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ICSM Committees – Operational

CGNA	Permanent Committee on Geographical Names in Australasia
DCDB	Digital Cadastral Database Special Interest Group
ePLAN	Electronic Lodgement and Transfer of Survey Information Working Group
PCA	Permanent Committee on Addressing
PCC	Permanent Committee on Cadastre
PCG	Permanent Committee on Geodesy
РСТІ	Permanent Committee on Topographic Information
PCTMSL	Permanent Committee on Tides and Mean Sea Level
SIDA	Spatial Information Delivery and Access Working Group

ICSM Committees – Disbanded

AHS WG	All-Hazards Symbology Special Interest Group
ASDI WG	Australian Spatial Data Infrastructure Working Group
DFTSC	Data Framework Technical Sub Committee
NTWG	Native Title Working Group
SAWG	Street Addressing Working Group
TIWG	Tidal Interface Working Group

ICSM Publications

SP1	Special Publication 1 – Standards & Practices for Control Surveys
SP9	Special Publication 9 – Australian Tides Manual



International Organisations / Associations

AFAC	Australasian Fire and Emergency Service Authorities Council
	The peak body for public sector fire, land management and emergency service organisations in Australia and New Zealand
	Role: to fosters and promotes an integrated approach to emergency service
	operations and business management by identifying opportunities to share
	knowledge, collaborate and optimise the use of resources
ANZLIC	The Spatial Information Council [of Australia and New Zealand] (full name is no longer used)
	Role: A peak council on developing nationally-agreed policies, standards and
	guidelines aimed at achieving 'best practice' in spatial data management
	Membership: Heads of mapping and surveying agencies
	http://www.anzlic.gov.au/
GITA	Geospatial Information and Technology Association
	GITA is a worldwide not-for-profit organisation that provides education and
	information exchange on the use and benefits of geospatial information and location-aware technologies
	Membership includes institutions and individuals
	Internibership includes institutions and individuals
ESDIN	The European Spatial Data Infrastructure Network
	is a collaboration between mapping and cadastral agencies, academic institutions and
	technology providers to help prepare data for the Infrastructure for Spatial Information in the European Community (INSPIRE) Directive.
	mornation in the European Community (morning) breather
EuroGeographics	EuroGeographics
	is a not-for-profit organisation formed in 2001 as the membership association and
	representative body of the European national mapping, land registry and cadastral agencies bringing together 55 members from 44 countries across Europe.
EuroRoadS	EuroRoadS Forum
	Supports the implementation and exploitation of results from the EuroRoadS Training which aimed to establish a Furgorous wide public road data infrastructure.
	project which aimed to establish a European-wide public road data infrastructure delivering access, through a single portal, to harmonised and quality assured road
	information for multipurpose use
FIG	International Federation of Surveyors
	(Federation Internationale des Geometres)
	Membership includes organisations and individuals.
	Over 110 countries are represented on FIG
	FIGs technical work is led by 10 Commissions (Working Groups)
	in April 2010, FIG held its XXIV international Congress in Sydney
	in May 2016 FIG will be holding its Working Week in Christchurch, NZ



IAG	International Association of Geodesy
ICA	International Cartographic Association
IHO	International Hydrographic Organization
INSPIRE	Infrastructure for Spatial Information in the Europe INSPIRE is an initiative intends to trigger the creation of a European spatial information infrastructure that delivers to the users integrated harmonised spatial information
ISO AS/NZS or AS/NZ ISO	The International Organisation for Standards for Australia and New Zealand (Standards Australia and Standards New Zealand)
ISO	 International Organization for Standardization ISO comprises representative from 161 countries individual standards organisations, one representative per country, and a Secretariat which is based in Geneva, Switzerland.
ISO/TC211	ISO Technical Committee for Geographic Information/Geomatics Responsible for the ISO Geographic Information series of standards – known as the 19100 series
OGC	 Open Geospatial Consortium OGC is an international industry consortium of companies, government agencies and universities participating in a consensus process to develop publicly available interface/harmonised specifications OGC developed the Web Feature Service (WFS)
PCGIAP	 [United Nations] Permanent Committee for GIS Infrastructure for Asia and the Pacific PCGIAP aims to maximize the economic, social and environmental benefits of geographic information by providing a forum for nations from Asia and the Pacific It maintains a number of working groups, including Working Group Working Group 3 – Spatially Enabled Government (WG3)



UN	United Nations The UN is an international organisation which: maintaining international peace and security developing friendly relations among nations promoting a safer world for this and future generations — including
	developing:
UNGEGN	United Nations Group of Experts on Geographical Names A Working Group of the UN established to consider the technical problems of domestic standardisation of geographical names.

National Government Departments & Agencies

(See Appendix A for a brief explanation of the structure/relationships of Australian Government organisations)

• indicates a Jurisdiction with representation on ICSM

ABSDO	[Australian] Accreditation Board for Standards Development Organisations • Established in 2007 to accredit organisations which to develop Standards
AAD	Australian Antarctic Division Department of the Environment, Heritage, Water and the Arts Role: to lead Australia's Antarctic programmes and advancing Australia's Antarctic interests – including taking an active role in the Antarctic Treaty System, and undertaking and supporting Antarctic research of national and international significance
ABS	Australian Bureau of Statistics The central statistical authority for the Australian Government
AG or AGs	Attorney-General's Department Role: To provides support to the Australian Government in the maintenance and improvement of Australia's system of law and justice, national security, and emergency management
AGIMO	Australian Government Information Management Office Department of Finance and Deregulation Role: To actively promotes e-Government by the application of Information and Communication Technologies (ICT) to government administration information and services



AGO *	Australian Geospatial Intelligence Organisation Department of Defence • Role: To provide geospatial information (including maps and chart) in support of Australia's defence and national interests http://www.defence.gov.au/AGO/
АНО	Australian Hydrographic Office Royal Australian Navy, Department of Defence • the facility operated by the Australian Hydrographic Service (AHS)
	the racinty operated by the Australian Hydrographic Service (Aris)
AHS*	Australian Hydrographic Service Royal Australian Navy, Department of Defence (formerly referred to as the Australian Hydrographic Office – AHO) • Role: To produce and distribute nautical charts and other information required for the safety of ship navigating in Australian waters
ARC	Australian Research Council A statutory authority within the Australian Government's Innovation, Industry, Science and Research portfolio. Role: to deliver policy and programs that advance Australian research and innovation globally and benefit the community
ВоМ	 Bureau of Meteorology Provides national strategic planning, management and coordination of the Bureau's integrated observations, plus weather, climate and hydrological services It includes the National Climate Centre, National Tidal Centre (NTC) and hazard warning centres (flood, storm, tsunami, ash etc)
BRS	Bureau of Rural Sciences Department of Agriculture, Fisheries and Forestry BRS provides scientific advice to government in support of more profitable, competitive and sustainable Australian agricultural, food, fisheries and forestry industries and enhancing the natural resource base to achieve greater national wealth and stronger rural and regional communities.



CSIRO	Commonwealth Scientific and Industrial Research Organisation
	CSIRO has six strategic goals:
	 focus on scientific investment
	 delivering world-class science
	 partnering for community impact
	 serving as a catalyst for industry innovation
	 building one-CSIRO capabilities and commitments
	 securing a financial foundation for growth
Comms	Department of Communications
	The Department of Communications is the pre-eminent advisor on communications. We develop policy, advice and initiatives that help all Australians realise the full potential of digital technologies and communication services
	https://www.communications.gov.au/
DET	Department of Education and Training The Department is responsible for national policies and programmes that help Australians access quality early childhood education, school education, higher education, vocational education and training, international education and research. http://www.education.gov.au
DIS	Department of Industry and Science
	The Department's vision is to enable growth and productivity for globally competitive industries.
	http://www.industry.gov.au/Pages/default.aspx
DIRE	Department of Infrastructure and Regional Development
	The Department of Infrastructure and Regional Development is responsible for the design and implementation of the Australian Government's infrastructure and regional development policies and programmes. We work to:promote, evaluate, plan and invest in infrastructure and regional development;
	 foster an efficient, sustainable, competitive, safe and secure transport system; facilitate local partnerships between all levels of government and local
	communities; and
	provide good governance in the Australian territories.
	https://infrastructure.gov.au/department/about/index.aspx



DPB	 Data Policy Branch – Department of Communications (formerly Office of Spatial Policy OSP and Office of Spatial Data Management OSDM) The Data Policy Branch exists within the Department Communications. It is a central policy unit, responsible for facilitating and coordinating spatial data management across Australian Government agencies. The Branch is responsible for the ANZLIC Secretariat and for delivery of the Foundation Spatial Data Framework (FSDF) http://www.anzlic.gov.au/
ЕМА	Emergency Management Australia Attorney General's Department • Role: A senior agency responsible for providing policy advice and overseeing arrangements for providing recovery assistance to the States/Territories
Environment	Department of the Environment The Department of the Environment designs and implements the Australian Government's policies and programmes to protect and conserve the environment, water and heritage and promote climate action. The environmental framework is being delivered under four pillars: Clean water National heritage Clean air Clean land http://www.environment.gov.au/
Finance	Department of Finance The Department of Finance (Finance) plays an important role in assisting government across a wide range of policy areas to ensure its outcomes are met, particularly with regard to expenditure, financial management, and the operations of government. http://www.finance.gov.au/
GA*	Geoscience Australia, Department of Industry and Science • Role: To produce national geoscientific information (including topographic mapping and geodetic control) which enable the government and the community to make informed decisions about: • exploration of resources • management of the environment • safety of critical infrastructure http://www.ga.gov.au



MDBC or MDBA NMI NTC	Great Barrier Reef Marine Park Authority The principal adviser to the Commonwealth Government on the care and development of the Great Barrier Reef Marine Park. The goal of the Authority is to provide for the long-term protection, ecologically sustainable use, understanding and enjoyment of the Great Barrier Reef. http://www.gbrmpa.gov.au/ Land Information New Zealand holds authoritative information about 1) land surveys and ownership and 2) topographic maps and nautical charts ensures that the rating valuation system is fair and consistent oversees the buying and disposal of Crown land
MDBC or MDBA	development of the Great Barrier Reef Marine Park. The goal of the Authority is to provide for the long-term protection, ecologically sustainable use, understanding and enjoyment of the Great Barrier Reef. http://www.gbrmpa.gov.au/ Land Information New Zealand • holds authoritative information about 1) land surveys and ownership and 2) topographic maps and nautical charts • ensures that the rating valuation system is fair and consistent • oversees the buying and disposal of Crown land
MDBC or MDBA	 Land Information New Zealand holds authoritative information about 1) land surveys and ownership and 2) topographic maps and nautical charts ensures that the rating valuation system is fair and consistent oversees the buying and disposal of Crown land
MDBC or MDBA	 holds authoritative information about 1) land surveys and ownership and 2) topographic maps and nautical charts ensures that the rating valuation system is fair and consistent oversees the buying and disposal of Crown land
or MDBA NMI	http://www.linz.govt.nz/
MDBA NMI	Murray Darling Basin Commission
	Responsible for planning the integrated management of water resources of the Murray-Darling Basin
	Originally Named: the Murray Darling Basin Authority (MDBA)
	http://www.mdba.gov.au/
NTC	National Measurement Institute Role: Australia's peak measurement body responsible for biological, chemical, legal, physical and trade measurement.
NTC	a division within the Department of Industry, Innovation, Science, Research and Tertiary Education. (5)
NTC	http://www.measurement.gov.au/Pages/default.aspx
	National Tidal Centre Bureau of Meteorology Role: to monitor and analyses sea level for the purpose of deriving trends in absolute sea level and producing national tide predictions, tide streams and related information
	http://www.bom.gov.au/oceanography/projects/ntc/ntc.shtml
PMC or PM&C	 Department of the Prime Minister and Cabinet Role: The coordination of government administration; assists the Cabinet



State/Territory Government Departments & Agencies

These Jurisdictions have responsibilities for some or all of these functions (as well as a number of other different functions):

- administration of Crown Lands
- management of property titles
- land valuation
- cadastral surveying
- mapping

ACT Planning *	Australian Capital Territory Environment and Planning Directorate - Planning http://www.planning.act.gov.au
DNRM *	[Queensland] Department of Natural Resources and Mines https://www.dnrm.qld.gov.au
DLPE *	[Northern Territory] Dept of Lands Planning and the Environment http://www.lands.nt.gov.au
DPIPWE *	[Tasmania] Department of Primary Industries, Parks, Water and Environment http://dpipwe.tas.gov.au
DELWP *	[Victoria] Department of Environment, Land, Water & Planning http://www.delwp.vic.gov.au
DPTI *	[South Australia] Department of Planning, Transport and Infrastructure http://www.dpti.sa.gov.au
Landgate *	[Western Australia] Landgate http://www.landgate.wa.gov.au/corporate.nsf
LPI *	[New South Wales] Land and Property Information http://lpi.nsw.gov.au/

Governmental Organisations / Associations

AEMC	Australian [Government] Emergency Management Committee
	Role: A peak council on emergency management in Australia
	Membership: senior representatives from Attorney General's (AG), State/Territory Emergency Management committees and Australian Local Government Association (ALGA)
	Originally Named: National Emergency Management Committee (NEMC)

^{*} indicates a Jurisdiction with representation on ICSM



AGSC	AuScope GNSS Sub-Committee
	 Created under the <u>AuScope</u> Geospatial Steering Committee
	Role: to manage GNSS developments.
ASC	Australian Spatial Consortium
	Role: To foster innovation, product and service development, operational activities, infrastructure development, international activities and educational support to the spatial industry
	Membership: includes <u>ANZLIC</u> , <u>SIBA</u> , <u>CRC-SI</u> and <u>PSMA</u> and <u>SSSI</u>
Austroads	Association of Australian and New Zealand Road Transport and Traffic Authorities
	Role: To facilitate a cooperative, collaborative approach in roads related matters
	 Membership: Senior representatives from State/Territory road transport and traffic authorities, <u>Infrastructure</u>, <u>ALGA</u> and Transit New Zealand
COAG	Council of Australian Governments
	Role: The peak Australian body which initiates, develops and monitors the implementation of policy reforms that are of national significance and which require cooperative action by Australian governments
	Membership: the Australia Prime Minister, state premiers, territory chief ministers and the Australian Local Government Association (ALGA) president
EMSINA	Emergency Management Spatial Information Network of Australasia
	 Role: To provide a practitioners voice in national consultative processes, establishing common operating procedures, assisting in the development of standards
	 <u>Membership</u>: State/Territory GIS User Groups and the Australian emergency management agencies (<u>EMA</u>, <u>GA</u> and <u>BoM</u>)
ICSM	Intergovernmental Committee on Surveying & Mapping
	 Role: To implement policies, standards and guidelines developed by ANZLIC which are designed to achieve 'best practice' in spatial data management
	ICSM is a Standing Committee of ANZLIC
	Membership: Comprises senior representatives from Australian and New Zealand surveying and mapping/charting agencies
IT-004	Information Technology Committee for Geographic Information
	Role: Responsibility to manage the Australian/New Zealand geospatial community's standards activities



	-
NCCIP	National Committee on Critical Infrastructure Protection
	Role: Coordination of Critical Infrastructure Protection policy
	development across all government
	Membership: Representatives State/Territory government and ALGA
	NCCIP is a standing committee of NCTC
NSIM	National Spatial and Information Management Working Group
	<u>Role</u> : to facilitate the development of spatial information capabilities to
	enhance decision making through access to and use of spatial information
	 Membership: a working group under the strategic direction of NCTC, AEMC and NCCIP
RTA	Road Traffic Authority
	The NSW State Government agency responsible for managing and
	maintaining the State road network and associated activities such as
	drivers licenses and vehicle registration
SA	Standards Australia
	Role: peak non-government Standards organisation. It is charged by the Commonwealth Covernment to most Australia's most for contamon area.
	Commonwealth Government to meet Australia's need for contemporary, internationally aligned Standards and related services
SCoLA	Standing Committee on Land Administration
	Role: developing strategies and actions for discovering and accessing
	information about rights, obligations and interests in land, promoting e-
	government in land administration etc
	SCoLA is a Standing Committee of <u>ANZLIC</u>
	Membership: individuals from the spatial industry and delegates from ANZLIC
SEAC	Spatial Education Advisory Committee
	Role: promoting education and skills formation in the spatial information
	SEAC is a Standing Committee of ANZLIC
	Membership: ANZLIC representatives and organisations/individuals from
	the spatial industry
TASAMM	Transport Authorities Survey and Mapping Managers
or	Membership: The chief road surveyors from each State/Territory
TASAM	 Originally Named: Transport Authorities Survey and Mapping Group (TASAM)



Industry / Education / Associations / Initiatives

43pl	 43 Pty Ltd formed as part of the first term of the CRCSI, representing the many SME participants. Membership: Over 60 companies, operating from all across Australia and New Zealand.
ALGA	Australian Local Government Association Role: To voice and support the interests of local government – especially to government Membership: Local government associations
APSEA	Asia-Pacific Spatial Excellence Awards sponsored by SSSI these annual awards recognise achievements in the spatial information industry
ARSPC	 Australasian Remote Sensing and Photogrammetry Commission part of the <u>Surveying and Spatial Sciences Institute</u> (SSSI) Holds regular conferences, usually biennially.
ASC	 Australian Spatial Consortium Formed in 2007 to accelerate the unlocking of the potential of spatial information for economic, environmental and social benefit for Australia within key industries, and the development of tools, new technologies and capabilities relating to the fundamental future needs of the nation Membership: 43 Pty Ltd, ANZLIC, CRCSI2, GITA, SIBA and SSSI
ASIBA	Australian Spatial Information Business Association now called Spatial Industry Business Association (SIBA)
auCD	 Australian Community Domain Names Trust Pty Ltd Role: established by auDA (.au Domain Administration Ltd) to facilitate the development of Community Geographic Domain Names auCD is a Pty Ltd, a not-for-profit company acting as trustee of the .au community domains trust which is funding from sales of commercial names by auDA



auDA	Australian Domain Administration Limited
auDA	Role: To develop and administer policy relation to the .au (Australia)
	internet domain, including:
	 develop and implement domain name policy
	 license 2LD registry operators
	 accredit and license registrars
	 implement consumer safeguards
	 facilitate .au Dispute Resolution Policy
BOSSI	Board of Surveying and Spatial Information of New South Wales
	 <u>Role</u>: The registration of land and mining surveyors, the regulation of surveys and advises the Minister on spatial information
	Membership: Representatives from government and industry appointed by the Ministers.
CeBIT	Centrum der Büro- und Informationstechnik
	(German for Centre of Office and Information technology)
	 In Australia this is a 3 day, technology trade fair which focuses on Information and Communications Technology (ICT) – especially ICT for spatial industries
	It is run by a company called Hanover Fairs
CRCSI	Cooperative Research Centre for Spatial Information
or CRC.SI	Role: Research and development in the spatial industry and commercialisation of that research
	Membership: A unincorporated joint venture comprising organisations from the corporate, government and university sectors
	 This CRC completed work in December 2009 and the next generation of this CRC was established and initially called CRC.SI2. It is established for the period 2010 to 2018.
	It consists of There are 3 Colleges
	 ANZLIC – which handles relationships with government partners
	 43pl-2 – a private company which handles relationships with companies
	 Research and Education – which handles relationships with research and education bodies
CRSBANZ	Council of Reciprocating Surveyors Boards of Australia and New Zealand
	 Role: To ensure that the community has confidence in professional surveyors, by encouraging the adoption of standards for best practice and supports mutual recognition of registered /licensed surveyors
	Membership: Representatives from surveyors boards of Australian State's/Territory's and New Zealand



MSIA	Mapping Sciences Institute, Australia A non-government organisation which aims to assist in the professional
	development of individuals and organisation in the spatial community
PSMA or PSMA Australia	 PSMA Australia (Public Sector Mapping Agencies Australia – full name is no longer used) Role: To combine reliable spatial data from Australia's governments to create national spatial datasets and supply spatial related services. Membership: A unlisted public company wholly owned by the State, Territory and Australian governments
SIBA	 Spatial Industry Business Association Role: To voice and support the interests of the private sector of the spatial information industry – especially to government Membership: Representatives from spatial information industry private sector – individuals or companies
SSSI	 Surveying and Spatial Sciences Institute Created in 2009 as result of the amalgamation of Spatial Sciences Institute and Institution of Surveyors. Role: Promotion and inform the disciplines of surveying (cadastral, engineering & mining), mapping, remote sensing, photogrammetry and spatial information Membership: Spatial information industry individuals or companies

International / National Projects / Agreements

APREF	 Asia [south western] Pacific Reference Frame Project Role: to create and maintain an accurate and dense geodetic framework which will generate continuous observation and analysis of GNSS data. APREF will cover about one third of the planet – from Kazakhstan in the north-west to French Polynesia in the south-east. Other regions are Europe, North American, South American, Antarctic and Africa. Data will be suitable for use by all geospatial disciplines. See also PCGIAP and IAG
ASDD	Australian Spatial Data Directory a web based search interfaces for discovery of Australian geospatial dataset descriptions (metadata) ASDD was superseded by FIND



ATWS	Australian Tsunami Warning System
	 A regional system involving <u>BoM</u>, <u>GA</u> and <u>EMA</u>
	 It provides a warning system capable of delivering timely and effective tsunami warnings to the Australian.
	It also contributes to tsunami warnings for the South West Pacific.
AuScope	An organisation for a National Earth Science Research Program covering Capability 5.13 (Structure and Evolution of the Australian Continent), under National Collaborative Research Infrastructure Strategy (NCRIS)
	 For ICSM this equates to improving/densifying the <u>GNSS</u> / <u>CORS</u> networks
	See also <u>AGSC</u>
AusDEM	An Australian national DEM – see <u>NEDF</u>
AWRIS	Australian Water Resources Information System
	 AWRIS is currently being developed by <u>BoM</u>, <u>GA</u> and <u>CSIRO</u>
	 It will be a web enabled set of tools that will allow access to water related information, which will allow users to:
	 review and investigate the data
	 understand the data in its context
	 analise the bigger picture details about Australia's water resources
	• see also <u>Geofabric</u>
CSDI	Commonwealth Spatial Data Integration
	 A joint project between the Department of Human Services, the <u>ABS</u>, <u>AGIMO</u> and <u>GA</u>.
	 It will facilitate the integration and sharing of spatially enabled information within the Australian government – to support social inclusion initiatives.
FIND	FIND is the Australian Government's spatial data catalogue and in conjunction with data.gov.au provides access to a network of open government data. FIND allows you to search and download a wide range of spatially-referenced datasets created by both the Australian and State and Territory Governments.
GeoFabric	GeoFabric is a database of the draining network for the whole of Australia. It is being jointly developed by <u>BoM</u> , <u>GA</u> and <u>CSIRO</u> .
	When complete this will be the spatial component of <u>AWRIS</u>
GeoNetwork	A standards-based metadata tool and management environment developed by the United Nations.



Heads Agreement	Collaborative Head Agreement
	• see <u>NCF</u>
NAMF	National Address Management Framework
	 A system developed by the <u>AGIMO</u> to manage the creation of addresses across Australia.
	This has a relationship with PSMA's G-NAF database.
NCF	National Collaboration Framework
	 NCF was established to assist government (national, State and Territory) agencies to work collaboratively to provide the processes and tools that will increase the ability of agencies to deliver improved services to customers.
	It is essentially a 'framework' for collaboration
	 Its primary tool is a Collaborative Head Agreement which is a non-binding agreement for a group of agencies to cooperate on joint projects
	 Individual projects are agreed under the Collaborative Head Agreement between all or some of the agencies which are signatory to the Head Agreement.
	 In 2010 all ICSM jurisdictions (with the exception of <u>AGO</u> and <u>LINZ</u>) signed a Collaborative Head Agreement.
NCRIS	National Collaborative Research Infrastructure Strategy
	 A programme that was announced in 2005 by the Australian Government's as part of Backing Australia's Ability – Building our Future through Science and Innovation
	 It providing \$542 million to provide researchers with major research facilities, supporting infrastructure and networks necessary for world-class research
	It is expected to be completed in 2011.
NEDF	National Elevation Data Framework
	 An Australia wide nested DEM. (A nested DEM is one where DEMs of different resolutions are combined together.)
	sponsored by <u>ANZLIC</u> , <u>GA</u> , Department of Climate Change and <u>CRC-SI</u>
NSIF	National Service Improvement Framework
	 A cross agency framework that has been developed under the auspices of the Australian Online and Communications Council of Ministers
	It sets a set of principles and standard legal clauses to manage inter-agency cooperative agreements



NTICI	National Topographic Information Coordination Initiative An ICSM initiative to encourage cooperative topographic map and data revision projects.
STIS	 Spatial Technology in Schools STiS is a project which is working towards engaging with students in late-primary / early-high school age group in order to promote greater awareness of the spatial industry.

Concepts / Data Products

ASDI	Australian Spatial Data Infrastructure
	ASDI comprises the people, policies, guidelines and technologies necessary
	to enable the use of spatially referenced data through all levels of
	government, the private sector, non-profit organisations and academia.
	This has been replaced by <u>FIND</u> .
DCDB	Digital Cadastral Database
	 A computerised map of property boundaries and the related property description of land parcels.
	 It is an excellent base for searching, planning and analysing land related
	information and is used by most local governments for these purposes.
DEM	Digital Elevation Model
	A DEM is a digital representation of grounds surface. It raster (a grid
	ofrectangles) database. It can be either:
	 regular (eg squares of the same size); or
	 irregular (eg squares of the different sizes)
	See also <u>UDEM</u>
GIS	Geographic Information Systems
	GIS captures, stores, analyses, manages, and presents digital spatial data.
G-NAF	Geocoded National Address File
	 A database produced by <u>PSMA</u> –it is a composite of information supplied
	by the Australian Electoral Commission, Australia Post and Australia's
	government State/Territory mapping agencies and land registries
HDF	Harmonised Data Framework
	An overarching system which is designed to assist in the development of
	standard for the capture and dissemination of spatial data



HDM	 Harmonised Data Model a model for the definition of key spatial features and their attributes this is the key component of the HDF It has been developed as UML with a method to convert into GML
UDEM	 Urban Digital Elevation Model This is series of high resolution <u>DEM</u>s in selected urban areas – Perth, Gold Coast, Melbourne, Sydney and Newcastle-Hunter It is part of the National Elevation Data Framework (<u>NEDF</u>)
WFS	 Web Feature Service WFS provides an interface which allows acess to spatial infromation across the web which is independent of technology It was developed by OGC which defined and maintains its specification. There are numerous commercial and open source implementations of the WFS interface standard

Hydrography

НАТ	Highest Astronomical Tide The highest tide level of water which can be predicted to occur under any combination of astronomical conditions.
LAT	Lowest Astronomical Tide The lowest tide which can be predicted to occur under average meteorological conditions and under any combination of astronomical conditions
мнw	Mean High Water • The average of all recorded high waters
MLW	Mean Low Water The average of all low waters observed over a long period
MSL	Mean Sea Level The average sea heights measured at tidal stations

Space Technology

Galileo	A European based GNSS, being developed and a 'next generation' positioning system
	positioning system



GGOS	 Global Geodetic Observing System integrates different geodetic techniques, different models, different approaches in order to ensure a long-term monitoring of the geodetic observables in agreement with the Integrated Global Observing Strategy (IGOS). Aims at maintaining the stability of time series of geometric and gravimetric reference frames; Ensures the consistency between the different geodetic standards used in the geo-scientific community; Aims at improving the geodetic models at the level required by the observations; Focuses on all aspects to ensure the consistency geometric and gravimetric products.
GNSS	Global Navigation Satellite System satellite navigation systems that provide independent geospatial positioning with global coverage
	 the system relies on CORS Network hardware see <u>Galileo</u>, <u>GPS</u> & <u>IRNSS</u>
GPS	Global Positioning System a United States of America based GNSS, the first to be publicly available
IRNSS	A Indian based GNSS which is being developed as a 'next generation' positioning system
LiDAR	Light Detection and Ranging LiDAR is an optical remote sensing technology that measures properties of scattered light to find distances and/or other information about distant objects
SLR	 Satellite Laser Ranging SLR is a global network of stations which measure the time it takes for pluses of light to return from a satellite It is capable of measuring to millimetre accuracy It is used for measurement of the orbits of satellites

Geodesy – Reference Systems

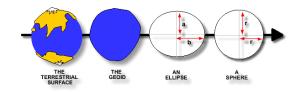
AGD / AGD84	Australian Geodetic Datum, 1984
	 replaced AGD66 in some agencies and replaced by GDA94



AHD / AHD71	Australian Height Datum, 1971
	the datum used for the measuring heights in Australia
	it is a surface of equal gravity potential which closely approximates mean sea level
	used a national network of bench marks and tide gauges and set mean sea level as zero elevation
AUSGeoid2009	Australian Geoid, 2009 (AUSGeoid09)
	the geoid currently used in Australia.
GDA / GDA94	Geocentric Datum of Australia, 1994
	the current Australian coordinate system
	an Earth-centred datum
	part of a ITRF and is directly compatible to GPS
	replaces AGD84 which is not Earth-centred (approx 200 metres difference)
ICRF	International Celestial Reference Frame
	Adopted by the International Astronomical Union in January 1998 as the fundamental celestial reference frame
ITRF / ITRF2005	International Terrestrial Reference Frame, 2005
	is directly compatible to GPS
	• replaces ITRF2000, 1997, 1996 and 1994
NGRS	National Geospatial Reference System
	potentially the next datum for Australia
NPI	National Positioning Infrastructure
	 In Australia this equates to building the capacity for mobile, hand-held GPS devices to locate one another extremely accurately, within a few centimetres It consists of a network of ground based infrastructures
	It consists of a network of ground based infrastructures
WGS / WGS84	World Geodetic System, 1984
	GPS's reference ellipsoid for the whole Earth
	aligned with ITRF



Geodesy – Geometry / Concepts



Datum	A mathematical surface on which a mapping and coordinate system is based
Ellipsoid	 A mathematical surface obtained by rotating an ellipse about its axis the ellipsoid is a regular surface an ellipsoid is chosen 'best fit' the geoid over a given area or the geoid for the whole Earth
Epoch	In Geodetic terms an epoch is the base date for datum.
Geoid	 The shape of the earth as defined by an equipotential surface (gravity) it approximates mean sea level if it were extended under continents the geoid is an irregular surface because the mass distribution of the Earth is not uniform and the direction of gravity changes accordingly
Height (Vertical) Datum	The datum used to define heights on the surface of the Earth. It approximates mean sea level around a coastline
Spheroid	A spheroid is an ellipsoid with two of its three radii the same – ie shaped more closely to a sphere

Geodesy – Software

AUSPOS	Online GPS Processing Service hosted by Geoscience Australia
DynaNet	Geodetic network adjustment software package developed by Dr P Collier, and hosted by Geoscience Australia
NEWGAN	Geodetic network adjustment software package developed by Dr J Allman and hosted by Geoscience Australia
NZPOS	Online GPS Processing Service hosted by Land Information New Zealand – it is a software packages which converts raw GPS data into ITFR coordinates
SNAP	Geodetic network adjustment software package developed by LINZ



Geodesy – Hardware

AFN	Australian Fiducial Network
	 Consists of eight permanent, continuously operating, Geodetic quality GPS receivers – all within Australia
	AFN is a CORS network
ARGN	Australian Regional GPS Network
	AFN plus some receivers outside of Australia
	ARGN is a CORS network
CORS /	Continuous Operating Reference Stations Network
CORS Network	used to receive GPS data
	includes: AFN, ARGN and VLBI
	this hardware supports GNSS systems
VLBI	Very Long Baseline Interferometry
	A global system with about 50 base stations work world wide
	In Australia there are 5:
	 Hobart (Tas)
	 Katherine (NT) – under construction
	Parkes (NSW)
	 Yarragadee (WA) – under construction
	In New Zealand there is 1:
	 Christchurch
	VLBI is part of the CORS network

Geodesy – Administration

Reg 13	A certificate under the National Measurement Act, 1906 issued by
	Geoscience Australia, for legal traceability of GPS position

Computing Languages

GML	Geography Markup Language
	 an open specification for representation of geographic (spatial and location) information
	 It defines XML encoding for the transport and storage of geographic information, including both the geometry and properties of geographic features



HTML	HyperText Markup Language one of the foundations of the World Wide Web
LandXML	an industry-driven, open XML data exchange standard that provides interoperability for software applications serving the surveying, civil engineering and transportation industries — it broadly supports online cadastral applications — generally referred to as a LandXML schema
Markup Language	Any computer language which combines text and extra information about the text (eg font size) – the best-known markup language in modern use is HTML
UML	 Unified Modelling Language a standardised specification language for object modelling It is a general-purpose modelling language that includes a graphical notation to create an abstract model of a system – generally referred to as a <u>UML model</u>
XML	 Extensible Markup Language a general-purpose markup language which allows users to define their own information tags Its primary purpose is to facilitate the sharing of structured data across different information systems, particularly via the Internet



Appendix A Australian Government Administration Structure

The relationship between Australian Government bodies can be confusing. This Appendix is designed to explain some of these relationships, without elaboration about specific relationships.

The Australian Government (also called the Commonwealth Government or Federal Government), is made of elected representatives from Australia. From these representatives a number of people are chosen to form the 'Executive'. Members of the Executive are given titles which describe their responsibilities. Examples include:

- Special titles such as Prime Minister of Australia, Attorney General, Special Minister of State;
- Minister for ...; and
- Parliamentary Secretary

These are responsible for managing Portfolios – these are areas of activity for the Australian Government.

A Portfolio may have only one Minister or it may have several Ministers and Parliamentary Secretaries.

In July 2015 there were 16 Portfolios within the Australian Government. Approximately 43 people were appointed to Executive to administer these Portfolios (30 Ministers and 13 Parliamentary Secretaries). These numbers vary from time-to-time as governments review their work priorities and programs.

Under Portfolios, 3 basic types of organisations are created:

- Government Departments which report directly it its member of the Executive (often generally referred it as its' Minister).
 - Within these Departments separate organisations may exist. As a general rule, these report to the Executive via the Department.
- Separate organisations, which may be semi-autonomous and which report directly it its member of the Executive
- Affiliated organisations which are largely autonomous. These may report directly to the Executive and/or via the Department. These are often referred to as Qangos (quasi autonomous non-government organisations)

An example:

Portfolio:	Industry and Science
Minister(s)	 Parliament House office - Minister for Industry and Science Electorate Office - Minister for Electorate Office - Minister for Minister for Industry and Science Minister for Industry Parliamentary Secretary to the Minister for Industry
Department(s)	Department of Industry and Science



Other Portfolio Bodies, Committees, Boards and Councils

- Advisory Council on Intellectual Property
- ANZLIC -- The Spatial Information Council
- Australian Institute of Marine Science
- Australian Nuclear Science and Technology Organisation
- Australian Skills Quality Authority
- Chief Scientist and Office of the Chief Scientist
- Commonwealth Scientific and Industrial Research Organisation (CSIRO)
- Cooperative Research Centres Committee
- Geoscience Australia
- Innovation Australia
- Ministerial Council on Mineral and Petroleum Resources (MCMPR)
- National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA)
- Oceans Policy Science Advisory Group
- Plant Breeder's Rights Advisory Committee
- Pooled Development Funds Registration Board
- Professional Standards Board for Patent and Trade Marks Attorneys