Spatial Data Infrastructure
Asia & the Pacific Newsletter

SDI-AP	March 2011	Vol. 8, No. 3

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 March issue of the newsletter.

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 25th 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:
Kate Lance, and Baek Wonkug for news feeds, Jeremy Shen and Bruce Lan and colleagues for the Chinese translation as well as Shivani Lal, *GIS Development*, *GeoSpatial World* and *Asia Surveying & Mapping* magazine for directly contributing to the newsletter.

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SDI News, Links, Papers, Presentations

Spatial data information base for Abu Dhabi

Abu Dhabi, UAE: The Municipality of Abu Dhabi City has set up a spatial data information base and delivered a host of significant projects under a comprehensive plan aimed at upgrading the GIS and survey in 2010. The projects comply with the developmental, environmental and socio-economic aspects envisaged in Abu Dhabi Strategic Plan 2030, especially in urban planning sector.

The municipality has taken the initiative at the regional and international level by carrying out a number of qualitative projects such as the construction of a 3D model for Abu Dhabi emirate. "Its hydrographic information systems section has started the construction of a database that includes all engineering hydrographic works needed to plan and implement coastal development projects and other projects of strategic significance," said Engineer Salah Awad Al Sarraj, Acting Executive Director of Town Planning Sector, Abu Dhabi Municipality.
Source: Geospatial World

Omnipotent metadata tool

Omnilink has released an open and vendor-independent software suite to acquire, sort and present spatial metadata in an ANZLIC ISO 19139 standard.

Omniscient addresses key issues for spatial data custodians — the need to search out spatial data across an organisation, cataloguing data and deciding on which version is the central source, the creation of metadata to a standard, and the presentation of this data to many users. Omniscient answers all of these issues whilst remaining vendor-independent and fully compliant to ANZLIC ISO19139
Source: Spatial Source
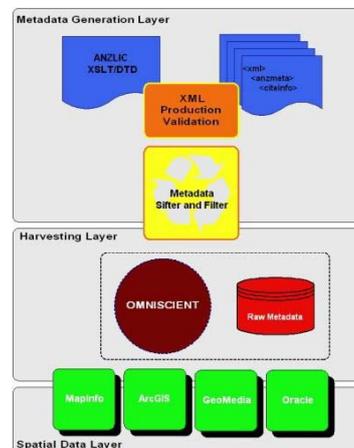
UN proposes global geospatial information mechanism

There is general agreement of an urgent need for an inter-government consultative mechanism that can play a leadership role in setting the agenda for the development of global geospatial information, and to promote its use to address key global challenges; to liaise and coordinate among member states, and between member states and international organisations
Source: FutureGov and Geospatial World Weekly

Geospatial Efficiency - Where Does it Begin?

Efficiency is expected where sustainable development takes place. How efficiency is measured may vary though, particularly where non-tangible benefits arise. Ms Yvonne O. Sowah, President of the Ghana Institution of Surveyors (GhIS) said this past week, that a need exists for governments to recognize the role of surveyors in the development of every nation. But are surveyors alone the only geospatial actors at the table?
Source: Jeff Thurston writing in Asian Surveying & Mapping

Is it time for an impartial auditing board on spatial data accuracy?

The recent news that a deadly PG&E gas line explosion was being blamed in part on the lack of reliable information in a mapping system has raised some issues about risk and liability. If you haven't yet read the exposé by the *San Francisco Chronicle* that seems to assert that the database and mapping system should have caught the defective seam that was the cause of the explosion, it's critical reading. While the piece makes mention of poor record keeping, and process problems in converting paper records to digital form, there was also an apparent over reliance on technology to cut through issues of process and policy to provide trusted answers despite shoddy data gathering.
One of the more disturbing aspects of this story is that simply the existence of the mapping system seems to have been enough for the utility to get out of having to invest in sending sensors throughout their pipelines to reliably measure the safety of these assets. The assertion was that the mapping system was enough, but clearly the existence of the system alone did not ensure that risk was being assessed accurately. The quality of data are of far greater importance than the existence of data, particularly in organizations where mapping and monitoring are tied closely to public safety.
Source: Editorial by Matt Ball of V1 magazine

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Is High Accuracy GNSS Now a Basic Need?

Advances in geospatial technologies ranging from laser scanning to geographic information systems (GIS) to remote sensing satellites are so advanced today, that they are beckoning both users and policy developers to re-think how they are operating, to consider the services they are providing and to reorient beyond location alone. Global Satellite Navigation System (GNSS) technologies are the 'new normal' and they are not only more accurate, but are also raising expectations.
Source: Editorial by Jeff Thurston of V1 magazine

Australia's Need for Spatial Data

The incentive for governments in Australia to respond to climate change has been heightened by the recent floods in Queensland and Victoria, the cyclone in Queensland and the bush fires in Western Australia. The Queensland floods have had an immediate effect on awareness of the lack of adequate flood mapping data – specifically, high resolution digital elevation data. SIBA was quick off the mark and has recently met with the Minister's Office to discuss what is needed, where, at what resolution and how much. A finger in the air amount of $50 million had been mentioned in the press, but industry insiders suggest it would be three times this amount nationally.
Source: Editorial by David Hocking in V1 magazine

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SDI Spotlight

This month's "Spotlight" feature is from the SDI-AP editors commenting upon the lay public's trusting acceptance of mapping data without an appreciation of its veracity or accuracy.

The "SDI effect"

In the criminal law system there exists a phenomenon called the "CSI effect" where jurors have come to expect infallible CSI experts solving crime cases. These unrealistic expectations are based on the jurors' understanding of the TV show *CSI* ["Crime Scene Investigation"] and similar programmes. Lawyers must now take this into account when putting their cases before a court. Many of those involved in the law appreciate there is a world of difference between the TV show where the cases are solved every week within an hour (including commercial breaks) and what actually happens in the real world.

In the spatial world a similar situation also exists where, through the advent of *Google Maps*, *Google Earth* and *Bing Maps*, the representation of maps has come to be taken for granted. *Google Maps* for example, is accessed by many people in their daily lives to identify and view properties, to find directions etc without any thought as to how the data has been compiled and, most importantly, how accurate or current is that data. There is no necessity for these users to question the accuracy or currency of the data because, in the vast majority of cases, the free online mapping service meets their needs. So what is the problem?

Just as with the CSI effect where a lack of proper understanding can lead members of the public to an incorrect conclusion regarding how crimes are solved today, so too can these free online mapping services lead people to a view that technology has solved all the world's mapping problems.

To properly understand the issue from a mapping perspective one needs to look at how the mapping data on *Google Maps* and similar mapping services is compiled. To put it simply, it is a synthesis of map data from a wide variety of sources put together into a single service. Whilst Google or the other providers may have sourced the data from their suppliers, one needs to look where the suppliers to Google obtained that data. In most cases it will have been from a variety of sources.

Consider some of the various features provided by Google such as road centrelines, road names, street addresses and imagery.

The source of the imagery is shown on each screen and the quality of the imagery is clearly visible based on the level of detail visible at any time. As can be seen on the screen, the imagery comes from a variety of

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sources depending on the scale. Often different areas on the screen will have different levels of resolution as well as different currency. As such the user is usually well-placed to make a value judgement as to the quality of the data they are viewing, particularly if they have a small amount of local knowledge.

When one considers the data such as street addresses and road centrelines a different result emerges as a user cannot differentiate between the data compiled from different scales or from different sources.

Road centrelines are derived from a variety of sources to generate the road centreline maps in use today. Increasingly the road centrelines are being obtained from GPS data however many have come from traditional mapping sources ranging from highly accurate subdivisional maps to small scale topographic maps. When viewed on Google users are unable to distinguish the sources or assess the quality unless they are able to compare the imagery with the road centrelines and in fact do so..

Another issue besides that of the quality of the road centreline data is that of the correct name of the road. Where are the road names obtained from and are they authoritative?

The street addresses for most countries may have been provided to Google from a single source or possibly a small number of sources but how did these organisations collect the data. Quite often it is from local government where the collection of addresses starts. In Australia for example, there has been a National standard for the creation of new addresses for the past decade and this has gone a long way to improving addressing standards. Given there are some 700 plus local governments in Australia it would be naïve however to think all interpret the standard in the same way. Do the online mapping systems provide all the addresses? Where one local government is diligent with the result that the addresses are complete in that one local government area, it does not follow that other local governments have been as diligent in the adjacent areas.

Of further critical importance is the currency (or timeliness) of the data being displayed. What are the update cycle intervals used and are they consistent across the different local government areas upon which the online mapping services are dependant?

As indicated above, to the vast majority of inquiries made of Google and the other online services, the answers provided will be adequate for the purpose. But what of those organisations such as emergency services that require current and correct data? 90% reliability is really not good enough.

Thus the quality of the data compilation becomes an issue. Questions then arise such as:
  What is the currency of the data and how often is it updated?
  Are the road names used authoritative?
  Are the addresses from authoritative sources or crowd-sourced with minimal validation?

The free online mapping services, such as *Google Maps*, have provided a valuable and useful service to the public since their implementation and will continue to do so into the future. They have unfortunately also created a perception amongst many in the community that mapping is a relatively simple process with today's technology. This creates a misapprehension of the actuality. To have the extensive coverage sought by the public across entire nations requires data to be collected and compiled by many organisations. Quite often this data is collected and compiled for different purposes than mere display on *Google Maps*. To bring the data together in a coherent manner such that it meets the requirements of the entire community remains a considerable challenge for those involved. There is an ongoing requirement to address issues such as data consistency, currency, standards, and proper coordination between all those agencies involved in the collection of the data.

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

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GIS Tools, Software, Data

New Zealand Earthquake Map
At 12:51 p.m. on February 22, 2011 a magnitude 6.3 earthquake hit the South Island of New Zealand near the city of Christchurch. The Esri distributor in New Zealand, Eagle Technology Group in collaboration with Environment Canterbury has published an incident map to assist the emergency effort.
Source: ESRI.com

Map on soil moisture in Western Australia
Landgate, a Western Australian state government agency, prepared a map by using data from hundreds of satellite images to create yearly average soil moisture content for each agricultural area in Western Australia.
Source: The Australian and Geospatial World Weekly

Asia Takes a Serious Look at Mitigating Risk from Climate Change
Asia and the Pacific are at the epicenter of severe weather disasters, and with the highly concentrated population countries in the region are vulnerable to climate-induced migration. With this pending threat, an ongoing effort is underway to craft public policy to mitigate the risk and plan for orderly migration scenarios. You can join in the discussion at the Asian Development Bank website where you can also download the report and view additional reference materials on this pressing subject
Source: Directions Magazine

India widens earth observation network
The Indian Space Research Organisation (ISRO) will launch its tenth remote sensing earth observation satellite by the end of February, giving India the world's largest number of remote sensing satellites. Data from the satellites is used to provide production estimation of major crops, monitor droughts, map flood zones, estimate water use, plan urban areas, survey forests, and prospect for minerals. See *Spatial Source* article.
Source: School of Spatial Information and Surveying Systems

Azerbaijan negotiating with Korea to develop Land Cadastre system
The Azerbaijani State Committee for Land and Cartography is negotiating with the Korean Foreign and Trade Ministry to obtain additional funding to develop the land cadastre of all territory of the Khazar district of Baku, Chief Garib Mammadov said. According to him, the state committee has already completed the development of a pilot settlement Zira, of the Khazar district of Baku in the territory of 1,000 hectares of land. Azerbaijani State Committee for Land and Cartography carried out the work under a grant agreement with the Korean Foreign and Trade Ministry worth $ 1.5 million, which was signed on June 23, 2009. The grant agreement within the project "Improvement of cadastre system in Azerbaijan" was concluded for a period of 18 months. The land cadastre includes five basic elements - the state register, the registration of volume and quality, cadastre of ecological land indicator, land valuation in economic terms, and development of cadastral map.
Source: Trend.az [Thanks to Wonkug Baek for this item]

US FCC and FortiusOne increase access to data with IssueMap
The US Federal Communications Commission (FCC) and FortiusOne formally announced the launch of IssueMap, a very simple online data mapping tool site (http://issuemap.org) that enables citizens to quickly map data they care about and easily share it through social networks. IssueMap is as simple as "copy, paste, map." Users can go from a spreadsheet to a shareable map in less than 60 seconds. The FCC and FortiusOne share a commitment to making public data sets more usable and valuable for all citizens. IssueMap's intuitive mapping interface enables citizens and decision-makers alike to engage with this data for better understanding of the issues impacting their communities. "IssueMap is a solution to a common problem in the private and public sectors - developing easy-to-understand visuals to help explain complicated datasets," said Michael Byrne, the FCC's first Geographic Information Officer.
Source: http://fortiusone.com/IssueMap [Thanks to Wonkug Baek for this item]

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South-East Asia launches disaster management centre

The ten member states of the Association of Southeast Asian Nations (ASEAN) launched the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster Management (AHA Centre). Based in Jakarta, Indonesia, the centre will connect all disaster management agencies in the region and provide warning of disasters by linking up early warning systems. The centre will also gather natural disaster data such as disaster vulnerability maps scattered across the region and develop new technologies to predict and deal with disasters. The centre will begin operating in June this year and is receiving US$6 million from Japan, US$500,000 each from Australia and the United States, and technical support from New Zealand.

While not finalised, each ASEAN country is expected to contribute US$100,000 per year and Indonesia as the host is set to spend $555,000 per year. The centre is under the responsibility of the ASEAN Disaster Management and Humanitarian Assistance Division.

Source: www.scidev.net [Thanks to Wonkug Baek for this item]

Law to ensure optimum use of geospatial tech in Delhi

A year after the Delhi government, India, launched its much-publicised INR 120-crore geo-spatial project to map the land and utility service records of the city, it has been observed that its officials prefer sticking to the old ways. Hence the Delhi State Government is now planning to enact a law to ensure that its officials use the technology in everyday applications. Rakesh Mehta, Chief Secretary of the Delhi government, said, "Getting departments on board has been an uphill task. "We have asked all 33 departments to submit three applications listing where the technology will be used but since the technology is new, comfort level is low in the departments,". The law is expected to provide the departments with the fillip to find that comfort level, especially as those found unwilling to use the technology will be penalised under the draft bill. The government has recently also set up a specific corporation, the geo-spatial Delhi corporation.

Source: www.timesofindia.com and Coordinates e-zine

The Philippines Updates Topographic and Geohazard Maps

The Philippines is undertaking a unified mapping project to provide up-to-date geospatial information for the country. Instead of the typical approach where different federal agencies have done their own mapping, this effort will pool funds for the acquisition of aerial photography and satellite imagery to update the country's 1:50,000 topographic map series for the entire country, and to implement a more detailed 1:10,000 map series for 50 percent of the country's land mass.

Source: Asian Surveying & Mapping

Disaster management OR mismanagement

The recent floods & cyclone in Queensland are among the issues canvassed in this "Background Briefing" programme on the Australian Broadcasting Corporations Radio National channel. The discussion includes public misunderstanding of technical language and jargon: for example, for the Brisbane area, the average interval between "one in a 100 year floods" is about thirty years.

Source: ABC Radio National Background Briefing programme "Mismanaging Disasters" (27 February, 2011)

GeoVisionary – Virtual Fieldwork For Real Geologists

Geological information is useful for many purposes in the mining industry and environmental monitoring - improvement programs. Technological innovation is now providing 3D and 4D geodata useful for visualisation. GeoVisionary, a visualisation 3D stereographic software produced by the British Geological Survey (BGS) and Virtalis company incorporates spatial data for geological mapping projects

Source: V1 Magazine

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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.

An e-Learning Framework for using Geospatial Open Data, Open Source and Open Standards

The Centre for Geospatial Science in partnership with Mimas (University of Manchester) is starting a new JISC-funded project called ELO-Geo (An e-Learning Framework for using Geospatial Open Data, Open Source and Open Standards).

The objective of this project is to enable the wider community (not just GIS experts) to make use of open source geospatial tools for solving real world problems. More details are at http://cgs.nottingham.ac.uk/~elogeo/
All interested in this initiative are welcome to share their ideas about the possible training materials for open geospatial community to be in contact with the project lead (Dr Amir Pourabdullah).

gvSIG Russian Community

Scientists produce postcode map of geographical link to allergies

Researchers hope work will reveal environmental causes of severe allergic reactions that affect one in three in the UK
Source: The Guardian and Geospatial World Weekly

Old Caves Hidden Under Nottingham

Nottingham's architectural heritage is enjoying a new lease of life thanks to a University project to survey almost 450 caves located below the City. The survey project is being led by Trent and Peak Archaeology from the University of Nottingham and is the first part of the Caves of Nottingham Regeneration Project (CoNoRP) designed to assess the archaeological importance of the caves and to encourage the city and its visitors to appreciate the caves as a unique historical resource.
Source: Lidar News

Rising sea level threat for US coastal cities

The latest scientific projections indicate that by 2100, the sea level will rise about one meter -- or even more. Rising sea levels could threaten an average of nine percent of the land within 180 US coastal cities by 2100, according to research led by University of Arizona scientists. The researchers used the USGS database to create detailed digital maps of the U.S. coast that delineate what areas could be affected by one meter to six meters of sea-level rise.
The Gulf and southern Atlantic coasts will be particularly hard hit. Miami, New Orleans, Tampa, Fla., and Virginia Beach, Va. could lose more than ten percent of their land area by 2100.
Source: Geospatial World Weekly "Image of the Week"

Cell Phone Threat Prompts GPS Jamming Study

Urgent efforts are under way to head off a threat of widespread and severe jamming of GPS following U.S. government approval of plans by wireless broadband communications provider LightSquared to install thousands of powerful transmitters that could block the signals from navigation satellites.
Source: Aviation Week and Directions Magazine

University of Wisconsin-Madison researchers develop smart phone app to be used by addicts

University of Wisconsin-Madison researchers have developed a smart phone app for people dealing with addiction.
The system is called Addiction-CHESS, or A-CHESS, and gives users access to an online support group and counselors. A "panic button" allows the user to place a call for help with cravings or triggers, like people, places and things associated with drug or alcohol use.
A GPS feature sends an alert when the user gets near an area of previous drug or alcohol activity. A-CHESS also allows for real-time video counseling.
Source: Chicago Tribune

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HealthMap.org

A new online mapping tool will enable scientists and the public to track outbreaks of animal diseases that might jump to humans.

The tool, known as Predict, will be at www.healthmap.org/predict. Created with a grant from the United States Agency for International Development, it is being produced by experts on human and animal diseases from a few institutions, scientists announced on Monday at a conference here on emerging diseases.
Source: New York Times

Anti-piracy Map

In light of the many hijackings of ships in the Gulf of Aden and off the coast of Somalia, a Norwegian security company has now developed a new method to help avoid pirate attacks.

Jeppesen Marine, in cooperation with Bergen Risk Solutions (BRS), has created an interactive map that includes updated information about hijacking attempts, weather patterns and sea routes. By cross checking this information the system assesses the risk of attack.
Source: Norway Post

International Piracy Map 2011

Source: V1 Magazine

City of Toronto Archives

The City of Toronto Archives has over 3,000 maps and aerial photographs in its collection.

Arctic Monitoring and Assessment Programme

AMAP's current objective is *"providing reliable and sufficient information on the status of, and threats to, the Arctic environment, and providing scientific advice on actions to be taken in order to support Arctic governments in their efforts to take remedial and preventive actions relating to contaminants".*

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Articles

Health mapping

Surgeon-journalist Atul Gawande writes in the New Yorker magazine how a curious doctor discovered that, for a particular locality, just one per cent of the hundred thousand people who made use of Camden's medical facilities accounted for thirty per cent of its costs (or the sickest six per cent of patients accounted for 60% of the health system's costs).
Further comment by Gawande and his participation in a question-and-answer session.
Source: New Yorker magazine (24 January, 2011)

Integrating the geographic information system into cancer research

AT Najafabadi, M Pourhassan
Cancer control researchers seek to reduce the burden of cancer by studying interventions, their impact on defined populations, and the means by which they can be better used. The first step in cancer control is identifying where the cancer burden is elevated, which suggests locations where interventions are needed. Geographic information systems (GIS) and other spatial analytic methods provide such a solution and thus can play a major role in cancer control. The purpose of this article is to examine the impact of GIS on the direction of cancer research. It will consider the application of GIS techniques to research in cancer etiology.
Source: Indian Journal of Cancer

SDI Framework by Warwick Jones, Micahel Ellyett, & Ngo Duc Mau

The work of building Spatial Data Infrastructure is in progress all over the world. There are many challenges: governance, organisational, technical, data sharing, transitional and more. We present here the first part of the paper.
Source: Coordinates e-zine

Continuous high precision navigation: Using MEMS inertial sensors aided RTK GPS for mobile mapping

applications by Yong Li, Augustine Tsai, Peter Mumford, Wei-sen Lin, & I-chou Hong

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In a modern mobile mapping system, the navigation component usually consists of a GPS receiver and an inertial navigation system (INS), which can provide accurate geo-referencing to the imaging sensors [1][2]. To achieve centimetre-level positioning accuracy, RTK-GPS is a natural choice. However, RTK-GPS in urban areas suffers from frequent outages due to blockages of either the GPS signals or the reference station radio links. In addition, multipath from buildings, trees and heavy vehicles could degrade the accuracy of the GPS when the vehicle is near them.
Source: Coordinates e-zine

Multisystem real time precise-point-positioning: PPP is becoming an alternative for precise positioning even in real time applications by María D Laínez Samper, Miguel M Romay Merino, Álvaro Mozo García, Ricardo Píriz Nuñez, & Tsering Tashi
Nowadays, a growing number of GNSS users demand highly-accurate positioning with minimal latency. PPP is a new positioning technique providing centimeter-level error. Precise Point Positioning (PPP) processes measurements from a single user receiver, using detailed physical models and corrections, and precise GNSS orbit and clock products computed beforehand. PPP differs from other precise-positioning approaches like Real Time Kinematic (RTK) in that no reference stations are needed in the vicinity of the user. Another advantage is that since the GNSS orbit and clock products are by nature global, the PPP solutions are also global. However, it should be noted that it is possible to set up a regional PPP service using a regional network of stations.
Source: Coordinates e-zine

When is Enough Data Enough? by Rob Mellis
The age old question that has always plagued surveyors is "How much data is enough data?". While too much data can be a burden for downstream users, the problem of too little data is even worse. Gathering too much data increases field time, processing time and can affect the schedule for the project, especially if the end user has to filter out unneeded information. Not having enough information shortens ever tightening deadlines and budgets. This is especially true when you're forced to go back to the site and collect more information.
Source: LiDAR News

Scanning For Forensic Criminal Defense Presentations
Source: Landair Surveying News

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Books and Journals (including Videos and Web publications)

Call for Papers – Information Systems Journal, "Theorising Development and Technological Change" special issue
Extended submission deadline: **2nd of May 2011**

Coordinates e-zine Subscribe here
Coordinates is a monthly magazine on positioning, navigation and associated technologies. It aims to broaden the canvas of the technology by taking it from the domain of experts to the realm of potential users.
Coordinates is published by Centre for Geo-Information Technologies (cGIT), a Non Government Organisation (NGO) based in Delhi, India

Podcast: Predictions for the Geospatial Marketplace 2011

Call for Papers – *Computers & Geosciences* journal
A Call for Papers has been issued for a Special Issue of the journal *Computers & Geosciences*, with the title "towards a geoprocessing web". This special issue is to collect the current representative research in the area of Geoprocessing Web. To this aim, the Editors seek a number of high-quality research and application papers that discuss the state-of-the-art research on theoretic framework and practical implementations, and identify challenges and open issues in Geoprocessing Web. Topics of interests include, but are not limited to:
Service-Oriented Architecture for the Geoprocessing Web
Geoprocessing in the Grid and in the Cloud computing
Geoprocessing and Linked data
Standards and Metadata for Geoprocessing
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Discovery in the Geoprocessing Web
Quality of Service and Service Level Agreement in the Geoprocessing Web
Geoprocessing Web and the Model Web
Important Dates:
Paper submission deadline: March 15, 2011
Publication: 4th quarter of 2011
Submission Guidelines are available here

Mother Pelican ~ February 2011

February **LiDAR News online** Volume 1, Number 3 (2011) available here
February **LiDAR News online** Volume 1, Number 4 (2011) available here

Machine Control online

SERVIR-Africa community news - entries posted in January 2011

Piracy off the coast of Somalia is getting worse. Time to act
The Economist, Feb 3rd 2011 | from PRINT EDITION
Watch our **videographic** on the recent history of piracy around the world
**Comparative piracy**

Stronger states can fix piracy. With the right financial incentives, Indonesia and Malaysia did; Somalia can't
http://audiovideo.economist.com/?fr_story=4f9964bd27b205846587fe9b1299c62c2460644f&rf=bm

American Surveyor Newsletter (February 16, 2011)

HealthMap.org

Subdividing the Land: Metes and Bounds and Rectangular Survey Systems (2010) by Gaby Neunzert
This book defines key legal terms, examines key concepts of Metes and Bounds, the structure of the U.S. Land Survey System and offers many illustrations and tables that clearly explain the concepts.
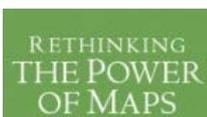
Rethinking the Power of Maps By Denis Wood
A contemporary follow-up to the groundbreaking *Power of Maps*, this book takes a fresh look at what maps do, whose interests they serve, and how they can be used in surprising, creative, and radical ways. Denis Wood describes how cartography facilitated the rise of the modern state and how maps continue to embody and project the interests of their creators. He demystifies the hidden assumptions of mapmaking and explores the promises and limitations of diverse counter-mapping practices today. Thought-provoking illustrations include U.S. Geological Survey maps; electoral and transportation maps; and numerous examples of critical cartography, participatory GIS, and map art.
The Guilford Press, 2010, ISBN-10: 1593853661

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Just for Fun!

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CARTOGRAPHY BY THE MASSES FOR THE MASSES
Low-tech, low-cost mapping projects like this one in Brooklyn are becoming an invaluable scientific tool.
... for less than $100 you can generate your own high-resolution satellite imagery. That includes the cost of a cheap digital camera and the kite or helium-filled weather balloon required to send it aloft -- although a $2 Mylar emergency sleeping bag, or even a trashcan liner, will work fine too.
Source: OneEarth.org and GeoSpatial World Weekly

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Queensland Floods video. – widely watched video filmed during the recent Queensland floods illustrates the power of fast moving water! Also available from here and here.

Counting the crowds in Cairo
Wall Street Journal blogger "The Numbers Guy" describes the inexact science of estimating crowd size.
Thanks to Ross Johnson for this item

River Maps
Cartographer Daniel Huffman has created a series of maps based on the iconic "London Underground" style. The Mississippi River is shown on the right.
Source: Directions Magazine

First U.S. map (ca 1784)
The first map of the United States, created in 1784, has been purchased for the record price of $1.8 million by Washington philanthropist David M. Rubenstein, who is lending it to the Library of Congress.
Source: Washington Post and Geospatial World Weekly "Image of the Week"

Please help us compile the Big Mac index
The Economist's Big Mac index seeks to make exchange-rate theory more digestible. It is arguably the world's most accurate financial indicator to be based on a fast-food item. (Here is a brief explanation and video clip.)
Source: The Economist

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Training Opportunities

The Expanding Geomatics Program at OSU: A Student's Perspective
As a graduate student at Oregon State University - OSU, who is relatively new to the field of Geomatics, there are several key things that have really impressed the author. The availability of powerful software and high-tech hardware platforms are enhancing an essential, but somewhat ponderous discipline with modern, rich new tool sets. These expanded capabilities present a vista of cross-discipline applications in engineering, business, and decision-making policies. It was the combination of these two elements that made the Oregon State University Geomatics Engineering program so attractive.
Source: Lidar News

Summer School "Advanced Spatial Data Infrastructures (SDI)", Leuven, Belgium, July 2011
1. Advanced SDI-**Management** course (**4-8 July 2011**). The main objective of this course is to get the basic knowledge, skills and attitude regarding the management of spatial data infrastructures (SDIs). Target group: (Potential) SDI-managers who did not yet start or have just commenced managing SDI-related issues.
2. Advanced SDI-**Professional** course (**7-15 July 2011**). The main objective of this course is to enhance the SDI-knowledge, improve the SDI-skills and to form a personal attitude to SDI-development. Target group: SDI-practitioners who already have some experiences, and would like to share them with others.
Contact Abbas Rajabifard or Joep Crompvoets

Master program on Space Technology Application for APSCO member states
Master program on Space Technology Application (MASTA 2011) for APSCO member states
Based on the agreement between Asia-Pacific Space Cooperation Organization (APSCO) and Beihang University of China, the APSCO has announced the "MASTA 2011 Master Program on Space Technology Applications (Satellite Communications)" for studying at Beihang University.
The APSCO would like to invite participants from its Member States to this Master Course. The APSCO Secretariat will evaluate and forward the applications with recommendation to get the full scholarships excluding the Flight Expense. However, APSCO will cover the most direct, economy class, round trip, international air ticket for each participant from its Member States those are going to take part in the MASTA Program and thesis defense if it is requested.

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Member States should nominate the participant(s), have them fill out an Application Form, and then send it with all necessary supporting documents to the APSCO Secretariat to the contact person: Md. Abdus Salam, Senior Official, Department of Education and Training and Database Management, Asia-Pacific Space Cooperation Organization (APSCO), Address: Building 13 & 14, Section 3, No. 188, South West Fourth Ring, Fengtai District, Beijing 100070, China Tel: 86 10 6370 2677 Ext. 402, Fax: 86 10 6370 2286, E-mail no later than March 15, 2011.

ESRI offering technical certification
ESRI offers a technical certification program for their software. The ESRI Technical Certification Program will recognize people skilled in desktop, developer, and enterprise use of ESRI technology. Earning a certification will mean an individual possesses a high level of technical expertise using ESRI software. Starting in January of 2011, certification will be offered for the following: ArcGIS Desktop Associate, ArcGIS Desktop Professional, Web Application Developer Associate, Enterprise Geodatabase Management Associate, and Enterprise Administration Associate. Eight more certifications will be offered later next year and in 2012. Certification will be accomplished by taking a two-hour exam consisting of 90-95 multiple choice questions and will be offered in English only. The test will be available at 5,000 locations in 165 countries.
Registration opens January 17, 2011.
More about ESRI's Technical Certification Program
Source: GISLounge

Directions Magazine Webinars (Web Seminars)

Upcoming MashUps Event – NSW Australia
SSSI NSW committee will be hosting a professional evening in early 2011 for those wishing to learn more about spatial "mash ups". The structure will be similiar to the twilight evening ISNSW series which you may already be familiar with. The event will be chaired by committe member Jose Diacono so all enquries should be directed to her. The event is currently being planned with several speakers from a range of government, private and university sectors already on board.
The date will be advertised on the SSSI events calender website.
[Thanks to Ross Johnson of the *Surveying and Spatial Sciences Institute (SSSI)* NSW Committee for this item]

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

Seven Day Training Workshop On Geographic Information Science and Technology by Jiwan Rawat
The Geographic Information Science, also known as GI Science, is a newly emerging discipline of applied sciences. GI Science is concerned with the collection or capture of spatial data by such methods as satellite remotely sensed images, aerial photographs, Global Positioning System (GPS), Light Detection and Ranging (LIDAR) maps and surveys of people. GI Science is advanced version of Information Technology (IT) and Information Communication Technology (ICT) which provide quick data with digital maps.
Source: Asian Surveying and Mapping

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Funding Opportunities, Awards, Grants

Master's and Doctoral opportunities in remote sensing - CSIR NRE and Meraka Institute – Pretoria

African Research Grants programme issues first call for proposals
The African Union (AU) Research Grants programme, a project under the Africa–EU partnership has announced its first call for proposals. The AU is seeking proposals that focus on post-harvest and agriculture, renewable and sustainable energy, and water and sanitation in Africa. It is expected that the move will foster the

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implementation of Africa's Science and Technology Consolidated Plan of Action, and ensure more involvement from African scientists in solving the continent's problems.
Deadline: 30 April 2011.

International Conservation Mapping Competition

Esri and the Society for Conservation GIS (SCGIS) have announced the International Conservation Mapping Competition. The competition is open to all nonprofit conservation groups and the individuals who support them. A total of $10,000 in prize money will be awarded in the following categories.
- Grand Prize: Best exemplification of conservation mapping
- Best Traditional Cartography: Best design and art in a static map (hard copy or online)
- Best Interactive Web Map: Best design and usability in an interactive web map
- Best Use of Science: Best design and impact in presenting challenging scientific concepts
- Best Societal Impact: Most compelling impact on society
- Best Innovation: Most creative use of mapping tools to communicate a conservation message

Submitted maps must be created using Esri GIS and be accompanied by an essay describing the map. The deadline for submissions is March 15, 2011. The accepted maps will be displayed with SCGIS and the Society for Conservation Biology at the Esri International User Conference, July 11–15, 2011, in San Diego, USA. More information about the competition: www.esri.com/conservation-competition.
Source: ESRI.com [Thanks to Wonkug Baek for this item]

IBM annnounces new grant program to create smarter cities

IBM has inaugurated the Smarter Cities Challenge, a competitive grant program through which IBM will award a total of $50 million worth of technology and services to a hundred municipalities across the globe.
Over the next three years, IBM will send top experts to those cities that have made the strongest case for participating in the Smarter Cities Challenge. IBM consultants will immerse themselves in local issues involving the administration of healthcare, education, safety, social services, transportation, communications, sustainability, budget management, energy, and utilities.
Following the November 2010 program launch, applications will be accepted annually, with **the first cycle closing December 31, 2010.**
Thanks to Kate Lance for this item

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 on the Bentley website.
The deadline is March 18, 2011.

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Employment Opportunities

France – Serbia

Groupe FIT (www.groupe-fit.fr) and Memoris (www.memoris.fr) are actively seeking a High-level GIS Specialist acting as team Leader for our project based in Serbia. This is a 150 days assignment, mainly based in Serbia (115 days) which will support the implementation of a full fledge corporate GIS for a Energy and Mining Sector public administration Company. Further information available from here

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

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A Complete list of GIS/RS/CAD/AM-FM Service Firms, Groups and Organizations in India is available from here

URISA conducting GIS professionals salary survey
US Urban and Regional Information Systems Association (URISA) is conducting the 2010-2011 Salary Survey for IT and GIS Professionals. Similar to the salary surveys from 2003 and 2007, the survey will provide current information related to salary and responsibilities by employer type, geographic location and professional GIS experience. This year's survey will also provide information on how department sizes have changed, how organisations are utilising the latest technology and professional certification. The purpose for collecting this information is to provide GIS and IT Professionals and hiring managers with insight on the current state of the job market in order to make more informed decisions regarding employment. The survey is open to all GIS and IT Professionals and is available at http://www.urisa.org/2010_salary_survey.
Source: URISA.org [Thanks to Wonkug Baek for this item]

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Conference Proceedings

The 20011 MERIT lecture, The Geospatial Revolution, The University of Melbourne, 24 February, 2011
David J. COWEN, Distinguished Professor Emeritus, Department of Geography, University of South Carolina delivered the 2011 MERIT (Melbourne Engineering Research Institute) Visiting Scholar Lecture on Monday 24th January 2011.
He is currently a member of the National Geospatial Advisory Committee, a member of the NRC Board on Earth Sciences and Resources, and a National Associate of the National Academy of Sciences. Between 2000 and 2006 he chaired the Mapping Science Committee of the National Research Council and recently chaired the NRC Study Committee "Land Parcel Databases: A National Vision". He is the 2005 recipient of the ESRI Lifetime Achievement Award in GIS.
The 20011 MERIT lecture, **The Geospatial Revolution**, can be viewed here as a PDF file (Note that the PowerPoint presentation is 77 mB), Also an Audio only (18 mB) file is available. A smaller streaming audio file (9.6 mB) is also available here.
Also available in Quicktime movie mp4 format (23.1 mB).
During the lecture, Prof Cowen referred to Geospatial Revolution videos produced by Penn State University (of which Episodes #1 and #2 have aired with the remaining Episodes #3 and #4 scheduled for broadcast on March 1 and April 19). The lecturer also referred to The Changing Geospatial Landscape, a Report of the National Geospatial Advisory Committee (January 2009).

6th gvSIG Conference
The videos of the report sessions and workshops at the 6th gvSIG Conference, that were held the first week of December 2010, are now available.

Live webcasting of Geospatial World Forum 2011

GeoSpatial World Weekly, vol 7, issue 4 (January 24) special **Geospatial World Forum 2011** issue.

Knowledge Cities World Summit (Melbourne, 16-9 November 2010) KCWS 2010 Conference (36 mB)
Individual papers may be accessed here.

Proceedings of the International Symposium on GeoInformatics for Spatial-Infrastructure Development in Earth and Allied Sciences (GIS-IDEAS 2010), 9-11 December 2010, Hanoi, Vietnam
According to the Organizing Secretary of GIS-IDEAS 2010, Prof. Venkatesh Raghavan, Osaka City University. "the conference attracted 120 participants -- 33 from overseas (Japan, Germany,USA, Switzerland, Taiwan). and 87 from Vietnam.
The conference program is available (some last minutes changes are not reflected in the schedule)
Proceedings of full-papers and abstracts are available online.
Thanks to Kate Lance for this item

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6th gvSIG Conference - Reports, posters and articles
Presentations, posters and articles presented during the 6th gvSIG Conference attended by ~ 500 persons taking in the "Knowledge for change" theme.
The magazine **Open Planet 4**, the Live-DVD given during the Conference, and videos of presentations and workshops will be published soon.

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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
March 2011		
3-4th March	Kyoto, Japan	**Web & Wireless Geographical Information Systems - Japan** Email: froehlich@FTW.at
7 – 9 March	Valencia, SPAIN	**5th International Technology, Education and Development Conference (INTED2011)** Contact
8 – 9 March **"NEW"**	Brisbane, Australia	**GIS in Mining & Exploration 2011**
10 – 11 March **"NEW"**	Hamburg, Germany	**GeoViz, Hamburg 2011**
15 – 18 March	Moscow, Russia	**Geoform+ 2011 / Cartography, Geodesy, Navigation, and Geospatial technology**
16 – 18 March **"NEW"**	Tokyo, Japan	**5th GEOSS Asia-Pacific Symposium** to focus on data sharing Entitled "Towards the Establishment of Data Sharing and Integration in the Asia-Pacific Region". The four parallel sessions will address the Asian Water Cycle Initiative (AWCI), the Asia-Pacific Biodiversity Network (AP-BON), Forest Carbon Tracking, and Ocean Observations and Climate. For more information, visit the Symposium website.
21 – 24 March	Houston, USA	**SPAR International 2011** Contact: Linda McLaughlin, Program Manager
23 – 25 March	Enschede, The Netherlands	**1st Conference on Spatial Statistics 2011**
25 – 27 March	Bilbao, Spain	**7th International Conference on Technology, Knowledge and Society** Contact The deadline for the call for papers has closed. Alternative website
28 – 29 March	Canberra, Australia	**100 Years of National Topographic Mapping**
April 2011		
10 – 15 April	Sydney, Australia	**34th International Symposium on Remote Sensing of Environment** (ISRSE)
11 – 13 April	Munich, Germany	**Joint urban remote sensing event**
12-16 April	Seattle, USA	**AAG Annual Meeting**

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13-15 April	Moscow, Russia	**V Anniversary International Conference "Remote Sensing – the Synergy of High Technologies"**
17-19 April **"NEW"**	Doha, Qatar	**7th Annual Middle East conference & Exhibition on Geospatial Technology & Applications** Contact
19 – 21 April	Santa Clara, California	**Where 2.0**
24-26 April	Khobar, Eastern Province, Saudi Arabia.	**The Sixth National GIS Symposium in Saudi Arabia**
May 2011		
3 – 8 May	Antalya, Turkey	**Gi4DM 2011 – GeoInformation for Disaster Management**. Contact Full papers for Proceedings are required by **March 31, 2011**
10-13 May	Lakewood, Colo., USA	**USGS holds National Map Users Conference** The U.S. Geological Survey's (USGS) National Geospatial Program (NGP) and the Office of Enterprise Information announced The National Map (TNM) Users Conference, and the Geographic Information Science Workshop to be held May 10-13, 2011 in Lakewood, Colo. According to the announcement, this inaugural event will assemble a wide range of participants including scientists, managers and geospatial professionals from government, industry, academia and other organizations. A goal of TNM UC is to share accomplishments and progress, acknowledge best practices, and exchange innovative ideas concerning The National Map in supporting science initiatives. The role of the GIS Workshop will be learning specific techniques for using GIS in support of science. Interactive dialog will be encouraged through panel and lightning sessions, poster presentations, workshops, and demonstrations.
12-13 May	Isle of Capri, Italy	**Workshop on Global Scientific Data Infrastructures: the big data challenges** This Workshop will be held at the "Hotel La Palma" in the island of Capri, Italy. **Registration** The participation is free and the organizers will be able to offer the coffee-breaks, working lunches, and a social dinner. The participants have to cover their own travel and lodging expenses. To register to the Workshop, fill in the online form. Upon registration, you will receive an email confirmation message. Registration for the workshop is limited by the venue capacity. Early registration is strongly recommended. **Deadline** for receiving the registration form: 12 March 2011. Organizing Committee - Costantino Thanos, CNR--ISTI, Italy and Yannis Ioannidis, University of Athens, Greece Secretariat support - Catherine Bosio, CNR---ISTI, Italy
18 – 22 May **"NEW"**	Marrakech, Morocco	**FIG Working Week**
19 – 20 May **"NEW"**	Almaty, Kazakhstan	**Annual Central Asia GIS Conference - GISCA 2011** **Geoinformatics: Managing Environment, Resources and Risk** March 1 - Submission of abstracts (min 500 words) April 1 - Notification of acceptance May 1 – Fully formatted copy of full papers uploaded (see authoring instructions!) May 1 – Registration for poster exhibit Local organisation: gisca11-info@aca-giscience.org Program enquiries: gisca11@aca-giscience.org

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26 – 29 May	Nanjing, CHINA,	**LIDAR and Radar Mapping: Technologies and Applications** Full paper submission deadline - January 30, 2011 Contact
31 May – 2 June	Cape Town, South Africa	**AfricaGEO 2011**
June 2011		
14 June	Washington, D.C	**Forum On Earth Observations V**
15 – 17 JUNE	Munster, Germany	**GEOINFORMATIK 2011**
20 – 23 JUNE	University of Cantabria, Santander, Spain.	**"Cities, Technologies and Planning" CTP 11** in conjunction with **The 2011 International Conference on Computational Science and its Applications (ICCSA 2011)**
21 – 22 JUNE	University of Nottingham, UK	**Third Open Source GIS UK Conference - OSGIS 2011**
21 – 23 JUNE	Dijon, France	**The International Conference on Digital Information and Communication Technology and its Applications (DICTAP2011)** Université de Bourgogne For inquires, please send email to di@sdiwc.net All the papers will be reviewed and the accepted papers in the conference will be published in the "Communications in Computer and Information Science" (CCIS) of Springer Lecture Notes Series < www.springer.com/series/7899 >, and will be indexed in many global databases including ISI Proceedings and Scopus. In addition, selected papers after complete modification and revision will be published in the special issues journals. Researchers are encouraged to submit their work electronically. Submitted paper should not exceed 15 pages, including illustrations. Papers should be submitted electronically. All papers will be fully refereed by a minimum of two specialized referees. Before final acceptance, all referees comments must be considered. **Important Dates** ============== Submission Date : Feb 20, 2011 Notification of acceptance: April 1, 2011 Camera Ready submission : April 10, 2011 Registration : April 10, 2011
22 – 24 JUNE	Kuala Lumpur, Malaysai	**SEASC and ISC 2011** The 11th South East Asian Survey Congress and the 13th International Surveyors' Congress. The theme "Innovation towards Sustainability", in conjunction with the Institution of Surveyors Malaysia's 50th year celebrations.
27 – 29 JUNE	Universiti Malaysia Pahang, Malaysia	**ICSECS 2011 (Malaysia)** The Second International Conference on Software Engineering and Computer Systems (ICSECS2011)
28 June - 7 July	Melbourne, Australia	**XXV IUGG General Assembly** **Earth on the Edge: Science for a sustainable Planet** The IUGG 2011 Scientific Program Committee invites the submission of abstracts on original work to be considered for oral or poster presentation at the IUGG 2011 General Assembly Contact Download Brochure
28 June - 7 July	Melbourne, Australia	**IAG General Assembly** Download Brochure
29 June - 1 July	Fuzhou, China	**ICSDM 2011 & BJ-IWGIS 2011** **IEEE International Conference on Spatial Data Mining and**

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		Geographical Knowledge Services (ICSDM 2011) – AND - **Beijing International Workshop on Geographical Information System (BJ-IWGIS 2011)** The conference theme is "Bridging the Gap Between Spatial Information Technology and Geoscience Research". One of the keynote addresses is titled "SDI and Digital Asia as Information Commons."
July 2011		
3 - 8 July	Paris	**25th International Cartographic Conference.** **15th General Assembly of the International Cartographic Association (ICA)** Abstracts were due 4th October, 2010. Contact: regist-icc2011@europa-organisation.com
5 – 8 July	Salzburg, Austria	**GI Forum 2011**
9 – 12 July	San Diego	**Esri and ACSM - Event for Surveyors and Mapping Professionals**
11 – 15 July	San Diego	**ESRI International USER CONFERENCE**
11 – 13 July	Macau	**3rd International Conference on Networked Digital Technologies (NDT 2011)**
21 – 22 July	Rio de Janeiro, Brazil	**THE THIRD INTERNATIONAL CONFERENCE ON CLIMATE CHANGE: IMPACTS AND RESPONSES**
August 2011		
5 - 7 August	Washington, DC USA	**THIRD INTERNATIONAL CONFERENCE ON SCIENCE IN SOCIETY**
8 - 10 August	Taipei	**AOGS 2011 Geosciences World Community Exhibition** The Geosciences World Community Exhibition will be held in conjunction with the **8th Annual Meeting of the Asia Oceania Geosciences Society** (AOGS)
15 - 19 August	Nairobi, Kenya	**AGSE 2011** Important dates: Author registration closes February 16, 2011 Call for Papers posted December 18, 2010 Submissions accepted December 18, 2010 Submissions closed February 16, 2011
23 – 25 Augustl	Perth, Australia	**7th International Symposium on Digital Earth**(ISDE7) Held in conjunction with **WALIS Forum 2011** and the **2011 NRM Conference** **Call for Papers closes 28 February**
September 2011		
9 – 11 September	Denver, Colorado	**State of the Map (SotM)**
12 – 16 September	Denver, Colorado	**FOSS4G 2011**
28 – 30 September	The Delft, Netherlands	**UDMS 2011**
November 2011		
14 – 18 November	Santiago, Chile	**UGI 2001** International Geographic Union "Regional Geographic Conference" **Contact** **Brochure & Call for Papers**
15 – 17 November	Canberra, Australia	**Spatial@Gov2011**
21 – 25 November	Wellington, New Zealand	**Surveying & Spatial Sciences Conference 2011**
29 November –	University of	**The State of Australian Cities**

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2 December "NEW"	Melbourne, AUSTRALIA	**Key Dates** Call for abstracts opens OPENED Call for abstracts closes 28 FEB 2011 Notification of accepted abstracts 01 APR 2011 Full papers due 06 MAY 2011 Reviewed papers returned 01 JUL 2011 Early registration closes 29 JUL 2011 Final papers due 31 OCT 2011
May 2012		
14-17 May "NEW"	Quebec City, Canada	**2012 Joint World Conference** **GSDI 13** and **Canadian Geomatics Conference (CCC)** hosted by GEOIDE Network
August 2012		
25 August – 1 September	Melbourne, Australia	**XXII International Society for Photogrammetry & Remote Sensing Congress** Email: isprs2012@icms.com.au
October 2012		
	Morocco	**10th biennial International Conference of the African Association of Remote Sensing of the Environment (AARSE)**
2014		
	Malaysia	Malaysia will be hosting the (International Federation of Surveyors) FIG Congress in 2014. The decision was taken at the recently concluded FIG Congress 2010 in Sydney, Australia.

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Global Spatial Data Infrastructure Association.

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