ICSM
ANZLIC COMMITTEE ON SURVEYING & MAPPING

SILVER JUBILEE 25 1988–2012

Celebrating our Silver Jubilee

ICSM ACHIEVEMENTS 1998–2012


2010–
2012

- A five year Geodetic Strategic Plan to move Australia to a fully dynamic datum by 2020 was adopted.
- Completion of the AuScope project providing a national network of Continuously Operating Reference Stations (CORS).
- The revision of the Standards and Practices for Control Surveys (SP1) was ready to go out for industry feedback.
- Fundamentals of Land Boundaries, a document clarifying the cadastre for the general public and school students, was completed.
- ICSM engaged with NBN Co to ensure that they understand the importance of the survey system and will ensure that construction work for the broadband network will not imperil geodetic and cadastral control marks.
- ICSM was a supporting participant for a research project at Melbourne University on 3D cadastres.
- The ePlan protocol for the electronic transfer of survey plan information was implemented in three jurisdictions.
- The National Elevation Data Framework was supported with imagery acquisition standards, to aid the development of national strategies to address climate change and water security.
- Work to establish the relationship between tidal levels and the ellipsoid at 128 major ports.
- The completion of revision of the Australian Tides Manual (SP9).
- Released the national gazetteer of place names (and other ICSM documents) under a Creative Commons License—CC BY.
- ICSM provided the lead for a Standards Australia review of the Australian and New Zealand street addressing standard. This standard also facilitates National Address Management Framework (NAMF) compliance.
- Established standards for a nationally consistent roads data set, to support national modelling and analysis of road networks.
- National Topographic Information Coordination Initiative (NTICI) reviewed and enhanced to enable agencies to collaborate to capture information once for multiple uses.


2008–
2010

- Improved delivery of the national geodetic datum, provided through an improved height model for the terrestrial height datum, strategies for refinement of the horizontal datum, and support for the AuScope network of Continuously Operating Receiving Stations (CORS).
- Improved delivery of the marine height datum, and improved modelling of the relationship between this and the terrestrial height datum.
- Support for the National Elevation Data Framework which will aid the development of national strategies to address climate change and water security.
- Leading a review to simplify and improve the relevance of the Australian and New Zealand street addressing standard.
- Establishing standards for a nationally consistent roads data set, to support national modelling and analysis of road networks.
- Strong participation in the XXIV FIG Congress in Sydney in April 2010, promoting the work of ICSM to the national and international surveying community.
- Development of educational material to improve the understanding of spatial information in the community, including a teaching package on place naming and a web package on the fundamental concepts of mapping; and establishing a governance framework for ICSM standards and specifications, to ensure that they remain relevant to all those who are using them.
- Implementation of the National Topographic Information Coordination Initiative (NTICI) under which agencies collaborate to capture information once for multiple uses.
- Development of specifications for acquisition and archiving of aerial imagery.
- Implementation of the ePlan protocol for the electronic transfer of survey plan information.
- Documenting the cadastral systems in Australia and New Zealand, to assist each jurisdiction in making decisions about improvements to their system, including in the 3-D representation of the cadastre.

2006–2008

- Reinvigoration of the vision for the Australian Spatial Data Infrastructure on behalf of ANZLIC—the Spatial Information Council, confirming support for spatially enabling Australia and leading to ANZLIC developing a more dynamic and evolving framework for spatial information and service provision for the future.
- The publishing of the internationally compliant next-generation version of the harmonized data model, a collaboration of the Data Framework Technical Sub Committee and CSIRO.
- Completion of the native title national data model, dictionary and associated guidelines designed to contribute 'certainty' to the identification and exchange of information on native title rights and interests.
- Development of ePlan, a national cadastral data transfer standard for electronic lodgement of digital cadastral data, from data model to practical implementation.
- National and international involvement and recognition through the ongoing work of the Permanent Committee on Geographic Names of Australia, Permanent Committee on Tides and Mean Sea level and support for the 2010 FIG Sydney Conference.
- Significant involvement in improving national geodetic infrastructure through ICSM and jurisdictional support of the AuScope initiative.
- Formation of the Elevation Special Interest Group to provide technical support for the National Elevation Data Framework and publishing the ICSM Guidelines for Digital Elevation Data for elevation data capture and processing.
- Creation of the popular Fundamentals of Mapping web package.


2004–
2006

- 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.
- The National Topographic Information Coordination Initiative has completed or commenced a total of 2640000 sq kilometres of map revision across the country.
- The establishment of a Roads Working Group to coordinate the capture, management and portability of road information in the Australasian region.
- The development of an Australasian all-hazards symbology set for broad-based mapping applications by the emergency management and counter-terrorism communities.
- Publication of the 2005 version of the ‘Australian Tides Manual’ and ‘Tidal Interface Compendium of Terms’.

2002–2004

- Wrap up of the Geocentric Datum of Australia implementation project.
- Launch of the Australian and New Zealand Rural and Urban Addressing Standard. A promotional campaign to build awareness, commitment and compliance with the new standard was rolled out in early 2003.
- The establishment of a new Permanent Committee for Topographic Information.
- Engaging a wide range of stakeholders in the development of a new vision for the cadastre supporting land administration.
- Building a new, stronger relationship with ANZLIC—the Spatial Information Council. ICSM is now a Standing Committee of ANZLIC ensuring integrated policy and standards outcomes.

2000–2002

- Published a report, The Australasian Geodetic Infrastructure, which is a 10-year vision for Geodesy.
- Participation in the protection of geographic place names used as domain names by ensuring a fair and equitable Geographic Domain Name allocation system is put in place.
- Continued to promote and provide support in the implementation of the Geocentric Datum of Australia (GDA 94) in Australia and New Zealand.
- Reviewed and confirmed that the existing Tidal Datum Epoch (1991–2010) will continue to be used for Tide Predictions in Australia.
- Progressed the draft Standard for Property Street Addressing (DR01221). Finalisation is expected in December 2002.
- Produced and expanded the National Cadastral Data Model to include survey data, as well as finalised the National Topographic Data Model and associated data dictionary. Aspects of both these models have been integrated into the Harmonised Data Framework (HDF).
- Established the HDF. The HDF is a conceptual data model that integrated and harmonised the elements common to the four models ICSM produced, comprising the cadastral, topographic, street addressing and place name models. A feature catalogue that fully documents the conceptual data model can be downloaded as a Microsoft Access database.
- Commenced the development of an Australian Tidal Data Exchange Format to facilitate exchange of tidal data between organisations.
- Developed Positional and Local Uncertainty as an easily understood method of describing the accuracy of a position.
- Produced and published National AGD66-GDA94 and AGD84-GDA94 Transformation Grids and associated interpolation software.
- Published a web-based Harmonised Data Manual that incorporates the conceptual HDM, feature catalogue and incremental update guidelines as well as links to the ANZLIC metadata guidelines.
- Designed and produced through external contracts a video called What's in a Name to promote and publicise Australian geographical place names. The video outlines how geographic place names are given, their history, heritage, character and how they shape Australian culture.

1998–2000

- Development of national, State and Territory transformation parameters to the Geocentric Datum of Australia (GDA) from the Australian Geodetic Datum (AGD).
- Development of grid transformations for Tasmania, Western Australia, Victoria, Queensland, NSW/ACT and Northern Territory.
- Development of GDA implementation strategies for the Commonwealth and all States and Territories within Australia.
- Implementation of the Geodetic Datum of New Zealand (GDNZ2000) in New Zealand.
- Development of the ICSM GDA Technical Manual.
- Accurate GPS survey of original Australia Height Datum (AHD) tide gauge bench marks, as part of the evaluation of the AHD and to link the AHD to a global vertical datum.
- Brochures: Know Where You Stand With GDA and Get In Step With The Geocentric Datum: Discussing the Business Issues (which was also badged for use in New Zealand.
- CD-ROM: containing factsheets, brochures, video, technical manual and other support material, software and transformation files for both New Zealand and Australia.
- Video: Going Geocentric (also badged for New Zealand use).
- Three information sheets to support special interest topics, Maps and the GDA, Transformation Options and GDA Grid Transformation Using Distortion Modelling.
- Revision of the Toponymic Guidelines for Australia originally published in 1995.
- Revision of the Gazetteer of Australian Geographical Place Names.
- Production of Guidelines for the Recording and Use of Aboriginal and Torres Strait Islander Place Names.
- Development of a place names data model consistent with the aims of the ASDI initiatives.
- Coordinate a national database of tidal records.
- Develop national standards and best practice guidelines for tidal related matters.

1994–1998

- Supporting ANZLIC in the development and implementation of a fully integrated National Spatial Data Infrastructure (NSDI).
- Geocentric Datum of Australia (GDA94) published which comprised the creation of the Australian Fiducial Network (AFN).
- Provision of geodetic survey support to the National Tidal Facility for the 16 tide gauges of the Australian Baseline Sea Level Monitoring Array.
- Established a basis for confirming legal traceability of GPS measurements.
- Preparation of National Topographic Database (NTDB) manual to define technical and administrative standards for national topographic data.
- Development of a National Cadastral Data Model.
- Publication of National Gazetteer of place names.

1991–1994

- Development of a Geocentric Datum for Australia to replace the 1966 version.
- Monitoring the Australian Height Datum (AHD). ICSM funded AHD research project in 1993 by the University of NSW to assess the accuracy and suitability of the AHD.
- Provision of geodetic survey support to the National Tidal Facility.
- Establishing a basis for confirming legal traceability of GPS measurements.
- Coordinated use of Global Reference and Positioning Systems.
- Developing National Topographic Data Base (NTDB).
- Developing Index of Topographic Information.
- Developing National Cadastral Data Base.
- Publication of Toponymic Guidelines for Australia—a national standard on names, designators and policies for non-English names.
- Development of a National Gazetteer of Geographical Place Names.
- Development of guidelines for the recording and use of Aboriginal and Torres Strait Islander place names.

1989–1991

- Publication of SP1, Standards and Specifications of Control Surveys.
- Invitation to Surveyor-General of New Zealand to join the Committee.
- Report recommending the introduction of a national GPS network.
- US National Ocean Service (NOS) provided two Next Generation Water Level Measurement System (NGWLMS) for deployment in Darwin, NT and Spring Bay, Tas for sea level monitoring, in addition to eight other sensors.
- WGS84 to be implemented by 1 January 2000.
- Commenced work on adopting of Geocentric Datum for Australia.
- Commenced work on the Australian-isation of the 439 definitions contained in US Spatial Data Transfer Standard as part of the new Australian Standard for Digital Topographic Data Transfer.

1988–1989

- The Committee was formed and tasked to create several working parties to examine co-ordination, liaison and development of technical standards within their field of expertise:
  - The Australian Height Datum Evaluation Project Management Team
  - Working Party on Mapping Specifications
  - Working Party on Digital Exchange Format for Map and Compilation Data
  - Working Party on Map Accuracy and Contents;
  - Working Party on Geocentric Datum
  - Working Party on Standards and Specifications for Control Surveys
  - Working Party on Remote Sensing
  - Permanent Committee on Tides and Mean Sea Level.

ICSM is committed to providing accessible content wherever possible. If you are having difficulties accessing this document please contact icsm@ga.gov.au

GA 14-8175