation and Cultural Heritage (CH) protection funded by the European Union under the FP7 PEOPLE research framework (<http://ec.europa.eu/research/mariecurieactions/>). The project aims to train 20 fellows (16 Early Stage Researchers and 4 Experienced Researchers – 500 person months) in the area of CH digital documentation, preservation and protection in order to create for them a strong academic profile and market oriented skills which will significantly contribute to their career prospects. ITN-DCH aims -for the first time worldwide- to analyze, design, research, develop and validate an innovative multidisciplinary and inter-sectorial research training framework that covers the entire lifecycle of digital CH research for a cost– effective preservation, documentation, protection and presentation of cultural heritage. ITN-DCH targets all aspects of CH ranging from tangible (books, newspapers, images, drawings, manuscripts, uniforms, maps, artefacts, archaeological sites, monuments) to intangible content (e.g., music, performing arts, folklore, theatrical performances) and their inter-relationships. The ITN-DCH project is seeking highly motivated and valuable researchers for PhD positions in the entire field of Digital Heritage, such as: Data Acquisition (Photogrammetry, Terrestrial Laser Scanning, GIS) and Computer Vision Data Processing, 3D reconstruction and modeling, symbolic, semantic and ontology representation, metadata, mixed and augmented reality technologies, CH e-services. All the fellows are supposed to travel between the project partners and attend a series of complementary training courses, scientific workshops and summer schools. The call for fellows is available on the ITN-DCH website: [www.itn-dch.eu](http://www.itn-dch.eu). For any queries, please contact Marinos Ioannides and Dieter Fritsch at: [marinos.ioannides@cut.ac.cy](mailto:marinos.ioannides@cut.ac.cy); [dieter.fritsch@ifp.uni-stuttgart.de](mailto:dieter.fritsch@ifp.uni-stuttgart.de)



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### Other

#### UWI Seismic Research Centre Director Receives Regional Award

Source: NEMO News

The University of the West Indies (UWI) Seismic Research Centre's (SRC) Dr. Richard Robertson, has been named as a laureate for the Anthony N. Sabga Caribbean Awards for Excellence (ANSCAPE) in Science and Technology. Details at this link: <http://www.uwiseismic.com/NewsDetails.aspx?id=311>



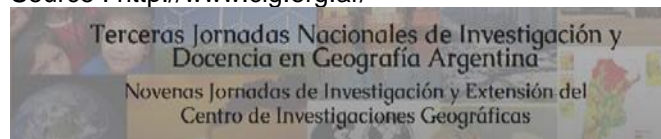
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## Americas: Conferences, SDI Events

### [3rd National Conference on Argentinean Geography Research and Education, and 9th Conference on Geographical Research and Extension](http://www.cig.org.ar/)

Source : <http://www.cig.org.ar/>



The Geographical Research Center invites participation to the Third National Conference on Argentinean Geography Research and Education and 9th Conference on Geographical Research and Extension ([http://www.cig.org.ar/index.php?option=com\\_content&view=article&id=338&Itemid=110](http://www.cig.org.ar/index.php?option=com_content&view=article&id=338&Itemid=110)) that will be held on the campus of the National University of Central Buenos Aires Province, on May 7-9, 2014. It is expected the active participation of researchers and scholars from accredited centers and projects, university professors and assistants, teachers and students of secondary and tertiary levels. During the the conference various themes of the Argentinean Geography will be addressed, and the exchange and discussion of different situations, conflicts and problems that exist in this country will be promoted. Updated information may be found at: <http://inscripcionjornadas.wix.com/jornadascig2014>

### [Second Brazilian Symposium of Historical Cartography](http://www.inde.gov.br/)

Source: INDE Brazil



Call to participate in the second edition of the Brazilian Historical Cartography Symposium, to be held on May 28-30, 2014. On this occasion, the scientific community

will be gathering in Tiradentes, Minas Gerais, Brazil for discussion, debate and dissemination of knowledge in the area of Historical Cartography. The Symposium is organized by the Centre for Excellence in Historical Cartography of the Federal University of Minas Gerais in partnership with various institutions involved with Historical Cartography. In its first edition, held in Paraty in 2010, an audience of about 180 participants involving guest speakers, speakers and listeners was brought together. More information at: <http://www.ufmg.br/rededemuseus/crch/simposio2014>

### [Eighth International Congress of Latin American Geography: Revisiting Paradigms, Creating Alliances](http://www.ign.gob.ar/)

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

It will be held between 15 and 20 September 2014 in Madrid, Spain, with the organization of the Latin American Association of Spanish Geographers (in spanish AGEAL), the Department of Human Geography and the Institute "Complutense" for International Studies (in Spanish ICEI) of the Complutense



University of Madrid and the Spanish Council Latin American Studies (in Spanish CEEIB). Themes:

1. The boundaries of geography. Environmental processes and conflicts over the use of natural resources.
2. Urban and metropolitan processes in the globalization of the crisis. Local strategies of resistance.
3. Socioeconomic and Territorial Processes in Latin America: Actors, Processes, Scales.

Pre-registration and abstract submission deadline:

**March 14, 2014.** More information at:

<http://www.ageal.es/>

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Year 2014

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## MARCH 2014

|                       |                                     |   |
|-----------------------|-------------------------------------|---|
| 3-5                   | Ottawa, Canada                      | <a href="#">Geospatial Advancement Canada 2014</a>  |
| 4-6                   | Loveland CO, USA                    | <a href="#">Link 2014 - Schneider Electric GIS Annual Conference</a>  |
| 8-11                  | Palm Springs CA, USA                | <a href="#">Esri Partner Conference</a>   |
| 10-13                 | Palm Springs CA, USA                | <a href="#">Esri International Developer Summit</a>   |
| 10-14                 | The Woodlands TX, USA               | <a href="#">24th Annual South Central Arc User Group Conference</a>   |
| 11-16<br><b>*NEW*</b> | Buenos Aires, Argentina             | <a href="#">First International Postgraduate Course of Land Use Planning</a>  |
| 12-15                 | Río Gallegos, Santa Cruz, Argentina | <a href="#">9<sup>th</sup> Patagonian Working Days on Geography 2014</a>  |
| 20-21                 | Cartagena de Indias, Colombia       | <a href="#">First International Conference on Biofuels, and VI International Congress on science and technology of Biofuels (CIBSCOL)</a> |
| 22<br><b>*NEW*</b>    | Worldwide                           | <a href="#">World Water day 2014</a>  |
| 23-27                 | Louisville KY, USA                  | <a href="#">ASPRS 2014 Annual Conference- Geospatial Power in Our Pockets</a>   |
| 26-28                 | Vancouver, Canada                   | <a href="#">Globe 2014</a>  |
| 27-29                 | Malargüe – Mendoza, Argentina       | <a href="#">10<sup>th</sup> Physical Geography National Working days</a>  |
| March 30 – April 2    | San Diego CA, USA                   | <a href="#">17th Annual AAAE GIS Conference and Exhibition</a>  |

## APRIL 2014

|                       |                                  |   |
|-----------------------|----------------------------------|---|
| 1-2                   | Washington DC, USA               | <a href="#">MAPPS Federal Programs Conference</a>                                     |
| 8-10                  | Tabasco, México                  | <a href="#">PECOM – Petroleum Exhibition and Conference of Mexico</a>                 |
| 8-12                  | Tampa FL, USA                    | <a href="#">AAG Annual Meeting 2014</a>   |
| 9-11                  | Cuidad Temuco, Chile             | <a href="#">6<sup>th</sup> Chilean Congress of Forestry</a>                           |
| 10-11                 | Toluca, México                   | <a href="#">First Mexican gvSIG Conference: Open Knowledge Geotechnologies</a>        |
| 12-13                 | Washington DC, USA               | <a href="#">State of the Map US 2014</a> and <a href="#">OpenStreetMap Conference</a> |
| 14-16<br><b>*NEW*</b> | Monterey CA, USA                 | <a href="#">20th Annual California GIS Conference</a>                                 |
| 14-17                 | Tampa FL, USA                    | <a href="#">GEOINT 2014</a>   |
| 22-23<br><b>*NEW*</b> | Lima, Perú                       | <a href="#">International Congress on Geomatics GEOEXPO Lima 2014</a>                 |
| 22-25                 | Rancho Mirage CA, USA            | <a href="#">Field Service 2014</a>  |
| 23-25                 | Houston TX, USA                  | <a href="#">Esri Petroleum GIS Conference</a>   |
| 24-25                 | San Miguel de Tucumán, Argentina | <a href="#">5<sup>th</sup> TUCUMANSIG Working days 2014</a>                           |
| April 27-May 1        | Kansas City MO, USA              | <a href="#">MAGIC 2014</a>  |
| 30                    | Michoacán, México                | <a href="#">Cartography and Social Uses of Water</a>                                  |

## MAY 2014

|                         |                         |   |
|-------------------------|-------------------------|---|
| 5-7                     | Charlotte NC, USA       | <a href="#">Esri Southeast User Conference</a>  |
| 5-9<br><b>*NEW*</b>     | Bahía Blanca, Argentina | <a href="#">24<sup>th</sup> Argentinean Congress of Soil Science - 2<sup>nd</sup> National Meeting on Organic Matter and Humid Substances</a> |
| 6-8                     | Burlington VT, USA      | <a href="#">Geospatial Information Systems for Transportation Symposium</a>   |
| 7-8                     | Valparaíso IN, USA      | <a href="#">2014 Indiana GIS Conference</a>   |
| 8-9<br><b>*NEW*</b>     | Boston MA, USA          | <a href="#">2014 Conference: Disaster Mitigation, Preparedness, Response and Sustainable Reconstruction</a>                                   |
| 8                       | Sao Paulo, Brazil       | <a href="#">Location Intelligence Brazil 2014</a>   |
| 7-9<br><b>*UPDATED*</b> | Sao Paulo, Brazil       | <a href="#">MundoGEO#Connect 2014</a> Conference and Trade Show Geomatics and Geospatial Solutions  |
| 7-9                     | Sao Paulo, Brazil       | <a href="#">The Latin American and Caribbean gvSIG working days joined with MundoGEO#Connect 2014</a>   |



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| <b>7-9</b><br><b>*NEW*</b>   | Tandil - Buenos Aires, Argentina | <a href="#">3rd National Conference on Argentinean Geography Research and Education, and 9th Conference on Geographical Research and Extension Geographical Research</a> - Geography: the challenge of building inclusive territories |
| <b>12-14</b>                 | Tacoma WA, USA                   | <a href="#">2014 Washington GIS Conference</a>  |
| <b>13-15</b>                 | Orlando FL, USA                  | <a href="#">AUVSI Unmanned Systems 2014</a>   |
| <b>14-17</b>                 | Santa Fe, Argentina              | <a href="#">4th Geography International Meeting of Southern Cone</a>  |
| <b>15-17</b>                 | Eldorado, Misiones, Argentina    | <a href="#">16th Forestry and Environmental Technical Conference</a>  |
| <b>19-21</b><br><b>*NEW*</b> | Washington DC, USA               | <a href="#">Location Intelligence 2014</a>  |
| <b>20-22</b>                 | Salt Lake City UT, USA           | <a href="#">2014 Cityworks User Conference</a>  |
| <b>27-29</b>                 | Guayaquil, Ecuador               | <a href="#">Fourth Disaster Risk Reduction Session of the Regional Platform for the Americas 2014</a>   |
| <b>28-30</b><br><b>*NEW*</b> | Tiradentes, Minas Gerais, Brazil | <a href="#">Second Brazilian Symposium of Historical Cartography</a>  |

## JUNE 2014

|                              |                         |   |
|------------------------------|-------------------------|---|
| <b>2-5</b>                   | Las Vegas NV, USA       | <a href="#">HxGN LIVE 2014 - Hexagon International Conference</a>   |
| <b>3-5</b>                   | Boone NC, USA           | <a href="#">71st Eastern Snow Conference</a>  |
| <b>9-10</b><br><b>*NEW*</b>  | Buenos Aires, Argentina | <a href="#">7th Conference on Cultural Identity and Foreign Policy in American History and Argentina</a>                          |
| <b>10-13</b>                 | Vancouver BC, Canada    | <a href="#">FME International User Conference 2014</a>  |
| <b>10-15</b><br><b>*NEW*</b> | Memphis TN, USA         | <a href="#">MapInfo User Conference</a>   |
| <b>16-17</b><br><b>*NEW*</b> | Bogotá, Colombia        | <a href="#">Andean Geomatics 2014 3rd International Congress of Geo Information Technologies and Urban Development Management</a> |
| <b>16-18</b>                 | Orlando FL, USA         | <a href="#">The Institute of Navigation (ION) 2014 Joint Navigation Conference (JNC)</a>  |
| <b>16-18</b><br><b>*NEW*</b> | San Diego CA, USA       | <a href="#">Inspire 2014 Analytic Freedom</a>   |
| <b>To be determined</b>      | São Paulo, Brazil       | <a href="#">History of Cartography, Historical Cartography and Digital Cartography</a>  |

## JULY 2014

|                              |                       |  |
|------------------------------|-----------------------|--|
| <b>10-12</b><br><b>*NEW*</b> | Lima, Peru            | <a href="#">International Symposium on Sustainable Development of Peripheral Rural Regions</a> |
| <b>12-15</b>                 | San Diego CA, USA     | <a href="#">Esri National Security Summit</a>  |
| <b>12-15</b>                 | San Diego CA, USA     | <a href="#">Esri Education GIS Conference</a>  |
| <b>12-15</b>                 | San Diego CA, USA     | <a href="#">Esri Business Summit</a>   |
| <b>12-15</b>                 | San Diego CA, USA     | <a href="#">Esri Architecture, Engineering and Construction Summit</a>                         |
| <b>12-15</b>                 | San Diego CA, USA     | <a href="#">Esri 3D Mapping Forum</a>  |
| <b>14-18</b>                 | San Diego CA, USA     | <a href="#">Esri International User Conference "United We Map"</a>                             |
| <b>15-19</b>                 | San Diego CA, USA     | <a href="#">International Congress on Environmental Modelling and Software (iEMSS 2014)</a>    |
| <b>24-27</b>                 | San José, Costa Rica  | <a href="#">WCCA 2014 – World Congress on Computers in Agriculture and Natural Resources</a>   |
| <b>27-31</b>                 | Coeur d'Alene ID, USA | <a href="#">2014 MAPPS Summer Conference</a>   |

## AUGUST 2014

|                              |                         |   |
|------------------------------|-------------------------|---|
| <b>3-7</b><br><b>*NEW*</b>   | Goiânia, Brazil         | <a href="#">9th International Symposium AgroEnviron2014: "Impacts of Agro Systems on the Environment: Challenges and Opportunities"</a>                                       |
| <b>6-9</b><br><b>*NEW*</b>   | Lima, Perú              | <a href="#">12th Latin American Association of Communication Researchers Congress (in Spanish ALAIC)</a>  |
| <b>6-8</b>                   | Bahía Blanca, Argentina | <a href="#">2nd Southern Argentina Conference on Geographic Information Technologies</a><br>Contact: <a href="mailto:jornadasinfogeo@gmail.com">jornadasinfogeo@gmail.com</a> |
| <b>26-28</b><br><b>*NEW*</b> | Gatineau-Ottawa, Canada | <a href="#">International Conference on Water, Informatics, Sustainability and Environment: iWISE 2014</a>  |

## SEPTEMBER 2014

|                             |                  |  |
|-----------------------------|------------------|--|
| <b>8-12</b><br><b>*NEW*</b> | Cusco, Perú      | <a href="#">X COLAGE - Latin American Conference on Space Geophysics</a> |
| <b>8-13</b>                 | Portland OR, USA | <a href="#">FOSS4G 2014</a>  |

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|-----------------------|--------------------------|---|
| 14-18                 | Charleston SC, USA       | <a href="#">NSGIC National States Geographic Information Council 2014 Annual Conference</a>                 |
| 15-24<br><b>*NEW*</b> | Lima, Peru               | <a href="#">The SCOSTEP/ISWI International School on Space Science</a>                                      |
| 22-26<br><b>*NEW*</b> | Denver CO, USA           | <a href="#">GeCo in the Rockies 2014</a>  |
| 22-25                 | Ciudad de México, México | <a href="#">Latin America Geospatial Forum</a>  |
| 24-27                 | Bogotá, Colombia         | <a href="#">5<sup>th</sup> Ibero-American Symposium on the History of Cartography (5siach)</a>              |
| 24-26<br><b>*NEW*</b> | Mendoza, Argentina       | <a href="#">XII ENACOM 2014</a> "The role of communication in the process of Latin American integration"    |
| 25-26                 | Alexandria VA, USA       | <a href="#">2014 Geospatial and Engineering International Conference</a>                                    |
| 25-26                 | São Paulo, Brazil        | <a href="#">Esri Latin America User Conference - LAUC</a>   |
| Sep.29-Oct.3          | Medellin, Colombia       | <a href="#">16<sup>th</sup> International Symposium SELPER 2014: Geo-information at Service of Society.</a> |

### OCTOBER 2014

|       |                    |   |
|-------|--------------------|---|
| 14-18 | Quilmes, Argentina | <a href="#">7<sup>th</sup> Symposium from the Latin American and Caribbean Society of Environmental History</a> |
| 21-23 | Mérida, Venezuela  | <a href="#">3<sup>rd</sup> Venezuelan Congress of Geographic Information Systems GIS (COVESIG)</a>              |
| 22-24 | Ft. Worth TX, USA  | <a href="#">Race, Ethnicity and Place 2014 Conference</a>   |

### NOVEMBER 2014

|                       |                     |   |
|-----------------------|---------------------|---|
| 3-7                   | San Juan, Argentina | <a href="#">27<sup>th</sup> Scientific Meeting of Argentina Association of Geodesy and Geophysics</a> |
| 3-7<br><b>*NEW*</b>   | Scottsdale AR, USA  | <a href="#">21<sup>st</sup> ACM Conference on Computer and Communications Security</a>                |
| 4-7<br><b>*NEW*</b>   | Dallas TX, USA      | <a href="#">ACM SIGSPATIAL Cup 2014</a>   |
| 5-7                   | Córdoba, Argentina  | <a href="#">X Biennial Colloquium of Territorial Transformations</a>                                  |
| 14-15<br><b>*NEW*</b> | Huntsville AL, USA  | <a href="#">GEO-Energy-Cyber Huntsville Summit</a>  |

### DECEMBER 2014

|      |            |   |
|------|------------|---|
| 1-12 | Lima, Perú | <a href="#">Peru will host the COP20 2014</a> |
|------|------------|---|

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### JULY 2015

|       |                           |  |
|-------|---------------------------|--|
| 12-17 | San Salvador, El Salvador | <a href="#">55<sup>th</sup> Americanists International Congress: Conflict, Peace and Identity Construction in the Americas</a> |
|-------|---------------------------|--|

### AUGUST 2015

|       |                        |  |
|-------|------------------------|--|
| 23-25 | Rio de Janeiro, Brazil | <a href="#">27<sup>th</sup> International Cartographic Conference: Maps Connecting the World</a> |
|-------|------------------------|--|

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