

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 October edition of the newsletter. While we were hoping to bring news of the Australian Football League Grand Final to our eager subscribers we are forced to hold it over for the November edition because the September 25 contest resulted in a draw and will be re-played on October 2.

Readers will note that the section [“Books and Journals”](#) has been expanded to include videos following the televising of the first episode of the Penn State University Public Broadcasting *Geospatial Revolution* series.

Please note that the GSDI organisation is currently planning for the GSDI conference and calling for Workshop and Tutorials — further information is available from [the GSDI website](#) and the Conference, Events section of the Contents of this newsletter.

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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:

Ali Aein for his "Spotlight" contribution, Paul Box, Kate Lance, and Baek Wonkug for news feeds, Jeremy Shen and Jeremy Huang for the Chinese translation as well as Shivani Lal, GIS Development, and Asia Surveying & Mapping Magazine for directly contributing to the newsletter.

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### GSDI News

#### [Call for Proposals: GSDI Small Grants Program](#)

The Global Spatial Data Infrastructure Association is pleased to announce its Small Grants Program for the year 2010-11.

**Summary:** Awards for spatial data infrastructure or Earth Observations Systems (EOS)-related activities in economically disadvantaged nations, Awards of \$2500 USD in cash and/or contributed volunteer professional services for the project. Proposals must be submitted digitally to [grants@godi.org](mailto:grants@godi.org) in English and should be preferably two pages in length but no more than five pages or 2500 words (excluding any appendices). Please submit your proposal as a .pdf file (or alternatively .doc or .rtf file) using 12-point Times Roman or Arial font. Application deadline of 31 October 2010, 4000 words maximum.

Please e-mail them to: Societal Impacts Committee, GSDI Association at [grants@godi.org](mailto:grants@godi.org)

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### SDI News, Links, Papers, Presentations

#### [Geographic Information- SDI and Standards](#)

As geographic information applications evolve and the need for national spatial data infrastructure (SDI) inter-connection grows, there is a greater need to understand how these links might take place. At a meeting of CENT/TC 287 Geographic Information earlier this year in Paris a number of [presentations](#) demonstrate how this might be achieved.

Source: [VectorOne](#)

#### [Geographic information standardisers get ISO award](#)

The achievements of the international team developing standards for digital geographic information were recognised recently when the team won the Lawrence D. Eicher Leadership Award at the 33rd ISO General Assembly in Oslo, Norway.

Every year, the award acknowledges superior performance by one of ISO's standards development groups. The 2010 award has gone to ISO technical committee ISO/TC 211, Geographic information/Geomatics, whose standards cover objects or phenomena directly or indirectly associated with a location relative to the earth.

Source: Geospatial World Weekly

#### [NZ quake cleanup assisted by spatial data clearing area](#)

New Zealand's emergency services are now able access to spatial data and aerial imagery online to assist with the clean up of the devastating earthquake. The earthquake reached 7.0 on the Richter scale and caused NZ\$2bn of damage, though nobody was killed. The online service, developed by the Australian Research



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Collaboration Service and known as BeSTGRID, is normally used to share data between New Zealand research organisations. But a number of agencies – including the New Zealand defence forces, Ministry of Civil Defence and Emergency, Environment Canterbury, New Zealand Aerial Mapping and Christchurch City Council – require secure access to vital information to assist more effectively with the disaster's clean-up. So a shared data area has been created to provide a single location where all information relating to the disaster can be accessed, including digital maps, aerial photography, and satellite images. Further information on the system is available from the [source link](#) below.

Source: [SpatialSource](#)

### [Incident Map of New Zealand Earthquake](#)

This mapping system has been developed based on the integration of data from a number of data custodians including:

- \* Earthquakes and Aftershocks From GNS
- \* Shake Maps from USGS
- \* Operational Information from ECAN
  - Structure Incidents, Check Points, Bridge Status, Road Status, Restricted Access Areas.
- \* Lifelines Information from ECAN
  - Essential Services, Elderly Care, Early Childhood, Medical Practices
  - Priority Sites, Schools, Power Locations, Major Storage Sites, Routes
- \* Updates From New Zealand Herald
- \* Crowd Sourced Information From Google Maps
- \* Aerial Imagery Provided by ArcGIS.com

To view the application click [here](#)

### [A Real Simcity for Australian Utilities?](#)



The 20th century electricity network was not designed for our 21st century Wii and plasma TV lifestyle and the expectation of uninterrupted power for our computers. With more extreme summer temperatures, houses without eaves that are locked up all day while both parents are at work, we all get home at 5pm, turn on the airconditioner full blast and wonder why the grid overloads. People are installing solar panels which feed back into a grid that was not designed for multidirectional flow of electricity. It all leads to an increasingly complex environment for utilities.

According to James Bangay of Ergon Energy in Queensland, utilities cannot afford to keep working the old way, gaining 5% business efficiencies here and there. Bangay is working with the Australian Cooperative Research Centre for Spatial Information (CRC-SI) and the Queensland Department of the Environment to build a wireframe model to 2cm accuracy within 3 years.

Please refer to the source for the full article.

Source: Asian Surveying & Mapping crediting [Jose Diacono](#).

### [Can We Build 'Geospatial-Geomatic Screens' for Disaster Mitigation?](#)

The ability to provide disaster mitigation relies upon the experiences of many people around the globe. These past experiences have included many observations, approaches and included different technological applications to further mitigation and to respond when disasters happen. This collection of information would likely include many geospatial and geomatic technologies and cross many disciplines.

In September of last year the Chinese top political advisor, Jia Qinglin, pleaded for more efforts to build "ecological screens," to contribute to the nation's endeavor to combat floods and landslides

Source: Asian Surveying & Mapping

### [NZ spatial data worth \\$1bn to economy](#)

Innovative use of spatial information pumped more than NZD1.2bn into the New Zealand economy in 2008 – and better access to data could see another NZD500m added to the economy over the next year, according to [a report into the value of spatial information](#) in New Zealand. Ambulance response times, urban planning, emissions mapping, and transport co-ordination have all been greatly aided by use of spatial information. But a range of barriers including problems in accessing data, inconsistency in data standards, and a general lack of skills and knowledge about spatial information have constrained uptake and limited the ability to reap additional benefits in New Zealand. Further details on the economic benefits is available by following the source link

Source: SpatialSource

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### [Australia to fund location-based emergency alerts](#)

The Australian Government is to fund the upgrade of the national emergency warning system, 'Emergency Alert', to deliver warnings to mobile phones based on the location of the handset.

The system currently sends warnings by recorded voice and text message to landlines and mobile phones based on an owner's billing address rather than the location of a handset at the time of a disaster or emergency. This has meant that people caught in a disaster zone, who have a billing address outside the affected area, have not received critical warnings.

Source: [Geospatial World Weekly](#) (20 September) and [www.itwire.com](http://www.itwire.com)

### [The Open Geospatial Consortium \(OGC®\) members are seeking comments on OGC candidate standards](#)

September 7, 2010 - The Open Geospatial Consortium (OGC®) members are seeking comments on OGC candidate standards Network Common Data Form (NetCDF) Core Encoding Standard, and NetCDF Binary Encoding Extension Standard - NetCDF Classic and 64-bit Offset Format. NetCDF (network Common Data Form) can be used to communicate and store many kinds of multidimensional data, although it was originally developed for the Earth science community. The NetCDF data model is particularly well suited to providing data in forms familiar to atmospheric and oceanic scientists: namely, as sets of related arrays.

Further information is available from the source

Source: [OGC](#)

### [Mapping Beneath the Surface](#)

Ground penetrating radar (GPR) provides a means to look beneath the surface to uncover a site's geology, find buried utilities, discover archaeological artifacts, and map underground. This use of the electromagnetic spectrum to penetrate and map what is under the surface has been growing in popularity as it becomes easier and cheaper to use.

Source: Asian Surveying & Mapping

### [GIS made a big difference in Afghanistan: Military](#)

It is not GIS but the proximity with the people who use GIS that has made a real difference in our operators in Afghanistan, said Col (ret'd) John D. Kedar, Comd JAGO, UK MoD. "So being in the forward operating bases with the infantry companies, with the battle groups and being able to give what the user needs, there and then, is the big difference. Hence, it's less the development of GIS; it's more where we are using it that has been the biggest development for us in three years," he added.

Source: Geospatial World Weekly

### [Virtual Brisbane wins Queensland Spatial Excellence Awards](#)

AAM and Brisbane City Council's joint project, 'Virtual Brisbane' has emerged as an overall winner in this year's Queensland Spatial Excellence Awards (QSEA). The 'Virtual Brisbane' project also received the 2010 QSEA Award in the category of Land Development and Planning. The award recognises how innovative or unorthodox techniques, delivery mechanisms and/or methodologies in surveying, mapping, cartography, design, planning and processes has achieved exceptional outcomes.

Source: Geospatial World Weekly

### [What is the potential of infra-red imagery and sensing as geospatial technology integrates?](#)

opinion piece by Jeff Thurston of V1 Magazine

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## SDI Spotlight

This month the *Spotlight* feature is contributed by PhD candidate [Ali Aien](#) of the [CSDILA](#) at the University of Melbourne. His area of research is the extension of the two-dimension cadastre to three-dimensions.

### **3D Cadastre**

Land is under pressure from human activities in populated areas. Population growth, urbanization and industrialization place more demands on land use. Utilisation of spaces above and below ground level, underground developments, infrastructure facilities, high-rise buildings, and apartments complexes are the

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results of this trend. Development industries forced to construct different types of complex buildings and infrastructures vertically and horizontally above or under each other to make greater use of land and extend the use of land (Figure 1). This three-dimensional (3D) development will affect the interests in the land parcels in which these constructions and facilities have been erected.

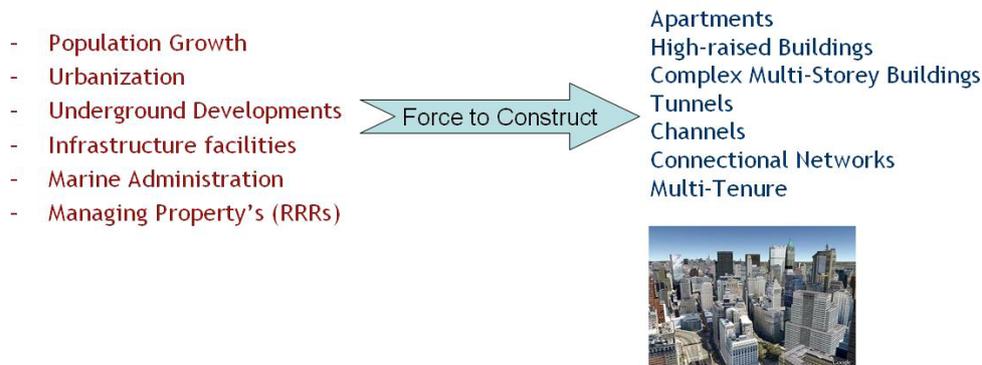
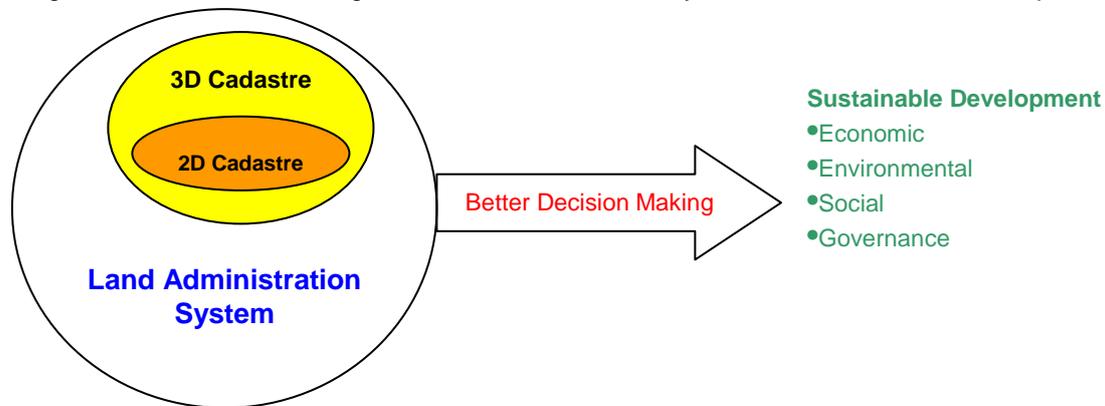


Figure 1. 3D developments factors

Government and authorities have to manage lands by registering and securing land interests to utilise and develop them in a sustainable and efficient manner. Land administration systems can help them in this context. Land administration systems are processes to regulate land management policies to manage land by maximizing social, economical and environmental benefits for people (Enemark, 2005). Cadastre as an engine of land administration systems plays a significant role to register property rights, restrictions and responsibilities (Figure 2).

Figure 2: Cadastres, the engine of land administration systems for sustainable development



Current cadastral systems are 2D and land parcel based. They cannot represent the reality effectively. Current 2D cadastral systems are not able to manage and represent land ownership rights, restrictions and responsibilities in 3D. 3D cadastre would overcome to this problem. 3D cadastre would register land rights, restrictions and responsibilities spatially and three dimensionally.

3D cadastre is a vast research area. It has three main legal, institutional and technical aspects. All aspects should be considered in 3D cadastre developments for each country.

Although some countries and international organizations have started to work on 3D cadastre and several publications, researches, and initiatives addressed different problems and topics of 3D cadastral systems in the last decade, there has not been a true 3D cadastral system in the world (Oosterom, 2010).

My proposed research will focus on technical aspects of 3D cadastre, mainly on physical 3D cadastre data modelling. Physical 3D cadastral data model would be able to capture, store, manipulate, query, analyse and visualise of 3D land rights, restrictions and responsibilities in current land administration systems.

To develop such a data model, some case studies on 3D situations will be developed to find the drawbacks of current 3D registration systems. In addition, existing important cadastral data models like CCDM, ArcGIS Parcel Data Model, and ePlan will be assessed to realise to what extent they can provide expected purposes. Finally, a physical 3D cadastral data model can be developed to meet demands on 3D cadastre implementation. It needs also to comprehensively know about available technologies for 3D data capturing, 3D DBMS, 3D geometrical and topological structuring, 3D analysing, and 3D visualising.

### References:

- Enemark, S. (2005). *The Land Management Paradigm for Institutional Development*. Paper presented at the Expert Group Meeting, Melbourne, Australia.
- Oosterom, P. J. M. v. (2010). FIG joint commission 3 and 7 working group on 3D-Cadastres - Work plan 2010-2014. from <http://www.gdmc.nl/3DCadastres/>

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## GIS Tools, Software, Data

### [Free ArcGIS Software](#)

Great News for Nonprofit Organizations requiring GIS Software:ESRI have created a **Nonprofit Organisation Program** which is designed to provide conservation and humanitarian nonprofit organizations around the world an affordable means of acquiring ArcGIS software and services. Other types of nonprofit organizations may also be eligible for membership in the program. **Eligibility:** To be eligible, your organization must be granted government authority per the eligibility guidelines. Full details <http://www.esri.com/nonprofit/index.html>  
Source: [SlashGeo](#)

### [Japan Launches GNSS Satellite](#)

The "Michibiki" satellite completed a successful launch on Saturday, the Japan Aerospace Exploration Agency, Michibiki is the first of three satellites that will stay over the Japanese islands in a figure eight orbit. That should keep one overhead at all times to help correct/add to the GPS satellites that do not always provide complete coverage. The "quasi-zenith" orbit gave the project its name: Quasi-Zenith Satellite System (QZSS).  
Source: Directions Magazine

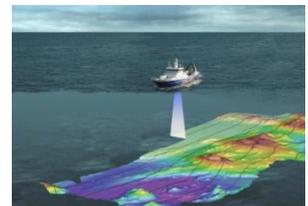
### [Innovative fire prevention system in Australia](#)

The Australian state of Victoria has announced US\$ 21.5 million project to build a fire prevention system that can provide authorities with detailed information about a fire within minutes of it being discovered. The new computerised digital mapping system will bring together the existing FireWeb system with PhoenixWeb, a fire simulation and mapping system developed at the University of Melbourne.  
Source: GeoSpatial World (August 30) and [ZDNet.com](#)

### [REMOTE SENSING – New Zealand’s Seabed In 3D](#)

Recently released high-resolution maps from New Zealand's National Institute of Water & Atmospheric Research (NIWA) show the seabed of the deep sea around the country in incredible digital detail. They give an unprecedented insight into the shape of the ocean floor – ridges, volcanoes, plateaus, canyons and seamounts. The data presents digital terrain models generated from multibeam data, combined with traditional bathymetric data.

Source: The Techfile blog & [GeoSpatial World](#) (6 September)  
Thanks to Wonkug Baek for providing this additional [link](#).



### [Court Reverses: Licensee of AutoCAD Cannot Resell on it eBay](#) (United States copyright law)

Since Autodesk licensed the software to its first purchaser, federal copyright law does not allow resales by individuals like Vernor (the first purchaser), the court ruled.

Full reports at [Reuters](#) and [Vektorrum](#)

Source: *Directions Magazine* All Points blog

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### [Count cars to know the earnings](#)

UBS analyst, Neil Currie, analysed satellite data of Wal-Mart during each month of 2010, and concluded that there was enough correlation between what he was seeing in the satellite pictures of Wal-Mart's parking lots and company's quarterly earnings, according to a CNBC report.

Source: [GeoSpatial World](#) (6 September) & CNBC: Part I

### [China Applies of Earth-observation Satellites to Disaster Monitoring](#)

The small satellite constellation for environment and disaster monitoring and forecasting (SSCEDMF) is an important component of China's earth-observation satellite system. When disasters occur, a satellite-observation plan is created to obtain disaster-area images as quickly as possible.

Source: [Asian Surveying & Mapping](#) and [SPIE.org](#)

### [gvSIG Mini for Android 1.0.0 released](#)

gvSIG Mini development team is proud to announce the release of the stable version gvSIG Mini for Android 1.0.

This version offers, among other features, the ability of a direct download of maps from the phone to the storage card, for a further map displaying in offline mode, with no data connection.

gvSIG Mini is a free viewer of free access maps based on tiles (OpenStreetMap, YahooMaps, Microsoft Bing, ...), with an off-line mode, a WMS & WMS-C client, address and POI search, routes and many more things.

gvSIG Mini is an open source project (GNU/GPL) aimed at Java and Android mobile phones. Released version is 1.0.0 for Android.

More information including news on the latest functionality can be accessed through the gvSIG Mini [website](#) [Press release](#) and [Video](#)

### [Australia's Locust Plague to be Tracked and Fought](#)

Heavy rainfall in the Australia's summer and autumn have produced ideal conditions for plagues of locusts to form over the next few months. These destructive swarms of insects threaten crop yields given their large numbers, voracious appetites, and their ability to cover 500 meters per day.

Scientists at the University of Sydney are doing new research to help determine and predict the insect's behavior. The theory is that locusts behave in similar ways to magnetic materials like iron, which lose their magnetism at a certain temperature, and drive changes in their behavior. The change in loss of magnetism is thought to be similarly predictable to the locust's change in direction.

In order to monitor this behavior, scientists will attach tiny reflectors on sample insects that will be monitored from above by an unmanned drone that will flash light on the reflectors to track their movement. The swarm will be monitored and assessed to see if their direction can be predicted.

Source: Asian Surveying & Mapping

### [Bing Maps Goes Mobile](#)

As part of this release, Bing Maps introduced new resources to help developers maximize their profit from their Windows Phone 7 apps and to heighten the end-user experience. Bing Maps, the default mapping service on Windows Phone 7, is fully integrated into the Windows Phone 7 Developer Toolkit with the Bing Maps Control SDK, making it simpler and free for developers to build Bing mobile mapping applications. Like all other Bing Maps APIs, the Windows Phone 7 control is free for use in consumer-facing mobile applications.

Source: [Asian Surveying & Mapping](#) and Microsoft Bing

### [River Indus changing its course](#)

Due to the recent heavy rains and floods that have devastated Pakistan, the course of the river Indus has started changing once again and it is now inching towards Kutch. According to NASA's Terra and Aqua satellite images, a new course has developed towards the south of Kalri lake in Thatta district of Pakistan.

Source: [Geospatial World Weekly](#) (20 September) and [www.DNAindia.com](#)

### [Dekho 3.1](#)

Dekho 3.1 Esri Australia's flagship geographic web application server is here and intends to make online mapping easier than ever before.

Deliver rich and intuitive applications with a fresher, cleaner look and feel  
Create standout web applications with professional looking maps using MDS  
Foundation Map Connect to any line of business system in your organisation  
using the new 'open integration framework'



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Reach out a larger user base with improved scalability and performance  
Dekho 3.1 fully supports ArcGIS 10

### [OpenGeo Unveils Suite Enterprise Edition 2.2](#)



### [Robots – the new farmers](#)

Robots from Mechanisation Automation Robotics Remote Sensing (MARRS) could one day run automated farms in Australia, said Dr Adam Postula, a researcher at the University of Queensland. Dr Postula added that MARRS technologies can control unmanned aircraft or unmanned tractors. They can also use detection systems capable of observing environment using visual, infra-red or laser light wavelengths.

Source: [Geospatial World Weekly](#) (13 September) and [www.stuff.co.nz](http://www.stuff.co.nz)

### [How the Smart Grid Could Fight Off Energy Thieves in India](#)

Half of all residents of India don't have power, and some who don't have legal access to the grid resort to extreme—and often criminal—measures to procure it.

Source: [GreenTech Media](#) and [Asian Surveying and Mapping](#)

### [OpenDragon Available Worldwide](#)

Originally, OpenDragon remote sensing image processing software was provided free only within the countries of SouthEast Asia, and only for educational use. Beginning in July 2010, OpenDragon is free to all users, worldwide.

Source: [Asian Surveying & Mapping](#)

### ['Digital China' to form in 2015](#)

The State Bureau of Surveying and Mapping (SBSM), China, has promoted the construction of digital cities in China in the past two years. So far, pilot projects of digital city construction have been launched in 112 cities, which account for about one-third of all cities in China, according to the Science and Technology Daily. The SBSM's director Xu Deming said that SBSM estimate that the construction of most digital cities will be completed in 2015, 'digital China' will be basically formed by then, and the construction of digital cities has achieved initial success. From 2006 to 2008, the bureau carried out the pilot project of building the geospatial data framework in 40 cities, and large-scale geospatial databases that can be updated on demand were established in some of those cities. In addition, based on the databases and systems for managing traffic, cities have built similar setups for municipal services, underground pipe networks, public security, fire fighting and other functions.

Source: [People's Daily Online](#) (Thanks to Wonkug Baek for this item) & Geospatial World Weekly

### [China to draw "risk map"](#)

Chinese authorities are drawing up a national natural disaster "risk map" in a bid to improve planning of urban construction projects in western China to avoid potential catastrophes.

Source: Geospatial World Weekly and [Xinhuanet English.news.cn](http://Xinhuanet.English.news.cn)

### [Health maps help prevent disease in Indonesia](#)

A two-year research project by Charles Darwin University (CDU) Senior Research Fellow Dr Bronwyn Myers is now helping the local health department of East Nusa Tenggara Province (NTT) to improve the allocation and delivery of health services. "The main objective of the project is to enable district government officers to improve health service delivery at the village level and build capacity to make decisions regarding allocation of health resources," Dr Myers said.

"Using GIS we have created a user-friendly system that the local clinical officers can use to map areas of the province and plan the distribution of health resources to target areas in need or potential outbreaks of disease."

Source: [Geospatial World Weekly](#) & Charles Darwin University newsroom

### [China draws 1:100,000 scale map of Antarctica](#)

Chinese scientific researchers successfully drew a 1:100,000 scale land cover map of all of Antarctica under the support of the National 863 Program. This is the world's first land cover map of Antarctica and the first batch of Chinese-owned important Antarctic scientific data.

Source: People's Daily online and [Asian Surveying & Mapping](#)

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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 Geospatial Revolution](#)

Episode 1 of the Geospatial Revolution project being developed at Penn State University has now been released. To view go to <<http://geospatialrevolution.psu.edu/>>

Source: [Veryspatial](#) [further information in the "[Books and Journals](#)" section]

### [Value of Geospatial Information in England and Wales](#)

The Local Government Association (LGA), its 422 member authorities cover every part of England and Wales, recently published a report relating to Value of Geospatial Information. The economic value for geospatial information underpinning local services was little understood. So, the LGA commissioned research to find out more about the value of geospatial information in local public service delivery and as a public good. According to the report, geospatial technology saved councils £230m and boosted GDP by around £323m in England and Wales in 2009. The report also estimates that new technology and information sharing could save councils up to £372m annually by 2015. It gives examples of technology already being used by local authorities, including iPhone applications allowing users to point their phones at pubs and restaurants and receive their hygiene ratings, and software that allows residents to send photos of fly-tipping and vandalism to councils. For more reports and information, visit the link above.

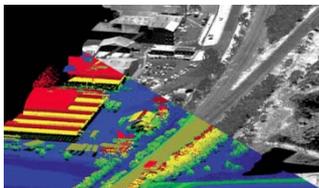
Thanks to Wonkug Baek for this item.

### [From Russia with Profits: Spy Pictures of Crops](#)

During the Cold War, space-based satellite surveillance systems were the crown jewels of the US government's spying capability, peering over the Iron Curtain to reveal the secrets of the Soviet Union. Today, those crown jewels are in the hands of Wall Street analysts who are using them to get an edge in uncovering market-moving information.

Source: CNBC Part ii

### [Airborne laser scanning, geotechnical assessment and aerial photography improve rail safety](#)



Blom UK, formerly Simmons Aerofilms Limited, has been liaising with the rail industry to reduce risk and costs by providing 'remote' survey services for the past 16 years. Operating a fleet of helicopters and light aircraft, Blom specialises in capturing aerial photography and providing airborne laser scanning to produce vector mapping and orthophotography solutions. How these techniques are integrated has a direct bearing on minimising workforce safety risk and the related costs of each project.

Source: Rail-News.com & GeoSpatial World Weekly (September 13)

### [Interactive guide to the Battle of Britain launched](#)

MSN launched TimeMap, an interactive guide to the Battle of Britain. The application was built by Microsoft-partner Shoothill and has three major components:

1. The TimeMap is based on Bing Maps Silverlight Control. It shows original maps, reconnaissance imagery and target documents of the German Luftwaffe. Users can navigate to various locations through quick links in a target list for London and Coventry. The TimeScope can be dragged around to explore the location; the TimeSlider lets users switch between various historic maps and satellite imagery and the Docs-button allows users to explore DeepZoom-Compositions of the original target documents within the TimeScope.
2. The Archive is a DeepZoom Composition with historic documents and photos. As usual Shoothill has created this composition as a huge mosaic.
3. The Photosynth "Hangar" contains Photosynth-Collections of the Heinkel He 111, the Supermarine Spitfire and the Hawker Hurricane in the RAF Museum in London.

Source: [Geospatial World Weekly](#) (20 September) and Microsoft Bing

### [Spanish company develops software for earthquake prediction](#)

A Spanish company, Geoconstructivas Decisiones (DG), developed a software that will allow governments to instantly respond to emergencies created by earthquakes. It was funded by the Technological Corporation of Andalusia (CTA). The software is developed under a project 'Seisem.'

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The software will allow monitoring and quantification of seismic risk at municipal level for their emergency planning and early warning. The 'software' developed by DG represent the seismic hazard of each point of the city on a digital map using GIS, which divides the city into zones of equal danger on the basis of action 'in situ' and local seismology. Furthermore, the GIS-based digital map specifies so-called lifelines, ie, hospitals, firefighters, schools and police.

Source: [Geospatial World Weekly](#) (20 September) and Elmundo (Spain)

### [Earth Observatory “Elegant figures” blog](#)

#### [GeoNova Portal \(Canada\)](#)

The GeoNOVA Portal is the Province of Nova Scotia's gateway to geographic information about Nova Scotia.

[Vector One](#) - A Spatially Related Blog by Jeff Thurston of V1 magazine.

#### [Researcher tracks H1N1 virus with geospatial tools](#)

To track the H1N1 virus, Ohio State University researcher Daniel Janies used a supercomputer, Google Earth and a network of scientists who share genetic data. His programme shows how the virus mutated, spread and sickened people around the world.

Janies created similar maps that tracked the evolution of the SARS virus. His map showed how standard influenza changed over time to become resistant to a class of flu-fighting drugs that were overused treating livestock in China.

The virus emerged in Mexico, but Janies traced its genetic ancestry and linked it to viruses found in pigs, birds and people as far back as 1956.

Source: [Geospatial World Weekly](#) (20 September) and the *Columbus Dispatch*

#### [AfriPop - Somalia](#)

The most recently completed dataset from AfriPop: Somalia.

Constructed from a combination of different surveys, together with spatial information on settlements, internally displaced population camps and land use, the 2010 estimated population distribution dataset is freely downloadable through clicking on [Somalia here](#).

Full details on the methodologies used and assessments against existing data and maps are described in the accompanying [paper here](#).

For the remainder of sub-Saharan Africa, expected in the near future, keep an eye on the link below for new dataset downloads over the coming months.

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

#### [MAP – Malaria Atlas Project](#)

[Malaria](#) is the ninth most significant cause of death and disability globally. Malaria transmission provides a barrier to national economic growth and poses a constant threat to health, well-being and economic stability to millions of poor people worldwide. After decades of neglect there is a renaissance in a commitment to reduce and eliminate this disease as part of a global effort to tackle diseases of poverty through the [Millennium Development Goals](#).

Spatial medical intelligence is central to the effective planning of malaria control. Forty years have passed since the cartography of malaria worldwide was taken seriously. The Malaria Atlas Project (MAP) was founded in 2005 to fill this niche for the malaria control community at a global scale.

#### [Ghana geospatial mapping priorities for 2011 budget](#)

Mr. Collins Dauda, Ghanaian Minister of Lands and Natural Resources, speaking at the opening of the 2010 annual Land Surveyors Seminar on the theme: "National Navigation Systems; A Tool for Sustainable Development for a Better Ghana (25-26 August 2010)," assured the Surveyors in attendance of bright prospects. He indicated that the Government of Ghana has begun negotiations for the extension of the Land Administration Project for three years to undertake the preparation of base-maps, covering Greater Accra, Ashanti, and Western regions.

Mapping of other regions would be undertaken under different projects.

The rest of the projects include mapping the whole country at a scale of 1:50,000, mapping of seashore across the coastal line; railway network corridor; the Volta River Authority GRIDCO; network across the country and provision of large scale mapping at 1:2500.

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Other projects earmarked are development of a mapping policy, a geodetic reference network policy and national spatial data infrastructure policy; conversion of all analogue parcel data to digital parcel format; boundary demarcation for customary owners and street addressing and house numbering for Accra Metropolitan Assembly.

The Minister said all streets and houses will have a unique name and number respectively by the end of 2012, and that, "Government would depend largely on the co-operation and support of Land Surveyors and the [Ghana Institution of Surveyors]."

He said these projects would ensure an up-to-date spatial data, which would be made available for sustainable development, noting that, the last time "Ghana was mapped was in 1974 and that government will want to reverse this trend, under the Better Ghana Agenda and needs the total collaboration, dedication and support of Land Surveyors."

Source: Kate Lance

### [Atlas reveals potential threats to soil biodiversity](#)

The European Commission's own research body, the Joint Research Centre, for the first time, published an indicator-based map of potential threats to soil biodiversity, in order to guide decision-makers in protecting this crucial resource.

The atlas highlights areas within Europe where soil biodiversity has maximum risk of decline relative to the current situation – notably parts of the UK, the Benelux countries and Northern France, although there are areas of high risk also in several other Member States. It provides a comprehensive source of information for researchers, policy makers and teachers. The atlas will be launched at the conference 'Soil, Climate Change and Biodiversity – Where do we stand?' in Brussels, during September 23 – 24, 2010.

Source: Geospatial World Weekly and [Europa Press release](#)

### [Nature Maps Water Risks](#)

A series of maps published in the journal *Nature*, details threats to human water security and freshwater biodiversity and reveal that large areas of world's are at risk of water shortages that could impact plant, animal and human water security. The areas of intensive agriculture and human settlement, including the US and Europe, are facing particularly acute water supply risks.

- [Nature News](#) (review of scientific journal article)

- [journal article](#) (fee or subscription required)

Source: Directions Magazine [blog](#)

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## Articles

### [From the Assessment of Spatial Data Infrastructure To the Assessment of Community of Practice: Advocating an Approach by Uses](#)

by Noucher and Golay, Presented at: Geovalue 2010, Hamburg (Germany), Sept. 30 - Oct. 2, 2010.

Spatial data sharing mechanisms are an important asset to territorial communities. They help them understand and control their long term development. In this perspective, this paper suggests a novel approach of geodata appropriation processes based on diverse socio-cognitive theories. This approach suggests that the evolution of spatial data infrastructures from rough data exchange platforms towards geospatial learning networks, also termed "communities of practice", and towards geo-collaboration platforms supporting co-decision may be a significant driver or added value. Thus, it is important to consider these new perspectives in the evaluation criteria and processes of spatial data infrastructures.

Source: InfoScience

### [Deepwater oil spill: Stretching the possibilities](#)

by Dawn Forsythe, Communications Specialist,  
National Oceanic and Atmospheric Administration, Office of Coast Survey

The BP Deepwater oil spill in the Gulf of Mexico is an environmental and economic tragedy. As oil continues to spew from the well (as this is written), the innovative responses by governments, industries and the public has been unmatched to the point that one is reminded of Albert Einstein's observation: "in the middle of a difficulty lies opportunity."

National Oceanic and Atmospheric Administration (NOAA), the United States' lead science agency for the oil spill response, is tackling the "opportunity," developing novel uses for traditional geospatial tools, applying new

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thinking to dependable processes, and pioneering geospatial applications that are borne of desperate times. NOAA is covering all spatial and temporal dimensions - satellites in space, planes in the air, ships on the sea, and sonar beaming to the ocean floor - to provide the best available scientific advice to the full range of responders. It is not an exaggeration to say that NOAA and other US agencies are managing what may be the largest single collection of spatial data to occur, ever, with the single possible exception of NASA's collection of spatial data for the universe.

Source: GeoSpatial World (August 30, 2010)

### **[“Neogeographic” Approach to Inexpensive Oil Spill Mapping](#)** by [Jeffrey Warren and Stewart Long](#)

The Deepwater Horizon oil disaster in the Gulf of Mexico was an opportunity for a small group of geospatial activists promoting crowd-sourced information to apply low-cost mapping techniques. By taking a neogeographic approach to aerial imaging with consumer-off-the-shelf hardware and software, open source GIS, and crowd-sourced field mapping techniques, they regularly produced maps of a variety of oil-affected sites without great cost. They collected data using balloons and kites and small digital cameras, and mapped and shared the information with local organizations. You'll find the author's approach well suited to crisis mapping.

Source: Directions Magazine

### **[Out of Water: From Abundance to Scarcity and How to Solve the World's Water Problems](#)**

By Colin Chartres and Samuyuktha Varma

World leaders, scientists and campaigners have spent 15 years arguing about whether climate change was caused by humankind. As a result, the small window of opportunity governments had to cut greenhouse gases and prevent climate change passed by without them taking any effective action. With many nations now appearing to be experiencing the weather extremes forecast by climate change scientists, adaption is our only remaining choice. And whereas mitigation was all about reducing harmful gases, adaptation is all about how we manage water.

Source: ScienceAlert and [International Water Management Institute](#)

### **[Land Maintenance Actions in the Turin Province of Italy: A GIS Approach - Part 1](#)**

by D. Godone; G. Garnerio; R. Chiabrandio; A. Caimi; S. Stanchi and E. Zanini

In the last decades the interest for sustainable development of mountain areas has considerably increased for different reasons. As stated in chapter 13 of AGENDA 21, mountain regions are a source of biodiversity and environmental resources. At the same time, the population's decrease generally caused a loss of indigenous knowledge and natural resources conservation, too.

Source: V1 Magazine

### **[Ground Truthing Crop Circles](#)** by Michael Hofferber

Verifying satellite or remote sensing images by ground inspection.

Source: Rural Delivery blog

### **[Irrigation projects and assessment of land use/ land cover change of chikotra basin \(Maharashtra\) using multi-temporal satellite data](#)** by [Sachin Panhalkar](#) & C. T. Pawar

**Abstract:** Land use /land cover change (LULCC) is a general term for the human modification of Earth's terrestrial surface. Though humans have been modifying land to obtain food and other essentials for thousands of years; current rate, extents and intensities of LULCC are far greater after the introduction of irrigation projects. Hence, it is of prime importance to assess the land use/ land cover changes with respect to the development activity like irrigation. The region selected for the present study is Chikotra basin of south Maharashtra. It is located between 16° 5'48" to 16° 19' 32" north latitudes and 74° 4' 25" to 74° 17' 48" east longitudes occupying an area of 29,076 hectares. The study was carried out using IRS 1C, LISS III data of February 25, 1991 (pre-treatment) and IRS P6, LISS III data of February 14, 2008 (post-treatment) covering the watershed to assess the changes in land use / land cover for which supervised classification technique has been applied. NDVI index is also calculated to assess biomass conditions and post classified change detection technique is used for accurate detection and efficient analysis of changes during the period of investigation. The analysis reveals that only 16.16 per cent of additional land has been brought under irrigation. The overall assessment of the irrigation project is not satisfactory as only 60 per cent target area has been achieved through completed projects.

Source: Geospatial World Weekly

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### [Sharing Geographic Data in Austria](#) by Mariana Belgiu and Karen Richardson

Austria encompasses much of the mountainous territory of the eastern Alps, containing many snowfields, glaciers and snow capped peaks. Hidden among the forests and woodlands that cover almost half of the land are glistening palaces and gabled houses nestled in valleys near idyllic farms.

To protect the beauty and splendor of its natural resources, Austria has been an active user of GIS for the past 25 years. However, Austria consists of nine independent federal states, each with their own provincial government. This has led to the creation and management of geographic resources being scattered across many organizations. Having disparate data sources makes it difficult to use the information to make more informed decisions on social and environmental issues. To solve this problem, it is necessary to develop a coordinated spatial information system capable of data sharing and re-use on national and regional as well as cross-sector scales.

Source: V1 Magazine

### [A 3D Client to Improve Management of Motorways: a Single Point of Access to a Complex Spatial Data Infrastructure](#) by Raffaele de Amicis, Giuseppe Conti, Stefano Piffer, Federico Prandi and Marco Calderan

Management of major transport infrastructures such as highways is an extremely complex task that requires different teams handling a vast range of very heterogeneous static and real-time information. This challenge has been faced in the context of one of Italy's most important motorways, through development of a scalable spatial data infrastructure that allows managing a wide range of Geographical Information (GI).

Source: V1 Magazine

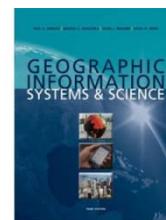
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## Books and Journals (& Videos)

[The American Surveyor](#) is available on-line and contains much of interest, for example [History](#) and [Archives](#).

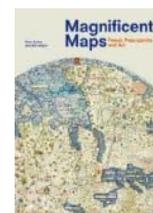
### [Geographic Information Systems and Science, Third Edition](#) by Longley, Goodchild, Maguire & Rhind.

The Third Edition of this bestselling textbook has been fully revised and updated to include the latest developments in the field and still retains its accessible format to appeal to a broad range of students. Now divided into five clear sections the book investigates the unique, complex and difficult problems that are posed by geographic information and together they build into a holistic understanding of the key principles of GIS. From Wiley, 2010.



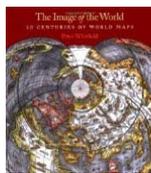
### [Magnificent Maps: Power, Propaganda and Art](#) by Barber & Harper

Maps are often as much a visual art form as they are a practical tool for navigation. Of particular visual interest are display maps — maps that often used size and beauty to convey messages of regional and social status and power. Despite their historical significance, many of these display maps have been lost and destroyed over time. *Magnificent Maps* brings together the best surviving examples in order to illustrate their role in early modern Europe and describe the settings in which they were displayed. From The British Library, 2010.



### [The Image of the World: 20 Centuries of World Maps](#) by Peter Whitfield

Though technology has changed the tools of navigation available to us, maps are still the irreplaceable foundation of place and orientation. In this updated edition of *Image of the World*, map expert Peter Whitfield guides readers through a collection of some of the most extraordinary examples of maps—both visually stunning and historically revealing. From The British Library, 2010.



### [Infinite City: A San Francisco Atlas](#) by Rebecca Solnit

What makes a place? *Infinite City*, Rebecca Solnit's brilliant reinvention of the traditional atlas, searches out the answer by examining the many layers of meaning in one place, the San Francisco Bay Area. Aided by artists, writers, cartographers, and twenty-two gorgeous color maps, each of which illuminates the city and its surroundings as experienced by different inhabitants, Solnit takes us on a tour that will forever change the way we think about place. She explores the area thematically--connecting, for example, Eadweard Muybridge's foundation of motion-picture technology with Alfred Hitchcock's filming of *Vertigo*. Across an urban grid of just

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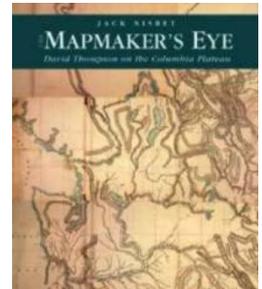
seven by seven miles, she finds seemingly unlimited landmarks and treasures--butterfly habitats, queer sites, murders, World War II shipyards, blues clubs, Zen Buddhist centers. From the University of California Press, 2010.

### [SERVIR-Africa community news - August 2010](#)

#### [The Mapmaker's Eye - David Thompson on the Columbia Plateau](#) (Review by Jeff Thurston of v1 Media)

By Jack Nisbet, Washington State University Press, 180 pages, Softcover ISBN: 0-87422-285-0, 2005

Unlike many of his sea-going counterparts, explorer and geographer David Thompson spent most of his life on the ground paddling and walking the rivers and land of western Canada and the Pacific north-west. His mark was made throughout these regions, extending from Hudson Bay to British Columbia and into the United States where he crossed lands previously touched by Lewis and Clark to those in the headwaters of the Missouri River. *Mapmaker's Eye* traces the life and journeys of David Thompson whose efforts charted the Columbia River's length and crossed much of western Canada for the first time while working for the North West Company.



#### [Map Scripting 101: An Example-Driven Guide to Building Interactive Maps with Bing, Yahoo!, and Google Maps](#) by Adam DuVander

Websites like MapQuest and Google Maps have transformed the way we think about maps. But these services do more than offer driving directions—they provide APIs that web developers can use to build highly customized map-based applications.

In *Map Scripting 101*, author Adam DuVander delivers 73 immediately useful scripts that will show you how to create interactive maps and mashups. You'll build tools like a local concert tracker, a real-time weather map, a Twitter friend-finder, an annotated map of Central Park, and much more. And because the book is based on the cross-platform Mapstraction JavaScript library, everything you create will be able to use nearly any mapping service, including OpenStreetMap, MapQuest, Google, Yahoo!, and Bing.

### [Journal of Spatial Information Science](#)

#### [The World in 2050: Four Forces Shaping Civilization's Northern Future](#)



As global pressures mount, the New North is well-positioned to prosper economically in the 21st century, a UCLA geographer predicts in a new book called *The World in 2050: Four Forces Shaping Civilization's Northern Future* (Release date of September 23, 2010). In the book, the author predicts that, "As worldwide population increases by 40 percent over the next 40 years, sparsely populated Canada, Scandinavia, Russia and the northern United States will become formidable economic powers and migration magnets." While wreaking havoc on the environment, global warming will liberate a treasure trove of oil, gas, water and other natural resources previously locked in the frozen north, enriching residents and attracting newcomers. And these resources will pour from northern rim countries (NORCs) precisely at a time when natural resources elsewhere are becoming critically depleted, making them all the more valuable.

For more information see [UCLA Newsroom](#).

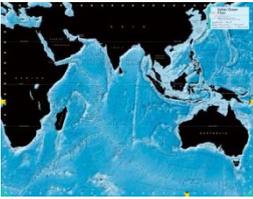
[Thanks to Wonkug Baek for bringing this book to our attention]

[The Geospatial Revolution Project](#) from Penn State University Public Broadcasting is finally live. The first episode moves very rapidly over the timeframe of mapping and the development of geospatial technologies starting with etched Babylonian maps dating from 2300 B.C on up to today's geospatial advances. The episode segues into how users have gone from being passive recipients of geographic information to active participants in the collection and reporting of that information. There is an interesting segment on the Haiti crisis mapping and how crowd sourcing efforts coordinated by Ushahidi and Open Street Map were critical in helping coordinate relief efforts. The episode features insights from a people representing a variety of academic, news media, U.S. government, and commercial geospatial companies. There are four episodes listed. The second episode is slated for November 2nd. Episodes 3 and 4 will air in 2011 (February 1st and March 15th). More detail about the first episode can be read in the [press release](#).

Source: [gislounge.com](#) [Thanks to Wonkug Baek for bringing this series to our attention]

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### [National Geographic's Ninth Edition Atlas Touts Technology Use](#)

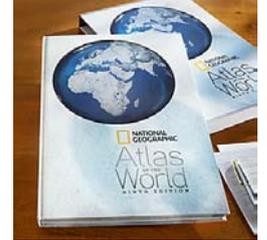


National Geographic has recently completed the Ninth Edition of the *Atlas of the World*, set to ship in mid-October. This latest edition adds new maps of conflict areas such as Afghanistan, Pakistan, and Iraq. There are also spreads dealing with trends such as water scarcity, global warming and energy resources.

The eight-edition Atlas, released in 2005, used GIS extensively for the creation of maps and for the book's index. GIS was first used for the seventh edition in 1999, and the use of the technology has grown steadily since. In fact, the use of geospatial tools is now part of the marketing for this volume.

The newest Atlas can be viewed online, including a video and page views [here](#).

Source: Asian Surveying & Mapping



### [New environmental atlas published in Azerbaijan](#)

The State Land and Cartography Committee of Azerbaijan issued a new edition of Environmental Atlas, which fully describes the environmental situation in Azerbaijan and around the world, the State Committee reported. Unlike the old edition, which was published in Azeri and Russian languages, the new edition was prepared in Azeri and English languages.

The new edition presents 20 additional maps, in particular the situation of the health of citizens, the content of oil carbo-hydrogen in surface water, the content of metals in the earth, land-ecological map of Shirvan and others.

Source: Asian Surveying & Mapping & [Trend.az](#)

### [Interacting with Geospatial Technologies](#) by Muki Haklay

I like to divide technology books into two groups: those that tell you what to do and how to do it, and those that present the background with just a nod to suggested "best practices." Muki Haklay's *Interacting with Geospatial Technologies* falls squarely into the second group. That should not keep people interested in the former from reading it. In fact, it's my sense that few of us in geospatial technology spend enough time on either the practical implementations or research related to the human computer interface (HCI) of the geospatial products we build and use.

Source: Directions Magazine [book review](#) by Adena Schutzberg

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## Just for Fun!

### [Amateur surveyors discover 'super-mountain'](#)

A Snowdonia (United Kingdom) peak has leapt into the ranks of "super-mountain" after amateur surveyors found its height to be 1.8m (about 5ft 11in) higher than previously believed. The discovery takes Glyder Fawr in the Snowdonia National Park up from 999m (3,278ft) above sea level to 1000.8m (3,283ft). That makes National Trust-owned Glyder Fawr Wales' fifth "super mountain".

Source: Geospatial World Weekly & [BBC News](#)

### [Mapping penguin colonies from space](#)

Penguin poo, or 'guano', can provide scientists with a wealth of information, especially when viewed from space. For example, using high resolution satellite images, the spatial extent of a penguin colony – which could extend for kilometres – can be discerned by the guano's distribution. For biologists such as the Australian Antarctic Division's Dr Colin Southwell, this offers a way of developing maps of habitat occupied by penguin colonies.

Such maps, used in combination with an estimate of penguin numbers within smaller parts of the habitat, could enable accurate estimates of penguin numbers across very broad regions; such as the whole of East Antarctica.

Source: Penguinology blog & [GeoSpatial World](#) (August 30)

### [The US Government Can Use GPS to Track Your Moves](#)

Last month's newsletter reported that the US Court of Appeals for the DC circuit had ruled that [the installation of a GPS device on a suspect's motor vehicle was illegal](#). The US Court of Appeals for the 9th circuit has issued a contrary ruling that allows law enforcement officers to install such a device. We assume that the matter will

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eventually come before the Supreme Court (the US's highest court) to resolve the issue.

Source: Time magazine (August 25) & [GeoSpatial World](#) (August 30)

**UPDATE:** [Prosecution Urges Full Court to Review Warrantless GPS Case in D.C.](#)

Federal prosecutors in Washington have urged the full U.S. Court of Appeals for the D.C. Circuit to reverse a controversial ruling in August that said law enforcement authorities must get a warrant to use a GPS device to track a suspect.

Source: the Blog of Legal Times

*Directions Magazine* [Map Gallery](#) has only recently commenced but has much potential for readers & browsers.

### [London's map for criminologists](#)

A new website, [www.murdermap.co.uk](http://www.murdermap.co.uk), is compiling data on every reported murder in the London's history, and then mapping the results with the help of Google Maps. Murder Map will eventually bring together the incredible archives of the Old Bailey with details of modern murders.

Source: [Geospatial World Weekly](#) (20 September) and <http://londonist.com>

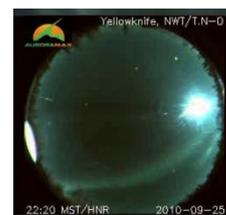
### [Harry Potter's map comes to life with GIS?](#)

In "Harry Potter and the Prisoner of Azkaban," J.K. Rowling introduced the Marauder's Map, a magical piece of parchment that would let the user see the location, around the clock and in real time, of everyone on the Hogwarts school grounds. Now, 11 years after the novel appeared, something like a Marauder's Map isn't that far from reality. Pretty soon, everybody might have one, according to an article, published in Government Computer News.

Source: [Geospatial World](#) and GCN

[Aurora online](#) (Geospatial World Weekly's "Image of the Week")

[Thousands view northern lights on website](#) Source: *The Toronto Star*  
[Images & videos](#) from the Canadian Space Agency (A [website](#) well worth visiting)



### [Remote sensing search for 'unobtainium'](#)

Boeing has signed a deal to deploy remote sensing technology to map out US deposits of rare earth elements. The rare earth family of minerals is the real-life version of the precious element "unobtainium" in James Cameron's movie "Avatar." They are used to make everything from military hardware to humble cell phones, but could soon be in short supply as worldwide demand outstrips mining production in China.

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

### [Future online password could be a map](#)

Between super-powered hacker computers and keystroke recording malware, traditional passwords may no longer be secure enough. To overcome these problems, computer scientist Bill Cheswick has devised a new method for logging into secure areas: clicking on a map.

Speaking at the New York Institute of Technology Cyber Security Conference, Cheswick described how users could memorise the exact spot on a satellite photo, with the longitude and latitude serving as the access code. By zooming down through the map to the high level of resolution, users can graphically produce a nearly unbreakable password that neither people nor viruses could track.

Source: MSNBC.com and [Geospatial World Weekly](#)

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## Training Opportunities

### [Workshop on Open Source GIS for Distributed and Interoperable SDI Model](#)

Conducted by: Dr. R.D. Gupta, Professor (Geoinformatics) and Coordinator, GIS Cell at Motilal Nehru National Institute of Technology (MNNIT), Allahabad, India.

**Held in conjunction with the 3rd International Conference on Geoinformation Technology for Natural Disaster Management & Rehabilitation (GIT4NDM 2010), 19-20 October 2010, Chiang Mai, Thailand**

Spatial Data Infrastructure (SDI) is increasingly being acknowledged as a soft national resource and has become a part of the basic infrastructural facilities that needs to be efficiently coordinated and managed in the interests of the nation. SDI is an evolving concept and can be viewed as an enabling platform linking spatial

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data producers, providers, value adders and users to provide access, sharing and integration of spatial data and geospatial services for social, environmental and economic activities. The information required for the success of any disaster management plan is diverse, spatial and temporal in nature. An operational SDI can be used for the development and implementation of effectively strategies for natural disaster mitigation, management and rehabilitation.

Open Source Software in the field of GIS are growing rapidly and in general follows the open GIS standards provided by OGC and W3C. Now-a-days, Open Source Geospatial Resources (OSGR) projects can offer rich functionality, robustness, cooperation from contributing developers and continuous improvement. OSGR can be efficaciously used for the development of an efficient and cost effective interoperable SDI model. This can be used by organisations associated with the development and implementation of SDI and will increase its applicability in the developing countries.

The proposed workshop will provide an overview of SDI concepts, SDI standards and geospatial web services. OSGR based distributed and interoperable SDI model will be the major focus of discussions. The prototype SDI model developed will be demonstrated along with sharing of the experiences gained through the use of OSGR like Open JUMP GIS, Quantum GIS, MySQL, Apache Tomcat, ALOV and GeoServer for the development of SDI model.

### [Guide to College Majors in Geographic Information Systems](#)

### [Transparency in Land Administration - \(2 weeks\) - Ardhi University TANZANIA \(18 – 31 November, 2010\)](#)

Course objectives:

Transparency in land administration is a critical factor and a precondition for enhanced good governance. It is also a major step towards elimination of corruption in land administration. The objectives of this course are;

- To share innovative tools to achieve tenure security and transparency in land administration;
- To enhance participants' awareness and understanding of transparency, disclosure management and flow of information in land administration matters; and
- To inculcate knowledge on tools required to engender and operationalise and monitor transparency in land administration.

*Directions Magazine* [Webinars](#) (Web Seminars)

### [Free Upcoming Webinar on 3D City GIS](#)

V1 Magazine is moderating and introducing a free 3D City webinar that will take place on Wednesday, Oct. 13 at 11 am EDT. The webinar highlights the capabilities of Bentley's powerful collaboration, design, and analysis functionality coupled with Oracle's robust 3D data storage in Oracle Spatial 11g.

### [OpenGeo Releases Training Courses Under Creative Commons](#)

At the Free and Open Source Software for Geospatial (FOSS4G) conference in Barcelona this past week, OpenGeo announced the availability of its training materials online, licensed under the Creative Commons Share-Alike With Attribution license. Introductory workshops on the PostGIS spatial database, OpenLayers web mapping library, and the GeoServer map and feature server are all available [online](#).

[Vexcel Imaging Web Events \(Webinars\)](#) - including past webinars

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## Funding Opportunities, Awards, Grants

### [Trimble Student Paper Competition for Surveying](#)

The announcement of the winner will be September 22nd, 2010.

### [Best Student Paper Awards](#) Nanjing, China – May 26-9, 2011 see under "[Conferences, Events](#)"

A Student Paper Prize Competition will be held during **LIDAR & RADAR 2011**. It is a great opportunity for young researchers to expose their work in this event and be recognized for their scientific value. Any student willing to be considered for this competition is required:

- ▶ to submit an abstract before 30 November 2010, indicating that he/she is willing to participate to the student competition. The abstract must have the name of the student as the first author.

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▶ to submit the full paper and an electronic copy of a certificate showing his/her student status by e-mail to [lidar2011@gmail.com](mailto:lidar2011@gmail.com) no later than 30 January 2011.

▶ to present the paper at the conference, if the paper is accepted and included in this session.

The **Best Student Paper Award** with a value of \$100 will recognize the best paper submitted by a student. Only papers submitted on or before the Proceedings submission deadline will be considered for these awards.

### **[Bentley's 2011 Student Design Competition Call for Submissions Now Open](#)**

The Bentley Student Design Competition is now accepting nominations for 2011. Students or teams (not to exceed 3 team members) may nominate their project in one of the categories, at their scholastic level, listed below.

**The deadline is March 18, 2011.**

#### **High School / Technical School Level**

1. Design a Concert Hall

#### **Community College / University / Collegiate Level**

2. Innovation in Architectural Design
3. Innovation in Engineering Design
4. Innovation in Structural Engineering
5. Communicating through Visualization

#### **Prizes**

A \$1,000 Scholarship (team based) to the High School/Technical School level

A \$1,500 Scholarship (team based) to the Community College/University/Collegiate level

Recognition at their school or Bentley event

A unique hand-crafted award trophy and award medal

10 seats of Bentley software for their school

### **[Centre for Geospatial Science internships](#)** (Nottingham University, UK)

Four **Open source geospatial research** internships

The internships can be taken 10 week full time or equivalent time part-time. A bursary of £1400 will be paid to the successful candidate for the internship.

If you are interested in applying please submit your CV with experience to [Suchith Anand](#) before 15th October 2010.

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## Employment Opportunities

**[Spatial Jobs Online \(Australia\)](#)** Because of tight application closing dates the editors provide these websites for employment seekers to access directly: < <http://www.spatialjobs.com.au/> > and < <http://www.GISjobs.com.au> >

### **[Looking for a GIS - Geomatics Job in Canada?](#)**

Here are some links: 1) [Geomatics Canada Job Site](#); 2) [GeographyJobs.ca](#); 3) [GoGeomatics Canada](#); 4) [Geomatics Employment Center](#)

Source: V1 Magazine

### **[Spatial Data Infrastructure Specialist, Dushanbe, Tajikistan](#)**

The Seismic Risk Management Initiative (SRMI) was developed to strengthen the relevant disaster management capabilities of the Aga Khan Development Network (AKDN) in Afghanistan, India, Pakistan and Tajikistan. National implementation teams, composed of AKDN agencies and affiliates, are responsible for carrying out SRMI activities in each of these priority countries. Their activities are guided by the SRMI Coordination Office headquartered in Dushanbe, and governed by the SRMI Steering Committee.

The SRMI currently has the following goals:

The SRMI Spatial Data Infrastructure (SDI) Specialist will be responsible for the design, construction and maintenance of a regional geodatabase, in support the assessment of seismic risk in priority areas of Afghanistan, India, Pakistan and Tajikistan (Goal 1 above). This position will be based in Dushanbe and will involve travel throughout the region.

The SDI Specialist will facilitate the AKDN's plan to comprehensively map the seismic risk in key areas of the

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four countries of Afghanistan, India, Pakistan and Tajikistan.

S/he will help to engineer the SRMI SDI data model to support risk assessment and emergency management applications of GIS.

S/he will gather existing and original datasets from AKDN and non-AKDN sources, and populate and maintain the SMRI geodatabase.

S/he will work with regional and global partners to ensure the SRMI geodatabase is robust and consistent with best practices.

The desired candidate should ideally have the following profile:

An undergraduate degree in geography, geospatial sciences, engineering, natural hazards management or related disciplines.

At least 10 years of related experience.

Proven technical skills and an ability to collaborate effectively with regional and international subject-matter experts.

Fluent ability to communicate effectively in English.

An understanding of best practices in SDI development.

Solid expertise in the use of ArcGIS for geodatabase management, cartography and spatial analysis.

Some prior experience with programming and modelling languages such as XML, VBScript, Python, SQL, Java, etc.

Ability to travel regionally and overseas as required.

Applications to be received via < <http://www.akdn.org/careers> > before 1st October 2010

### **[Assistant Professor Land Administration \(PGM\) Netherlands](#)**

– or – < <http://www.utwente.nl/vacatures/en/> >

Additional information about this position can be obtained from Prof.Dr. J.A. (Jaap) Zevenbergen, Professor Land Administration Systems (phone +31 53 4874 351).

Interested candidates are invited to apply on [website](#).

Applications should arrive no later than 8 October 2010. You are invited to visit our [homepage](#).

### **[GIS Software Development Manager, Kabul, Afghanistan](#)**

**Deadline: 4 October 2010**

The USAID-funded Human Resource and Logistic Services (HRLS) program requires an experienced Software Engineering Manager for the design, development and implementation of a 2nd generation, online geospatial infrastructure database as well as managing and mentoring Afghan software engineers. The incumbent will be part of a multi-national team using the latest open source Geographic Information System (GIS) tools to develop cutting edge applications for web, desktop and mobile solutions in close interaction with our clients.

### **[Job vacancies at BDMS for SADC-THEMA within AMESD](#)**

**Deadline: October 4, 2010**

The recruitment of project staff to implement the SADC-THEMA of the AMESD project has started. The Botswana Department of Meteorological Services is therefore inviting applications from suitably qualified and experienced individuals with excellent credentials to fill the following project positions on a contract basis for duration of 2 years 8 months:

- 1) Project Manager
- 2) Finance and Administration Officer
- 3) Thematic Expert
- 4) Software Developer
- 5) System-Administrator

The African Monitoring of the Environment for Sustainable Development (AMESD) initiative makes use of Space technologies (satellites) to observe the environment on Earth. The initiative aims to establish operational regional information services to support and improve the decision-making process in the field of Environmental and Agriculture management. It is scheduled to run until December 2013 and receives funding from the European Commission through the European Development Fund. The programme is managed by the African Union Commission in Addis Ababa, Ethiopia. The Southern African Development Community (SADC), the ACP Secretariat and the other Regional Economic Communities in Africa provide guidance to the programme. AMESD focuses on specific themes in each African region. In the SADC region, the theme is "Agricultural and Environmental Resource Management". (SADC-THEMA).

### **[INFORMATION MANAGEMENT OFFICER \(Pakistan\)](#) Information Management/Database and GIS**

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**Closing date: 08 Oct 2010**

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## Conference Proceedings

[GeoViz 2009 \(Hamburg, March 2 -5, 2009\)](#)

[The Australian and New Zealand Map Society Conference 2010](#)

[Map Asia 2010](#) and [Conference Report](#)

[\(GITA\) Australia-New Zealand](#) - Brisbane, Australia from 2-4 August 2010

[15th Australasian Remote Sensing and Photogrammetry Conference](#) (Alice Springs, September 13 -17)

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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.

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

Date	Location	Event
<b>October 2010</b>		
4 – 6 October	Katmandu, Nepal	<a href="#">Benefiting from Earth Observation</a> Contact: <a href="mailto:symposium2010@icimod.org">symposium2010@icimod.org</a>
5 – 7 October	Cologne, Germany	<a href="#">InterGEO 2010</a>
7-9 October	Allahabad, Uttar Pradesh, India	<a href="#">Geospatial Technologies for Sustainable Planet</a>
10 – 15 October	Songdo Convensia, Incheon, Republic of Korea	<a href="#">SPIE Asia-Pacific Remote Sensing</a> Monitoring the Human Impact on the Natural Environment of the Coastal Zone 10-15 October 2010
12 – 14 October	Bonn, Germany	<a href="#">UN-Spider Workshop on Disaster Management &amp; Space Technology</a> Contact: Ms. Natalie Epler, e-mail: <a href="mailto:natalie.epler@unoosa.org">natalie.epler@unoosa.org</a>
19 – 20 October "NEW"	Chiang Mai, Thailand	<a href="#">3rd International Conference on Geoinformation Technology for Natural Disaster Management &amp; Rehabilitation</a> Contact: <a href="mailto:git4ndm10@gmail.com">git4ndm10@gmail.com</a> & <a href="mailto:progeoinfo@gmail.com">progeoinfo@gmail.com</a>
19 – 22 October	Singapore	<a href="#">GSDI 12 World Conference – Realising Spatially Enabled Societies</a> In conjunction with the <a href="#">16th PCGIAP Annual Meeting</a> . <b>ALSO:</b> there will be a full day pre-conference workshop for PhD students pursuing research on SDI related topics which will be similar to the highly successful workshop held in conjunction with GSDI 11.
19-22 October	Athens, Georgia, USA	<a href="#">2010 Geospatial Conference</a> <a href="#">Contact</a>
24-27 October	Stellenbosch, Cape Town,	<a href="#">22nd International CODATA Conference</a> Theme: Scientific Information for Society: Scientific Data and

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	South Africa	Sustainable Development
<b>24-27 October</b>	Abu Dhabi, UAE	<a href="#">GIS for National Security, Defence &amp; Emergency Management Conference</a> <a href="#">Contact</a>
<b>25-29 October</b>	Addis Ababa, Ethiopia	<a href="#">8th International Conference of the African Association of Remote Sensing of the Environment (AARSE)-2010</a> Theme: Earth Observation for Africa's Development Agenda 2010 Abstract deadline: 30 April 2010. <a href="#">Send to</a> Final paper submission: 1 September 2010. <b>The four major scientific sub-themes of the conference are:</b> <ul style="list-style-type: none"> <li>• Food and Water Security</li> <li>• Energy Resources</li> <li>• Disaster Risk Reduction</li> <li>• Marine and Coastal Management</li> </ul> <b>Conference sub-themes of a more operational nature are:</b> <ul style="list-style-type: none"> <li>• Capacity-building: achievement and challenges</li> <li>• Spatial Data Infrastructure, SDI</li> <li>• Space Policy in Africa</li> <li>• National and regional programs and projects</li> <li>• Products</li> </ul>
<b>26-28 October</b>	Rome, Italy	<a href="#">2010 ESRI Europe, Middle East &amp; Africa User Conference</a> Closing date for presentations – 8 September. <a href="#">Contact</a>
<b>November 2010</b>		
<b>31 October - 3 November</b>	Denver, Colorado	<a href="#">US - GSA Annual Meeting</a>
<b>3-4 November</b>	Berlin, Germany	<a href="#">5th 3D Geoinfo Conference</a>
<b>5 – 6 November</b>	Kaohsiung, Taipei	<a href="#">ASIA GIS 2010</a> <a href="#">Contact us</a> The theme for this conference is <b>GIS and Cloud Computing</b> . Cloud computing is a hot topic in 2010 and GIS is moving to the cloud computing paradigm. Invited keynote speakers will present the future trend of cloud computing and its application in GIS. <b>Key Dates:</b> Deadline for Early Bird Registration 31 August Paper Submission 31 August
<b>8 – 11 November</b>	London	<a href="#">The 5th International Conference for Internet Technology and Secured Transactions (ICITST-2010)</a> Technical Co-Sponsored by IEEE UK/RI Communications Chapter, <a href="#">Contact</a> <b>IMPORTANT DATES</b> Early Registration Deadline: January 01 to July 31, 2010 Late Registration Deadline: July 31 to November 08, 2010
<b>9 – 11 November</b>	Taipei, Taiwan	<a href="#">2010 The 7th International Symposium on Cadastral Survey</a> . Main Topic: The Development of Cadastral Survey in New Generation. Contacts: Geographic Information Systems Research Center of Feng Chia University. Email: <a href="mailto:joy@gis.tw">joy@gis.tw</a>
<b>11-13 November</b> <b>“NEW”</b>	Madrid, Spain	<a href="#">SECOND INTERNATIONAL CONFERENCE ON SCIENCE IN SOCIETY 2010</a> <a href="#">Contact</a>
<b>15 – 19 November</b>	Orlando, Florida	<a href="#">ASPRS/CaGIS 2010 Specialty Conference</a> in conjunction with a special joint meeting of ISPRS Technical Commission IV & AutoCarta 2010 <b>Important Dates</b> May 1, 2010 - Workshop proposals due May 12, 2010 - Abstracts for papers and posters due June 15, 2010 - Notice of acceptance of all proposals August 15, 2010 - Presenter registration due September 13, 2010 - Final papers due

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		(to be considered for publication)
<b>23 – 25 November</b>	Cape Town, South Africa	<a href="#">Map Africa 2010</a>
<b>November - Dec 2010</b>		
<b>23 – 26 November</b>	Melbourne, Australia	<a href="#">17th Asia Pacific Regional Space Agency Forum</a>
<b>28 November – 3 December</b>	Sydney Australia	<p><a href="#">OGC's Meeting on Business Value of Geospatial Standards</a></p> <p>The Open Geospatial Consortium (OGC) has announced the event, Deriving business value from geospatial standards to be held on June 17, 2010 at the NOAA Silver Spring offices in Maryland. OGC invites government officials, policy makers, senior managers, as well as sales and marketing professionals from across the industry to attend a series of business meetings during the event. The event is part of the OGC's quarterly Technical Committee and Planning Committee meetings. Steven Ramage, OGC's Executive Director, Marketing and Communications said, "I would like to invite professionals to attend a one-day business session at a TC/PC meeting. This invitation is open to OGC members and non-OGC members who want to learn more about the business value of geospatial technology. Silver Spring is the first such meeting and more one-day business sessions are planned for the OGC meetings in Toulouse, France in September and in <b>Sydney, Australia in November-December 2010.</b>"</p>
<b>29 November – 3 December</b>	Tunisia	<a href="#">Fifth Session of the International Conference Geotunis 2010</a>
<b>30 November – 1 December</b>	The Hague, Netherlands	<a href="#">European LiDAR Mapping Forum Conference and Exhibition</a>
<b>December 2010</b>		
<b>1 – 3 December</b>	Valencia, Spain	<p><a href="#">6th gvSIG Conference: Knowledge for change</a></p> <p>The call for papers is now open. As of today communication proposals can be sent to the <a href="#">email address</a> where they will be evaluated by the scientific committee as to their inclusion in the conference program. There are two types of communication: paper or poster. Information regarding to regulations on communication presentations can be found in the <a href="#">reports section</a>. Abstracts will be accepted until September 21st.</p>
<b>22 December</b>	Kyoto, Japan	<a href="#">Japan - Topic Maps Japan 2010</a>
<b>January 2011</b>		
<b>18-21 January</b>	Hyderabad, India	<p><a href="#">MapWorld Forum 2011</a> <a href="#">Contact</a></p> <p><b>NOTE NAME CHANGE TO:</b></p> <p><a href="#">GEOSPATIAL WORLD FORUM 2011</a></p> <p>Last date for <a href="#">abstract submission</a> has been extended to 30th September, 2010</p>
<b>February 2011</b>		
<b>7 – 9 February</b>	New Orleans, USA	<a href="#">11th International LiDAR Mapping Forum 2011</a>
<b>April 2011</b>		
<b>10 – 15 April</b>	Sydney, Australia	<p><a href="#">34th International Symposium on Remote Sensing of Environment (ISRSE)</a></p> <p><b>Abstract submissions close on 1 October</b></p>
<b>May 2011</b>		
<b>26 – 29 May</b>	Nanjing, CHINA,	<p><a href="#">LiDAR and Radar Mapping: Technologies and Applications</a></p> <p>Abstract submission deadline <span style="float: right;">October 15, 2010</span></p>

<b>“NEW”</b>		Authors notified on Full paper submission deadline <a href="#">Contact</a>	November 30, 2010 January 30, 2011
<b>July 2011</b>			
<b>3 - 8 July</b>	Paris	<a href="#">25th International Cartographic Conference.</a> <b>15th General Assembly of the International Cartographic Association (ICA)</b> Abstracts are due 4th October, 2010. <a href="#">Second call for papers</a> Contact: <a href="mailto:regist-icc2011@europa-organisation.com">regist-icc2011@europa-organisation.com</a>	
<b>“NEW”</b>			
<b>9 – 12 July</b>	San Diego	<a href="#">Esri and ACSM - Event for Surveyors and Mapping Professionals</a> <b>Abstract submission deadline is December 6, 2010.</b>	
<b>9 – 12 July</b>	San Diego	<a href="#">ESRI International USER CONFERENCE</a>	
<b>August 2011</b>			
<b>23 – 25 August</b>	Perth, Australia	<a href="#">7th International Symposium on Digital Earth (ISDE7)</a> Held in conjunction with <a href="#">WALIS Forum 2011</a> and the <a href="#">2011 NRM Conference</a>	
<b>November 2011</b>			
<b>14 – 18 November</b>	Santiago, Chile	<a href="#">UGI 2001 International Geographic Union “Regional Geographic Conference”</a> <a href="#">Brochure &amp; Call for Papers</a>	<a href="#">Contact</a>
<b>21 – 23 November</b>	Wellington, New Zealand	<a href="#">Surveying &amp; Spatial Sciences Conference 2011</a>	
<b>“NEW”</b>			
<b>August 2012</b>			
<b>24 August – 3 September</b>	Melbourne, Australia	<a href="#">XXII International Society for Photogrammetry &amp; Remote Sensing Congress</a> Email: <a href="mailto:isprs2012@icms.com.au">isprs2012@icms.com.au</a>	
<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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