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ICSM NEWS – June 2011

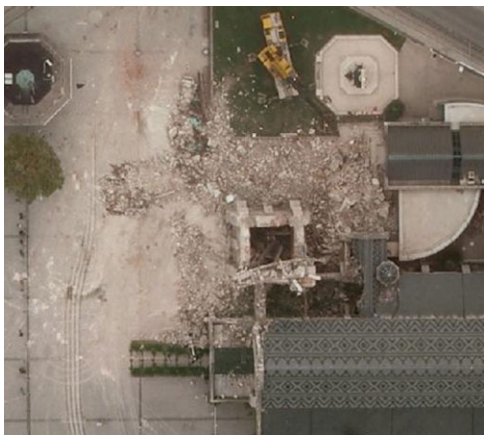
PCTMSL Questionnaire now online

The Permanent Committee on Tides and Mean Sea Level (PCTMSL) has prepared a questionnaire relating to the usage of the various PCTMSL documents - i.e. seeking comment on accessibility, any issues/concerns, etc. The on-line survey is being conducted on the ICSM website: http://www.icsm.gov.au/icsm/tides/index.html

Spatial information response to Natural Disasters

Canterbury, New Zealand

Land Information New Zealand (LINZ) has worked with other government agencies and local authorities in response to the Darfield earthquake of 4 September 2010, the devastating aftershock in Christchurch of 22 February 2011, and ongoing aftershocks including that of 13 June 2011 which caused further damage. Imagery taken 2 days after the 22 February event was made available on the LINZ website at http://www.linz.govt.nz/topography/aerial-images/christchurch-imagery



Christchurch Cathedral following 22 February 2011 earthquake
© LINZ

Contracts were let by LINZ for the re-survey of the geodetic network in the Canterbury region following each major earthquake to quantify the horizontal and vertical movements, to repair the damage to the geodetic network and to support recovery efforts.

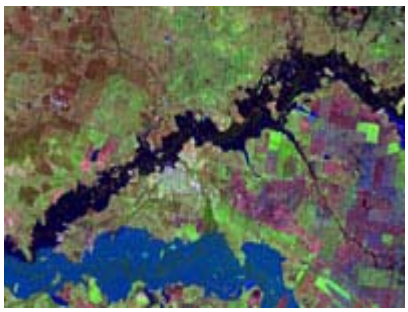
The flat topography of Canterbury meant that provision of updated height control was important to enable repair to services such as gravity-fed stormwater and sewerage networks. A collaborative effort between LINZ and local councils enabled the acquisition of GNSS and precise levelling observations to provide an updated height network.

Special cadastral rules (regulations) for defining earthquake-affected property boundaries were developed and promulgated by the Surveyor-General. These allow formerly straight boundaries to be bent where affected by deep-seated fault rupture (up to 4 metres in some places). In addition, new recovery legislation allows the Canterbury Earthquake Recovery Authority to work with LINZ to fast-track the approval of some cadastral surveys to speed up recovery efforts.

Queensland

The Spatial Information Group (SIG) in the Queensland Department of Environment and Resource Management was heavily involved in the production of spatial information products and services to support the response and recovery efforts in the wake of extensive flooding and cyclone Yasi. A number of key aspects of that activity were:

- A high level of demand for imagery at or near flood peaks
- Commissioning of aerial photography in record timeframes
- Use of radar imagery to give close to real-time assessment of inundation, even under cloud
- Activation of an international charter (twice), with the support of Geoscience Australia, to give free access to commercial satellite imagery over disaster-affected areas
- Use of web services to provide access to imagery and mapping products
- Use of the cloud based Amazon EC2 to assist with data access
- A requirement for mapping of over 180 disaster affected communities, including flood inundation lines



Chinchilla floods - December 2010
© Geoscience Australia

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- Ongoing demand for spatial products to support activities such as recovery and reconstruction; insurance and investigation
- Establishment of an interactive web site for the public to provide feedback on flood line mapping
- In excess of 14,000 hours of staff time in SIG in undertaking the above activities.

Victoria

The Victorian Department of Sustainability and Environment (DSE) through its Spatial Information Infrastructure group (SII) worked with Catchment Management Authorities (CMAs) and the State Control Centre (SCC) to capture aerial photography and satellite imagery over flood effected areas during the Jan/Feb 2011 floods in Northern Victoria.

Breach in North Lodden River levy
© DSE Victoria

Both optical and radar satellite imagery has been acquired over important periods of the flood crisis. Twelve aerial photo projects covering more than 4000 square kilometres were completed to map the extent of the floods at their peak in areas such as Skipton, Dimboola, Rochester and Horsham. Combining aerial photography, satellite imagery and the real time information from DSE's infrared linescan aircraft, a unique and invaluable record of the flood extent was created.

Aerial image of Skipton
© DSE Victoria

Radar imagery, was used for the first time in Victoria to map flood extent in near real time, with products produced and supplied to the SCC mapping team within six hours of acquisition – something not heard of a couple of years ago. The satellite borne radar from the SkyMed constellation which is not affected by cloud or darkness was employed for repeat daily coverage over the effected areas.

Melbourne University ARC Grant - 3D Cadastre

Congratulations to the University of Melbourne who have been successful with an Australian Research Council (ARC) grant titled '3D Cadastre - Land and property information in 3D'. ICSM is a partner in this project.

New Working Group

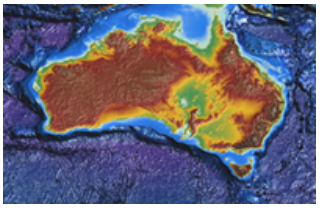
At the May 2011 meeting ICSM created a new group Digital Cadastral DataBases (DCDB).

Digital Cadastral DataBases continue to grow in importance as authoritative fundamental spatial data as well as the basis of land administration systems. There are numerous technical challenges associated with upgrading data accuracy and integrity, harmonising data across jurisdictions and addressing increasing user expectations. The latter includes consideration of presenting the cadastre in three dimensions.

This new group will provide technical leadership and report to the Permanent Committee on Cadastral Reform (PCCR).

Bathymetry Working Group

The ICSM Bathymetry Working Group (BWG) will commence discussions on the state of the national bathymetry data with an initial teleconference planned for August. A number of early discussions between stakeholders have begun to highlight the requirement for a collective approach to producing an effective metadata catalogue that will assist with data discovery.



The first goal of the BWG will be to conduct a national multi-jurisdictional audit of data holdings so that we might better understand the challenges associated with collectively managing this asset within a federated system.

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Comparison of different cadastral systems within Australia and New Zealand

A new document which provides extensive questions and answers compares the cadastral systems of all of New Zealand and all Australian States and Territories. It can be viewed from the ICSM web site: http://www.icsm.gov.au/icsm/cadastral/Aust_and_NZ_Cadastral_System-QandA-May2011.pdf.

2010 National Gazetteer

The 2010 Gazetteer data compilation is now complete and has been released on the Geoscience Australia website and contains more than 332,000 official and unofficial place names. This is a subset of the place names jurisdictional data from all States and Territories, the Hydrography Office, Royal Australian Navy and the Australian Antarctic Division. This is the tenth edition of the Gazetteer, but the first version to be available for free under the *Creative Commons Attribution 3.0 Australia* licence. The aim of the change to the availability is to increase access to, and use of, official place names data without any impediment for use in both spatial data, navigation systems and printed mapping.

Strategic Plan 2010-15

The ICSM Strategic Plan for 2010-15 was presented by the ICSM Chair, Dr Don Grant, to the ANZLIC meeting in Perth and was endorsed by ANZLIC.

Rural and Urban Addressing Standard

ICSM's Street Addressing Special Interest Group (SASIG) has been reviewing the joint Australia / New Zealand Standard *AS/NZS4819: Rural and Urban Addressing*. This Standard provides instructions for addressing authorities (mainly Councils) to use when assigning addresses. Its provisions are designed to help ensure that properties can be readily and unambiguously identified and located and cover

- Assigning addresses
- Naming roads and localities
- Recording and mapping the related information
- Signage related to the above

The existing 2003 standard has been completely overhauled and rewritten to provide more clarity and to deal with some of the on-going issues with addressing. It includes some significant changes.

Public consultation on the Draft Standard resulted in over 500 comments being received by the 10 June closing date. Responses to those submissions will be incorporated into the Final Standard which is planned for release through Standards Australia in late October.

SASIG is also developing a set of 'Addressing Guidelines' to accompany the Standard and which will provide real-world examples of "grey area" addressing issues. It is intended that this will be updated regularly to assist councils in dealing with addressing related issues in a nationally consistent manner

Next ICSM Meeting

ICSM's next meeting is scheduled for 21-22 November 2011, in Wellington, New Zealand.