

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.



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## Message from the editors

Welcome to the January issue of the newsletter, the first for the year 2013.

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 [send us](#) the materials by the 25<sup>th</sup> of the each month for your contribution to be included in the next newsletter.

Malcolm Park and Serryn Eagleson ([Editors](#)), at the [Centre for Spatial Data Infrastructures and Land Administration](#), The University of Melbourne.

## Contributions

Thank you to the following people and organisations for their contributions to this issue: Baek Wonkug for news feeds, Sean Lin 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.

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## 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

### **SDI Cookbook update**

The SDI Cookbook, in its wiki version, now has an updated Chapter 10 to reflect the latest slate of standards and popular version numbers. We seek contributing editors for the other Chapters to also bring them up-to-date. About three months prior to the next GSDI Conference we will seek to affix a date and snapshot the Cookbook into a "SDI Cookbook 2013" PDF version. By saving a PDF and giving it a date of publication, it will clarify the reference and citation of the document and provide a time context.

If you are interested in helping update any of the chapters, please contact [Douglas Nebert](#).

### **US Federal Geographic Data Committee - [Geospatial standardization Updates](#)**

### **INDIA - [Call for national geospatial policy at NSDI meet](#)**

An advanced information system, technologies with matrix and measurement of disparity, data mining and spatial technology of managing databases will be extremely important to become leader in this global arena  
Source: Geospatial World Weekly

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## SDI Spotlight



This month's "Spotlight" feature is from [Sam Amirebrahimi](#). Before commencing his PhD in 2011, Sam received his Masters degree in Geographic Information Technology and was awarded the Victoria's best post-graduate award in Surveying and Spatial Sciences in 2011. Sam is currently a PhD student in the University of Melbourne. His research focus is mainly on integration of Building Information Modeling (BIM) and Geographic Information Systems (GIS) for integrated indoor/outdoor management the risks within urban context, particularly complex infrastructures. He holds the membership of Centre of SDIs and Land Administration (CSDILA) since 2010 and has been responsible within the centre's activities as research assistant (RA).



### **BIM and 3D City Model Integration to Support Multi-scale Impact Assessment of Extreme Events in Urban Context**

Extreme hazards are threats with low probability but high consequence which there is ambiguity and uncertainty about their occurrences and show significant interdependencies with respect to the risk (Kunreuther, Meyer et al. 2004). These events (e.g. earthquakes, floods, explosions, etc.) may have social, financial, and physical impacts and pose threat to critical infrastructures and people in the high density and vertically extended (above and below the ground) urban environment. They raise an important challenge in cities which is the provision of safety of the citizens and the protection of critical infrastructures using effective risk management approaches and efficient emergency response. Since, there is uncertainty regarding the probability of occurrence in these events, risk management approaches in this case are specialized ones. Their emphasis is more on "consequence analysis" to determine consequences of the extreme hazard and use it as a basis for decision making for treatment of risks and their impact mitigation.

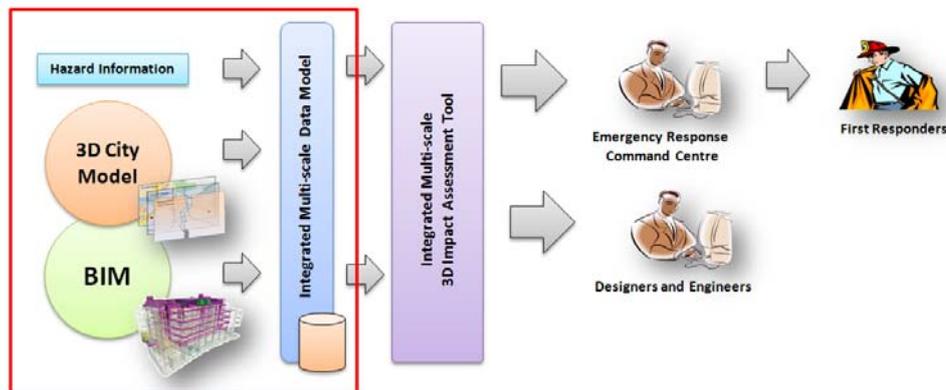
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Comprehensive analysis of the impacts of an extreme event in the urban context is very challenging. This environment is highly complex and interrelated infrastructures exist everywhere (Pederson, Dudenhoeffer et al. 2006). The more complexity the environment has, the more difficult the analysis becomes. On the other hand, effects of extreme events on physical infrastructures in this context might be direct or indirect. In addition to the direct impacts, the damage may cause the development of secondary risks triggered by the initial event and consequently cascading impacts on other aspects of the urban environment. In some cases, points of impacts and the source of impact may be situated in two or more different and heterogeneous environments (e.g. indoor, outdoor, or even underground) which pose another challenge for the analysis.

Decades of dedicated work has resulted in the development of numerous approaches and tools to model/simulate the extreme hazard and assess their impacts prior to or immediately after the disaster. These tools can be utilized in engineering and planning, or for emergency response purposes to mitigate the effects such destructive events. The existing tools however, are either too broad – dealing with the given problem at large scale – or too narrowed with focus on one facility or just a single dimension of it (e.g. structural or façade of the building). Also, these tools and approaches (except a few) have failed to create a well-linked multi-scale 3D environment (heterogeneous environments from indoor to outdoor) which is required for a seamless analysis between these environments. Consequently, their analysis is limited to one without considering the other(s). These limitations results in the fact that the tool would not be able to provide the complete picture for the decision maker.

Druzdel and Flynn (2002) discussed that one of the possible reasons to above limitations of the existing systems in case of impact assessment is related to *issues with data* (lack of a structured data model for a complete data required for analysis; or issues related to data quality) as a comprehensive analysis of impacts on physical infrastructure and effective visualization of these impacts relies heavily on the availability and richness of data. Hence, for development of a tool to support such complete analysis, first, all the relevant data regarding the physical entities – from macro to micro spatial data – must be put together in a well-structured data repository backed up with a well-defined data model. Alternatively, this data can be integrated and harmonized from multiple sources and fed into the application/system with a proper validation using a unified data model for the system.

The review of existing impact assessment tools showed that all of the investigated tools lacked such completeness and richness of data (providing all the required data for a complete investigation of impacts) as the basis of their analysis. Majority require user to create the physical 3D environment using the embedded modules in the tool (with simple fundamental geometries such as boxes and cubes) or import the data (specific for a focused analysis the tool is designed for) from particular relevant formats with their own limitations. In different cases, either these formats lack detailed geometry, or entirely ignore the topology and semantics between different entities in the dataset. In this way, many critical analyses will not be possible and leads to an unrealistic or incomplete picture about the effects of the extreme event on the complex urban environment.



**Figure 1: The research overview**

In recent years, with the introduction of *virtual 3D City Models* and development of rich exchange formats for them such as CityGML (Kolbe 2009) in geospatial domain, rich large-to-relatively-small-scale data (from regional geospatial data down to the interior of a building) is available for urban context which not only supports geometry in different levels of detail (LODs), but also semantics between concepts. Virtual 3D city models are geographically referenced representation of urban data by means of 3D geo-virtual environments (Dollner, Baumann et al. 2006). They integrate heterogeneous geo-information within a single framework and basically include building, vegetation, as well as models of utility networks, roads and transportation systems, etc (hijazi,

Ehlers et al. 2011). Using information in 3D city models (e.g. CityGML), detailed and complex analysis can be performed on the urban area at large and medium scales (e.g. Flood analysis, utility network management in a seamless indoor/outdoor way, etc).

In the similar way, the development of *Building Information Models (BIM)* in Architecture, Engineering and Construction (AEC) industry created a unified view of a complex development (a particular building or a site) at the highest level of details (more detailed than the 3D virtual city models) which also includes detailed geometry and semantics of the facility components at small-scale. BIM is a knowledge repository and a data management tool containing up-to-date information about a facility throughout its entire lifecycle. This is considered as its main benefit. Every object in the building/facility has number of properties to describe its characteristics, behaviour, and the relationships with other objects in the model. In BIM, building/facility parts are modular units that understand their scope of parts and features (Karimi and Akinci 2010 p.11).

Above technologies have been used separately in different analysis tools to provide a rich data foundation for the damage assessment and impact analysis. The scope of these works however, is limited to the scale they are designed for (either large or small scale). The integration of BIM and 3D virtual city models (Isikdag, Aouad et al. 2007) seems to be a solution to overcome the issues with the availability and richness of data to create a seamless 3D environment for variety of applications particularly for assessment of impacts of extreme events on complex urban environment. However, despite the significant number of previous attempts, the full integration between them at data level has not been achieved yet.

In order to overcome the existing issues discussed above, my research (started in 2011) as part of an Australian Research Council (ARC) project in the University of Melbourne in collaboration with the Queensland University of Technology (QUT) aims to develop a data foundation to support a new approach for multi-scale impact assessment of extreme events on physical infrastructure in urban context (see figure 1). This data foundation (data model) – which utilizes both capabilities of BIM and 3D virtual city models – will be at the heart of a data layer of a modular-based impact assessment tool which allows for a complete analysis of the impacts of extreme events on different physical aspects of the city.

It is hoped that with the new impact assessment approach which will be designed in this research and the utilization of BIM and 3D City Models in an integrated way as part of it, the potential physical impacts of extreme hazards in urban environment can be identified more effectively prior to the disaster which enables the authorities to utilize counter-measures in order to minimize the damage to the infrastructure as well as loss of valuable lives of the citizens.

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

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### GIS Tools, Software, Data

#### [New map of Laos to resolve confusion](#)

To overcome the problem of having maps produced by different sources, Laos is now creating new national geographic data for use by the public as the official map of Laos.

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The Finnish supported programme '[Strengthening National Geospatial Services in the Lao PDR](#)' (PDF) targets a build up of the capability of the National Geographic Department to produce topographic base map data covering the whole of Laos, at a cost of 6 million euros. When the map covering the whole of the country is completed, it will be published for official use.

Laos already has a lot of topographic base map data from independent sources other than the National Geographic Department. The problem is that these maps are different and are not reliable, while some are out of date. Another difficulty is that the Lao letters on these maps don't correspond with the Lao alphabet, so the names that are printed are very confusing.

The National Geographic Department has not yet completed the production of map data for the whole of Laos but has more detailed information than other cartographers. Mr Buasoth invited people with useful information to contact department staff.

Geographic data is needed by many sectors, including those involved in land and natural resource management, agriculture, public works planning, disaster management, and national defence. In assigning the important role of providing geographic information for socio-economic development planning, the Lao government agreed earlier this year to upgrade the committee responsible. Committee members now include officials from the ministries of Agriculture and Forestry, Natural Resources and Environment, Public Works and Transport, and Energy and Mines as well as the Polytechnic College and National University of Laos. When the map is finished, it is intended to provide better information for government and private institutions and the general public, creating an up-to-date and accurate basis for national spatial data infrastructure.

See also: [Laos GIS Committee](#)

The main objective of the committee is to improve geospatial cooperation between different organizations in the country to prevent duplication of work. The committee was originally established 2003, but had only one meeting. With Finnish support (SNGS0 the committee has begun to meet and work again. The first meeting since 2003, was held at the National Geographic Department (NGD) in December 2011. The committee includes persons from ministries of Agriculture and Forestry, Natural Resources and Environment, Industry and Trade, Health, Education and Sports, Public Works and Transport and Planning and investment. One of the most important tasks of the committee is to coordinate the establishment of National Spatial Data Infrastructure (NSDI). NSDI includes improving data policies towards "open data" policies, technologies more usable ways to share data or information about data and create national standards. Another important task of the committee is to provide communication structure and channels for the GIS community. NGD web pages offer discussion forum for GIS-committee members and non-members. The committee also aims to raise awareness of the use of geospatial data and understanding of the NSDI as an important national resource.

[Laos: Training Seminar on the dissemination of products and services of the National Geographic Department, 15-18 October 2012](#)

The purpose of this training seminar was to disseminate information on the products and services that the National Geographic Department (NGD) and the Survey and Mapping Centre (SMC) provide. The participants were from 14 government sectors, in total of 33 participants. The programme was designed to raise awareness of staff of the availability of products and services of NGD and to launch it as a good starting point for good cooperation between the central and local authorities. Through the trainings NGD was introduced along with its products and modern technology such as website and Information and Communications Technology (ICT).

#### [UNITED STATES - GAO report reveals duplication in collection of geospatial data](#)

A new [report](#) from the Government Accountability Office (GAO) revealed lack of coordination between departments is resulting in costly duplication and millions of wasted tax dollars. While the GAO report said the

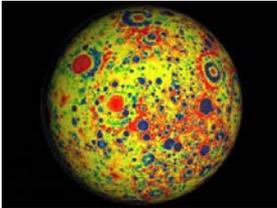
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extent of duplication in geospatial investments is unknown, it said billions of dollars are being spent across the federal government on duplicative geospatial investments.

Source: Geospatial World Weekly and [AOL](#)

### [Gravity map reveals scars from the moon's violent formative years](#)

Grail satellites map the moon's crust in unprecedented detail to give clues about the formation of the solar system [the strongest gravitational pull are shown in red, and the weakest are shown in blue].



Scientists have taken their most detailed look yet at the insides of the moon and its surface composition, and have concluded that our nearest celestial neighbour suffered an even more violent pummeling in its early years than previously thought.

Unlike Earth, where the shifting of tectonic plates and churning of the mantle have wiped out any evidence of the planet's early years, the

moon has remained largely the same over the 4.5bn-year history of the solar system. Its rocks, craters and composition, are therefore a record of what was happening when the planets of the solar system were forming. Studying the interior of the moon will give scientists a window into the conditions of the early solar system and provide clues about how the Earth spent its formative years.

Source: The Guardian & [NASA video](#)

ALSO: [Ebb and Flow: how NASA created a gravity map of the moon - interactive](#)



### [Webmaps – CDC Tracking The Spread of Influenza with FluView](#)



The CDC has published a clever webmap resource enabling visitors to quickly and easily track the spread of the Influenza (flu) virus in the US. Weekly data as reported by ILNET are used and the map also provides an animation to view the spread of the virus in place and time for the season. Each state is linked to relevant State department of health websites where more detailed data are available. Static image maps and raw data are available for download.

Source: Any Geo blog

### [Mapping America's Illnesses, in Near Real-Time](#)

- People in Seattle are suffering from coughing and the flu.
- Headaches and fevers are going around in Washington, D.C.
- A resident of Phoenix is down with the "man flu" – the possibly mythical condition in which men experience illnesses more painfully than women.

All this drippy, wheezy intelligence, possibly accurate or possibly not, comes courtesy of SickWeather, a website that attempts to crowdsource the health of cities around the world. (Motto: "Say It, Don't Spray It"). Co-founded by former U.S. Census crime-trend mapper Graham Dodge, the site presents a near-real-time map showing outbreaks of various illnesses as vast colored polygons; zoom in, and you can see the specific neighborhoods where people are kvetching about being laid out.

Source: The Atlantic "Cities"

### [Flu Web Searches Predict Disease Outbreaks](#)

Weather prediction models armed with citizens' flu symptom query data enable researchers to predict flu outbreaks.

Source: Scientific American

### [2012's Year in Maps](#)

Cartography ain't what it used to be. Development and disaster continue to mold the physical world, but for mapmakers, keeping up with geographic changes is busy work -- a tweaked direction here, a freeway exit there. It's very important busy work, as we learned this September when Apple reminded us not to take a good map for granted.

The intersection of geography and data, though, is just beginning to fill out. Together with interactive functions like sliders, timelines, and embedded information, the best new maps resemble Rand McNally's about as much as movies look like photographs. Creating an accurate representation of geography and infrastructure is only the tip of the iceberg. What happens when you integrate statistics about rising seas, gang affiliations, metaphors and beer?

Source: The Atlantic Cities "favorite maps of the year...":

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### [Mission Accomplished for Landsat 5 After 29 Years](#)

IT seems that like the Eveready Bunny, Landsat 5 just keeps in ticking... however, according to the USGS it may be that time has run its course for Landsat 5 and retirement is now looming near. This from the USGS... Landsat 5 will be decommissioned over the coming months, bringing to a close the longest-operating Earth observing satellite mission in history. By any measure, the Landsat 5 mission has been an extraordinary success, providing unprecedented contributions to the global record of land change. The USGS has brought the aging satellite back from the brink of failure on several occasions, but the recent failure of a gyroscope has left no option but to end the mission

Source: AnyGeo blog and [GISUser.com](#)



### [Police concerned with Apple iOS 6 mapping system](#)

Mildura Police are urging motorists to be careful when relying on the mapping system on the Apple i-phones operating on the iOS 6 system after a number of motorists were directed off the beaten track in recent weeks.

Local Police have been called to assist distressed motorists who have become stranded within the Murray-Sunset National Park after following directions on their Apple i-phone.

Tests on the mapping system by police confirm the mapping systems lists Mildura in the middle of the Murray Sunset National Park, approximately 70km away from the actual location of Mildura.

Source: Victoria Police News

### [Apple Maps not fully at fault over Australian Mildura confusion](#)

Australian government's official gazetteer includes area called 'Mildura Rural City' at location previously shown on iPhones.

Source: The Guardian

### [Apple redraws maps after Australian drivers led astray in the bush](#)

Apple quickly rectifies Maps app after Mildura police issue warning after motorists lose way in scorching temperatures because town misplaced on Apple Maps

Source: The Guardian

### [Volunteers Produce the First Bus Map of Dhaka](#)



Two recent graduate students started the Urban Launchpad to bring technology to the developing world. They singled out one of the densest areas in the world, choosing Dhaka, Bangladesh, to try and tackle its transportation congestion problem that has many calling it the slowest city in the world. The team gathered volunteers through partner organization Kewkradong and spread out with smartphones and special applications to poll the people on how they would improve transportation. The consensus of the people was that bus transportation could be more efficient, so they set out to understand it.

Source: Asian Surveying & Mapping and [KickStarter.com](#)

### [GPS to monitor housing schemes, misuse of funds in Indian state](#)

The government has ordered to implement GPS technology in an effort to put a stop to the irregularities happening under Housing schemes. Earlier nodal officers of Rajeev Gandhi Rural Housing Coporation made a visit to the villages where the houses of the beneficiaries are under construction and verify the details and were using the GPS technology only for monitoring the sites. If the documents are approved the funds were remitted to the respective beneficiaries' accounts. But with the rise in allegations that the officials were hand in glove with the beneficiaries and were sanctioning funds even when the construction of the house is in basement level, the government had directed to use GPS to monitor the scheme and then approve further funds.

Source: Deccan Herald

### [New telescope to warn of solar flares that damage GPS signals](#)

Australia has unveiled a new radio telescope in the remote outback that will give the world a vastly improved view of the sun and much faster warnings on massive solar storms. The Murchison Widefield Array (MWA) radio telescope will detect flares on the sun's surface that could damage communication satellites, electricity power grids and GPS navigation systems.

Source: Geospatial World Weekly

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### [Uber Weather for Chrome, weather on steroids!](#)

Source: [Any Geo blog](#)

### [Cartography Tip – Color Brewer \(2.0\) Expert Color Advice For Your Maps](#)

Here is an extremely useful resource for selecting color schemes for your cartographic products. It's a website called [ColorBrewer 2.0](#), developed by Cynthia Brewer, professor of Geography at Penn State University.

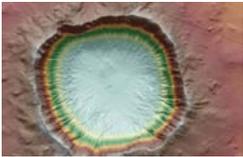
Source: Any Geo blog

### [Microsoft software to analyse complex geospatial data](#)

A new software library that can be used to analyse complex geospatial data has been released by Microsoft Research. Narwhal is a software library that has been developed as part of the work for the WorldWide Telescope visualisation engine, but has wider uses. The data doesn't even have to be 'location based' in the traditional sense.

Source: Geospatial World Weekly and [I-Programmer](#)

### [OpenTopography – open and free access to high-resolution topographic data](#)



Some interesting "super computing" news as The National Science Foundation (NSF) has renewed funding for [OpenTopography](#), an Internet-based project that provides open and free access to high-resolution topographic data collected by technologies such as LiDAR (Light Detection and Ranging). OpenTopography was initially developed as a proof-of-concept cyberinfrastructure project for the earth sciences as part of the NSF Information and Technology Research (ITR) program-funded Geosciences Network (GEON) project,

and continues to emphasize innovative cyberinfrastructure approaches to the online storage, access, and processing of large topographic datasets.

During the first three years of operations, the OpenTopography user community has grown to several thousand registered and guest users and a catalog of half a trillion LiDAR points! **See more on the project [HERE](#)**

Source: Any Geo blog

### [Thailand launches new facility for geoinformatics development](#)

Thailand's Geo-Informatics and Space Technology Development Agency ([GISTDA](#)) has launched a new facility called 'Space Krenovation Park (SKP)' to further enhance the development of country's geo-informatics and space technology. The SKP is located at the Thaichote Satellite Control Station in Chon Buri province.

GISTDA Executive Director Dr Anond Snidvongs said during the opening ceremony of the SKP that the agreement to forge alliances between Thai and foreign geo-informatics and space technology entrepreneurs was signed to support related research, develop innovative and add value to relevant products and businesses such as spare parts for space missions, batteries, mapping, high resolution satellite images, as well as a centre for the development of potential geo-informatics and space technology in ASEAN.

The SKP comprises of seven main sections including satellite control unit, geo-informatics centre for ASEAN, a facility to provide knowledge and training to private entrepreneurs who are keen to enter this business, a rent space for private sector to conduct research on relevant product development.

Source: Thanya Kunakornpaiboonsiri, FutureGov, 6 December 2012

**See also:** [Thai agency to lead Asean in disaster warning and control](#)

### [New 3D mapping technology to preserve delicate structures](#)

CSIRO scientists have invented a new 3D mapping technology, Zebedee, giving researchers and the public unprecedented access to sites of global significance. It is licensed to UK start-up company GeoSLAM and global distributor 3D Laser Mapping.

The Zebedee system consists of a lightweight laser scanner mounted on a simple spring mechanism.

It bobs around as the operator moves through the area under investigation, converting 2D measurements into 3D fields of view.

It's thought to be the world's first truly mobile, hand-held, rapid laser mapping system.

CSIRO researchers used the new 3D mapping technology to explore the Koonalda Cave in South Australia, near the western border, for the SA Museum.

The delicate site in the Nullarbor Regional Reserve, closed to the public, was used as a flint mine by Aboriginal people between about 30,000 and 10,000 years ago.

They left strange markings, called finger flutings, in the soft limestone walls by dragging their hands along established grooves.

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Archaeologist Dr Keryn Walshe from the SA Museum said she wants to work out who made the finger flutings - men, women or children - but they are so fragile they crumble at the slightest touch.

"It is really tempting; it is really hard, actually, not to touch this soft surface because it's so inviting," she said.

"It's this beautiful pure white colour, it's like snow. It looks so lovely and soft you just want to touch it to see what it's like, but you mustn't."

Now researchers can analyse the 3D model from the comfort of their laboratory in Adelaide, using computer software or physical reconstructions of the cave created using 3D printers.

"It's a fantastic research tool, the fact that we can use the models in the lab when we have really good light and good conditions to work under, whereas in the cave, because it's in complete darkness, it's really hard to do the research," Dr Walshe said.

Source: Geospatial World Weekly

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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."*



#### [The Global Geography of HIV: 20 Years of Change—in 1 GIF](#)

*With just two years until UN member states hit their Millennium Development deadline for AIDS, a reminder of how far we've come -- and what's left to do*

There's still a lot of work ahead, but it's hard to know how far you've come without looking at where you've been.

Source: The Atlantic

#### [Augmented reality apps may generate USD 300 mn in 2013](#)

According to a report by 'Mobile Augmented Reality: Entertainment, LBS & Retail Strategies 2012-2017', about 2.5bn AR apps are expected to be downloaded to smartphones and tablets per year by 2017. Out of the total AR apps downloaded, games will account for the largest share, though the traditional payper-download payment model would continue to account for the largest share of revenues in the medium term.

There will be further growth avenues, with AR increasingly being deployed in prototype wearable devices like Google Glass. Key hurdles in the growth could be lack of consumer awareness while technological limitations of AR-enablers such as the phone camera, GPS, digital compasses and markerless tracking leads to AR failing to live up to consumer expectations.

Source: Computer Business Review

#### [ESA's ice mission can now measure earth's land and rivers](#)

ESA's ice mission is now giving scientists a closer look at oceans, coastal areas, inland water bodies and even land, reaching above and beyond its original objectives.

Launched in 2010, the polar-orbiting CryoSat was developed to measure the changes in the thickness of polar sea ice, the elevation of the ice sheets that blanket Greenland and Antarctica, and mountain glaciers.

The satellite's radar altimeter not only detects tiny variations in the height of the ice, it also measures sea level and the sea ice's height above water to derive sea-ice thickness with an unprecedented accuracy.

Source: Geospatial World Weekly

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### Articles

#### [Tuning the second-generation SDI: theoretical aspects and real use cases](#)

Authors: Joan Masó, Xavier Pons & Alaitz Zabala

*International Journal of Geographical Information Science* Vol 26(6) (2012) - not an open access journal

Spatial data infrastructure (SDI) actors have great expectations for the second-generation SDI currently under development. However, SDIs have many implementation problems at different levels that are delaying the

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development of the SDI framework. The aims of this article are to identify these difficulties, in the literature and based on our own experience, in order to determine how mature and useful the current SDI phenomena are. We can then determine whether a general reconceptualization is necessary or rather a set of technical improvements and good practices needs to be developed before the second-generation SDI is completed. This study is based on the following aspects: metadata about data and services, data models, data download, data and processing services, data portrayal and symbolization, and mass market aspects. This work aims to find an equilibrium between user-focused geoportals and web service interconnection (the user side vs. the server side). These deep reflections are motivated by a use case in the healthcare area in which we employed the Catalan regional SDI. The use case shows that even one of the best regional SDI implementations can fail to provide the required information and processes even when the required data exist. Several previous studies recognize the value of applying Web 2.0 and user participation approaches but few of these studies provide a real implementation. Another objective of this work is to show that it is easy to complement the classical, international standard-based SDI with a participative Web 2.0 approach. To do so, we present a mash-up portal built on top of the Catalan SDI catalogues.

### **[Integration of hydrological observations into a Spatial Data Infrastructure under a Sensor Web environment](#)**

International Journal of Digital Earth

[Full text](#)

Various sensors connected to the World Wide Web are used to obtain real-time hydrological observations. Thus, real-time management and utilization of such distributed in situ observations in the cyber-physical environment becomes possible. A Sensor Observation Service (SOS) chaining Web Feature Service (WFS) method is proposed to integrate geographical reference observation data collected by a hydrological Sensor Web into a virtual globe. This method hides the complexity of a series of information and service models in the Sensor Web realm to enable the integration of heterogeneous distributed hydrological data sources into a Spatial Data Infrastructure (SDI). The core components – a dynamic schema transformer and automatic information extractor – were designed and implemented. The SOS schema is matched to WFS schema that uses the schema transformer dynamically. The information extractor extracts and serves features automatically, conforming to standard SOS operations for observation retrieval and insertion.

**Keywords:** Sensor Web, data management, service middleware, Sensor Observation Service, Web Feature Service

### **[Mercator: His contribution to surveying and cartography](#) by Jan de Graeve, FIG IISHM (PDF available)**

*2012 is the quincentenary of the birth of Gerard Mercator. Although best known for the map projection named after him, he was also known for the Mercator atlas, indeed even the introduction of the word "atlas" and for his work in cartography but maybe not so much for his basic work as a land surveyor. This article is a short introduction to his life and work to highlight the exceptional place he has in the history of our profession.*



Source: Nov/Dec issue of PositionIT (& thanks to Ross Johnson for bringing this item to our attention)

### **[Responding to the Great East Japan Earthquake](#)**

Geospatial Information Authority of Japan (GSI), the national mapping organization in the Japanese Government, conducted various activities in response to the Great East Japan Earthquake which occurred on 11 March 2011. This article summarizes the activities as well as achievements and challenges recognized  
Source: Coordinates monthly magazine (December 2012)

### **[Spatial Data Infrastructure Based Approach for Institutionalizing the Tenure Security in Alienated Government Lands](#), *Tropical Agricultural Research* Vol. 23 (4): 347-356 (2012)**

Authors: NMPM Piyasena, RP De Silva, NDK Dayawansa

[Full Text](#)

#### **Abstract**

Tenure security enables people to reap the benefits from land without any disturbances. As such, it is the basic element of sustainable economic, social and, environmental development. However, institutional inconsistencies between formal and informal institutions create the tenure insecurity in alienated government lands. The paper hypothesize that these institutional inconsistencies are mainly arise due to the fact that inefficient Spatial Data Infrastructure (SDI) provided by the surrounding organizational setup. The research investigates the significance of organizational setup in establishing the tenure security. Further, it explores the involvement of spatial data in the organizational issues that contribute to the development of insecurity of tenure. According to the investigation, bulk of the tenure security issues occurred due to the organizational

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inefficiencies and most of these organizational issues are related with the spatial data. Finally, the research has identified the matters to be dealt with, when institutionalizing a proper SDI within an identified organizational setup to enhance the land tenure security in alienated lands.

**Keywords:** Spatial data infrastructure; tenure security

### [Assessing vulnerability to climate change using GIS](#)

Authors: Bhawna Sharma and Dr. Nihar Jangle

#### Introduction

The anticipated impacts of the climate change in India are increase in temperature, change in precipitation patterns including monsoons, rise in sea levels and melting of Himalayan glaciers (INCCA 2010). Subsequently, an upscale in frequency and intensity of droughts and floods is expected, with adverse effects on human health, agriculture and livelihood particularly of those who are at the Bottom of Pyramid (BoP). Hence, enhancing the resilience of vulnerable communities to the impacts of climate change through adaptation is becoming increasingly important (Downing and Patwardhan 2005). "Risk management and risk reduction strategies, including risk sharing and transfer mechanisms such as insurance" are identified as an effective adaptation tool in Bali Action Plan at the 13th Conference of the Parties and the 3rd Meeting of the Parties in December 2007 in Bali (Warner, Ranger et al. 2009). The UNFCCC Cancun Agreements (2010) state the need for "risk management and reduction, risk sharing and transfer mechanisms such as insurance, including options for micro-insurance". They also mention the "possible development of a climate risk insurance facility to address impacts associated with severe weather events. However, poorer communities which tend to be more exposed and less resilient to economic shocks have limited access to conventional insurance (Steinmann 2012). Innovative microinsurance solutions tailored to the needs of rural communities can protect the excluded, vulnerable, and poor (Dror and Jacquier 1999).

Source: Geospatial World Weekly

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## Books and Journals (including Videos and Web publications)

### [V-e-n-u-e.com](#)

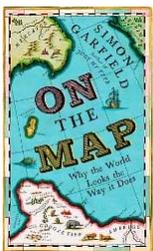
**Venue** — a portable media rig, interview studio, multi-format event platform, and forward-operating landscape research base — will pop up at sites across North America from June 2012 through fall 2013.

Under the direction of Geoff Manaugh of [BLDGBLOG](#) and Nicola Twilley of [Edible Geography](#), Venue officially launches Friday, June 8, with a public event from 6-8pm at the Nevada Museum of Art in downtown Reno, Nevada.

In collaboration with the Center for Art + Environment at the Nevada Museum of Art and with Columbia University's Studio-X Global Network Initiative, Venue will traverse North America in a series of routes, visiting such sites as New Mexico's Very Large Array, Arches National Park, the world's largest living organism in the Blue Mountains of Oregon, and the 2012 Aspen Ideas Festival.

At these and many other locations, Venue will serve as a backdrop — or venue — for original interviews with people from an extraordinary range of disciplines, even as it records and surveys each site through an array of both analog and high-tech instruments.

### [On The Map: Why the world looks the way it does](#) by Simon Garfield



Maps fascinate us. They chart our understanding of the world and they log our progress, but above all they tell our stories. From the early sketches of philosophers and explorers through to Google Maps and beyond, Simon Garfield examines how maps both relate and realign our history. His compelling narratives range from the quest to create the perfect globe to the challenges of mapping Africa and Antarctica, from spellbinding treasure maps to the naming of America, from Ordnance Survey to the mapping of Monopoly and Skyrim, and from rare map dealers to cartographic frauds. En route, there are 'pocket map' tales on dragons and undergrounds, a nineteenth century murder map, the research conducted on the different ways that men and women approach a map, and an explanation of the curious long-term cartographic role played by animals. *On The Map* is a witty and irrepressible examination of where we've been, how we got there and where we're going. "Delightful. If maps be the fuel of wanderlust, read on." From the foreword by Dava Sobel, author of *Longitude*. Author [Simon Garfield interviewed](#) by Wall Street Jnl editor Gary Rosen.

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## **[SDI Cookbook update](#)**

The SDI Cookbook, in its wiki version, now has an updated Chapter 10 to reflect the latest slate of standards and popular version numbers. We seek contributing editors for the other Chapters to also bring them up-to-date. About three months prior to the next GSDI Conference we will seek to affix a date and snapshot the Cookbook into a "SDI Cookbook 2013" PDF version. By saving a PDF and giving it a date of publication, it will clarify the reference and citation of the document and provide a time context.

If you are interested in helping update any of the chapters, please contact [Douglas Nebert](#).

## **[NewGeography website](#)**

## **[Mapping London blog](#)**

## **[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. His other blog is [Strange Maps](#)

## **[Thematic Mapping blog](#)**

Terrain mapping with Mapnik

## **[Blog of Ragnvald Larsen, geographer](#)**

Geographer working with maps at the Norwegian Directorate for Nature Management. Part of his job is to contribute to development aid projects.

## **[International Society for Digital Earth - August, 2012 Newsletter](#)**

## **[Thoughts on the Geospatial industry, Open Standards and Open Source](#)** Cameron Shorter's blog

## **[New Zealand - SDI Cookbook Chapter 6 – Government and Industry, moving forward.](#)**

## **[Carnival Of The Geospatialists #3 - 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 December 2012 issue has been published

## **[LiDAR News, Vol 2, No 19](#)** (September 2012 Newsletter)

## **[LiDAR News magazine](#)** (Vol 2, No 5, Fall 2012)

## **[Think Quarterly](#)** – Google's new on-line magazine

## **[Coordinates](#)** monthly magazine - **PDF** (June 2012)

## **[SERVIR-Africa community news](#)**

## **[GISuser - GIS and Geospatial Technology News](#)**

## **[National Geographic website](#)**

## **[The Atlantic Cities website](#)** including [Maps](#)

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[Professional Surveyor](#) magazine

[The American Surveyor](#) newsletter (November 28)

[My Co-ordinates e-zine](#) – October issue (PDF)

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## Just for Fun!

### [The Explosion of 15th Century Printing: A Data Visualization](#)

Harvard's metaLAB maps the number and location of printed works in the university's library collections.

<http://www.theatlantic.com/video/index/265902/>

### [Black Marble: The Earth at Night Like You've Never Seen It Before](#)

*"Nothing tells us more about the spread of humans across the Earth than city lights."*

<http://www.theatlantic.com/video/index/265947/>

### [An Amazing, Hyper-Detailed Satellite View of the Earth's Lights at Night](#)

Source: The Atlantic and [Scientific American](#)



### **SEE ALSO -** [A New, Highly Detailed Image of North Korea's \(Lack of\) Electrical Infrastructure](#)



Pyongyang has a probable population of more than 3 million people, but you wouldn't know it looking down on the city from space. Only the faintest of glimmers rise from the metropolis, as if all its residents are huddling in the dark for their Supreme Leader's surprise birthday party.

The world has known of North Korea's night-invisibility for a while. On imagery captured by military satellites in the '90s, the country shows up like a gaping hole in the flaming latticework of light that is Japan, South Korea and China. But recent overpasses by NASA's Suomi NPP spacecraft – the one that provided those marvelous shots of nocturnal America – has revealed the country's energy bankruptcy in a level of detail never seen before.

Source: The Atlantic "Cities"

### **UPDATE to** [South Pacific Sandy Island 'proven not to exist'](#) (December 2012 issue of SDI-AP newsletter)

A librarian in Auckland, New Zealand located it on a chart of the Pacific Ocean, published in 1908 but first compiled in 1876. The island was sighted in that year by the British vessel *Velocity*. The chart includes a warning that helps explain why it included even doubtful sightings of land.

Source: [Strange Maps blog](#)



### [This Surfboard-Sized Robot Just Propelled Itself Across the Ocean](#)

Surviving stormy weather and a shark attack, the Wave Glider just entered the record books for the longest autonomous trip ever taken

On its first journey across the Pacific Ocean, the robot Wave Glider *Papa Mau* was bitten by a shark, whipped by 100 mph winds, and tossed by 30 foot waves. Somehow it survived the whole 9,000 nautical mile trip from Northern California to Australia. *Papa Mau* now holds the world record for distance traveled by an autonomous vehicle on land

or in the sea.

Source: Scientific American and Liquid Robotics [website](#)



### [Mount Everest, in 3.8 billion pixels](#)

See for yourself the fine details of the base camp at the foot of Mt Everest

Source: [Washington Post](#), GlacierWorks.org and many other

websites including [Scientific American](#)



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### [The End of the Map](#)

Apple Maps stands at the end of a long line of cartographic catastrophes. Say goodbye to the Mountains of Kong and New South Greenland—the enchanting era of geographic gaffes is coming to a close. **Left:** California depicted as an island of the coast of North America.

Source: The Wall Street Jnl

### [Great Britain - SpalshMaps develops washable, wearable maps](#)

SplashMaps is developing maps printed on waterproof, washable and wearable high-performance fabrics – so one could literally wear their map on their sleeve! The company is using a combination of Ordnance Survey and OpenStreetMap data and working to a scale of 1:40000.

The company can print scarves, shorts and sleeves. The lightweight and waterproof maps can be easily stashed in a pocket (if it's a scarf!) and accessed. The maps can also be customised to suit the users needs - the scale, symbols or colour can be altered, and it could be centred on the region, or even the exact route. SplashMaps intend to make all 15 of Britain's national parks available by April, by which time users will be able to centre their map anywhere in the country.

Source: Geospatial World Weekly and Ordnance Survey [blog](#)

### [Maps and charts are backups to GPS - "Why do I need a map? I've got a GPS!"](#)

He was coming in from Baltimore and headed to the West Ocean City marina, where my boat was moored, but his car's GPS directed him in through Delaware, and when he hit the coast he didn't know which way to go.

When I asked if he had a map in his car, he snapped at me, saying, "Why do I need a map? I've got a GPS!"

Source: Delmarva.com

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## Training Opportunities

### [Online training series: introduction to Geospatial ISO Metadata](#)

The National Oceanic and Atmospheric Administration's (NOAA) National Coastal Data Development Center (NCDDC) is offering **Introduction to Geospatial ISO Metadata**, a free, online training series beginning in January 2013.

NCDDC set out to meet the increased needs of data managers as many organizations transition to ISO standards. Working with other metadata trainers within the community, the NCDDC Metadata Team developed a complete package of training materials concerning ISO metadata standards. Conducting this training online is an innovative way to meet the increasing demand for such training.

The NCDDC has conducted two prior metadata training series online in which over 1500 participants from 18 countries on five continents took part. The success of those efforts led to the continuation and expansion of the training being offered.

Registration is now open for the next series which will be held every Tuesday from 9:30 a.m-10:30 a.m. US Central Standard Time (CST) from January 15 until March 5, 2013. Unfortunately this translates to 4:30 a.m-5:30 a.m. New Zealand Daylight Time (NZDT) on Wednesdays beginning 16th Jan. Hey! The early bird gets the worm. **[this is near 11 PM Tuesdays – 1 AM Wednesdays for most of the Asia-Pacific countries]**

The series will start with an introduction to metadata, and cover topics such as XML basics, tools, and data discovery. All materials will be made available online, and instructors will be available by request for special one-on-one "My Metadata" sessions to answer specific questions for individual participants.

To register or for more information, please [visit](#)

Thanks to Ross Johnson for this item

### [Course Spotlight: Master of Spatial Information Science](#)

The University of Melbourne [Course Spotlight: Master of Spatial Information Science](#)

Spatial information is an essential and indispensable part of any economy's infrastructure. It is needed in all walks of life and on many scales, with applications in land tenure systems, environmental modelling, food production, disaster management, climate change modelling, engineering, architecture and urban planning.

Current industry shortfalls in spatial information practitioners combined with a growing demand in Australia and internationally, ensure graduates a range of well-paid job opportunities.

Find out more about the [Master of Spatial Information Science](#), as well as our [scholarship opportunities](#).

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### [Learn to Use HTML5 with Esri ArcGIS](#)

Get a brief introduction to HTML5 and learn how to use HTML5 technologies with the ArcGIS API for JavaScript and ArcGIS Online.

Source: GIS User and [ESRI](#)

### [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 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

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Source: [The Centre for Agricultural and Rural Cooperation](#)

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## Funding Opportunities, Awards, Grants

### [IFS Individual Research Grants: call for applications](#)

**Deadline for applications: 27 January 2013**

The call is for early-career scientists in developing countries eligible to apply for International Foundation for Science (IFS) Individual Research Grants and carry out research projects for a period of up to 3 years. An applicant must have at least an MSc/MA, be younger than 35 years of age (for men) or 40 years of age (for women) and must do the research project in an IFS eligible country.

IFS recognises that the sustainable and equitable stewardship of global resources and the provision of services from them will draw on many technical and social fields of research, relating to: agriculture, fisheries, forestry, food security, health and nutrition, energy, natural products, water and sanitation. However, IFS believes it is vital that young researchers have the opportunity to propose research which they identify can address problems in a least developed country, relevant to the needs of the country, supported through a demand-led, long-term, predictable research granting and capability enhancing approach across a broad spectrum of biological and water resources.

Eligible countries include Philippines, Bangladesh, Samoa, Kiribati, Solomon Islands, Cambodia, Lao PDR, Sri Lanka, Marshall Islands, Timor-Leste, Micronesia, Fed. Sts., Tonga, Vanuatu, Myanmar, Vietnam, Fiji, Pakistan, Papua New Guinea.

### [Ideas Challenge](#)

The Ideas Challenge is at the core of the GMES Masters competition. It invites students, entrepreneurs, start-up companies and SMEs to submit their ideas for an innovative commercial use of GMES to a secure online database on the GMES Masters website. The best idea for a commercially viable business idea using GMES data will be rewarded. The winner will be rewarded with a cash prize of EUR 10,000 as well as the chance to get his idea further developed in one of the six ESA Business Incubation Centres (BICs). The incubation package has a value of up to EUR 60,000.

### [ESA App Challenge](#)

The European Space Agency (ESA) will award the ESA App Challenge to the best application idea for the usage of GMES on mobile phones. Proposals shall address one or more GMES main thematic areas (land, marine environment, atmosphere, climate change, emergency management). ESA is looking for ideas that can be implemented quickly into a profitable business. The application should consist of a base app containing info and news on GMES, as well as one or more specific content modules that provide relevant location-based data to users in real time. The winner will be considered for support by one of the six European Space Agency's Business Incubation Centres (ESA BICs) across Europe (value up to EUR 60,000).

### [European Space Imaging High-Res Challenge](#)

European Space Imaging (EUSI) is Europe's leading provider of Very High-Resolution (VHR) satellite data. EUSI will award the best application idea using the most advanced VHR satellite data. Application ideas which are easily implementable, sustainable, cut costs and create efficiencies are of high interest. Participants are required to submit detailed application ideas including business concepts. The winner will be awarded a data package of EUSI satellite data worth up to EUR 20,000 for use in further developing the winning application.

### [DLR Environmental Challenge](#)

DLR is looking for new applications in Earth observation, especially proposals addressing the mapping of the environment and climate. Ideas for using Earth observation to manage sustainable supplies of energy are also welcome. In addition to any kind of non-satellite geoinformation, proposals should be based on existing or imminent Earth observation satellite data that is available either for free or under commercial terms. The product or service generated from the idea should support either professionals from organisations and companies in environmental assessment, or the general public and consumer-oriented markets. Both regional and global applications and services are possible. Innovative ways to link the service with users are especially encouraged. The ideas should also describe a realistic scenario for their implementation involving either the general public or

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commercial benefits. The winner(s) will receive a voucher for a workshop or initial coaching according to what further realisation of the idea requires.

### [Best Service Challenge](#)

The Best Service Challenge invites service providers to upload profiles of their existing services within the main thematic areas of GMES to the GMES Masters competition website. The Best Service Challenge aims at increasing the awareness of existing Earth Monitoring Services and their benefits to European citizens. The winner of the Best Service Challenge will benefit from a substantial satellite data quota made available with financial support by the European Commission.

### [T-Systems Cloud Computing Challenge](#)

T-Systems will award the prize for its Cloud Computing Challenge to the best GMES application or service idea that will make use of the cloud computing model Infrastructure-as-a-Service (IaaS) to provide Earth observation data on demand via user-oriented web portal or mobile devices. T-Systems will assist the winner in getting the awarded project off the ground. They will support the winner to realise an innovation project, which could lead to a long-term partnership.

### [Challenge to spur the geospatial industry](#)

The Singapore Land Authority has launched OneMap Challenge that seeks to promote the development of innovative map-based desktop and mobile applications by businesses and the community.

The OneMap Challenge provides a platform for application developers to showcase their creativity through the apps they develop to an increasingly tech-savvy population and enterprises, including those represented by the Association of Small and Medium Enterprises (ASME) which is one of the competition promotion partners. The Challenge also aims to facilitate collaborations between potential business partners for creating location-based apps that are useful for business enterprises and the general community.

With two top prizes of \$20,000 cash each and other attractive prizes up for grabs, the OneMap Challenge is divided into two categories – Web Applications for applications that run on web browsers and Mobile Applications for those that run on smart phones, tablets and other portable devices.

Visit <http://www.sla.gov.sg/OneMapChallenge> to learn more about OneMap Challenge and check out the OneMap Facebook page at [www.facebook.com/OneMap](http://www.facebook.com/OneMap).

Source: Geospatial World and [SLA press release](#)

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## Employment Opportunities

### [GIS Job Board Launches New Website: \[www.gisjobboard.com\]\(http://www.gisjobboard.com\)](#)

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](http://www.gisjobboard.com)

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## Conference Proceedings

### [GISSA Ukubuzana 2012 Conference Proceedings](#)

Almost 600 delegates and 66 exhibitors attended the Geo-Information Society of South Africa ([GISSA](#)) Ukubuzana 2012 conference which was held at Emperors Palace from 2 to 4 October 2012 in Johannesburg,

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South Africa.

Some 60 peer-reviewed academic papers, general papers, short papers and poster papers were presented at GISSA Ukubuzana 2012. A particular hit with the delegates were the local government, demographic and mobile streams.

### [Documentation: 19th United Nations Regional Cartographic Conference for Asia and the Pacific](#)

The 19th United Nations Regional Cartographic Conference for Asia and the Pacific (UNRCC-AP) was held in Bangkok, Thailand from 29 October to 1 November 2012. Documentation from the event is available online. The Permanent Committee on GIS for Asia and the Pacific (PCGIAP) decided to rename itself UNGGIM-AP.

### [The 4th Digital Earth Summit Concludes in Wellington, New Zealand](#)

The fourth bi-annual Digital Earth Summit was held in Wellington, New Zealand from Sept. 2-4, as one in a series of summits organized by the International Society for Digital Earth (ISDE). The summit with the theme "Digital Earth and Technology" was co-hosted by Wellington City Council and Land Information New Zealand. There were three streams that included the digital environment, resilient cities, and growing up digital. There were 15 keynote speeches and 75 presentations, attracting around 200 delegates from more than 20 countries.

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## Conferences, Events

For upcoming events of global or major international interest, please visit the [upcoming conference list](#) 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
<b>January 2013</b>		
22-24 January	Hyderabad, India	<u><a href="#">India Geospatial Forum 2013</a></u> Highlighting the growing economic power like India and its significant plans impacting within and even globally, <b>India Geospatial Forum</b> – one of the premier geospatial events, represents an arena of Indian technological and economical advancements. Designed quite in line with the upcoming 12th five year plan along with distinct focus on mission mode projects and upcoming technological advancements, the forum shall present a sound structure demonstrating the potential of geospatial technologies to achieve a progressive and sustained economical growth. <b>India Geospatial Forum 2013</b> , shall bring the spectrum of visionaries of geospatial community along with technology providers, array of users, policy makers and academicians, to a single platform and benefit them by providing opportunities for discussion, deliberation and knowledge sharing. Revolving around the theme " <b>Towards Geospatial Enabled Economy</b> ", the programme is structured and to cater to the decision makers, policy makers from various agencies that are involved in national development plans.
<b>February 2013</b>		
4-6 February	Doha, Qatar	<u><a href="#">2nd High Level Forum on Global Geospatial Information Management</a></u>

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<b>"NEW"</b>		<a href="#">Annotated agenda</a> ,
<b>11-3 February</b>	Denver, USA	<a href="#">International LiDAR Mapping Forum (ILMF)</a> <a href="#">Call for Papers</a> and invites any interested parties to submit their abstracts by September 28, 2012 online. <a href="#">Contact</a>
<b>March 2013</b>		
<b>11-15 March</b> <b>"NEW"</b>	Islamabad, Pakistan	<a href="#">United Nations/Pakistan International Workshop on Integrated Use of Space Technologies for Food and Water Security</a>
<b>18-9 March</b>	Singapore	<a href="#">1st Annual International Conference on ACE:</a> <b>Call For Papers 2013</b> IMPORTANT DATES Full Paper Submission Deadline:23rd November 2012 Author Notification:7th December 2012 Final Paper (Camera-Ready) Submission Deadline:31st December 2012 Early Bird Registration Deadline:18th January 2013 Late Registration Deadline:13th February <a href="#">Contact</a>
<b>25-7 March</b>	Amman, Jordan	<a href="#">Spatial Data infrastructures Middle East, 2013</a> In the Middle East the development of geographic information systems and their function has been rapid. Governments have over the past decade realised the need to be able to access and use the vast amounts of data collected on a daily basis. Whilst individual departments or agencies possess the tools to analyse, utilise and disseminate information this can leave gaps at a governmental or even national level. Benefits of attending the Spatial Data Infrastructure Middle East Conference, organized with the support of Royal Jordanian Geographic Center: - Explore Geographic Information Systems and how your specific organisation can benefit from a unified and achievable plan - Discuss future SDI development plans with senior Government decision makers - Discover end-users GIS and geospatial requirements and solutions being considered - Find out the challenges faced in building an SDI and how to overcome them - Hear about how government department interoperability can be improved through the development of an SDI - Learn about the latest technologies available and which is the best fit for your SDI plans
<b>April 2013</b>		
<b>15-9 April</b>	Canberra, Australia 	<a href="#">Surveying &amp; Spatial Sciences Conference 2013</a> <i>Call for Papers extended to 6 October 2012</i>
<b>22-26 April</b>	Beijing, China 	<a href="#">35th International Symposium on Remote Sensing of Environment (ISRSE35)</a> <i>The papers included in the 35th International Symposium on Remote Sensing of Environment proceedings will be published by IOP Publishing Ltd., UK. The proceedings are available through the IOP Conference Series: Earth and Environmental Science. All published papers will be indexed by EI Compendex. Authors interested in the themes and topics of ISRSE35 are welcome to submit their original manuscripts. Submissions to ISRSE35 will be peer-reviewed to ensure high-quality scientific content and well-written English, in accordance with the Peer Review Policy for the IOP Conference Series.</i> <b>ABSTRACT SUBMISSION</b>

		<p>Interested contributors should submit a summary of the paper they propose for presentation.</p> <ul style="list-style-type: none"> <li>• All submissions should be in English.</li> <li>• Abstracts should reach the Technical Programme Committee no later than 30 September 2012.</li> <li>• Notification of paper acceptance will be made by 10 December 2012.</li> <li>• Each presenting author will be required to register and pay by the author registration deadline on Monday, 25 February 2013, to ensure their abstract is included in the final programme.</li> <li>• Please submit abstracts through the Abstract Submission link at <a href="http://www.isrse35.org">http://www.isrse35.org</a></li> <li>• All abstracts must be submitted online.</li> </ul> <p><b>IMPORTANT DATES:</b>          Registration Opens: Monday, 10 September 2012  <b>Abstract Submission Deadline:</b> Sunday, 30 September 2012  <b>Workshop Submission Deadline:</b> Tuesday, 30 October 2012          Acceptance Notification Monday, 10 December 2012  <b>Early-bird Registration Deadline:</b> Friday, 25 January 2013  <b>Final Paper Deadline:</b> Friday, 15 February 2013  <b>Author Registration Deadline:</b> Monday, 25 February 2013          Standard Registration Deadline Monday, 15 April 2013          Contact detail:          ISRSE35 Secretariat          E-Mail: <a href="mailto:isrse35@ceode.ac.cn">isrse35@ceode.ac.cn</a>          Tel: +86 10 8217 8969          Fax: +86 10 8217 8968          Website: <a href="http://www.isrse35.org">www.isrse35.org</a>          Address: Center for Earth Observation and Digital Earth, CAS No. 9 Dengzhuang South Road, Haidian District, Beijing 100094, P.R. China</p>
24 - 26 April	Novosibirsk, Russia	<p><b>Siberia - Interexpo GEO-Siberia 2013</b>          IX International exhibition and scientific congress "Interexpo GEO-Siberia-2013" -"Advanced Geospatial and Surveying Technologies for Environmental Management and Sustainable Development"  <b>Contact :</b> <a href="http://www.ssga.ru/main/news/view/428/1/5555.html">http://www.ssga.ru/main/news/view/428/1/5555.html</a></p>
25 - 26 April	Singapore	<p><b><a href="#">First Asia Pacific 3D Documentation Conference</a></b>  <b>Connecting 3D Communities</b></p>
<b>May 2013</b>		
1 – 3 May	Tainan, Taiwan	<p><b><a href="#">8th International Symposium on Mobile Mapping Technology (MMT 2013)</a></b>          MMT is an academic conference officially recognized by International Society for Photogrammetry and Remote Sensing          MMT 2013 Symposium: 1st May-3rd May, 2013          MMT 2013 Summer School: 29th-30th April, 2013  <b>Contact :</b> <a href="http://conf.ncku.edu.tw/mmt2013/index.htm">http://conf.ncku.edu.tw/mmt2013/index.htm</a></p>
6-10 May	Abuja, Nigeria	<p><b><a href="#">The FIG Working Week</a></b>          The Working Week will bring surveyors and land professionals from all over the world together to meet while specific focus will be given to Africa. The conference is organised jointly by <b>FIG</b> and the <b>Nigerian Institution of Surveyors, NIS</b>, one of the three FIG member associations in Nigeria.</p>
13-6 May	Rotterdam, The Netherlands	<p><b><a href="#">Geospatial World Forum</a></b> is a conference cum exhibition which has always invoked the geospatial community with its relevant and thought-provoking themes. This year, the conference which is scheduled from <b>13-16 May 2013</b> at <b>Beurs World Trade Center</b>,</p>

		<p><b>Rotterdam, The Netherlands</b> aims at increasing our understanding of the concept of Monetising the value added by geospatial industry so far with its theme "<b>Monetising Geospatial Value and Practices</b>". Please <a href="#">submit</a> your abstracts. <a href="#">For queries</a>.</p> <p><b>Important Dates -</b></p> <table border="1"> <tr> <td><b>Abstract Submission</b></td> <td>15 October 2012</td> </tr> <tr> <td><b>Abstract Acceptance/Non Acceptance Notification</b></td> <td>04 November 2012</td> </tr> <tr> <td><b>Speaker Registration</b></td> <td>15 December 2012</td> </tr> </table>	<b>Abstract Submission</b>	15 October 2012	<b>Abstract Acceptance/Non Acceptance Notification</b>	04 November 2012	<b>Speaker Registration</b>	15 December 2012
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<b>June 2013</b>								
<b>24 – 27 June</b>	Ho Chi Minh City, Vietnam	<p><a href="#">Eighth International Conference on "Geographical Analysis, Urban Modeling, Spatial Statistics" GEOG-AND-MOD 13</a> in conjunction with The 2013 International Conference on Computational Science and its Applications (<a href="#">ICCSA 2013</a>) Submission - papers should be submitted at: <a href="http://ess.iccsa.org/">http://ess.iccsa.org/</a> [please don't forget to select "<b>Geographical Analysis, Urban Modeling, Spatial Statistics GEOG-AND-MOD 13</b>" workshop from the drop-down list of all workshops.]</p> <p><b>Important dates</b> 31 January 2013: Deadline for full paper submission 10 March 2013: Notification of acceptance 6 April 2013: Deadline for Camera Ready Papers June 24-27, 2013: ICCSA 2013 Conference</p>						
<b>July 2013</b>								
<b>2 – 5 July</b>	Salzburg, Austria	<p><a href="#">GI Forum 2013 – Creating the GISociety</a> The international <b>GI Forum</b> attracts an <b>interdisciplinary</b> audience interested in discussing progress and new ideas in GIScience. The GI_Forum communicates <b>innovative research and learning in Geographic Information Science</b> with focus on hardware, software, orgware and brainware for the GISociety, and their inter-relationships. Young researchers are especially invited to contribute and discuss their research. Together with recognized scientists they will find a vibrant community from academia, business, and education ready to embrace new ideas and explore new research directions. GI Forum runs concurrently with the highly regarded German language conference on <a href="#">Applied Geoinformatics – AGIT</a>. The two symposia share some 1200 participants, the innovative AGIT EXPO exhibit and stimulating social events. Submission deadline <b>February 1, 2013</b>. <a href="#">Contact</a>.</p>						
<b>16 – 18 July</b>	Gold Coast, Australia	<p><b>IGNSS 2013</b> The International Global Navigation Satellite Systems (IGNSS) Society Inc. is pleased to announce IGNSS 2013 <b>Closing Date for Submission of Abstracts: Monday 4<sup>th</sup> February, 2013:</b> Information regarding on line submission of abstracts and abstract templates will be updated in due course on the <a href="#">IGNSS Society website</a> . <b>Submission of Peer Reviewed and Non Peer Reviewed Papers:</b> Information regarding On Line Submission of Peer Reviewed and Non Peer Reviewed Papers will be updated in due course on the <a href="#">IGNSS Society website</a> (Click here). <b>IGNSS Free Membership:</b> There is no fee to register for Membership of the IGNSS Society. Complete the <a href="#">On Line Membership Form</a> .</p>						

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		Benefits of Membership include reduced Symposium Registration Fees. <b>Contact</b> : <a href="http://www.ignss.org/">http://www.ignss.org/</a>
<b>21 – 26 July</b>	Melbourne, Australia	<b><a href="#">IEEE International Geoscience and Remote Sensing Symposium (IGARSS)</a></b> On behalf of the IEEE Geoscience and Remote Sensing Society and the IGARSS 2013 Local Organising Committee, we are delighted to invite you to Melbourne, Australia for IGARSS 2013. We are looking forward to welcoming leading scientists, engineers and educators from the diverse disciplines that make up the Geoscience and Remote Sensing community. We also hope to attract new delegates from the Asia-Pacific and Oceania regions. We will be offering a world class technical program encompassing traditional IGARSS topics and new topics reflecting the theme of the 2013 Conference, "Building a Sustainable Earth through Remote Sensing". This theme was selected to emphasize the issues that most affect the Earth's environment, and the human impact on the planet. We welcome both seasoned and new delegates to Melbourne in July 2013.
<b>August 2013</b>		
<b>26-29 August</b>	Kuching, Sarawak, Malaysia	<b><a href="#">The 8th International Symposium on Digital Earth (ISDE8)</a></b> with the theme of "Transforming Knowledge into Sustainable Practice" will be held in Kuching, Sarawak, Malaysia. <a href="#">Abstract Guidelines</a> for authors. <b>DEADLINE:</b> 2 February 2013
<b>September 2013</b>		
<b>2 – 4 September</b> <b>"NEW"</b>	Jakarta, Indonesia	<b><a href="#">UN/Indonesia Workshop on Climate Change</a></b> <b>No website/URL at this stage</b>
<b>24-26 September</b>	Kuala Lumpur	<b><a href="#">Asia Geospatial Forum 2013</a></b> <a href="#">Contact</a>
<b>October 2013</b>		
<b>15 – 17 October</b> <b>"NEW"</b>	Coombe Abbey, Warwickshire, UK	<b>1st call for papers</b> for the <b><a href="#">9th International Workshop of the EARSeL Special Interest Group (SIG) on Forest Fires</a></b> . The workshop is organised by the University of Leicester with support from the Laboratory of Forest Management and Remote Sensing, Faculty of Forestry and Natural Environment, Aristotle University of Thessaloniki. <a href="#">Contact</a> <b>The deadline for abstract submission is 1 March 2013.</b>
<b>November 2013</b>		
<b>4-8 November</b>	Addis Ababa, Ethiopia	<b><a href="#">GSDI 14 and AfricaGIS 2013:</a></b> The GSDI Association, EIS-Africa, the International Geospatial Society, and the United Nations Economic Commission for Africa (UNECA) are pleased to announce a close partnership in offering the joint GSDI 14 World Conference and AfricaGIS 2013 Conference. The theme of the conference is <b>Spatially Enabling Africa in Support of Economic Development and Poverty Reduction.</b>
<b>2014</b>		
	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.

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