ICSM
INTERGOVERNMENTAL COMMITTEE ON SURVEYING & MAPPING

ICSM

Intergovernmental Committee on Surveying and Mapping

Biennial Report 20042006

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Ian O'Donnel — Chair ICSM

The Intergovernmental Committee on Surveying and Mapping (ICSM) and its various Working Groups and Permanent Committees have continued to implement policies defined by ANZLIC – The Spatial Information Council, throughout the period 1 July 2004 to 30 June 2006. Policies that centre on standards and data frameworks associated with national spatial data management and delivery.

The activities referred to in this Report can be categorised in two ways. Firstly, a suite of projects that relate to the provision of standards and specifications in surveying, mapping and charting. Secondly, activities that are more strategic in nature and aim to position ICSM to meet the emerging demands of a vital spatial information industry.

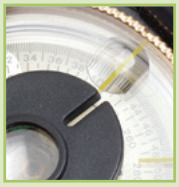
The emerging ubiquitousness of spatial data is intrinsically linked to data access, data quality and interoperability. This is now well understood within government and industry and accounts for the profile that ICSM has with respect to coordination issues and the development and implementation of standards.

Notable achievements for the period of this report include:

- Endorsement of ePlan (electronic lodgement and transfer of cadastral records) as a national system for the digital transfer of survey plan information.
- Completion of a 'roadmap' for the development, maintenance and testing of a GML Application Schema implementation from the existing HDF (Harmonised Data Framework) that will enhance the transfer of fundamental geospatial information.
- The creation of an internet based education resource for primary teachers on how geographic places get their names in the Australasian region.
- An emphasis on 'mapping' through the formation of the Permanent Committee for Topographic Information — activities to date include:
  - » under the National Topographic Information Coordination Initiative a total of 2,640,000 sq kilometres of map revision has either been completed or commenced across the country
  - » a web based Australian Topographic Map index that provides a national perspective of map coverage.







- the establishment of a Roads Working Group to coordinate the capture, management and portability of road information in the Australasian region.
- ICSM's role in the development of an Australasian all-hazards symbology set for broad-based mapping applications by the emergency management and counter-terrorism communities.
- Publication on the ICSM web site of the 2005 version of the 'Australian Tides Manual' and 'Tidal Interface Compendium of Terms'

ICSM followed ANZLIC's lead by conducting a strategic planning exercise in the second half of 2005. The resulting plan defines the outcomes we are seeking to attain out to 2010 and incorporates the responsibility for the development and promotion of the Australian Spatial Data Infrastructure (ASDI). ICSM has since commenced a review of ASDI with the aim of re-defining the attributes of the next generation of SDI.

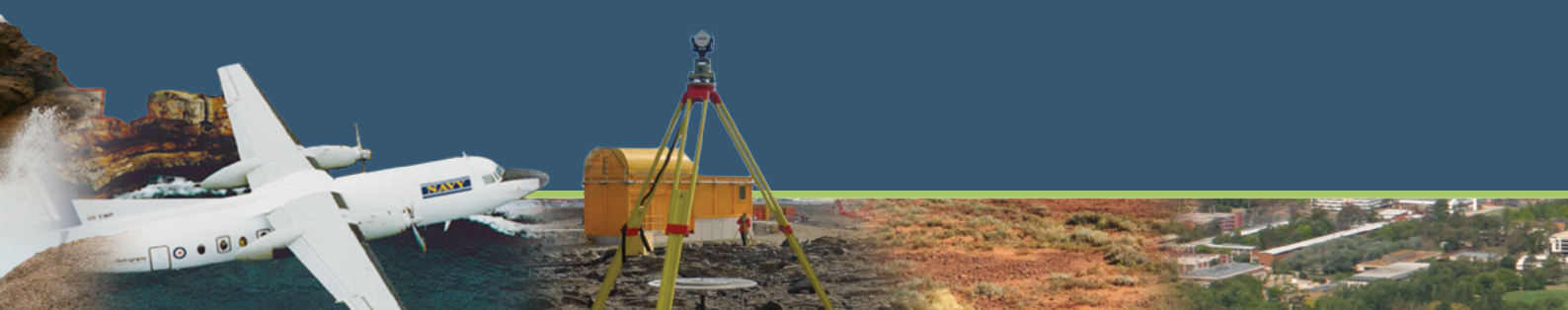
The need to upgrade the National Spatial Reference System to support the emerging scientific, community safety and positioning requirements of the future was thrust into prominence with the opportunity to bid for National Collaborative Research Infrastructure System (NCRIS) funding. ICSM through its Geodesy Sub-Committee played a prominent role in the coordination and preparation of the successful NCRIS proposal that is in effect, a blueprint for enhancement of the geodetic infrastructure for Australia over the years to come.

On behalf of all ICSM members I would like to acknowledge the efforts of Susie Salisbury in her role as ICSM Executive Officer. She has been pivotal in her support to the Committee and in ensuring that the business of ICSM functions in a very seamless and coordinated fashion. Also, my thanks go to Paul Harcombe, the past Chairman, for his forbearance and wise counsel as I eased into the role.

As ICSM positions itself to tackle new challenges in surveying, mapping and charting I am handing the baton to Garry West, Surveyor General for the Northern Territory. This is the first time that the Chair has gone to the Territory and I wish him all the success for the next two years.

Ian O'Donnell
Chairman
1 July 2004 – 30 June 2006

1 About ICSM



OUR VISION

World best national land and sea bed spatial data infrastructure providing sustainable benefits for Australians and New Zealanders.

WHO ARE WE

ICSM was established by the Australian Prime Minister, State Premiers and the Chief Minister of the Northern Territory in 1988. A prior body, the National Mapping Council (NMC), coordinated Australian mapping programs from 1945 to 1988. New Zealand joined ICSM in 1997.

ICSM is made up of representatives from Australia's Commonwealth, State and Territory surveying, mapping and hydrographic charting agencies. It is a key coordinating body in Australia and New Zealand for surveying and mapping issues.

In 2003 ICSM was accepted as a Standing Committee of ANZLIC – The Spatial Information Council [for Australia and New Zealand].

ICSM provides a mechanism to establish protocols and technical standards for spatial databases and infrastructure on a national basis. It also provides a forum that enables the exchange of information and ideas, a means to benchmark and identify best practice and influence the implementation of modern approaches to surveying, mapping and charting.

The Committee meets twice a year. A Chairman is appointed from the Committee every two years.

The Executive Officer (EO) of ICSM delivers secretariat support to the Committee and project support to the ICSM committees and working groups. The Secretariat was provided by the Geoscience Australia, Earth Monitoring Division during the reporting period.

ICSM committees and working groups provide expert advice, carry out research, as well as develop and conduct ICSM projects.

OUR ROLE

ICSM's role is to provide leadership, coordination and standards for surveying, mapping and charting, and assembling and maintaining national framework data sets.

Framework data includes:

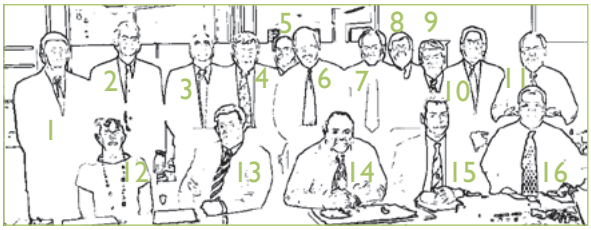
- geodetic
- topographic
- cadastral
- street addressing
- tides and sea level
- geographical names
- hydrographic.

ICSM's coverage includes both land and sea.

ICSM WILL:

- Continue to provide a sponsorship role within the context of the Australian Spatial Data Infrastructure (ASDI) initiative with respect to geodesy, cadastral surveying, topography, hydrography and place names.
- Develop strategic direction for the provision and integration of spatial data of national significance.
- Develop and publish best practice guidelines, national technical policies, standards, specifications and data models particularly for geodesy, cadastral surveying, topography, hydrography, place names, street addresses and native title.
- Share knowledge, experiences and expertise.
- Communicate and develop relationships with key stakeholders in Government, industry and the user community.
- Foster a cooperation and coordination ethos on inter-jurisdictional projects.
- Encourage a consistent approach to jurisdictional policies, standards, programs and priorities.
- Promote data integration.
- Provide technical advice and support to other coordinating bodies.
- Encourage and sponsor research.
- Facilitate the involvement of industry in ICSM activities.
- Maintain international liaison.

ICSM has issued a Strategic Plan for 2005-2010 which can be viewed at www.icsm/about/icsm_strategic_plan_2005-2010.pdf



Delegates to the ICSM biannual meeting, March 2006
1. Peter Ramm (Vic.), 2. Peter Murphy (Tas.), 3. Barry Cribb (WA), 4. Peter Kentish (SA), 5. Russell Priebbenow (Qld), 6. John Spittal (NZ), 7. Don Grant (NZ), 8. Paul Harcombe (NSW), 9. Paul Leskovec (defence – DIGO), 10. John Tulloch (Vic), 11. Frank Blanchfield (ACT), 12. Susie Salisbury (EO), 13. Ian O'Donnell (Aust.), 14. Garry West (NT), 15. Rod Nairn (defence – Navy), 16. Gary Johnston (Aust.).

See Section 4, ICSM Members, for information about individual ICSM members and their agencies.

OUR WORKING GROUPS

ICSM uses a committee system to undertake its work. Although the number of participants varies with time in June 2006 there were 13 committees and working groups with approximately 200 members.

These include:

ICSM Permanent Committees 70 members

These are Working Groups that have been formed to undertake long term coordination, development, maintenance and communication of important spatially related issues. In June 2006 these were:

- Geodesy (GTSC)
- Cadastral reform (PCCR)
- Tides & Mean Sea Level (PCTMSL
- Geographic Place Names (CGNA)
- Topographic Information (PCTI)

ICSM Temporary Working Groups 60 members

These are Working Groups which are formed to undertake nationally focused short term projects that can take several years to complete. In June 2006 these were:

- eLodgement of survey plans (ePlan)
- Native Title (NTWG)
- Tidal Interface (TIWG)
- Data Framework (DFTSC)

ICSM Temporary Special Interest Sub-Groups 30 members

These Groups are usually short duration (less than 1-2 years), with very precise Terms of Reference and time frames. They are usually formed under the auspices of another committee. In the case of the three Special Interest Groups in existence in June 2006, the sponsoring committee is the Permanent Committee on Topographic Information.

COMMUNICATION

The primary tool that ICSM uses to publicise its work and achievements is its web site – www.icsm.gov.au/

This policy has resulted in the creation of:

important reference material including:

- Standards and Practices for Control Surveys – SP1 (Special Publication #1) www.icsm.gov.au/icsm/publications/sp1/sp1v1-6.pdf
- Geocentric Datum of Australia Technical Manual www.icsm.gov.au/icsm/gda/gdatm/gdav2.2.pdf
- Australian Tides Manual – SP9 (Special Publication #9) www.icsm.gov.au/icsm/tides/SP9/preface.html

interactive packages which allow real time down loading of information including:

- Topographic Map Index www.geographynetwork.co.nz/website/icsm/topo_index.htm
- downloading GDA transformation software and links to other sites GDA transformation software www.icsm.gov.au/icsm/gda/gdatm/index.html

Information / educational packages including:

- Place Names schools teaching package http://sandpit:8500/icsm/cgna/lesson/index.

The success of this strategy is reflected in the strong growth of the site over the lasts 3 years.

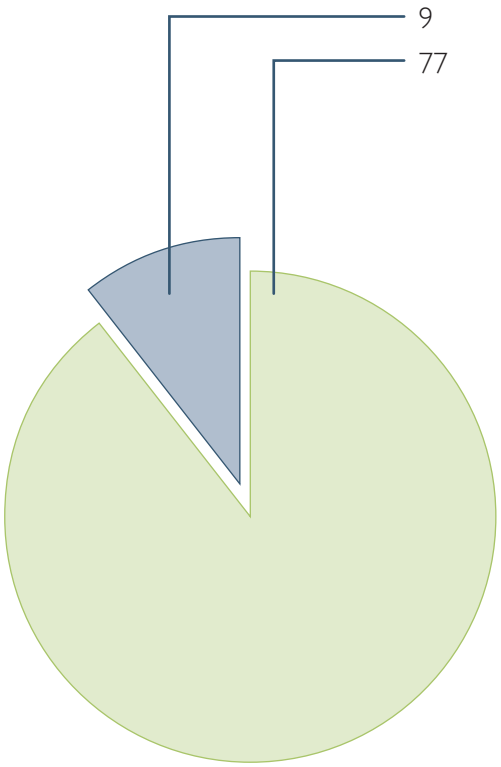
These are the most popular pages on the ICSM website:

ICSM web site Summary of usage 2004–06

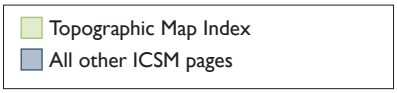
	All days	Average/day
ICSM		
Page views	820,430	1,124
Visitors	90,379	124
Topo Index component		
Page views	847,025	1,370
Visitors	10,950	15
TOTAL 2004–06		
Page views	1,667,455	2,494
Visitors	101,329	139

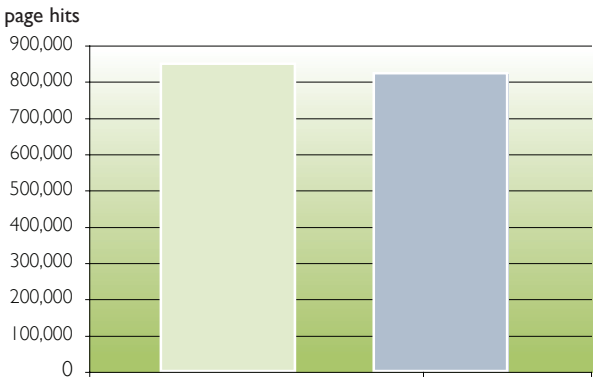
One curiosity is the difference in usage of the Topographic Map Index and the other ICSM WEB pages. This is a reflection of the different purpose of each – in particular the ability for Topographic Map Index to generate customised information.

ICSM Topographic Map Index web page performance

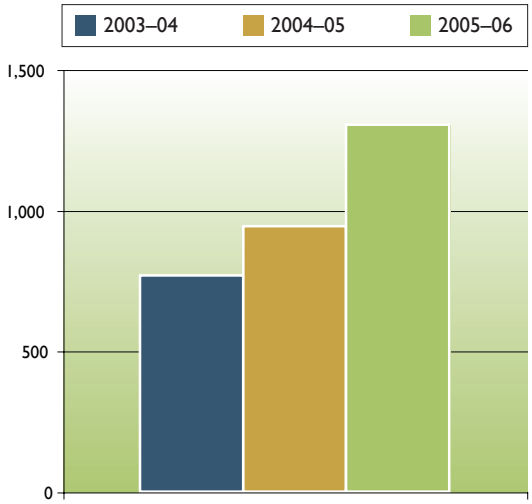


Average page views per unique visitor

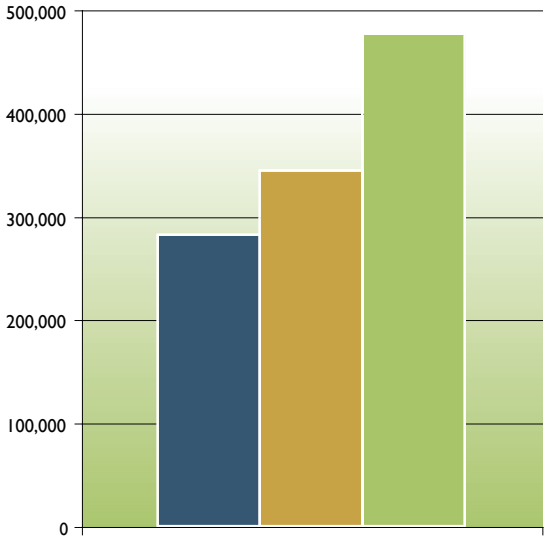




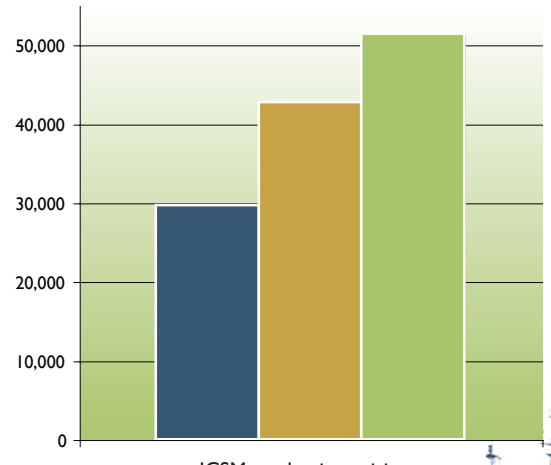
Growth in ICSM web usage



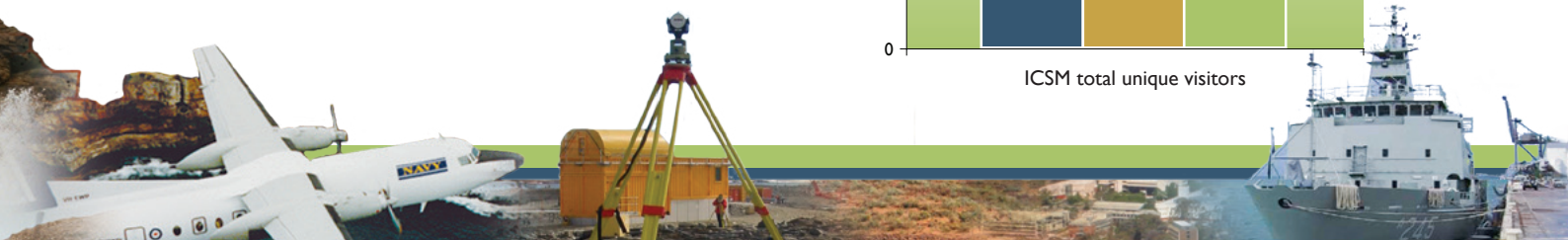
ICSM average page views per day



ICSM total page views

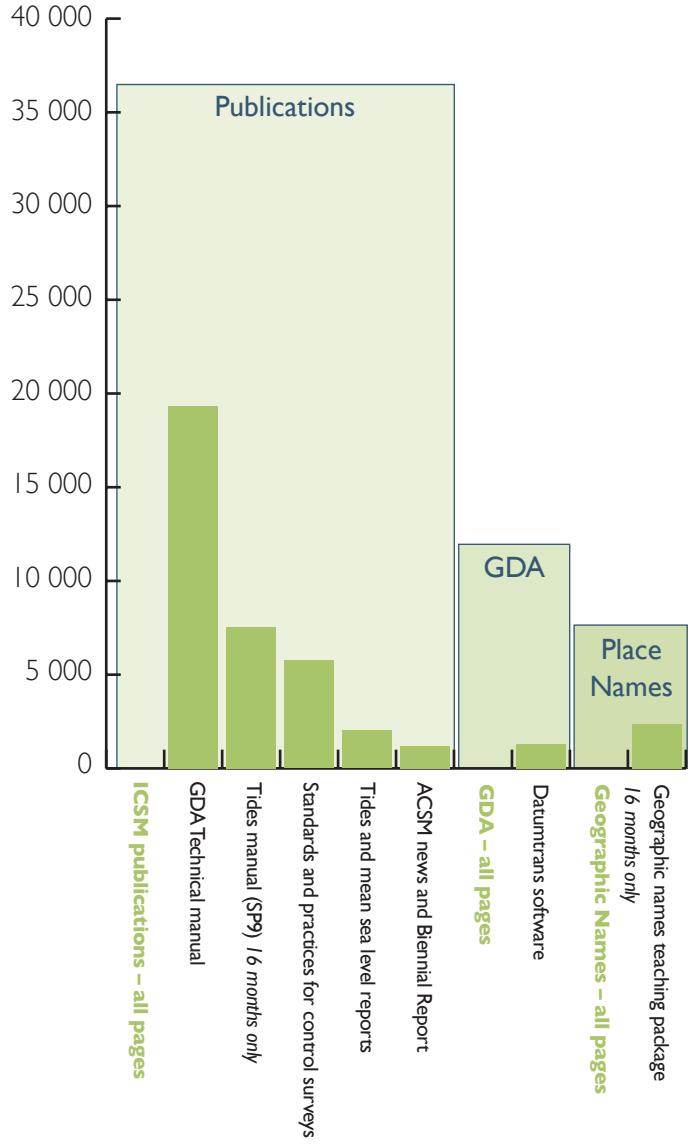


ICSM total unique visitors

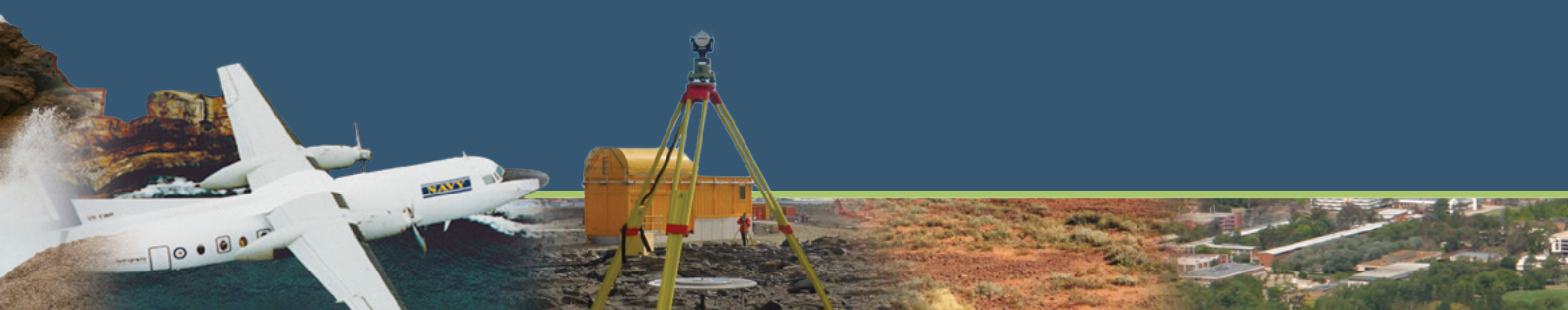


2004–06 ICSM's Magnificent Seven (90% of page views).

(excludes the ICSM Home Page – www.icsm.gov.au/ and the Topographic Map Index – www.geographynetwork.co.nz/website/icsm/topo_index.htm)



2 ICSM News



HYDROGRAPHY

TWO NEW IMPORTANT DOCUMENTS

Tidal Interface Compendium of Terms

The Tidal Interface Working Group (TIWG) has published a compendium of terms relating to the tidal interface zone.

While the Compendium is far from definitive, it does highlight that there are numerous terms used to describe the tidal interface; and that these terms frequently have varying definitions or are not defined at all.

It should also be noted that the complexity and significance of this issue varies between agencies, depending on the nature of each states/territories:

- coastal areas
- tidal variations
- tidal impact on human activity

The full Compendium can be viewed at: www.icsm.gov.au/icsm/publications/tidal_interface/compendium_full_may03.pdf

and an abridged version can be viewed at: www.icsm.gov.au/icsm/publications/tidal_interface/compendium_summary_ma03.pdf

Australian Tides Manual

In 2005 Australian Tides Manual published on the ICSM WEB site. The original Australian Tides Manual was published in 1984 as the Special Publications 9 Handbook - The Australian Tides Manual.

Unlike the 1984 version, which was only published as a booklet, this up-dated version is published as a WEB enabled document, which can be viewed and used interactively – this is especially useful because of the large number of hyperlinks to other web sites and applications. If desired it can also be downloaded and printed from www.icsm.gov.au/icsm/tides/SP9/index.html

This has become a very popular site with an average of over 100 page views per day.

It is envisaged that this valuable tool will be regularly up-dated to keep pace with industry developments.

PLACE NAMES

The Committee on Geographical Names in Australasia (CGNA) has been working hard to ensure the integrity of geographic names in Australia and New Zealand.

Gazetteer of Australia

CGNA produces the Gazetteer of Australia and is nearing completion on making it OGC (Open GIS Consortium) compliant. Once complete this will enable the gazetteer to be accessible via the WEB – free of charge.

Internet Protection for Australia Place Names

CGNA, along with many others, has worked tirelessly with auDA (the Australian Domain Administration Limited) to protect Australian place names from monopolistic commercial use.

As a result, a new non-commercial internet space has been created, for use by Australian communities. Also, the issuing of licenses for use of Australian geographic names in the commercial sphere of the internet (placename with .com.au & .net.au extensions) is generating revenue which can be directed to facilitate new community websites.

For more information regarding this please see the auDA web page: www.auda.org.au/

WEB Based Place Names Teaching Package

The CGNA WEB based place names teaching package is designed for use by both teachers and students. It is particularly aimed at students in the late primary school / early high school age groups.

It's interactive and informative design has resulted in phenomenal up-take in the 16 months since it first went live in March 2005. This is can be found at www.icsm.gov.au/icsm/cgna/index.html

This teaching package is a further development of the CGNA's very popular Place Names Quiz (www.icsm.gov.au/icsm/cgna/quiz.htm) which still remains one of the most popular of ICSM web pages.

CGNA and the United Nations

For two weeks in October 2004, students from seven different countries congregated in Bathurst NSW to study the discipline of place naming. This was hosted by CGNA under the auspices of the United Nations and it was the first time such a course had been held in the pacific region

Producing a digital United Nations Composite Regional Gazetteer (version 3) and regional map www.linz.govt.nz/docs/placenames/se_asia.jpg

Work in the promotion of the use of minority and dual/multi geographic names continues to be a key focus.

The committee actively supported important UN forums in all parts of the world, particulalry in the Asia-Pacific region.

STREET ADDRESSING

In 2003 the final version of the Rural and Urban Addressing Standard (AS/NZS 4819:2003) was released by Standards Australia and Standards New Zealand. The ICSM Street Addressing Working Group (SAWG) was the key organisation to drive the development of this standard.

During the following two years SAWG worked diligently to ensure that the standard was broadly implemented within both countries. With this achieved SAWG was disbanded in May 2005.

This standard supports a consistent and unambiguous approach to the capture and maintenance of geocoded addresses and, among other virtues, allows for more efficient delivery of emergency services.

IN BRIEF THE STANDARD ADDRESSES SIX ISSUES:

Rural Addressing

Address numbers based on a distance. The distance is calculated from a defined point of origin (eg. the beginning of a road) to the entrance of a rural property (eg its gate).

Urban Addressing

Address numbers based on defined rules (eg. consecutive odd numbers on left, evens on right).

Complex Site Addressing

Address numbers based on a single address for a site with internal individual site numbers (eg. shopping complexes, retirement villages and universities).

Alias Address Management

Address numbers based on one of the standards listed above, with a secondary/alias address (eg. a corner house with an address on the adjoining road).

Geocoding

This describes the coordinates that define the position of an address point. This is especially important for digital application – eg. Systems being adopted by emergency service providers.

Management and Transfer of Temporal Addresses

This ensures that the dates and details of changes to addresses are recorded to allow users to determine the history of an address. It also allows for the identification of addresses which no longer physically exist, but which need to be retained for administrative and historical purposes.

AUSTRALIAN SPATIAL DATA INFRASTRUCTURE (ASDI)

The Future

ICSM is working towards redefining the vision for the ASDI to ensure it continues to play a major role in the provision of spatial services into the future.

The ASDI concept has been around for many years and has been pivotal in delivering Australia's current Spatial Data Infrastructure and ANZLIC – The Spatial Information Council – has taken the lead role in promoting and developing the ASDI.

In 2005, the relationship between ICSM and ANZLIC was redefined with ICSM becoming the SDI committee of ANZLIC. As part of the ANZLIC family ICSM will continue to develop and promote the ASDI concept.

The spatial environment has changed significantly over the past decade and continues to do so.

Influences include:

- Emerging on-line systems such as Google Earth, Microsoft, Yahoo and NASA
- The emergence of autonomous devices that know, think and communicate – these allow for automatic real time up-dating of information about location, condition and status – for example in-car navigation
- Growth in institutions such as Open Geospatial Consortium (OGC) and the Australian Co-operative Research Centre in Spatial Information (CRC-SI)
- The increasing needs for systems (such as emergency management) for up-to-date and accurate information.

When created the ASDI relied on the development of four core components:

- Institutional Framework which define the policy and administrative arrangements for building, maintaining, accessing datasets.
- Fundamental Datasets which supply a consistent national coverage over the whole of Australia and New Zealand.
- Technical Standards to define the technical characteristics of the fundamental datasets.
- Making the fundamental datasets discoverable and accessible.

The contribution of the ASDI is now much broader.

An ICSM sponsored workshop held in Melbourne August 2006 to review the options for updating the ASDI Vision. It suggested that the new vision for the ASDI be:

"Spatially Enabling Australia"

This vision sees the spatial dimension playing a ubiquitous role in a digital world which we currently call Virtual Australia. In many cases the users would not know or care that there is a spatial dimension, they will just have their question answered or service provided.

The workshop also identified 10 significant issues the to be addressed in order to deliver the vision.

The 'Spatially Enabling Vision' has been exposed to the ANZLIC Contact Officers group and also to those who attended the Trans Tasman Conference in Cairns in September. Feedback to date has been encouraging.

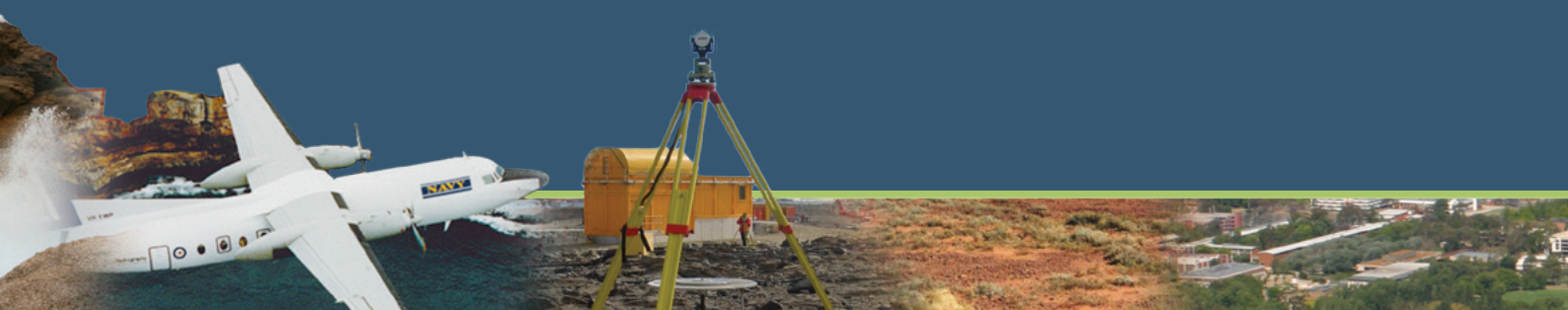
WHERE TO FROM HERE?

The next major step is to present this vision to ANZLIC.

Further exposure is planned at the SSC2007 conference in Hobart in May 2007.

Further information, including the discussion paper, can be obtained from the ICSM Executive Officer by emailing to icsm@ga.gov.au.

3 ICSM working group reports



STREET ADDRESSING (SAWG)

Role

Having developed the street addressing standard (AS/NZS 4819:2003) in 2003 the final role for the Street Addressing Working Group was to develop and promote the standard. The Working Group also acts as a reference source on national issues. SAWG was disbanded in May 2005 having successfully fulfilled its Terms of Reference.

Terms of Reference

- Standards
  - Identify a subset of (or additions to) National Standards (AS4212 and DR97275) relating to street addresses which are appropriate for inclusion into the street address component of ASD.
  - Examine the scope and need for creating a geocoded address file.
  - Draft a requirements framework for building these inclusions into existing standards or generation of a new (National Address File) standard.
  - Draft operational guidelines for the implementation by jurisdictions of existing or developed National Standards relating to street addresses.
- Promotion
  - Identify relevant jurisdictional addressing stakeholder groups.
  - Establishment of a National promotional strategy for adopting (existing and developing) the standard.
  - National Standards dealing with street addressing.
  - Develop a consultation and communication mechanism with relevant stakeholder and (address) user groups.
- Status of Street Addressing
  - Report on the current status of creation, upgrade and maintenance of jurisdictional street address datasets
  - Become a reference source for all jurisdictional issues associated with street addressing (including custodial and intellectual property issues)

Achievements during 2004–2006

- The standard has been widely implemented in both Australia and New Zealand – particularly in rural areas.

TOPOGRAPHIC MAPPING (PCTI)

Role

The Permanent Committee for Topographic Information (PCTI) aims to enhance the coordination of topographic mapping and associated activities undertaken by the jurisdictional mapping agencies and the private sector.

Terms of Reference

- Recommend initiatives to ICSM that are relevant to the future of topographic mapping carried out in Australia, Australian Territories, and New Zealand;
- Provide a framework for enhanced cooperation;
- Liaise with key government bodies and industry stakeholder groups on matters of prioritisation and national coordination of topographic mapping and data projects;
- Advise on initiatives that aim to raise the awareness of industry and the community to the benefits of topographic mapping; and
- Identify and develop, and promote 'best practice' standards and guidelines for topographic mapping and data generation, maintenance, and dissemination that are within the ambit of ICSM.

Achievements during 2004–2006

- Establishment of the National Topographic Information Coordination Initiative (NTICI) which is a national collaborative arrangement between the Commonwealth, State, Territory and local agencies in areas of topographic data collection, management and access. Collaborative projects to date have centred on shared image procurement, joint mapping projects and workforce planning. A raft of joint-projects were being undertaken by Commonwealth, State, Territory and local government jurisdictions working to the principle of 'map once, use many'.
- Updates to the Australian National Topographic Map Index on the ICSM web site have occurred: www.geographynetwork.co.nz/website/icsm/topo_index.htm

This site receives over 600,000 page views per annum. Consideration is now being given to redeveloping the site into a portal to the jurisdictions where maps may be viewed and/or purchased.

PCTI SPECIAL INTEREST GROUPS

Firstly, PCTI established a Roads Working Group (RWG) in May 2005 to resolve national issues associated with the consistency of capturing and ease of dissemination of digital roads related information.

Roads Working Group (RWG) Terms of Reference

- Develop and promote a nationally consistent classification and attribution scheme for the representation of roads and associated infrastructure.
- Liaise with key government bodies and industry stakeholder groups on a nationally consistent classification and attribution scheme for the representation of roads and associated infrastructure.
- Develop and promote a nationally consistent approach the capture and storage of names of roads and road related features in spatial databases – especially in relation to dual names.
- Work closely with the ICSM Data Framework Technical Subcommittee to ensure that there is alignment between the work of the ICSM Harmonised Data Framework (HDF) on standards developed spatial data management of roads.

Achievements during 2004–2006

- Established a web site for RWG members to exchange business rules relating to data capture. This is regularly up-dated and has resulted in a more consistent national approach to data capture.
- Increased national understanding of international activities by engaging with the EuroRoads committee and participating in a major international forum in Brussels, 27 June 2006. EuroRoads is a joint project between the public & private sectors – with the public sector seen as providing to the private sector which would then provide to the market place.

Secondly, in March 2006 a decision was taken to establish a Special Interest Group on Aerial Imagery (SIG-Imagery) to review technical issues associated with the emergence of new technologies – with particular emphasis being placed on filling knowledge gaps in relation to digital aerial imagery and cameras.

Aerial Imagery (SIG-Imagery) Terms of Reference

- Develop and promote a national awareness of imagery and its uses
- Develop and promote a framework for national coordination and image data interchange
- Develop and promote a framework for the discovery and access to imagery holdings
- Develop a template/model for assessment to advise on emerging trends and technologies
- Explore and enhance the use and application of imagery
- Develop and promote a set of standards and formats for image capture and dissemination.

Achievements during 2004–2006

- In the 3 months since inception, the SIG-Imagery has been able to form a committee and establish its Terms of Reference.

Thirdly, in February 2006 a Working Group on All-Hazards Symbology (AHS) was established to review the creation of a set of core All-Hazards Symbols for use by emergency responders. It will comprise the symbol description, symbol definitions, and codes for use.

This Working Group grew out of a forum convened by ANZLIC in December 2005 that comprised representatives from Emergency Management agencies – including Emergency Management Australia (EMA) and Emergency Management Spatial Information Network Australia (EMSINA).

ICSM was appointed Project Manager for the Working Group that has initiated two projects that are referred to below.

All-Hazards Symbology (AHS) Terms of Reference

- Provide the Australian /New Zealand point of contact for delivery of a harmonised approach for an all-hazards symbology set.
- Maintain a comprehensive listing of availability and likely application of all hazards symbol sets.
- Develop an annual work program to define and ensure an incremental roll-out of a national core set of symbols.
- Develop a nationally consistent outreach and promotions program and ensure education and promotional materials are embedded within the appropriate training courses occurring nationally (eg. EMA Mt Macedon and Police Colleges).
- Build and communicate the supporting hierarchical and scalable classifications and ensure close synergies with existing EM, CT and CIP taxonomies, topographic data models (eg AusDIN Portal, NSW EM Data Model).
- Ensure all symbol sets are:
  - technology and vendor independent;
  - 'fit for purpose' and scalable (dependent upon the user requirement(s);
  - harmonised (where possible); and
  - catalogued online for open discovery and access.

Achievements during 2004-2006

Work is 50% complete on two tasks, specifically:

- Compiling a nationally consistent 'Incident Command System' symbology catalogue based on symbols currently in use. Once compiled, this will be reviewed by Emergency Management agencies and responders.
- Compiling a catalogue of major categories of symbols required by all Emergency Management agencies and identification of the gaps in the availability of symbols.
- This work will then lead onto a Second Phase which is the compilation of an Australasian All-Hazards Symbology set. One that is:
  - intuitive, simple and scaleable; and
  - takes account of International Standards Organisation (ISO) standards.

PLACE NAMES (CGNA)

Role

The Permanent Committee for Geographical Names in Australasia (CGNA) was established to provide a coordinating role in Australian place naming activities.

Terms of Reference

Without limiting its scope, CGNA is to:

- Create a greater community awareness of geographic names
- Develop and deliver an educational program to promote the significance of geographic placenames in the community
- Develop of National guidelines for geographic place names
- Promote National guidelines for geographic place names to each jurisdiction
- Promote the use of correct names by Map/ Spatial database producers
- Produce, maintain and develop the Gazetteer of Australia
- Support National initiatives for the community use and protection of geographical names in the .au name space.

Achievements during 2004–2006

Geographical Domain Naming

Progress has been made on the release of geographical names as domain names.

There will be eight new domain names for states and territories of Australia, allowing communities to establish an internet address for their own purposes that will not be available to commercial users.

The domain name will be in the form of 'place name'.'state'.au. An example of this is 'bathurst.nsw.au', being the Internet site for the City of Bathurst in New South Wales, Australia. Such domain names will only be available to approved community organisations such as local government bodies, and will be used to promote the tourism, business opportunities and lifestyles of the relevant community without any conflict with similar sites aimed at commercial gain.

A national launch for the new domain names has been held, and State / Territory launches are also in the process of being held to promote the concept and encourage communities to register for the domain names. As at the time of this report over 100 communities had registered an interest.

CGNA will play an important role in adjudication of any naming issues and are providing the reserve listing used for allocation of geographical names – a subset of the National Gazetteer.

CGNA Educational Kit

CGNA has developed and innovative internet based teaching pack for the sharing of information about geographic place names and to promote the significance of geographic place names in the community. This pack utilises the video previously produced by CGNA.

The kit can be viewed on the CGNA home page at http://www.icsm.gov.au/icsm/cgna/lesson/index.html

CGNA is in the process of finalising lesson plans and worksheets to be used in conjunction with this site and the video mentioned above. This is nearing completions and will be reviewed at the next CGNA meeting.

Indigenous Naming Issues

CGNA are currently considering a variety of issues concerning indigenous names throughout Australia. Some of the issues currently under review include the standardisation of the depiction of dual names within Australia, the review of Great Barrier Reef Marine Park Authority (GBRMPA) policy on the indigenous naming of reefs and the provision of information for the United Nations Group of Experts on Geographical Names (UNGEGN) Minority Names Metadata Database.

Update to the National Gazetteer

Development work is being undertaken by Geoscience Australia to develop a web feature service schema for the national gazetteer, alleviating the need for States / Territories and other contributors to provide periodic updates and providing clients with the most up to date data in response to their inquiries. In conjunction with this, the place names jurisdictions are working to map various codes from the individual data sets to a standard set to enable consistency in data output.

Toponymic Training Course

In October 2004, the Geographical Names Board of New South Wales and the Asia Pacific Institute of Toponymy successfully co-hosted the United Nations Training Course in Toponymy. Participants from six separate countries attended this course. These participants included the current chairperson of the UNGEGN, Helen Kerfoot, and the Secretary-General of the International Cartographic Association, Dr Ferjan Ormeling. Course graduates are now equipped to implement place naming systems in their jurisdictions.

UNGEGN Support

CGNA is an active member of the United Nations Group of Experts, Asia South-East, Pacific South-West Division. CGNA provides the Rapporteur (Conference secretary) to Sessions and Conferences of the United Nations Group of Experts and also chairs a new working group of UNGEGN on the Promotion of Indigenous and Minority Group geographical names.

Other Initiatives

CGNA is also actively investigating issues dealing with the depiction and storage of dual names and the determination of extents for 'fuzzy' features. CGNA has continued its support for the creation of an UNGEGN regional gazetteer and map.

Further reports on these issues are available from the CGNA secretariat at greg.windsor@lands.nsw.gov.au

GEODESY (GTSC)

Role

Geodesy provides the positional framework for all surveying, mapping and geographic information applications in Australia. The ICSM Geodesy Technical Subcommittee (now a Permanent Committee of ICSM) is responsible for providing advice on geodetic issues. Therefore the main role of this subcommittee is to maintain a compatible geodetic infrastructure across Australia and New Zealand.

Terms of Reference

- Identify issues and propose possible solutions for consideration by ICSM
- Coordination, development and maintenance of geodetic infrastructures
- Coordination, preparation and update of technical publications
- Coordination of efficient dissemination of geodetic information.

Achievements during 2004–2006

- The Dynamic Network Adjustment software was developed by the University of Melbourne with ICSM funding support. The software allows positional uncertainty values to be calculated as part of the primary network adjustment
- The Positional uncertainty values for the GDA Spline network were calculated and distributed for State jurisdictions. This system of describing the coordinate uncertainty for control points was aimed at replacing the existing class and order schemes. The height uncertainty of the AHD71 junctions points were also computed rigorously for the first time. This process confirmed the earlier assumptions about the quality of the height datum.
- Methodology for the Legal Traceability of position for GPS measurements was established and implemented in the National Measurement Institute Verifying Authority Handbook. GA subsequently became appointed as a verifying authority for position using GPS measurements.
- GPS Data capture at the AHD71 junction points for the Height modernisation project was undertaken. The data is currently being compiled ready for production of the next generation of geoid model for Australia
- The eGeodesy initiative was commenced. Like ePlan it aims to develop a standard for the exchange of digital information, particularly geodetic data in its many forms.
- Geodetic support to the Absolute Sea Level Monitoring activity continues. By levelling between the Bureau of Meteorology operated tide gauges and an array of coastal benchmarks, the stability of the gauge is ensured resulting in the tidal records being accurate reflections of actual sea level change rather then simply gauge subsidence.
- The GTSC has worked extensively with the academic community to develop a strategic direction for Australia's national geodetic infrastructure. This resulted in a collaborative bid to the National Research infrastructure Strategy for the acquisition of new geodetic infrastructure that will see Australian research and industry refine the accuracy of positioning in Australia by an order of magnitude of the next decade.

ELECTRONIC LODGEMENT AND TRANSFER OF SURVEY DATA (ePLAN)

Role

This committee was established as a result of a resolution taken at the ICSM November 2003 Meeting. It was recognised that a national cadastral data transfer standard was needed to capitalise on the inherent efficiencies lodgement and processing of digital cadastral data can bring to land development and administration processes.

Terms of Reference

- Implement communication strategy involving industry stakeholders
- Produce a generic UML model
- Develop or identify standard tools for data capture, visualisation and validation
- Develop an XML schema for cadastral survey, infrastructure and survey control objects
- Develop a high level business case for adoption of ePlan standards
- Make recommendations for implementation, review and management of ePlan standards
- Provide advice to ICSM on other areas of electronic survey data transfer
- Provide a work plan and make regular reports to ICSM on progress.

Achievements during 2004–2006

- ICSM approved in principle the adoption of the generic ePlan UML model
- ICSM approved in principle the LandXML data transfer schema based on the model
- Reference implementation tools using LandXML1.1 for cadastral data capture, validation and visualisation of survey objects developed
- Implementation testing commenced in Queensland through the Department of Natural Resources Mines and Water, EARL project.
- Business of the ePlan working group conducted through four workshops, four teleconferences and emails, including the inaugural vendor demonstration day in April 2005
- Four inter jurisdictional workshops were conducted by the ePlan Chairman, Mr Nevil Cumerford.

DATA FRAMEWORK (DFTSC)

Role:

The Data Framework Technical Sub-Committee was established in November 2001 following the disbanding of the Harmonisation Working Group. Its role is to manage the maintenance, implementation and further development of the Harmonised Data Framework (HDF).

Terms of Reference:

- Maintain the components of the ICSM Harmonised Data Framework (HDF)
- Participate on other ICSM Working Groups that are developing data models to ensure integration with the HDF
- Monitor developments in national and international standards and recommend revisions to the HDF as necessary
- Supplement the HDF to explicitly include the geodetic reference framework
- Monitor the extent to which jurisdictional data sets comply with the HDF
- Promote the availability of the HDF to the wider geospatial community

Achievements during 2004–2006

- In 2004 a major workshop of spatial information experts was conducted to:
  - Review the status of the Harmonised Data Framework which had been developed in the later 1990s
  - Determine the scope of using Geospatial International Standards to enhance interoperability
  - Assess the current and future needs of the Australian spatial industry in terms of harmonised models
  - Identify actions necessary to ensure that the HDF remains a relevant resource for the Australian spatial industry.
- An outcome from this workshop was the appointment in 2005 of Rob Atkinson from Social Change Online to review of the existing HDM and the Unified Modelling Language (UML) models so that they would support the creation of Geography Markup Language (GML) application schemas. The aim being to move the HDM into a logical format that would facilitate data transfer and spatial information management by government and industry. At June 2006 this task was well advanced and a 'road map' had been prepared to guide the completion of the modelling by the 2006–08 reporting period.

NATIVE TITLE (NTWG)

Role:

The Native Title Working Group was established in order to contribute to increase 'certainty' with respect to identifying native title rights and interests. It plans to achieve this by promoting the adoption of appropriate methods for defining native title interests and recording and exchanging relevant information about native title interests.

Terms of Reference:

- The Working Group is to consult with, and where appropriate, gain the support of the National Native Title Tribunal (NNTT), jurisdictional lead agencies for native title, and other relevant stakeholders in undertaking their work.
- To develop national guidelines for the description, and where appropriate, realisation of claimed and determined native title interests.
- In line with ANZLIC's Australian Spatial Data Infrastructure (ASDI), to develop a National Data Model, associated Data Dictionary, Meta Data and associated guidelines for the recording and accessing of relevant information about Native Title Interests. The Data Model should include, but not be limited to, the recording of relevant attribute information about:
  - Native title claimant applications and what is claimed within them;
  - Indigenous Land Use Agreements (ILUAs);
  - Native title determinations;
  - Non-claimant applications and section 24FA of the Native Title Act 1993 (Cth) protection;
  - Land to which the non-extinguishment principle applies;
  - Compulsory acquisition of Native Title;
  - Surrender of native title;
  - Opinions concerning land on which NT has been validly extinguished;
  - Right to negotiate process; and
  - Compensation applications.
    The Data Model should include spatial components as appropriate.
- To identify issues to be addressed for jurisdictions to be able to populate and maintain in an up to date form (including incremental update) the above Data Model.
- To provide advice to ICSM of any other issues/areas where ICSM may be able to provide national leadership in the identification or presentation of the spatial component of native title interests.
- To provide reports to each ICSM meeting on the progress of each element in these Terms of Reference.

Achievements during 2004–2006

- A UML (Unified Modelling Language) data model has been completed for native title information. The National Native Title Tribunal (NNTT) has endorsed the model to the extent of those aspects where the NNTT had a custodial role.
- Work has commenced on incorporating the data model for native title information into ICSM's harmonised data framework.
- The Working Group prepared a submission which ICSM made to the Commonwealth Attorney General's Native Title Claims Resolution Review

CADASTRAL REFORM (PCCR)

Role:

The Permanent Committee on Cadastral Reform (PCCR) was established in 1999 to provide a leadership role in advising ICSM on cadastral reform matters, raise awareness of the cadastre and the benefits of cadastral reform to industry and the community. Its role is to develop a coordinated approach to cadastral reform that incorporates the participation of all stakeholders, including other peak government and industry groups. As a result of this work, ANZLIC – The Spatial Information Council – has now adopted an interest in this area and ICSM looks forward to working with ANZLIC to take this matter forward.

Terms of Reference:

- To recommend leadership initiatives to ICSM relevant to future cadastral reform.
- To advise on initiatives to raise the awareness of industry and the community of the benefits of the cadastre and cadastral reform initiatives.
- To develop a preferred model for the coordination of cadastral reform initiatives.
- To develop a preferred model for the coordination of cadastral reform that incorporates the participation of all stakeholders, including other peak government and industry groups.
- To identify/develop 'best practice' standards and guidelines for cadastral activities that are relevant to ICSM.

Achievements during 2004–2006:

The current focus for PCCR is to facilitate the development of concepts, and incorporate rights, restrictions and responsibilities for complex commodities, marine and three-dimensional (3D) cadastres into the Harmonised Data Model (HDM).

The initial work is on 3D cadastres, encompassing best practice, standardisation of surveying services and definition of boundaries. This will flow through to extension of the HDM and consideration of ways to ensure data quality and 'integratability'.

This work included:

- Research into work being done worldwide in the area of 3D Cadastres in order to develop an appropriate approach for Australia/New Zealand
- Development and distribution of a questionnaire on current jurisdictional activity as well as perception of needs, hurdles and support for establishing or extending 3D cadastral registration
- Collation of jurisdictional responses to provide the basis for an issues/discussion paper outlining current and anticipated issues in an Australia/New Zealand context
- Cross-jurisdictional discussion of the collated responses on national 3D activities
- Planning for a workshop to examine current needs, requirements, constraints and modelling for a 3D cadastre.

Next steps will be towards formulation of a multi-jurisdictional business case which addresses costs/funding, benefits, hurdles, standardisation, technical solutions, implementation strategy and risks.

TIDES AND MEAN SEA LEVEL (PCTMSL)

Role:

The main role of the Permanent Committee for Tides and Mean Sea Level is to coordinate a national database of tidal records as well as develop national standards and best practice guidelines for tidal related matters. PCTSML also acts as a focal point for national inquiries relating to tides and mean sea level and identifies long-term tide and sea level management requirements for Australia and New Zealand.

Terms of Reference:

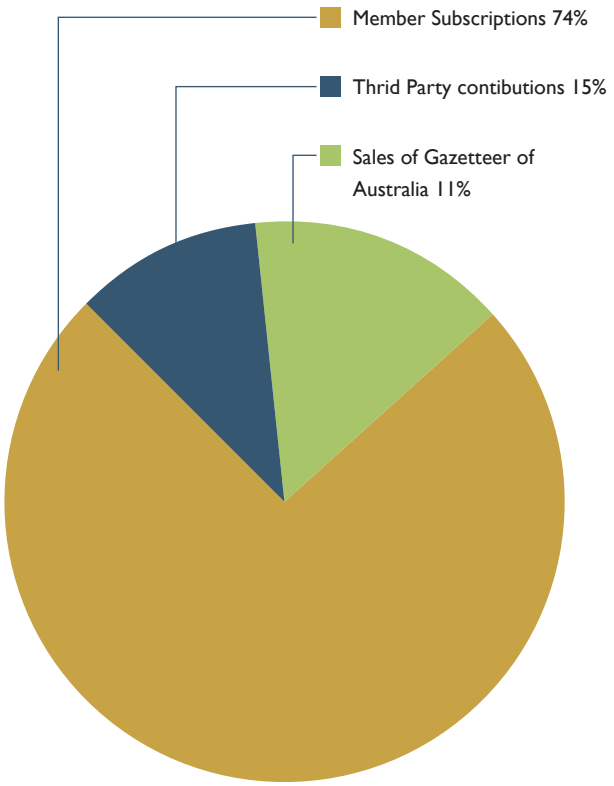
- Ensuring the adequacy of the tide gauge network for scientific, economic and public interest applications
- Development and maintenance of national standards and best practice guidelines related to the data collection, processing and distribution of tidal and mean sea level information
- Investigating the current and future clients, uses and technical developments, including investigating and making recommendations on areas where improvements are required in tide gauging in terms of emerging technologies, commercial usage and scientific research
- Development of appropriate material for the promotion of tidal and mean sea level issues within Australia and New Zealand and their areas of interest
- Represent ICSM, as appropriate, on appropriate international associations
- Cooperation with other ICSM working groups in areas of common interest eg. Sea level, cadastre, earth tides, tidal loading
- Cooperation with other appropriate groups such as the IDC on Law of the Sea
- Encouraging research into tidal observations, analysis, and mean sea level.

Achievements during 2004–2006

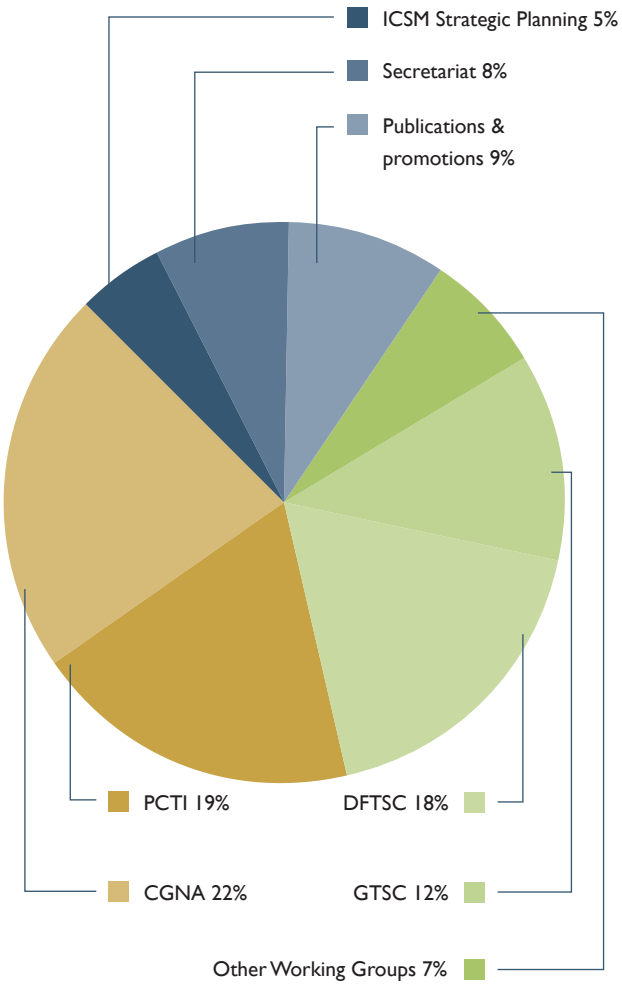
- Facilitated the second Australasian Tides Workshop (National Tidal Centre, Adelaide on 27–30 September 2005).
- Published electronically (via the ICSM web page) the Australasian Tides Manual, Special Publication No. 9 (SP-9).
- Developed an objective measure for quality assurance of metadata for exchanging tidal data.
- Prepared, in association with the AAPMA Hydrographic Surveyors Group, a report 'Accuracy of Tidal Predictions for Primary Ports' addressing the accuracy issue and the need for operational tide gauges in ports.
- Prepared an issues paper on 'Reinvigoration of the National Tide Gauge Network'.
- Updated and republished the PCTMSL Achievements Brochure appearing on the ICSM website www.icsm.gov.au/icsm/publications/pctmsl/achievements_brochure_pctmsl06.pdf .

FINANCING THE WORK

Income $200 000 (ex-GST)

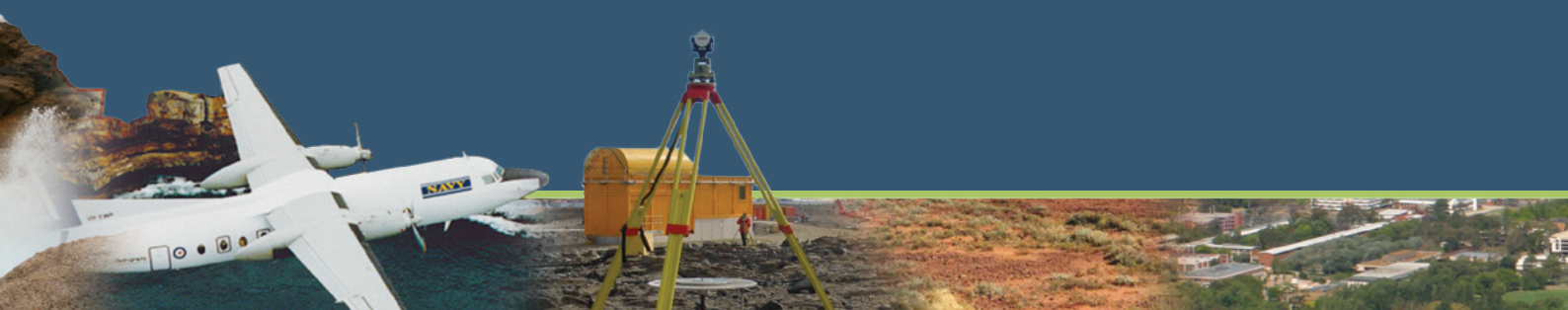


Expenditure $233 000 (ex-GST)



4 ICSM members

NEW ZEALAND	Land Information New Zealand
AUSTRALIA	
» Australian Government	Geoscience Australia
» Australian Government	Defence Imagery and Geospatial Organisation
» Australian Government	Royal Australian Navy
» Australian Capital Territory	ACT Planning & Land Authority
» New South Wales	Land & Property Information NSW
» Northern Territory	Department of Planning & Infrastructure
» Queensland	Department of Natural Resources & Mines
» South Australia	Department for Transport, Energy and Infrastructure
» Tasmania	Department of Primary Industries & Water
» Western Australia	Department of Land Information
» Victoria	Department of Sustainability & Environment



Land Information New Zealand

Land Information New Zealand (LINZ) is responsible for providing New Zealand's authoritative land and seabed information. This covers responsibility for the geodetic reference system, the cadastral survey system, topographic mapping, hydrographic charting, geographic names, the land title system, Crown property, the valuation rating system, electoral boundaries and continental shelf boundaries.

Private Box 5501 Wellington,
NEW ZEALAND
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www.linz.govt.nz

John Spittal

National Topographer/Hydrographer

Regulator of New Zealand's national topographic and hydrographic information with responsibilities for national standards and compliance with them. Other roles include the current chairmanship of the IHO South West Pacific Hydrographic Commission and membership of the e-government management committee for data interoperability (e-GIF).

He represents Land Information New Zealand at a number of international forums dealing with the standardisation of government topographic and hydrographic data. His background is in photogrammetry, international projects and land information management. Most of his career has been based in New Zealand with periods in the Netherlands, Russia and Micronesia.

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Don Grant

Surveyor-General

Don Grant holds a BSc Honours in Physics from Canterbury University, a Diploma in Surveying from Otago University and a PhD in Surveying from the University of New South Wales. He registered as a surveyor in 1979 and is a licensed cadastral surveyor.

Between 1991 and 1994, he served as Chief Geodesist for the United Nations Iraq Kuwait Boundary Demarcation Commission. Don was appointed Deputy Surveyor-General of New Zealand in 1996 and worked on the Landonline programme for automation of the survey and title systems. Since 2004, Don has been Surveyor-General. As such, he is responsible for the geodetic and cadastral survey systems, and has responsibilities for electoral boundaries and geographic names.

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Geoscience Australia

Australian Government

Geoscience Australia

Within the Commonwealth portfolio of Industry, Tourism and Resources, Geoscience Australia takes a lead role in producing national geoscientific information and knowledge. Key areas of activity include data acquisition, analysis and dissemination, research and advice associated with:

- topographic mapping and data
- pre-competitive petroleum exploration
- pre-competitive onshore mineral exploration
- coastal zone and sea-bed mapping, including Australian Marine Spatial Information System (AMSIS)
- risk analysis and modelling to support national initiatives for Disaster Mitigation Australia, counter terrorism and critical infrastructure protection
- seismic and geodetic monitoring
- Australian National Tsunami Warning System (ATWS)
- advice on carbon capture and storage to mitigate greenhouse gas emissions

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Ian O'Donnell ICSM Chairman 2004–06

Geospatial and Earth Monitoring Division
Geoscience Australia

Ian has over 35 years experience in geoscientific and topographic mapping. He possesses formal qualifications in cartography, land management, geoscience and public administration.

In 1992 he was appointed Chief Cartographer, heading up the Cartographic Services Unit in the Australian Geological Survey Organisation (AGSO). Leading up to the merger between AUSLIG and AGSO in 2001 Ian was the Director of the Information Management Branch that incorporated mapping, graphics, web development, corporate database development and administration, the Sales Centre and Library functions.

As Group Leader for National Mapping and Information (NMI) in the Geospatial and Earth Monitoring Division (GEMD) in Geoscience Australia he has been largely responsible for shaping the future direction of topographic mapping and spatial information management in the organisation.

Ian is the chair of ICSM 2004-06 and member of the Strategy and Policy Group of ANZLIC – the Spatial Information Council.

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Gary Johnston

Geospatial and Earth Monitoring Division
Geoscience Australia

Gary Johnston is the Project Leader of the National Geospatial Reference Systems project within Geoscience Australia's Geospatial and Earth Monitoring Division. Gary has a bachelors Degree in Surveying and a Masters in Information Technologies and Sciences from the University of Canberra. He became registered as a licensed surveyor in 1993 in the Northern Territory.

Gary is the chair of the ICSM Geodesy technical sub-committee, Chair of the International Earth Rotation and Reference Systems Service Working Group 2 on Site Survey and Local Ties, and a Steering committee member of the Global Geodetic Observing System.

In his current role Gary is responsible for reshaping the strategic direction of geodetic activities within GA and the associated activities within ICSM. He is also leading the Geospatial component of the AUSCOPE initiative which will significantly enhance Australia's geodetic infrastructure with the aim of refining the accuracy of Australia's coordinate reference system by an order of magnitude

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Defence Imagery and Geospatial Organisation

The Defence Imagery and Geospatial Organisation (DIGO) is the lead geospatial and imagery intelligence organisation in the Department of Defence. Its functions, as described in the Intelligence Services Act 2001, include meeting the operational, targeting, training and exercise requirements of the Australian Defence Force; supporting Australian government and State/Territory authorities in carrying out national security functions and to provide imagery and other geospatial products in support of emergency response functions.

In reaching these goals DIGO relies extensively on the services of Geoscience Australia for a combined effort in the production of geospatial products over Australia. This partnership has grown over the past years and continues to prosper with the effective use of Australian Industry.

DIGO continues to produce mapping over many training areas in Australia and its production program also includes assisting it's neighbouring SE Asian nations with their mapping programs. This currently sees DIGO mapping Vanuatu, Solomons and, in the near future, PNG. These programs provide these countries with up to date mapping coverage in both hardcopy and digital format, included with this is the delivery of systems and training to ensure each nation has the ability to continue their mapping program.

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Paul Leskovec CSM

Director Geospatial Analysis Centre

Paul started his career in 1976 where he served in the Royal Australian Survey Corps (Australian Army) until 1996. On completion of his military service in 1996, he was appointed Manager Technical Development with the Army Topographic Support Establishment in Bendigo, Victoria.

Paul managed technical development until the end of 1996 when he was appointed to Manager of Data Acquisition. In this position he managed a photogrammetric group responsible for the acquisition of source data and the exploitation of imagery for the extraction of data.

In 1997 Paul was appointed the Head of Strategic Development where he managed the installation of the new Parare mapping system into the Bendigo site. Whilst in this position he was responsible for the innovation and future system enhancements for the mapping system in Bendigo.

Late in 2000, Paul was appointed the Head of Geospatial Exploitation Group and was responsible for all geospatial data extraction. He was then appointed to Director of Operations at the Geospatial Analysis Centre of the Defence Imagery and Geospatial Organisation in 2002. In this role Paul was responsible for all mapping production at the Geospatial Analysis Centre.

Paul is currently the Director of the Geospatial Analysis Centre.

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Royal Australian Navy

Australian Hydrographic Office

Australia has ratified the United Nations Convention on Safety of Life at Sea (SOLAS) under which it is obliged to survey and chart its Exclusive Economic Zone (EEZ) waters to enable safe navigation of all vessels in Australia's charting area. By Cabinet Decision in 1946 and since reaffirmed, Navy is the Department responsible for this activity. The National obligations are contained in the *Navigation Act 1912* (as amended). The Australian Hydrographic Service (AHS) is a component of the Royal Australian navy Hydrographic Meteorological and Oceanographic Force Element Group, and is charged with these responsibilities. This role requires the coordination and determination of policy and standards which covers both hydrographic surveying and charting, as well as contributing to the coordination, exchange and standards related to geospatial data in general.

The AHS is also responsible for providing direct support to the Australian Defence Force for the provision of hydrographic, charting, oceanographic and meteorology services.

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Rod Nairn

Hydrographer of Australia

B.Surv(Hons), Grad Cert Mgmt, MA (Strategic Studies), Cert. Prof. Hydrographic Surveyor Level 1, SSI

Captain Nairn joined the Royal Australian Navy in 1975 and after initial training he specialised in hydrography.

His seagoing experience spans 25 years and encompasses hydrographic surveying around Australia, New Zealand, the South West Pacific, the English Channel and the Norwegian Sea. Highlights of his career include four sea Commands, the operational introduction of the worlds first Laser Airborne depth sounder, commissioning of HMA Ships Melville and Leeuwin and the successful introduction of multi-crewing to the Royal Australian Navy. He first served ashore as quality control officer at the Australian Hydrographic Office in 1984, later returning for terms as Manager, Hydrographic Development, Head of Survey Operations, and Director of Hydrographic Operations and Charting.

Captain Nairn was appointed as Hydrographer of Australia and Commander Hydrographic Meteorological and Oceanographic Force Element Group in December 2004. He is currently Chairman of the Australasian Hydrographic Surveyors Certification Panel, the Permanent Committee on Tides and Mean Sea Level, the Association of Australian Ports and Marine Authorities Port Surveyors Working Group and Vice Chair of the International Hydrographic Organization Hydrographic Committee on Antarctica.

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ACT Planning & Land Authority

The Commissioner for Surveys for the ACT is a statutory appointment under the Surveyors Act (2001) and reports directly to the Minister for Planning. The Commissioner maintains the ACT's secure system of land ownership and tenure by ensuring that land boundaries are unambiguously defined and accurately recorded. The Commissioner's responsibilities include standards for surveying and the regulation and licensing of surveyors in the Territory.

The office of the Commissioner is located within the ACT Planning and Land Authority. The Authority is responsible for Territory planning, management of development activity, land information and regulation and licensing of the building industry. The Authority produces, updates and maintains a range of land information including a most comprehensive and accurate cadastral database. It also provides statutory, professional and technical support to the Commissioner for Surveys.

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www.actpla.act.gov.au/actlic/surveying/index.htm

Frank Blanchfield

Commissioner for Surveys

Frank graduated in surveying form the Royal Melbourne Institute of Technology in 1971 and started work with the Department of the Interior in Canberra in 1972. He qualified as a Registered Surveyor in 1974 and worked as a surveyor with various Commonwealth government surveying and mapping agencies until 1994.

He then transferred to the Australian Bureau of Statistics and in 1997 became its Director of Geography. As Director of Geography he managed several innovative applications of spatial technology including the production of census collector maps for the 2001 and 2006 Census, the development of Mesh Blocks and the construction of the ABS geographical coding web service.

In July 2005 Frank retired from Commonwealth service and was appointed ACT Commissioner for Surveys, a statutory position which is responsible for surveying practice in the Territory.

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Department of Lands

Department of Lands
Land Administration & Management
Property & Spatial Information

The Department of Lands (Lands) provides a variety of land administration and land management products and services. These include land ownership information, surveying and mapping, land valuation services, stewardship and development of Crown lands and soil, water and environment conservation works and consultancy services.

Our products and services underpin the economic well being of the State of New South Wales by providing sound, accurate land information, which assists in generating economic growth and investment in New South Wales, and in informing planning, policy development and decision making across the public sector.

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Paul Harcombe

Chief Surveyor of NSW

Paul Harcombe is the Chief Surveyor, Land and Property Information NSW (LPINSW) within the Department of Lands. His primary responsibilities include management of the State Survey System, and related statutory functions. He holds a Bachelor in Surveying from the University of New South Wales and also a Master of Geomatics from the University of Melbourne. He has a broad background in surveying and land information.

Paul is a member of the NSW Board of Surveying and Spatial Information and is Deputy Chair of the Geographical Names Board of NSW.

Other positions held include membership of the University of NSW Dean of Engineering Advisory Committee, several Survey industry committees, as well as being on academic advisory boards for surveying and spatial information schools at Melbourne and New South Wales Universities.

Paul is an inaugural Director of auCD – a not for profit company established to manage the allocation of geographical names for use by Australian communities as Second level Internet Domain Names—a World first initiative for Australia.

Most recently Paul was appointed by the Institution of Surveyors, Australia as the Congress Director for the FIG XXIV World Congress which will be held in Sydney, Australia in 2010.

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Department of Natural Resources and Water *(formerly Department of Natural Resourses, Mines and Water)*

Queensland Government
Natural Resources and Water

The Department of Natural Resources and Water (NRW) leads Queensland in the effective and responsible management of the state's land, water and vegetation resources.

How Queensland's natural resources are managed today will directly affect the livability and future prosperity of the state.

NRW handles some of the most complex issues confronting the state including water, salinity, vegetation management, native title, resource security and sustainable development.

Its staff has a wealth of expertise and a commitment to working with the community, landholders, industry and government to balance the needs of today with the needs of tomorrow.

The department's responsibilities include implementing water security, planning and reform; delivering on the historic Blueprint for the Bush strategy; using cutting-edge technology to better deliver land information; and working with landholders to preserve and enhance our landscapes.

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Russell Priebbenow

Director, Land Policy
Land Management and Use

Russell is Director, Land Information Policy with the Queensland Department of Natural Resources and Water. In this position he is responsible for the legislative and policy framework for surveying and mapping, and for the provision of strategic policy advice to surveying and mapping business functions.

Russell is a registered cadastral surveyor. He has been involved with surveying and mapping policy and business direction in the Queensland government for 15 years. Prior to this, he carried out research into the mapping applications of imagery from the SPOT satellite, and attained a PhD from the University of Queensland for this research. Russell also holds a Bachelor of Surveying with honours from the University of Queensland.

Russell is a member of the Surveyors Board of Queensland. He is also a member of the Faculty Advisory Committee for the Faculty of Engineering and Surveying at the University of Southern Queensland.

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Department for Transport, Energy and Infrastructure *(formerly Department for Administrative and Information Services)*

Government of South Australia

Land Services Group is a business unit within the Department for Transport, Energy and Infrastructure and has a lead role for land administration within South Australia through the provision of:

- a survey infrastructure
- a guaranteed system of land titling
- an impartial property valuation service
- land and property information

The Group includes the statutory offices of the Registrar-General, Surveyor-General, and Valuer-General and provides a range of land administration products and services to government and the community.

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www.ipe.nt.gov.au/howdoi/index.html

Peter Kentish

Surveyor-General, Manager Land Boundaries Branch

BTech (Survey), Grad Dip Project Management, FIS, FSSI, LS

Peter graduated from the South Australian Institute of Technology in 1972 and commenced his professional career in the private sector in South Australia. He was licensed as a surveyor in 1978 and joined the South Australian Department of Lands in 1983.

Here he moved from field surveying to policy development and in the mid 1980's oversaw the development of the Survey Act 1992 which resulted in the transfer of the responsibility for licensing and registering surveyors from the Government to the profession.

Peter was appointed Surveyor-General of South Australia in 1994. In this role he has statutory and operational responsibility for the State's cadastral and geodetic survey systems and South Australia's nomenclature. He is also a member of State Electoral Districts Boundaries Commission and Federal Redistribution Committee for South Australia.

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Department of Planning & Infrastructure

Northern Territory Government
Department of Planning and Infrastructure

The Department of Planning and Infrastructure is the lead agency for land administration and spatial information in the Northern Territory Government. Spatial information is largely delivered through the business units of the Land Information Division as follows:

Survey – provides the statutory functions of the Surveyor-General, geodetic and cadastral (or land boundaries) infrastructure and supports the Place Names Committee and Surveyors Board for the Northern Territory

Land Information—provides whole of government aerial photography, satellite imagery and topographic information programs, generates products and services from integrating spatial data and delivers services through Land Information Centres

Valuation – provides the statutory functions of the Valuer – General for both commercial land and property valuations for the Northern Territory and local governments

NT Land Information Systems – provides integrated spatial information systems and services to the Department and other government agencies and coordinates land information initiatives across Northern Territory, local and Australian governments.

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Garry West

Surveyor-General, Land Information, Department of Planning and Infrastructure, Northern Territory.

Sydney Technical College, Surveying Certificate (Hons)
University New South Wales, Batchelor of Surveying (Hons 1)
Northern Territory University, Graduate Diploma Administration
Flinders University, Graduate Certificate Public Sector Management

Current Positions: Surveyor-General for the Northern Territory; Chairman Council of Reciprocating Surveyors Boards for Australia and New Zealand

Associations: President NT Division Institution of Surveyors Australia; Treasurer NT Regional Committee Spatial Sciences Institute Australia; Fellow of the Spatial Sciences Institute Australia

History: Garry spent the formative years of his surveying career on the Central Coast of New South Wales involved in engineering, cadastral surveying and land development projects whilst attending Sydney Technical College and then later the University of NSW becoming a licensed surveyor in NSW in 1980. After moving to the Northern Territory in 1986 Garry was involved in a broad range of government survey projects from major urban developments and extended remote area surveys to management of the NT geodetic network using what was then the leading edge satellite survey technology (GPS). Garry was appointed as Surveyor-General in 2000 being responsible for the statutory functions and delivery of surveying services that support land administration and land development in the Northern Territory.

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Department of Primary Industries & Water *(formerly Department of Primary Industries, Water and Energy)*

The Department of Primary Industries and Water (DPIW) drives sustainable development of Tasmania's natural resources by playing a central role in industry development, natural resource management, land information services and the conservation of our natural environment.

Our broad range of services include: agriculture; fisheries and aquaculture; land and water resource management; nature conservation; Crown land management; quarantine; Service Tasmania shop management; and land title, valuation and mapping services.

The Information and Land Services Division provides services that maintain the security of land tenure, including the collection and maintenance of core land datasets and the State's cadastral mapping system. The Division also provides access to land-related information through the Land Information System Tasmania (LIST) web interface.

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Peter Murphy

Director Geospatial Information, Surveyor General Information & Land Services Division

B.Ap.Sci (Surv), Grad. Dip. Computing, Cert. Prof. SSI

Peter Murphy has had wide-ranging survey experience and extensive involvement in public sector management. His interest in surveying began during National Service training in 1971-1972 and grew through work with a private surveying practice. He obtained his degree in 1977.

After four years in private practice, Peter worked as a mining surveyor for a further four years. He was subsequently appointed to various positions within the Tasmanian Government and developed systems and practices for digital data collection and 3D terrain modelling, as well as implementing innovative survey methods for major road works.

Peter was responsible for implementing quality systems in the former Department of Transport and Works and was a member of the executive management team for developing and implementing the State roads program. He later worked in asset management until he was asked to create an information service for Tasmania's infrastructure and resources (IRIS Tasmania) in 2000.

Peter was appointed Surveyor General in 2003 and has since implemented the Surveyors Act 2002 and associated Survey Directions. He is Chairman of the Nomenclature Board of Tasmania. As Director Geospatial Information he is also responsible for policies associated with the Land Information System Tasmania (LIST).

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Department of Sustainability & Environment

State Government Victoria
Department of Sustainability and Environment

The Department of Sustainability and Environment is Victoria's lead government agency responsible for promoting and managing the sustainability of the natural and built environment.

The department seeks to provide leadership in conservation, water management, state wide planning, urban development and public land management including forests, coasts, alpine resorts, Crown land reserves and parks.

The department employs approximately 2,700 staff, working in and around 90 different cities and towns across Victoria.

Included in the Department's broad range of outcomes are:

- Confidence in the integrity of the property system underpins the Victorian economy and is fundamental to our prosperity.
- Comprehensive and accessible spatial information that supports the effective operation of a number of public and private sector institutions.

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Peter Ramm

Manager VicMap
Spatial Information Infrastructure

Peter is Manager Vicmap and is responsible for Victoria's 8 framework data sets. Vicmap includes both digital data and positioning services.

His major interests include satellite positioning technology, expanding the use of spatial data, the next generation of spatial data and digital maps and research activities such as those of the CRC-SI and ARC.

Peter has an extensive background in geodesy, mapping and surveying in Australia and overseas in government and utility sectors.

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John E. Tulloch

Surveyor-General

John Tulloch is the Surveyor-General of Victoria, located in the Land Victoria division of the Department of Sustainability and Environment, and is the primary government authority on surveying and cadastral boundaries.

His major responsibilities involve regulation of cadastral surveying practices and monitoring compliance with relevant legislation and practice directives.

As Chair of the Surveyors Registration Board of Victoria, John oversees the regulation of the surveying profession covering training, licensing and disciplinary matters, and the provision of high level advice to the Minister.

John is also Registrar of Geographic Names with responsibility for administering place names legislation. Other positions include membership of the Electoral Boundaries Commission, University of Melbourne Faculty of Engineering and the Geomatics Course Advisory Committee.

John was appointed Surveyor-General in 2003 after accumulating 30 years experience in a variety of surveying roles in both the government and private sectors.

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Department of Land Information

Department of Land Information
Government of Western Australia

The Department of Land Information (DLI) provides:

- land and property information
- a secure land titles system and
- land valuation services

Our core business is land and property information. Geospatial data is gathered from ground surveys, aerial photographs and satellite imagery. This information is used to produce a wide range of digital and hard copy products and services.
DLI is in the process of developing a common platform to provide increased access to government land and property information and is investigating ways to partner with sections of industry and government to provide better quality and more accessible land and property information.

DLI is moving towards becoming a statutory authority with commercial powers.

This is expected to occur on January 1 2007 and that the new agency will be called LANDGATE.

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Gary Fenner

Executive Director Information Services and Valuer General

B Bus (Val), Dip Agric., Certified Practising Valuer

Gary is currently the Executive Director of Information Services and the Valuer General at the Department of Land Information. He has previously held both the Chief Valuer, Metropolitan and Chief Valuer, Country positions.

Gary has a Bachelor of Business from WAIT (now Curtin University), Diploma in Agriculture and he is also a Licensed Valuer. He is a Board member for the Australian Property Institute; member of the Curtin Education Committee Commerce (Property) Course Review sub-committee; member of the Property Education Foundation and Chairman of the Legislative Review Committee (API).

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Susie Salisbury

ICSM Executive Officer
Geoscience Australia

A geographer by training and a love of mapping, Susie has worked as a cartographer for 25 years. She joined National Mapping in 1980 and for a significant part of that time she has been the Chief Geographer. In recent years she was in charge of a team of geographic researchers, tasked with gathering the revision information for Geoscience Australia's 100K and 250K topographic mapping and data products.

In 2004 she joined ICSM as its ICSM Executive Officer.

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