

SDI-AP January 2012 Vol. 9, No. 1

Spatial Data Infrastructure – Asia and the Pacific (SDI-AP) is a free electronic newsletter from the Global Spatial Data Infrastructure Association (GSDI) which is available in both English and Chinese language versions. The newsletter is produced for people interested in Spatial Data Infrastructure, GIS, remote sensing and geospatial data issues in Asia and the Pacific. It aims to raise awareness and provide useful information to strengthen SDI initiatives and support synchronising these activities across the region. Support for the newsletter is also provided by the Permanent Committee on Geographic Information for Asia and the Pacific (PCGIAP), a regional forum to enhance cooperation in the development of a regional geographic information infrastructure. The newsletter is currently being produced for GSDI by the Centre for Spatial Data Infrastructures and Land Administration at the University of Melbourne.





To subscribe to SDI-AP use this link. Back issues of the newsletter are at the GSDI website. You can also sign up for GSDI News List to receive alerts of special news and announcements as well as notification of new issues of the SDI-AP newsletter. To subscribe and access archives of thematic or regional discussion lists please visit.

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Message from the editors

Welcome to the first issue of the newsletter for the year 2012.

If you have news or information related to SDI, GIS, RS or spatial data that you would like to share with the community (e.g. workshop announcements, publications, reports, websites of interest etc.), kindly <u>send us</u> the materials by the 25th of the each month for your contribution to be included in the next newsletter.

Malcolm Park and Serryn Eagleson (<u>Editors</u>), at the <u>Centre for Spatial Data Infrastructures and Land Administration</u>, The University of Melbourne.

Contributions

Thank you to the following people and organisations for their contributions to this issue: Baek Wonkug for news feeds, Jeremy Shen and Bruce Lan and colleagues for the Chinese translation as well as Shivani Lal, *GIS Development*, *GeoSpatial World* and *Asia Surveying & Mapping* magazine for directly contributing to the newsletter.



GSDI News

International Geospatial Society (IGS) Free Memberships

At its recent meeting, the GSDI Board of Directors passed a motion that allows individuals in low and very low income nations to join the International Geospatial Society (IGS) by providing specific information of value to the global community in lieu of annual cash dues. To join, simply add your professional profile to the growing interconnected network of geospatial specialists across the globe. Benefits of membership in IGS are listed at http://www.igeoss.org/benefits. For further information, contact Harlan Onsrud, Executive Director, GSDI Association.

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SDI News, Links, Papers, Presentations

Geospatial Awards: Submit nominations before 15th January 2012

As you are aware, 'Geospatial World - Your Geospatial Industry Magazine' has been encouraging and recognizing excellence in the various projects, innovations and policies that have helped shape the future of the geospatial industry. We do this by inviting nominations globally for the Geospatial World Excellence Awards in the following categories:

- Geospatial Application Excellence Awards
- Geospatial Technology Innovation Awards
- Geospatial Policy Implementation Awards

The process of nomination is now open, and I invite you to help us recognize the best of the projects, policies and innovations in our domain. **The last date for filing your nomination is 15th January 2012**. The awards will be presented to the winners selected by an International Panel of Judges, on the auspices of the awards function during Geospatial World Forum 2012, 23 - 27 April, Amsterdam, The Netherlands.

We request you to register yourself and complete the online nomination process by visiting http://awards.geospatialmedia.net

ESRI Pledges Support for Spatial Planning of 1 Million Sq. Km Marine Park in Cook Islands

This new commitment is in response to Cook Islands Prime Minister Henry Puna's challenge, which was issued to the international community at the summit, to provide support to developing countries who have expressed a commitment to protecting the oceans.

The Cook Islands Marine Park is a large addition to the **Pacific Oceanscape**, an innovative commitment by 16 Pacific Island governments to integrated marine conservation and sustainable management across approximately 40 million sq km of ocean. Prime Minister Puna and the Cook Islands delegation was joined at the summit by Teuea Toatu, Executive Director of the Phoenix Islands Protected Area (PIPA) in Kiribati, and a delegation from **Conservation International (CI)** which has committed technical and scientific assistance to implement the Pacific Oceanscape since its inception.

Source: GIS User

Director General. Ts Gankhuu from Land Affairs, Construction, Geodesy and Cartography of Mongolia shared a national report on NSDI status of Mongolia with PCGIAP members.

Source: PCGIAP

Learn about Spatial Cyberinfrastructures

Earlier this year, Barbara Poore of the US Geological Survey published a valuable paper titled "Users as essential contributors to spatial cyberinfrastructures" in the Proceedings of the National Academy of Sciences (PNAS) USA. It is available as a free pre-print, which can be accessed here. The SDI Magazine has published the extended abstract which is available from the link below.

Source: SDI Magazine

Geofabric update

Version 2.0 of the Australian Hydrological Geospatial Fabric (Geofabric) is now available featuring several new components that increase its usability and function. The Geofabric is a specialised geographic information Back to contents



system that maps the spatial relationships between important hydrologic features such as rivers, lakes, aquifers, catchments and monitoring points.

Version 2.0 of the Geofabric was launched at the spatial@gov Conference in November 2011 and includes improved stream connectivity and new elements, such as water storage inflow and outflow nodes.

Geofabric products are accompanied by a product guide, metadata, product schemas, data dictionaries, data product specifications and tutorials to assist users.

Development of the Geofabric is led by the Bureau of Meteorology in partnership with Geoscience Australia, the Australian National University Fenner School of Environment and Society, and CSIRO Water for a Healthy Country Flagship.

Source: Bureau of Meteorology

Scope of digital mapping exercise in city likely to be enlarged

Mapping of utilities, a tool to identify gaps in civic amenities, may soon cover more areas in major cities, including Chennai, with the National Informatics Centre planning to suggest measures for suitable modifications to the Ministry of Defence guidelines on digital map data handling.

This follows an appeal to this effect to the NIC from officials of the civic bodies of Chennai, Mumbai, Kolkata, Bangalore, Ahmedabad and Hyderabad, at a meeting in New Delhi last week. The officials pointed to the existing restrictions pertaining to various aspects of geo-reference maps, starting with collecting and disseminating information about certain areas and facilities.

Source: The Hindu

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SDI Spotlight

This month's "Spotlight" feature is from <u>Katie Potts</u>, a CSDILA PhD candidate investigating land and property risk management through spatial enablement.

Spatially enabling risk

Introduction

Recent natural disasters such as earthquakes, flood, and fire, and other issues such as sea level rise, asbestos and pests all highlight the spatial nature of risk and the relationship between place and risk. In order to understand this relationship to reduce the uncertainty that risks bring accurate and timely land and property information is required. Comparing the risk information with land and property information can reveal who or what land is threatened by certain risks, giving stakeholders the ability to manage these threats. Land administration systems currently hold land and property information which is fundamental for risk management; however these systems are not arranged in a way to allow for coordination and sharing across jurisdictions. Consequently the ability of governments, business and citizens to manage risk to land and property is limited.

The current risk state

Within the Australian context the problems associated with the coordination, sharing, aggregation and dissemination of information is exacerbated by the out of date administrative arrangements that exist. The framework below (Figure 1) was developed to give an overarching view of the current arrangements of all stakeholders, information infrastructures and risks in Australia currently.

The figure is separated into four different layers, each representing a different element in the complex problem.

- The first layer from the bottom is the risk layer which represents the risks that are present in society today that affect property such as flooding, earthquakes, bushfire, fraud, storms, rights restrictions and responsibilities etc.
- The second layer of the diagram represents the risk object. The risk object represents a relationship between a person and a risk. A risk object is created when a person that is affected by a risk (has a relationship with the risk) recognises that relationship. The risk object reflects this recognition because without an understanding of the risk or acknowledgement of the existence of the risk the risk in unable to be managed. Managing a risk is an active choice so the creation of the object is necessary before the stage of risk management can take place.



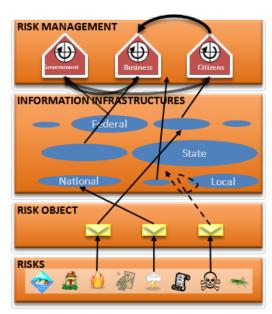


Figure 1: The current risk environment – Australian context

- The third layer of the diagram represents the information infrastructures that exist. These infrastructures are present in all levels of government federal, state and local, as well as in businesses national, state and local, and range from authoritative land administration systems, to other infrastructures which hold important land and property information.
- The final layer of the diagram is the risk management layer. This layer represents all the stakeholders that are involved in the risk management process. These stakeholders are able to carry out risk management by making choices about how to deal with risk that is relevant to them. As a part of this process the stakeholders are able to transfer the risk one treatment option, to each other. For example the citizen might transfer the risk to an insurance company, which the insurance company may then transfer to another business to reinsure the risk.

Each different layer of the diagram is intended to work together to allow for the information about risks from the bottom of the diagram to works its way through the diagram to reach the risk management stakeholders which require the information at the top. As the diagram reflects, this is not occurring in a seamless way which is a result of the information infrastructures layer which contributes to the problem in a number of ways. The problems are a result of sharing arrangements, access problems, awareness of some infrastructures, and coordination problems.

Proposed Model

Responding to these problems raised regarding the current arrangement of the information infrastructures a framework addressing these problems has been developed. The framework (Figure 2) takes into account the current risk environment as shown in Figure 1 and transforms the information infrastructures layer of the diagram into a one networked infrastructure that uses a land administration system as the platform.

For this proposed model a land administration system was selected as the platform because it is shown to be an effective infrastructure for managing and integrating land information (Williamson and Wallace, 2007). Already land administration systems have the capability to manage rights, restrictions and responsibilities relating to land, so extending the role of these systems towards managing risks is a logical progression. The proposed framework demonstrates a networked infrastructure that is able to coordinate all of the current information infrastructures to allow for timely, accurate, and aggregated information about risks that relate to land and property to be facilitated.

To address the problem of being able to search risk information, further spatial enablement of the information within the land administration system has been included in the proposed framework. The aggregation of the information infrastructures would allow for the information to be searched across one platform, and spatial enablement of the information would greatly enhance the effectiveness of the system for the stakeholders



attempting to gather information. A search queried into the platform would return all of the relevant information based on the spatial located searched. Further research into the specific architecture of this framework is required.

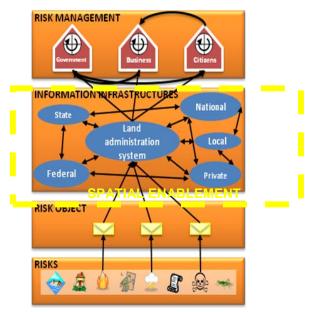


Figure 2: The proposed framework

The editors remind our subscribers and readers that we welcome contributions for the *Spotlight* feature.

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GIS Tools, Software, Data

Security Cameras As Planning Tools

A camera system is being unveiled in the Indian capital of New Delhi that has a lot more than <u>security</u> on its mind. New Delhi's new cameras are also designed to help advance a citywide 3D GIS mapping project for urban planning efforts. The first of 63 cameras was installed earlier this month, <u>India Today reports</u>, and they'll be used to take high-resolution images of the city.

Source: The Atlantic Cities

Coal seam gas and you

The ABC has produced the most comprehensive map of Australia's coal seam gas activities made so far.

Use the search tool to find gas wells in places of interest to you, and zoom in on Queensland and New South Wales to explore the full extent of coal seam gas mining in the Great Artesian Basin.

Click on individual wells to see their status, depth, the name of the company that owns the well, and exact geographical coordinates.

Click on the 'leases' button to see where coal seam gas companies have the right to look for more gas. http://www.abc.net.au/news/specials/coal-seam-gas-by-the-numbers/

Source: ABC

An Excellent Visual Comparison of Earthquake Strength

Think the 1994 Northridge quake was strong? How about Haiti's 2010 quake? This United States Geological Survey Video puts the energy released by earthquakes over the last 50 years in startling perspective. While I know that the scale that we use to measure earthquakes is not linear, it is difficult to make my brain believe it until I see it laid out like this. Take a look for yourself, and give thanks that you weren't in Chile in 1960 when the strongest quake ever recorded struck.

Source: The Atlantic



Extreme weather events and climate change - Interactive Map from NRDC Source: GISUser and Natural Resources Defence Council Methods for Developing NRDC's "Extreme Weather Map 2011"

RICS report exposes poor land record systems worldwide

Only 1.5 billion of the estimated 6 billion land parcels worldwide have land rights

formally registered in land administration systems, according to a collaborative research report by the Royal Institution of Chartered Surveyors (RICS) and Know Edge. The report also explored a potential solution: establishing a partnership between land professionals and citizens through 'crowdsourcing'.

Source: Geospatial World and RICS

Satellite images reveal Japan's tsunami was merger of two waves

The tsunami that devastated the north-east coast of Japan on March 11 was created by at least two wave fronts that merged to form a far more destructive "double tsunami", scientists in the US have said. Source: Sydney Morning Herald and NASA

Preparedness is key to disaster risk management

The United Nations International Conference on Space-based Technologies for Disaster Risk Management – "Best Practices for Risk Reduction and Rapid Response Mapping." The conference, held in Beijing during 22-25 November, was organised by UN SPIDER (United Nations Platform for Space-based Information for Disaster Management and Emergency Response) and the Ministry of Civil Affairs of the People's Republic of China. Source: Geospatial World Weekly

PSMSL launches interactive map of sea level changes

The UK's Permanent Service for Mean Sea Level (PSMSL) launched an interactive map that allows users to explore changes in sea level worldwide over five decades. The PSMSL, operated by the National Oceanography Centre under the auspices of the International Council for Science, is the global databank for sea-level change information. It was established in 1933.

The Anomalies Map, generated from a worldwide network of tide gauges, demonstrates how sea level varies from year to year when compared with the long-term average at a particular site, calculated over the period from 1960 to 1990. Moving a slider along the time line at the bottom of the map shows how, at some locations, sea level can vary by over 20 centimeters from year to year.

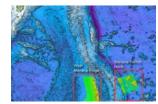
Source; Geospatial World and physorg.com

Seafloor "Bridges" Found to Span Earth's Deepest Trench

The Mariana Trench, located in the Pacific Ocean off the eastern coasts of Japan and the Philippines — at a depth of around 6.8 miles (11 kilometers) below sea level — is famous for being the deepest point on the planet's surface.

Now, to add to the Mariana Trench's fame, marine geophysicists recently mapped a set of surprising seafloor features nearby. At least four underwater "bridges" span the depths of the trench, where the Pacific Plate dives under the Philippine Plate.

Source: V1 Magazine and LiveScience



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News from abroad

"This section has been included to highlight some of the developments happening outside the region which demonstrate SDI in action.

Satellite imagery helps predict disease outbreak

Using satellite images to measure night-time light levels streaming from West African cities could prove to be an important new tool in fighting the spread of measles, according to a new study published in the December 9 issue of the journal Science.

... The research team, including a scientist from the University of Florida, analysed night-time satellite images of three cities in Niger taken between 2000 and 2004, and found that seasonal population surges correlated strongly with local measles epidemic outbreaks recorded for the same period. The epidemics kill thousands

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annually in West Africa, although the disease has been largely eradicated in the US through long-standing immunisation programmes.

The research showed that satellite images of city lights can reliably predict a likely outbreak by indicating where the highest concentrations of people are. In Niger, measles outbreaks occur when people crowd into the cities during the dry season each year to find work.

Source: Geospatial World Weekly & University of Florida News

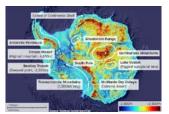
Antarctic's hidden world revealed

Scientists have produced the most detailed map yet of the White Continent's underbelly - its rock bed. ... The map is a fascinating perspective but it is more than just a pretty picture - it represents critical knowledge in the quest to understand how Antarctica might respond to a warming world.

Source: BBC News - Science & Environment

Related: Map tracks Antarctica on the move (also from BBC News - Science & Environment)

Scientists have produced what they say is the first complete map of how the ice moves across Antarctica. Built from images acquired by radar satellites, the visualisation details all the great glaciers and the smaller ice streams that feed them.



US government evaluating GPS interference tests

The National Telecommunications and Information Administration (NTIA) in the United States is analysing the results of tests designed to study whether LightSquared's proposed terrestrial LTE network will interfere with the operation of GPS receivers devices used for marine and outdoor recreation activities. Source: Geospatial World Weekly

European Open Data

Europe has just released a new set of directives and policies related to open government data. This was partly in response to a series of open discussions recently held online and throughout Europe in looking at the use and distribution of open data. The full report is <u>available</u>.

The pertinent points are:

Making it a general rule that all documents made accessible by public sector bodies can be re-used for any purpose, commercial or non-commercial, unless protected by third party copyright;

Establishing the principle that public bodies should not be allowed to charge more than costs triggered by the individual request for data (marginal costs); in practice this means most data will be offered for free or virtually for free, unless duly justified.

Making it compulsory to provide data in commonly-used, machine-readable formats, to ensure data can be effectively re-used.

Introducing regulatory oversight to enforce these principles;

Massively expanding the reach of the Directive to include libraries, museums and archives for the first time; the existing 2003 rules will apply to data from such institutions.

Thanks to Douglas Nebert for this item

Best Maps of 2011: A Defining Year in Mapping and Spatial Analysis

Source: www.gotgeoint.com

NASA Earth Observatory





UK Politicians Realise the Importance of GIS

Senior politicians do not always appreciate the value of Geographic Information and Location Intelligence. With their minds now sharply focused on boundary changes for the UK Parliament, nothing brings home the importance of spatial analysis as clearly as the threat of losing some seats. In this article Jamie Justham, Chairman of Dotted Eyes, one of the UK's leading GIS development houses, summarises how the recent and proposed legislation is being put into practice and its likely consequences.

Source: V1 Magazine



Articles

Global and Local Spatial Data Mining on Literacy Rates of Bangladesh

This research investigates the spatial properties of Bangladesh's literacy rates and educational establishments at the Zila level. The data is from the 64 well defined administrative units of Bangladesh known as Zilas. For autocorrelation we use univariate Moran's I and other various bivariate Exploratory Spatial Data Analysis (ESDA) techniques. Spatial clusters are found with Zilas that are surrounded with Zilas with high literacy rates. The results found from this research provide interesting and useful information to government, environmentalists and relevant decision makers' in the assessment of the relative performance of a particular geographic area. The results could also be used for causal analysis by domain experts.

ICIS '11 Proceedings of the 2011 10th IEEE/ACIS International Conference on Computer and Information Science Source: ACM Digital Library

A Few Salient Points

Anyone who's stared long enough at a map knows the experience: eventually, your eyes settle on a feature so strange that you immediately rush to the history books for the back story. And nothing gets a border-watcher going quite like a salient [or "panhandle" as they are known in the United States].

Source: NY Times blog



'Shifting from 2D to 3D is a matter of mindset'

Interview with Richard Zambuni, Global Marketing Director – Geospatial, Bentley Systems Inc.

Source: Geospatial World

Interoperability and Data Exchange for the World's Oceans by Jeff Thurston (Asian Surveying & Mapping)

<u>User requirements analysis for the development of NSDI</u> by Ahmed Hamood Mohammed Al-Wardi This paper elaborates SDI situation in the Sultanate of Oman from an organisational perspective. Source: Co-ordinates

Clearing Landmines Using Aerial Photographs by Jose Diacono (Asian Surveying & Mapping)

Manufacturing a landmine is cheap – as little as \$3. Removing it is a tedious, dangerous, lengthy and expensive process costing as much as \$1,000. The skilled resources required are limited and expensive. Landmines can be spread at rates of more than 1,000 per minute like the butterfly and dragontooth mines dropped from helicopters but it may take an entire day to clear a mere 20 square metres of mine-contaminated land.



"The NGIS and NSDI complement each other" by Dr R Sivakumar

Source: Co-ordinates

Sharing environmental data through GEOSS

International Journal of Applied Geospatial Research, 2(1), 1-17, (January-March 2011)

Understanding the complexity of earth-system processes is crucial to convey improved information on the environment to decision-makers and the general public. Addressing this need by sharing environmental data is challenging because it requires a common agreed framework that allows easy and seamless integration of data from different sources. In this regard, the Global Earth Observation System of Systems (GEOSS) portends major benefits through various sharing mechanisms and by giving access to services that could be linked together to process and generate new understandable knowledge and information. Various United Nations projects could greatly benefit from the GEOSS approach.

Keywords: Capacity Building, Data Sharing, GEOSS, Grid Computing, Interoperability, SDI, Service Chaining

Experiences from world bank development support for land reform

Land administration and ICT

Land governance by Keith Clifford Bell

Source: Co-ordinates



Books and Journals (including Videos and Web publications)

Borderlines blog from the New York Times

Countries are defined by the lines that divide them. But how are those lines decided — and why are some of them so strange? Borderlines explores the stories behind the global map, one line at a time.

by Frank Jacobs

Frank Jacobs is a London-based author and blogger. He writes about cartography, but only the interesting bits.

Thoughts on the Geospatial industry, Open Standards and Open Source Cameron Shorter's blog

The Atlas of Climate Change: Mapping the World's Greatest Challenge

Paperback: 128 Pages

Publisher: Earthscan, 2011, 3rdEdition (978-1-84971-217-0) Authors: Kristin Dow, PhD., and Thomas E. Downing, PhD.

Presents in clear and concise visual form the impacts and effects, solutions and mitigation actions surrounding climate change - which is our greatest global challenge. The authors provide us with over 200 full-color maps and other illustrative details

demonstrating the climate change impacted world we live in. There are specific sections on signs of climate change, what is driving climate change, possible responses to climate change,

on signs of climate change, what is driving climate change, possible responses to climate change, consequences and policy actions of climate change, climate change data, etc. filled with precise explanation and easy to understand visual detail.

New Zealand - SDI Cookbook Chapter 6 - Government and Industry, moving forward.

Data journalism and data visualization - The Guardian

Carnival Of The Geospatialists #1 - Musings and Down-Right Cool Things Shared by the Geo Faithful

Open Planet 5, the magazine published for the International gvSIG Conference is now available in electronic format

SDI Magazine

Mother Pelican: A Journal of Sustainable Human Development

The January 2012 issue has been posted:

LiDAR News, Vol 1, No 23 (December 2011)

Think Quarterly - Google's new on-line magazine

Coordinates monthly magazine

SERVIR-Africa community news

The American Surveyor newsletter (2 December)

GISuser - GIS and Geospatial Technology News

National geographic website

The Atlantic Cities website



Just for Fun!

England riots: mapping the distance from home to offence

Was there a riot commute? How far were accused rioters from home? ITO World has helped us map those accused of rioting in August. See what the data says

Source: The Guardian

New GPS Shoe for Seniors Available Online

From Omnilink, GTX Corp and Aetrex, the GPS Shoe for senior men and women with Alzheimer's, dementia, and memory loss is now available for online purchase. The GPS Shoe is available in standard sizes, with velcro straps or shoe laces, and costs \$299.99 for the shoe and \$34.99 monthly for tracking, locating, and recovery service.

More than 5.4 million Americans have Alzheimer's disease—the leading cause of dementia—and up to 60 percent of them will become lost at least once. GTX, Aetrex, and Omnilink collaborated--contributing hardware, materials, software, and customer service elements—to produce the new GPS Shoe solution in order to give caregivers of seniors a convenient new way to monitor their loved ones' whereabouts.

The GPS Shoes continually report their location to the tracking software, which caregivers can use to track the movements of the person wearing them. Caregivers can also configure the service to receive text messages if the wearer wanders outside of a predetermined geographic area.

Source: GISuser

NASA sets high bar for wannabe astronauts - OR - Geographers can't be astronaut candidates

NASA called applications for a new corps of astronauts with certain changes in the eligibility criteria. Now applicants who hold Degree in social sciences (including geography) do not need to apply.

Source: Washington Post and Geospatial World

NORAD is ready to track Santa's flight

The North American Aerospace Defense Command is getting ready to track Santa's yuletide journey!

The NORAD Tracks Santa website, went live today (December 1) featuring a Countdown Calendar, a Kid's Countdown Village complete with holiday games and activities that change daily, and video messages from students and troops from around the world. With the addition of Brazilian Portuguese, the website is now available in eight languages: English, French, Spanish, German, Italian, Japanese, Brazilian Portuguese, and Chinese. Source: GISuser

Thanks to **Gordon Ojwang** for providing the additional information that the tracking started back in 1955 when a Sears department store misprinted the number children could call to get updates on Santa's whereabouts. The number instead went through to the Colorado Springs' Continental Air Defense Command (CONAD) Center. The then Director of Operations at the time, Colonel Harry Shoup, instructed his staff to provide radar based updates to those calling in about Santa locations. The tradition of providing updates

ALSO Track Santa in Google Earth

continues to this day.

In addition to tracking Santa on the NORAD Tracks Santa homepage, you can also track his flight in Google Earth. Return to this page on Christmas Eve to follow Santa around the world in 3D.

Confidence, the Key to Women's Spatial Skills: Study

A new study shows that boosting a woman's confidence helps her to improve at spatial tasks, such as parking and map reading.

While past studies suggest that women are slower and less accurate with spatial skills than men, scientists from the University of Warwick carried out new research that reveals a women's level of confidence plays a key role in their ability to perform spatial tasks.

The full study, "Confidence Mediates the Sex Difference in Mental Rotation Performance" can be found in the journal Archives of Sexual Behavior.

Source: MedicalDaily and Geospatial World Weekly

The 'Spatially Smart Wine Project'

'Spatially Smart Wine' is a joint initiative of the International Federation of Surveyors (FIG) Young Surveyors Network, the New South Wales Institution of Surveyors Young Surveyors Group (Australia) and the University of Back to contents



New South Wales Schools of Surveying and Mechatronic Engineering. The project was initiated to improve the networks and skills of young surveyors in the Sydney region, and to generally improve community understanding of surveying (see Figure 1). Additional benefits are increasing surveyors' knowledge of Precision Viticulture (PV)!

Source: Co-ordinates

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Training Opportunities

11th NCCR Climate Summer School, 9-14 September 2012, Ticino, Switzerland

The NCCR Climate, Switzerland's Centre of Excellence in Climate and Climate Impact Research, invites young scientists to join leading climate researchers in a scenic southern Swiss Alpine setting on the occasion of the 11th International NCCR Climate Summer School 2012.

The Summer School is focusing on the theme "the water cycle in a changing climate". This theme has been chosen due to its paramount importance in terms of both scientific challenges and pressing societal concerns. The specific topics to be addressed include:

- Observed variations of the water cycle.
- Physical processes governing the hydrological response to climate change,
- Scenarios of the water cycle in a changing climate,
- Anticipated impacts.

The Summer School invites young researchers from all fields of climate research. The courses cover a broad spectrum of climate and climate impact research issues and foster cross-disciplinary links. Each topic includes keynote plenary lectures and workshops with in-depth discussion in smaller groups. All summer school participants present a poster of their research and there will be ample opportunity for discussion.

The Summer School is open to young researchers (PhD students and Post-Docs) worldwide. Participation is highly competitive and will be limited to a maximum of 70. The registration fee (1400 CHF) includes half board accommodation, excursion and teaching material. A small number of grants will be available for students from developing countries (i.e. non-OECD countries).

Deadline for applications: 20 December 2011. Successful applicants will be notified in February 2012.

Detailed information and the application form are available at

http://www.nccr-climate.unibe.ch/summer_school/2012/>.

Contact: University of Bern, NCCR Climate Management Centre, Zähringerstrasse 25, CH-3012 Bern,

Switzerland, mailto: < nccr-climate@oeschger.unibe.ch >

Telephone +41 31 631 31 45, Telefax +41 31 631 43 38.

Large-Scale 3D Laser Scanning: The Complete Process

Don't worry if you missed the live webinar, "Large-Scale 3D Laser Scanning: The Complete Process". It's now available online for you to watch any time!

e-Learning for the Open Geospatial Community

We are pleased to inform that the course repository for the ELOGeo (An e-Learning Framework for Using Geospatial Open Data, Open Source and Open Standards) project is ready.

ELOGeo is a JISC-funded project based at the Centre for Geospatial Science, the University of Nottingham in partnership with the Mimas Centre of Excellence at the University of Manchester. ELOGeo main collaborators are Open Source Geospatial Foundation, Open Geospatial Consortium (OGC), Ordnance Survey, Open Nottingham, International Cartographic Association (ICA) and gvSIG Association.

More details of ELOGeo.

gvSIG Training platform opens with a first course for gvSIG users

The gvSIG Association tries to increase its learning offer through online courses, publishing a new learning platform: gvSIG Training. In parallel, the gvSIG Association launches its official certification program.

It's a step forward in the training processes in free geomatic, creating an online training centre, that contributes to the spreading as well as to the sustainability of the gvSIG project. Training without geographic barriers, and with the best professionals.

In this platform, you will find courses in several languages to learn to use the different applications of the gvSIG project, in a user level as well as in a developer one. The courses list will be extended gradually with different Back to contents



gvSIG and free geomatic specialization courses (databases, map servers...), with the objective of covering the different needs of the Community.

The courses offered by gvSIG Training are part of the training routes that are required to obtain the gvSIG official certification.

For further information:

- gvSIG Training: http://gvsig-training.com/>
- gvSIG Certifications: http://www.gvsig.com/services/certification

GIS Courses by Distance Education NSW Riverina Tafe

The courses listed below are all full Geographic Information Systems courses which can be studied over a number of semesters by distance study pathways.

Certificate III in Spatial Information Services (GIS)

Certificate IV in Spatial Information Services (GIS)

Diploma of Spatial Information Services (GIS)

Source: NSW River

Participatory Spatial Information Management and Communication Training Kit now available on-line

Co-published by CTA and IFAD in English and Spanish, the Training Kit is a unique product that can be tailored to meet user needs, ensuring that employees get the best training available on Participatory Spatial Information Management and Communication.

The online version was launched at the beginning of March 2011. The DVD version was launched in December 2010. The Training Kit contains 15 Modules, each presented through a series of Units. Modules cover the entire spectrum of good developmental practice – from mobilising communities to developing a communication strategy based on the outcome of participatory mapping activities. The Modules touch on topics such as the fundamentals of training, ethics and community groundwork and processes as well as the more technical low-, mid- and high-tech participatory mapping methods.

Users decide what they want to cover and when. The product has been developed using the Multimedia Training Kit (MMTK) approach – which allows you to pick and choose those Modules, Units and components that best suit your particular requirements and develop a curriculum to suit your specific needs.

Publishers: Technical Centre for Agricultural and Rural Co-operation ACP-EU (CTA), Wageningen, The Netherlands and International Fund for Agricultural Development (IFAD), Rome, Italy

Source: The Centre for Agricultural and Rural Cooperation

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Funding Opportunities, Awards, Grants

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Employment Opportunities

Deputy Director, GeoSpatial

Job Scope:

Deputise Director/GeoSpatial in the planning, governance, promotion and development of geospatial information and technology in Singapore

Responsibilities include:

- Oversees the GeoSpatial Planning and Development department on the strategic planning, policy and standards formulation, promotion, capacity building, industry and academic collaboration and technological development relating to geospatial information and technology, as well as the licensing of geospatial data and the protection of the associated intellectual property
- Oversees the GeoSpatial Information and Services department on the operations of geospatial infrastructure, databases and systems such as OneMap, GeoSpace, INLIS, etc. as well as related projects Requirements:
- Degree in any discipline
- At least 10 years working experience with at least 3 years experience running a business unit Back to contents



- Essential to have good knowledge and experience in geospatial information and technology and the management of Intellectual Property Rights

Source: Singapore Land Authority

Tender: Consultant Services for the Evaluation of the New Mozambican Geodetic Reference System (MozNet and MozGeo) in Mozambique

Project Summary

Consultant Services for the evaluation of the new Mozambican geodetic reference system (MozNet and MozGeo) for its adoption migrating from the classic one based on TETE Datum:

REF No.: LCS-MCA-MOZ-06/M&E/11-211 Date of Issue: December 12th, 2011

Closing Date: 31 January, 2012 - 15:00 (local time)

- 1. The Millennium Challenge Corporation, on behalf of the United States Government, The Ministry of Planning and Development (MPD) on behalf of the Government of Mozambique has entered into a Millennium Challenge Compact for Millennium Challenge Account assistance to help facilitate poverty reduction through economic growth in Mozambique (the "Compact").
- 2. The objective of the proposed program is to reduce poverty through economic growth in four provinces of Mozambique (Niassa, Cabo Delgado, Nampula, and Zambézia) by focusing on certain investments in physical assets, policy reform, capacity building and institutional strengthening. The program contains four projects including the Water Supply and Sanitation Project (WSSP), the Roads Project, the Land Tenure Services Project, and the Farmer Income Support Project.

Proposal submission closing date: 31 January, 2012. Visit the website.

Post-Doctoral Position for DataONE Provenance and Scientific Workflows Working Group
The Data Observation Network for Earth (DataONE) is recruiting a post-doctoral associate to work with the
Provenance and Scientific Workflows Working Group of DataONE. This is a full-time, 12—month position initially
for one year, but renewable pending progress and availability of funds. Applications will be accepted starting
immediately and will be accepted until the position is filled.

The post-doctoral researcher will work with an interdisciplinary team of researchers from across the country, and be an integral member of the DataONE Provenance and Scientific Workflows Working Group (ProvWG). The main thrust of the work is research and development of interoperable workflow provenance models. This includes: development and analysis of scientific use cases of provenance; study and comparison of existing and emerging models of provenance; research to develop effective and efficient methods for provenance capture, storage, and querying; and prototypical implementation of advanced provenance technologies in collaboration with the DataONE Core Cyberinfrastructure Team (CCIT).

Required Qualifications: PhD completed or near completion in Computer Science, Information Science, Earth/Environmental Science, or equivalent.

The successful candidate will have strong interest in data management technologies, for example, databases, workflow systems, or provenance management, and demonstrated excellent communication skills.

The successful candidate will be expected to engage in professional development training opportunities and seminars, and travel to Working Group meetings or to present work at professional conferences.

Preferred Qualifications: Interest in and experience with scientific workflows and provenance are a plus. The post-doc will be mentored and supervised by the DataONE PI, Dr. William Michener (UNM, USA), DataONE/ProvWG leads Dr. Bertram Ludaescher (UC Davis, USA), and Dr. Paolo Missier (U Newcastle, UK). Interested candidates should send a CV, a brief statement of interest in this position, and a list 3 references and their contact information to both Bertram Ludaescher and Rebecca Koskela (Executive Director of DataONE), DataONE, University of New Mexico, 1312 Basehart Drive SE, MSC04 2815, Albuquerque, NM 87106. Inquiries for further information about the position are welcome. Salary and benefits for this position are competitive and commensurate with the applicant's qualifications and experience.

GIS Job Board Launches New Website: www.gisjobboard.com

New Site Provides Employers and Job Seekers Tools to Post and Search Jobs and Resumes in the GIS and Geospatial Disciplines

GIS Job Board has launched a new website specifically dedicated to GIS and other geospatial disciplines. The new site makes it simple for employers and job seekers to post and search for jobs and resumes. The site was created to serve the growing needs of the GIS community and help with recruiting and job seeking efforts.

Visitors also have the option to view the site in a different language if they choose, making it easier for them to have access to the content



Registered users can receive jobs or resumes by email. They can also flag jobs and resumes as well as save searches, setup resume alerts, and save resumes and jobs. Users have the capability of private messaging other users in case they ever want to communicate with someone.

For more information about GIS Job Board, please visit their website at www.gisjobboard.com

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Conference Proceedings

Open Planet 5, the magazine published for the International gvSIG Conference is now available in electronic format



2nd International Workshop on 3D Cadastres organized by FIG, EuroSDR and TU Delft

(16-18 November 2011, Delft, The Netherlands). Papers & Presentations available here

Seminar on Hyperspectral Earth Observation Convened in Beijing

On 1-2 December, 2011, the High Level Seminar on Hyperspectral Earth Observation convened in Beijing. Nearly 200 Chinese experts, graduate students and industry representatives in fields related to imaging spectroscopy attended the seminar. The seminar was divided into three parts: a review of the latest developments in hyperspectral Earth observation, imaging spectrometry technology, hyperspectral data processing and its applications. See also.

Sino-African High-Level Seminar on Drought Risk Reduction - (24-6 September, 2011)

Africa and China step up cooperation on drought risk

From 24 to 26 September 2011 over 40 officials from China, African countries and the United Nations took part in a three-day "Sino-African High-Level Seminar on Drought Risk Reduction" which is calling for drought risk reduction to be on the agenda of the next year's Sino-African Summit for Development Cooperation. Delegates at the seminar also included heads of national meteorological services, disaster managers, national DRR (disaster risk reduction) coordinators and academics and scientists from China and 11 African countries, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Niger, Nigeria, Sudan, Tanzania, Uganda and Zimbabwe. Participants shared knowledge and scientific approaches, practical methods in drought monitoring, early warning and management of agricultural drought. For further information contact: Shirish Ravan.

Webcast presentations of Open Source GIS Conference 2011

The webcasts of presentations of Open Source GIS 2011 Conference (OSGIS 2011) including the plenary presentations from OGC-OSGeo Interoperability day are now available.

INSPIRE 2011 Conference Report 27 June – 2 July, Edinburgh, UK



2011 Esri Asia Pacific User Conference Proceedings

ISDE Working Group Meeting on Digital Earth Vision to 2020

In March 2011, the International Society for Digital Earth held a working group meeting in Beijing on a Digital Earth Vision to 2020. The meeting brought together a diverse group of experts in an attempt to imagine how Digital Earth might evolve over the next decade. The Vision to 2020 is an updated reevaluation of the Digital Earth concept presented by Al Gore in 1998. This new vision takes into account the advances in technology made so far in the 21st century, considers changes in society and the ways people interact with technology, and anticipates the drivers that will affect future development.



Conferences, Events

For upcoming events of global or major international interest, please visit the <u>upcoming conference list</u> on the GSDI website – as this conference list will be reserved for conferences within or with specific interest to the Asia Pacific Region.

The editors welcome news of conferences & events from the newsletter subscribers

Call for Expression of Interest to host AARSE 2014 and future Conferences

Call for Expression of Interest to host the 10th biennial International Conference of the African Association of Remote Sensing of the Environment (AARSE) in October 2014 and future Conferences. The 9th conference will be held in Morocco in October 2012.

| Date | Location | Event | |
|------------------|---|---|---|
| January 2012 | | | |
| 10 – 12 January | University of BC, Vancouver, Canada | Eighth International Conference on Environmental, Cultural, Economic and Social Sustainability. | |
| 16 – 18 January | UCLA, Los Angeles, USA | RNOWLEDGE AND SOCI Presenters may choose to the fully refereed Internatio and Society. If you are una virtual registrations are also paper for refereeing and poacademic Journal. The deadline for the next reshort abstract) is 11Octobe | submit written papers for publication in nal Journal of Technology, Knowledge ble to attend the conference in person, a available which allow you to submit a possible publication in this fully refereed round in the call for papers (a title and |
| February 2012 | | | |
| 7 – 9 February | Gurgoan, India | science and technologies, has instituted the Rachapu 'Young Geospatial Scientis medal, citation plaque and annually during the biggest | November 11, 2011 November 30th, 2011 December 9th, 2011 December 16th, 2011 ng geospatial scientists Irchers working in the areas of geospatial Rachapudi Kamakshi Memorial Trust di Kamakshi Memorial Gold Medal for tt TM .' The award, consisting of a gold a certificate of merit, will be awarded a congregation of geospatial community patial Forum (previously known as 'Map |
| March 2012 | | | |
| 21-3 March "NEW" | Darwin, AUSTRALIA | NT Spatial 2012: Northern Exposure "Scie Important dates: Registrations open 1 Dece Abstracts due 16 Jan Notification of Abstract acc Registrations close 16 Ma | ember 2011 nuary 2012 eptance 30 January 2012 |



| | | Presentations & Papers (optional) due 19 March 2012 Pre-Conference workshops (optional) 21 March 2012 Sponsors trade display 22 March 2012 Conference start 22 March 2012 NT Spatial & Awards Dinner 22 March 2012 Final day of conference 23 March 2012 Contact |
|---------------|------------------------|---|
| April 2012 | Langueter III/ | Call for Panore GISPHK2012 Languages University 2012 |
| 23 – 27 April | Amsterdam, | Call for Papers, GISRUK2012, Lancaster University, 2012 We are pleased to invite you to submit short (~1500 word) papers for the 20th annual GIS Research UK conference (GISRUK). We welcome papers covering all aspects of theoretical and applied GIS research, particularly those within the following themes: • Environmental Geoinformatics • Open-Source GI • Web2.0 • Qualitative GIS • Spatial Ecology • Health • Emergency Response • Landscape Visualisation • Geospatial Semantics • Location-Based Services • Remote Sensing and Photogrammetry The closing date for submissions is 25th November 2011. All papers will be subject to peer review with accepted papers allocated to oral and poster sessions accordingly. Conference proceedings including all papers accepted for oral and poster presentation will be made available as a free e-book (with ISBN) and as hardcopy for purchase via http://www.lulu.com . The conference will be proceeded by a Open Source GeoSpatial software workshop and a Young Researchers Forum commencing on Tuesday 10th April 2012. The keynote speakers for the conference will be: - Pete Atkinson, University of Southampton, UK - Mei-Po Kwan, Ohio State University, USA - Tyler Mitchell, Executive Director, OSGeo, USA For more information and submission details please visit the conference website: http://www.lancs.ac.uk/gisruk2012 or contact members of the local organising committee via gisruk2012 @lancs.ac.uk - We look forward to receiving your submissions and welcoming you to Lancaster in 2012. CEOSPATIAL Geospatial World Forum WORLD Theme: Geospatial ludustry & World Economy Theme: Geospatial World Forum |
| | The Netherlands | Theme: Geospatial Industry & World Economy Register before 31 st January 2012 for early bird discount |
| May 2012 | | |
| 13-17 May | Quebec City, Canada | 2012 Joint World Conference GSDI 13 and Canadian Geomatics Conference (CCC) hosted by GEOIDE Network GSDI 13 invites presentations/papers covering the full range of practice, development and research experiences that advance the practice and theory of spatial data infrastructure development and spatial enablement of society. GSDI 13 will support three primary forms of publication: (1) a normal conference proceedings with abstracts and full articles (non-refereed and refereed), published on a USB drive or CD and |



| | | archived on the web, |
|-----------|----------------------------------|---|
| | | (2) a pre-conference published book of fully refereed articles titled "Spatially Enabling Government, Industry and Citizens: Research and Development Perspectives" to be distributed to all conference participants and archived on the web, and |
| | | (3) a post-conference special edition of the International Journal of Spatial Data Infrastructures Research (IJSDIR) with full articles selected from the proceedings and then fully refereed and revised after the conference. |
| | | In addition, two separate calls arising from the joint conference are being issued for chapter submissions to two additional books: (1) "The Added Value of Scientific Networking: GEOIDE Network Experiences" to be distributed to all conference participants (Call for chapters at http://www.geoide.ulaval.ca/call-for-chapters.aspx), and (2) "3DGeo Info Conference Proceedings" (Springer) to be mailed after the conference to all 3DGeo Conference participants which will be a single track on Wednesday and Thursday (Call at http://www.3dgeoinfo2012.ulaval.ca/?page_id=48). IMPORTANT LINKS |
| | | Conference Website: http://www.gsdi.org/gsdi13 Past GSDI World Conference Proceedings: http://www.gsdi.org/gsdiConferences Past open access Books affiliated with the conference: http://www.gsdi.org/openaccessbooks Other Important Dates: http://www.gsdi.org/gsdiconf/gsdi13/dates.html |
| 21-3 May | Prague, Czech Republic | FOSS4G-CEE & Geoinformatics Important dates: |
| "NEW" | OZGGII REPUBLIC | 1.1.2012 Call for papers & workshops 1.2.2012 Workshop submission deadline 1.3.2012 Papers submission deadline 15.2.2012 Confirmation of accepted workshops 15.3.2012 Confirmation of accepted papers 1.4.2012 Early bird registration deadline |
| 23-4 May | Taza, Morocco | International conference of GIS users, Taza GIS-Days 2012" The Taza-GIS-Days symposium is being organized by the |
| "NEW" | | Laboratory Natural Ressources and Environment of the Polydisciplinary Faculty of Taza in collaboration with the Sidi Mohamed Ben Abdellah University, Fez. Participants will have the opportunity to learn about GIS through a series of presentations, exhibitions and practical exercises presented by a distinguished group of professionals. Topics: |
| | | Development and Planning, Archaeology and History, Environment, Water Resources Management, Remote sensing, Photogrammetry, GPS, Natural Hazards, Mapping and Geology, Web application, GIS and Open Sources, Geolocation and Network Interoperability and Standards OGC Deadline for abstracts submission: February 29, 2012 Contact |
| June 2012 | | |
| 3-5 June | Kuala Terengganu, Malaysia | The International Conference on Informatics & Applications (ICIA2012) The proposed conference on the above theme will be held at University Sultan Zainal Abidin, Kuala Terengganu, Malaysia, From June 3-5, 2012 which aims to enable researchers build connections between different digital applications. Important Dates |



| | | Submission Date: April 1, 2012 Notification of acceptance: April 15, 2012 Camera Ready submission: May 2, 2012 Registration: May 2, 2012 |
|-----------------------------------|-------------------|--|
| 4-7 June "NEW" | Las Vegas | Hexagon 2012 conference. |
| 15-17 June | Hong Kong | 20th International Conference on GeoInformatics (GeoInformatics 2012) Abstract/Paper submission deadline: 15 November 2011 In response to the increasing concerns on global changes and natural disasters, the 2012 conference theme is "Global Change, Adaptation and Risk Management". Earthquakes, floods, droughts, pollutions and many other natural and man-made disasters are severe threats to the mankind. Geoinformatic technologies shall play an essential roles to mitigate damages of the disasters. This conference will provide an excellent opportunity for professionals and students in the geographic information science area to exchange innovative ideas, discover cutting-edge technologies, and present inspiring applications. Meanwhile, 2012 will be the 20th Anniversary of the International Association of Chinese Professionals in Geographic Information Sciences (CPGIS, http://cpgis.org/) and its Annual Conference (the GeoInformatics series), the organizing committee cordially invite geoinformatics professionals and scholars all around the world, review and celebrate our accomplishments and to develop our vision for the next 20 years. |
| 25-30 June | Istanbul, Turkey | World GIS Summit |
| | | "The World GIS Summit" has been postponed to June 25-30, 2012." |
| July 2012 | | |
| July 2012 23-27 July August 2012 | San Diego, USA | |



| 25 August – 1 September | Melbourne, Australia | XXII International Society for Photogrammetry & Remote Sensing Congress Email: isprs2012@icms.com.au |
|------------------------------|-------------------------|---|
| September 2012 | | |
| 9-14 September October 2012 | Ticino, Switzerland | The NCCR Climate Summer School, 2012 The NCCR Climate, Switzerland's Centre of Excellence in Climate and Climate Impact Research, invites young scientists to join leading climate researchers in a scenic southern Swiss Alpine setting on the occasion of the 11th International NCCR Climate Summer School 2012. The Summer School is focusing on the theme "the water cycle in a changing climate". This theme has been chosen due to its paramount importance in terms of both scientific challenges and pressing societal concerns. The specific topics to be addressed include: Observed variations of the water cycle. Physical processes governing the hydrological response to climate change, Scenarios of the water cycle in a changing climate, Anticipated impacts. The Summer School invites young researchers from all fields of climate research. The courses cover a broad spectrum of climate and climate impact research issues and foster cross-disciplinary links. Each topic includes keynote plenary lectures and workshops with in-depth discussion in smaller groups. All summer school participants present a poster of their research and there will be ample opportunity for discussion. The Summer School is open to young researchers (PhD students and Post-Docs) worldwide. Participation is highly competitive and will be limited to a maximum of 70. The registration fee (1400 CHF) includes half board accommodation, excursion and teaching material. A small number of grants will be available for students from developing countries (i.e. non-OECD countries). Deadline for applications: 20 December 2011. Successful applicants will be notified in February 2012. Detailed information and the application form are available at http://www.nccr-climate.unibe.ch/summer_school/2012/ . Contact: University of Bern, NCCR Climate Management Centre, Zähringerstrasse 25, CH-3012 Bern, Switzerland, mailto: nccr-climate@oeschger.unibe |
| | Morocco | 10th biennial International Conference of the African Association of Remote Sensing of the Environment (AARSE) |
| 2014 | Malaysia | Malaysia will be hosting the (International Federation of Surveyors) FIG Congress in 2014. The decision was taken at the recently concluded FIG Congress 2010 in Sydney, Australia. |



To subscribe to SDI-AP, please do so <u>online</u>. To contact please <u>email</u> the editors. <u>Global Spatial Data Infrastructure Association</u>.

Please mention SDI-AP as a source of information in any correspondence you may have about items in this issue.

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