

Annex A: Possible data content standards										
Name	Source	ID	Date Published	Status	Data Content?	Metadata?	Relevant?	Reason	Publicly Accessible?	Notes
Content Standard for Digital Geospatial Metadata (version 2.0), FGDC-STD-001-1998	FGDC	ANSI NCITS 320	1998	published	Yes	Yes	No	Yes	Yes	
Content Standard for Digital Geospatial Metadata, Part 1: Biological Data Profile	FGDC	FGDC-STD-001.1	1999	published	Yes	Yes	No	Yes	Yes	American Institute of Biological Sciences, 1995 and 1999-Federal Geographical Data Committee, 1998
Spatial Data Transfer Standard (SDTS)	FGDC	FGDC-STD-002			No	No	No		Yes	
Spatial Data Transfer Standard (SDTS), Part 5: Raster Profile and Extensions	FGDC	FGDC-STD-002.5			No	No	No		Yes	
Spatial Data Transfer Standard (SDTS), Part 6: Point Profile	FGDC	FGDC-STD-002.6			No	No	No		Yes	
Cadastral Data Content Standard	FGDC	FGDC-STD-003			Yes	Yes	Yes		Yes	
Vegetation Classification Standard	FGDC	FGDC-STD-005	1997	published	Yes	Yes	Yes		Yes	
Soil Geographic Data Standard	FGDC	FGDC-STD-006			Yes	Yes	Yes		Yes	
Geospatial Positioning Accuracy Standard, Part 1, Reporting Methodology	FGDC	FGDC-STD-007.1	1998	published	Yes	Yes	No		Yes	American national standards institute, Information technology, Spatial Data Transfer Standards(SDTS)
Geospatial Positioning Accuracy Standard, Part 2, Geodetic Control Networks	FGDC	FGDC-STD-007.2	1998	published	Yes	Yes	No		Yes	
Geospatial Positioning Accuracy Standard, Part 3, National Standard for Spatial Data Accuracy	FGDC	FGDC-STD-007.3	1998	published	Yes	Yes	Yes		Yes	
Geospatial Positioning Accuracy Standard, Part 4: Architecture, Engineering Construction and Facilities Management	FGDC	FGDC-STD-007.4	2002	published	Yes	Yes	No		Yes	
Content Standard for Digital Orthoimagery	FGDC	FGDC-STD-008	1999	published	Yes	Yes	Yes		Yes	
Content Standard for Remote Sensing Swath Data	FGDC	FGDC-STD-009	1999	Published	Yes	Yes	Yes		Yes	
Federal Geographic Data Committee Standards Reference Model	FGDC		1997		Yes	No	No		Yes	
Utilities Data Content Standard	FGDC	FGDC-STD-010	2000	published	Yes	Yes	Yes		Yes	
U.S. National Grid	FGDC	FGDC-STD-011	2001	published	Maybe	No	No		Yes	
Content Standard for Digital Geospatial Metadata: Extensions for Remote Sensing Metadata	FGDC	FGDC-STD-012	2002	published	Yes	Yes	No		Yes	
Address Content Standard	FGDC				Yes	No	Yes		Yes	
Content Standard for Framework Land Elevation Data	FGDC				Yes	Yes	Yes		Yes	
Digital Cartographic Standard for Geologic Map Symbolization	FGDC				Yes	No	No		Yes	
Facility ID Data Standard	FGDC				Yes	No	Yes		Yes	
Geospatial Positioning Accuracy Standard, Part 5: Standard for Hydrographic Surveys and Nautical Charts	FGDC				Yes	Yes	No		Yes	
Hydrographic Data Content Standard for Coastal and Inland Waterways	FGDC				Yes	Yes	Yes		Yes	
NSDI Framework Transportation Identification Standard	FGDC				Yes	No	Yes		Yes	
Encoding Standard for Geospatial Metadata	FGDC				Yes	Yes	No		Yes	
Governmental Unit Boundary Data Content Standard	FGDC				Yes	Yes	Yes		Yes	
Biological Nomenclature and Taxonomy Data Standard	FGDC				Yes	No	Yes		Yes	
FGDC Profile(s) of ISO 19115, Geographic information - Metadata	FGDC			suspended	Yes	Yes	Yes		Yes	INCITS L1 plans to develop a metadata standard based on the ISO 19100 series of Geographic information standards.
Federal Standards for Delineation of Hydrologic Unit Boundaries	FGDC				Yes	No	Maybe		Yes	
National Hydrography Framework Geospatial Data Content Standard	FGDC				Yes	Yes	Yes		Yes	
National Standards for the Floristic Levels of Vegetation Classification in the United States: Associations and Revisions to the National Standards for the Physiognomic Levels of Vegetation Classification in the United States	FGDC	FGDC-STD-005	1997		Yes	No	Yes		Yes	
Riparian Mapping Standard	FGDC				Maybe	Maybe	Maybe		Yes	
Environmental Hazards Geospatial Data Content Standard	FGDC			draft	Yes	Yes	Yes		Yes	
Transportation Data Content Standard	FGDC			proposal	Yes	Yes	Yes		Yes	
Feature Instance Identification Standard	Stan SA	SABS 1876		draft	Yes	No	Yes		Cost	
Land Cover Classification Scheme for Remote Sensing Applications in South Africa	Stan SA	SABS 1877	2003	published	Yes	No	No		Cost	
South African Spatial Metadata Standard	Stan SA	SABS 1878		draft	Yes	Yes	No		Cost	
South African Geospatial Data Dictionary (SAGDaD) and Its Application	Stan SA	SANS 1880		draft	Yes	Yes	No		Cost	
Standard representation of latitude, longitude and altitude for geographic point locations	ISO	ISO 6709		WD	Yes	No	No		Cost	This international standard specifies a variable-length format for the representation of latitude, longitude and altitude for use in data interchange. The representation of altitude is optional and its presence or absence is implicit in the format. This international standard allows the use of normal sexagesimal notations involving degrees, minutes and seconds as well as various combinations of sexagesimal and decimal notations- degrees and decimal degrees; degrees, minutes and decimal minutes; degrees, minutes, seconds and decimal seconds. It makes use of numeric characters 0 and 9, the graphical characters plus(+), minus(-), full stop(.) and comma(,).
Geographic information - Reference model	ISO	ISO 19101	2002	published	Yes	No	No		Cost	The reference model provides a framework for the 1911** family of standards. The model is presented in two levels. Firstly there is a generic description suitable for an audience that needs to obtain a general understanding of the underlying principles and requirements. Then there is a more detailed presentation level aimed at information systems analysts, program planners and developers who are required to use and implement systems and data conforming to these standards. This Technical specification will define a reference model for standardisation in the field of geographic imagery. This reference model will identify the scope of standardization activity being undertaken and the context in which it takes place. It will include a gridded data with an emphasis on imagery. Although structured in the context of information technology and information technology standards, this technical specification will be independent of any application development method or technology development approach
Geographic information - Reference model - Part 2: Imagery	ISO	ISO 19101-2		WD	Yes	No	No		Cost	
Geographic information - Conceptual schema language	ISO	ISO 19103		DIS	No	No	No		Cost	
Geographic information - Terminology	ISO	ISO 19104		DIS	Yes	No	No		Cost	the 1911** Family of standards. The format of the terminology conforms to ISO 10241 International terminology standards- This standard provides the framework, concepts and methodology for testing and criteria to be achieved to claim conformance to ISO/TC 211 family of standards. It is based on material in ISO 9646-1, ISO 10303-31 and ISO 10641. In order to facilitate testing, all testable parts of ISO 1911** Family of Standards contain a conformance clause which explicitly specifies all the requirements that have to be satisfied to claim conformance to that part of the standard. The methodology specifies that products, which may be systems or datasets shall have implementation Conformance Statements (ICS) that identify the options that have been implemented.
Geographic information - Conformance and testing	ISO	ISO 19105	2000	published	No	No	No		Cost	This document provides the guidelines for the preparation of a profile. The 1911** family of standards are generic. Each domain application implementation will require all the generic options to be resolved for the standards for which it complies. A profile is such a set of generic standards with selected options.
Geographic information - Profiles	ISO	ISO 19106	2004	published	No	No	No		Cost	This document provides a conceptual schema for describing aspects of the spatial characteristics of Geographical features. Components of this schema may be specialized within an application schema to describe a specific feature types. This part of the standard also describes a set of operators that, if correctly implemented on this schema will ensure total consistency in results.
Geographic information - Spatial schema	ISO	ISO 19107	2003	published	No	No	No		Cost	Temporal schema, defines standard concepts needed to describe the temporal characteristics of geographical information. These include both metadata elements that describe temporal characteristics of data sets and feature attributes that describes temporal characteristics of features. This standard identifies elements to be included in the definition of such characteristics whether in metadata, feature and attribute catalogues, or application schemas.
Geographic information - Temporal schema	ISO	ISO 19108	2002	published	No	No	No		Cost	The rules for application schema show how to develop schemas which identify how the various parts of this standard shall be applied for a particular application domains. This family of standards is generic and must be tailored for specific application domains.
Geographic information - Rules for applicationschema	ISO	ISO 19109		DIS	No	No	No		Cost	This international Standard provides a standard framework for organizing and reporting the classification of real world phenomena in a set of geographic data.
Geographic information - Methodology for feature cataloguing	ISO	ISO 19110		FDIS	Yes	No	Yes		Cost	Any coordinate based usage of geographic information needs a unique definition of the underlying reference system. A standardized conceptual schema for coordinate based reference systems is necessary for geographic information to be shared between applications. This schema will be of value to developers of geographic information systems and other applications requiring data based upon coordinate reference system.
Geographic information - Spatial referencing by coordinates	ISO	ISO 19111	2003	published	No	No	No		Cost	Spatial reference maybe provided by using geographical identifiers instead of coordinates where an association is made to a known geographic feature. This association maybe containment such as with a country, based on a local coordinate such as a given distance along the street or loosely related such as adjacent or near the building. This standard defines a consistent manner for spatial referencing by geographical identifiers.
Geographic information - Spatial referencing by geographic identifiers	ISO	ISO 19112	2003	published	Yes	No	Maybe		Cost	One of the main objectives of this family is to enable geographic data to be shared and widely available in and across application domains. As this objective becomes realised it will be increasingly important to data users to determine fitness for use. This international standard provides guidelines to data producers for describing the quality of their data; the quality information maybe used by data users attempting to determine whether or not specific data is off sufficient quality for their particular applications.
Geographic information - Quality principles	ISO	ISO 19113	2002	published	Yes	Yes	No		Cost	
Geographic information - Quality evaluation procedures	ISO	ISO 19114	2003	published	Yes	Yes	No		Cost	This international standard establishes a framework of quality evaluation procedures for a dataset of geo-spatial data so that data producers can define how well their products meet their product specification and users can define their requirements and how well they are met.
Geographic information - Metadata	ISO	ISO 19115	2003	published	Yes	Yes	No		Cost	The objective of this international standard is to provide a clear procedure for the description of digital geographic datasets so that users will be able to determine whether the data in a holding will be of use to them and how to access the data. By establishing a common set of metadata terminology, definitions and extensions procedures, this standard will promote a proper use and retrieval of geographic data
Geographic information - Metadata - Part 2: Extensions for imagery and gridded data	ISO	ISO 19115-2		WD	Yes	Yes	No		Cost	This complementary standard to ISO 19115 Geographic information- Metadata will define metadata elements to support imagery and, gridded data and will extend the UML model for metadata to include the following: 1. It will support the collection and processing of natural and synthetic imagery produced by remote sensing and other imaging processes. 2. It will support the collection and processing of geo-spatial metadata for imagery, gridded and coverage data. 3. It will define a data model for information describing geographic imagery and gridded data, establishing the names, definitions and permissible values for new data elements including new classes relevant to imagery and gridded data.
Geographic information - Positioning services	ISO	ISO 19116	2004	published	No	No	No		Cost	This part defines a standard interface data structure for use between positioning devices and geographic information application systems. Modern electronic positioning technology is making available a wide range of positioning instruments and devices that can measure the coordinates of location on or near the earth dynamically with great speed and accuracy. A variety of geographic information system applications can make use of these facilities, including surveying and navigation and intelligent transport systems. Clearly the application of these devices will be able to be taken up more readily with a standard interface.
Geographic information - Portrayal	ISO	ISO 19117		DIS	Yes	No	No		Cost	This part concerns portraying geographic information as an image understandable by humans, including the methodology for describing symbols. The portrayal standard will provide applications with a common interface to supported standard symbol sets. This standard does not include standardization of cartographic symbols but provides a standard interface for such standard symbol sets. The portrayal schema allows for portrayal rules and specifications to be included in the application feature catalogue, the metadata of a dataset and/or in individual geographic features included in the data.
Geographic information - Encoding	ISO	ISO 19118		DIS	No	No	No		Cost	This part of ISO 1911** Family of standards specifies the encoding rules that shall be used for data interchange purposes. The encoding rules allows geographic information defined in application schema to be coded into a system independent data structure suitable for transport or storage. The encoding rule specifies the type of data to be encoded, the syntax, structure and coding schemes used in the resulting data structure. The encoding rule defined shall be used to implement encoding services.
Geographic information - Services	ISO	ISO 19119		DIS	Yes	No	No		Cost	This part of ISO 1911** Family of standards provides identification and definition of the service interfaces used for geographic information and definition of the relationships to the open system environment model. The definition of service interface allows a variety of applications with different levels of functionality to access and use of geographic information. While specialized services will appropriately remain an area of proprietary products. The interfaces to those services will be standardized.
Geographic information - Functional standards	ISO	ISO 19120	2001	published	Yes	Maybe	Maybe		Cost	
Geographic information - Imagery and gridded data	ISO	ISO 19121	2000	published	No	No	No		Cost	
Geographic information - Qualifications and Certification of personnel	ISO	ISO 19122		PDTR	No	No	No		Cost	
Geographic information - Schema for coverage geometry and functions	ISO	ISO 19123		DIS	No	No	No		Cost	
Geographic information - Imagery and gridded data components	ISO	ISO 19124	2001	published	No	No	No		Cost	To standardise concepts for the description and representation of imagery and gridded data in the context of the ISO19100 suite of standards. This includes new work on the following aspects of such data: Rules for application Schemas, quality principles and quality evaluation procedures, spatial reference systems, visualisation and exploitation service. The work will also identify aspects of existing parts of the family of standards that needs to be expanded to address imagery and gridded data.
Geographic information - Simple feature access - Part 1: Common architecture	ISO	ISO 19125-1	2004	published	No	No	No		Cost	This international standard will provide an implementation specification for the SQL environment conformant with the simple access-abstract specifications, specify an SQL schema that supports storage, retrieval, query and update simple geospatial feature collections, establish an architecture for the implementation of feature tables, define terms to use within the architecture, apply to both SQL components and SQL with geometry types components, describes a set of SQL geometry types together with the SQL functions on those types and not attempt to standardise any part of the mechanism by which the geometry types are added to and maintained in the SQL environment.
Geographic information - Simple feature access - Part 2: SQL option	ISO	ISO 19125-2	2004	published	No	No	No		Cost	This international standard will provide an implementation specification for the SQL environment conformant with the access-abstract specifications, specify an SQL schema that supports storage, retrieval, query and update simple geospatial feature collections, establish an architecture for the implementation of feature tables, define terms to use within the architecture, apply to both SQL components and SQL with geometry types components, describes a set of SQL geometry types together with the SQL functions on those types and not attempt to standardise any part of the mechanism by which the geometry types are added to and maintained in the SQL environment.
Geographic information - Profile - FACC Data Dictionary	ISO	ISO 19126		CD	Yes	No	Yes		Cost	This international standard is a profile. It is based on rules and methods defined on ISO CD 19110 (15046-10) Geographic information- Feature cataloguing methodology in the context of DGIWG. It defines a data dictionary and includes the definition of features and attributes only, which may be of use to the wider international community.
Geographic information - Geodetic codes and parameters	ISO	ISO 19127		PDTS	Yes	No	No		Cost	To develop a technical specification on geodetic codes and parameters and identifies the data elements required within these tables. In compliance with ISO 19111, Geographic information- spatial referencing by coordinates, and makes recommendations should address the legal aspects, the applicability to historic data, the completeness of the tables, and a mechanism for maintenance.
Geographic information - Web Map server interface	ISO	ISO 19128		DIS	No	No	No		Cost	This international standard will describe a webmap server.
Geographic information - Imagery, gridded and coverage data framework	ISO	ISO 19129		WD	Yes	No	No		Cost	To standardise concepts for the description and representation of imagery and gridded data in the context of the ISO19100 suite of standards. The new Work Item proposal is for a technical specification to define a framework for imagery gridded and coverage data and those elements that require standardisation that are not identified in other ISO 19100 standards.
Geographic information - Sensor and data models for imagery and gridded data	ISO	ISO 19130		CD	Yes	No	No		Cost	This international standard specifies a sensor model describing the physical and Geometrical properties of each kind of photogrammetric, remote sensing and other sensors that produces imagery type of data. It also defines a conceptual data model that specifies, for each kind of sensor, the minimum content requirement and the relationship among the components of the content for the raw data that was measured by the sensor and provided in an instrument based coordinate system to make it possible to Geolocate and analyse the data.
Geographic information - Data product specifications	ISO	ISO 19131		CD	Yes	Yes	No		Cost	This international standard will provide requirements for the specification of geographic data products. These will include the application schema, spatial and temporal referencing systems, quality and data capture and maintenance process.
Geographic information - Location based services framework	ISO	ISO 19132		WD	Yes	No	No		Cost	The " Location based services possible standards" project is tasked with investigating the needs for standards to facilitate the development and promotion of the emerging class of application regarded as location based service (LBS).
Geographic information - Location based services tracking and navigation	ISO	ISO 19133		DIS	No	No	No		Cost	This standard addresses the modelling and definition of types and interfaces needed to support the specification of web services and applications in the field of tracking and navigation within a linear network.
Geographic information - Multimodal location based services for routing and navigation	ISO	ISO 19134		CD	No	No	No		Cost	This international standard specifies the data types, for the implementation of multi model location based services for routing and navigation services. This standard is designed to specify web services that maybe made available to wireless devices through web resident proxy applications, but not restricted to that environment. This standard relies on interoperability between two or more standardised single mode services for tracking routing and navigation.
Geographic information - Procedures for registration of geographical information items	ISO	ISO 19135		DIS	Yes	No	No		Cost	The development of a single standard or multi-part standard, which specifies procedures to be followed in preparing, maintaining and publishing a register or registers of unique, unambiguous and permanent identifiers, and means that, under the direction of ISO/TC 211 are assigned to geographic information items.
Geographic information - Geography Markup Language	ISO	ISO 19136		CD	Yes	No	No		Cost	The geographic markup language (GML) is an XML encoding in compliance with ISO 19118 for the transport and storage of geographic information modelling according to the conceptual modelling framework used in the ISO 19100 series and including both the spatial and non spatial properties of geographic features.
Geographic information - Core profile of the spatial schema	ISO	ISO 19137		CD	No	No	No		Cost	A set of profiles of the spatial schema to provide a minimal set of geometric elements necessary for an efficient creation of application schemata. These profiles will include components from ISO 19107 spatial schema, ISO 19108 temporal schema, ISO 19109 Rules for application schema development, ISO 19111 spatial referencing by coordinates and shall clarify the corresponding encoding rules from ISO 19118 encoding. The profiles shall support many of the spatial data formats and description languages already developed and in broad use within a group of nations or liaison organisations.
Geographic information - Data quality measures	ISO	ISO 19138		WD	Yes	Yes	No		Cost	The technical specification will define a set of measures for the data element sub-elements identified in ISO 19113 Geographic information - Quality principles. A registry of data quality measures will be established, to include for each measure an identifier and a code.

Annex A: Possible data content standards

Name	Source	ID	Date Published	Status	Data Content?	Metadata?	Relevant?	Reason	Publicly Accessible?	Notes
Geographic information - Metadata - Implementation specification	ISO	ISO 19139		PDTS	Yes	Yes	No		Cost	This part of the ISO 19111 family of standards provides a comprehensive metadata implementation specification for digital Geographic datasets. The metadata includes information about the identification, constraints, extent, quality, spatial and temporal reference, distribution, lineage, and maintenance of Geographic datasets. 19139 is an implementation of the ISO 19115 dataset metadata application profile presented in Annex E of ISO 19115.
Geographic information - Technical amendment to the ISO 19111 Geographic information series of standards	ISO	ISO 19140		WD	No	No	No		Cost	This project shall develop technical amendments to the ISO 19111 Geographic information series of standards to achieve harmonisation between them. This will include issues of consistency, cross references, terminology, data model and presentation. Other amendments necessary to achieve the objectives of these standards will also be included subject to ensuring consistency with the other standards.
Information technology – Metadata registries (MDR)	ISO/IEC/JTC 1	ISO/IEC 11179 (parts 1-6)		published	Yes	Yes	No		Cost	
Information and documentation - The Dublin Core metadata element set	DCMI and ISO	ISO 15836	2003	published	Yes	Yes	No		Yes	
The Digital Geographic Information Exchange Standard (DIGEST)	DGIWG		2000		Yes	Yes	Yes		No	
Catalog Interface	OGC	CAT	2004		Yes	No			Yes	Defines a common interface that enables diverse but conformant applications to perform discovery, browse and query operations against distributed and potentially heterogeneous catalog servers.
Coordinate Transformation Services	OGC	CT	2001		Yes	No			Yes	Provides interfaces for general positioning, coordinate systems, and coordinate transformations.
Filter Encoding	OGC	Filter	2001		No	No			Yes	A filter is a construct used to describe constraints on properties of a feature class for the purpose of identifying a subset of feature instances to be operated upon in some way.
Geography Markup Language	OGC	GML3.0	2003		Yes	Maybe	Yes		Yes	The Geography Markup Language (GML) is an XML encoding for the transport and storage of geographic information, including both the geometry and properties of geographic features.
Grid Coverages	OGC	GC	2001		Yes				Yes	This specification was designed to promote interoperability between software implementations by data vendors and software vendors providing grid analysis and processing capabilities.
OpenGIS Location Services (OpenLS): Core Services [Parts 1-5]	OGC	OLS Core	2004						Yes	OpenGIS Location Services (OpenLS): Core Services, Parts 1-5, which consists of the composite set of basic services comprising the OpenLS Platform. This platform is also referred to as the GeoMobility Server (GMS), an open location services platform.
Simple Features - CORBA	OGC	SFC	1999		No	No	No		Yes	The Simple Features Specification application programming interfaces (APIs) provide for publishing, storage, access, and simple operations on Simple Features (point, line, polygon, multi-point, etc).
Simple Features - SQL	OGC	SFS	1999		No	No	No		Yes	The Simple Features Specification application programming interfaces (APIs) provide for publishing, storage, access, and simple operations on Simple Features (point, line, polygon, multi-point, etc).
Styled Layer Descriptor	OGC	SLD	2002						Yes	The SLD is an encoding for how the Web Map Server (WMS 1.0 & 1.1) specification can be extended to allow user-defined symbolization of feature data.
Web Coverage Service	OGC	WCS	2003						Yes	Extends the Web Map Server (WMS) interface to allow access to geospatial "coverages" that represent values or properties of geographic locations, rather than WMS generated maps (pictures).
Web Feature Service	OGC	WFS	2002						Yes	The purpose of the Web Feature Service Interface Specification (WFS) is to describe data manipulation operations on OpenGIS® Simple Features (feature instances) such that servers and clients can "communicate" at the feature level.
Web Map Context Documents	OGC	WMC	2003						Yes	Create, store, and use "state" information from a WMS based client application.
Web Map Service	OGC	WMS1.3	2002						Yes	Provides three operations protocols (GetCapabilities, GetMap, and GetFeatureInfo) in support of the creation and display of registered and superimposed map-like views of information that come simultaneously from multiple sources that are both remote and heterogeneous.
Topic 0 - Overview	OGC	99-100r1	1999		Yes	No	No		Yes	Introduction and roadmap to the Abstract specification
Topic 1 - Feature Geometry	OGC	01-101	2001		No	No	No		Yes	Same as ISO 19107
Topic 10 - Feature Collections	OGC	99-110	1999		Yes	No	Yes		Yes	An OpenGIS Feature Collection is an abstract object consisting of Feature Instances, their Feature Schema, and Project Schema.
Topic 11 - Metadata	OGC	01-111	2001		Yes	Yes	No		Yes	ISO 19115 was adopted as a replacement for OGC Abstract Specification Topics 9 and 11. In June 2001, a motion to include material in addition to ISO 19115 was adopted as document "01-111 Metadata AS." The approved addition to document 01-111 is contained in document 01-053r1, which normatively references parts of the old AS Topic 9, document 99-109r1.
Topic 12 - The OpenGIS Service Architecture	OGC	02-112	2001		Yes	No	No		Yes	FGDC in conjunction with ANSI INCITS L1 are planning the migration of the FGDC Content Standard for Geospatial Metadata to be a profile of ISO 19115
Topic 13 - Catalog Services	OGC	99-113	1999		Yes	No	Yes		Yes	Same as ISO 19119
Topic 14 - Semantics and Information Communities	OGC	99-114	1999		Yes	No	Yes		Yes	Covers the Geospatial Information Access Services
Topic 15 - Image Exploitation Services	OGC	00-115	2000		Yes	No	No		Yes	The OpenGIS™ region of Information Communities was devised to enable groups such as ecologists and civil engineers to efficiently manage the semantics (or feature schema mismatches) of their own geodata collections and get maximum benefit from each other's geodata collections, despite semantic differences
Topic 16 - Image Coordinate Transformation Services	OGC	00-116	2000		No	No	No		Yes	Describes the categories and taxonomy of image exploitation services needed to support the use of images and certain related coverage types.
Topic 2 - Spatial Referencing by Coordinates	OGC	03-073r1	2003		No	No	No		Yes	Covers image coordinate conversion services
Topic 3 - Locational Geometry Structures	OGC	99-103	1999		No	No	No		Yes	Describes modelling requirements for spatial referencing by coordinates
Topic 4 - Stored Functions and Interpolation	OGC	99-104	1999		Maybe	Maybe	Maybe		Yes	Provides essential and abstract models for GIS technology that is widely used.
Topic 5 - Features	OGC	99-105r2	1999		Yes	No	No		Yes	This Topic Volume provides essential and abstract models for technology that is used widely across the GIS landscape. Its first heavy use is expected to occur in support of Coverage specifications (see Topic 6, The Coverage Type)
Topic 6 - The Coverage Type	OGC	00-106	2000	incomplete	No	No	No		Yes	A feature object (in software) corresponds to a real world or abstract entity
Topic 7 - Earth Imagery	OGC	99-107	1999		No	No	No		Yes	Incomplete. This document normatively references parts of the previous version of AS Topic 6, document 00-106. Need to be updated to include Roswell Change Proposal (01-011), which includes 19123 and retains material from Topic 6, v6
Topic 8 - Relationships Between Features	OGC	99-108r2	1999		Yes	No	No		Yes	This Topic Volume will provide essential and abstract models for technology that is already used widely (but not interoperably) across the GIS landscape. This technology properly depends on the more general technology that supports Coverages
Topic Domain 1 - Telecommunications Domain	OGC	01-042	2001		Maybe	Maybe	Maybe		Yes	This Topic introduces an abstraction for the relationships between entities in the real world. This abstraction is modeled as relationships between the features introduced in Topic 5
QSIS Foundation Information Standard	QSIS		1995		Yes	Yes	Maybe		Yes	Foundation Information Standard describes a list of Foundation data and their associated Base Level Specification
QSIS Parcel Identification Standard	QSIS		1997		Yes	No	Yes		Yes	This document provides a consistent method for uniquely identifying all land parcels in Queensland. In the context of this document, a parcel is understood to be a bounded area in which an interest relating to the land exists or will exist. It is also recognised that such a parcel (or bounded area) may have more than one interest associated with it
QSIS Standard 3 - Digital Road Network	QSIS	SDRN	2003	Draft	Partial	Partial	Maybe	classification of	Yes	The State Digital Road Network (SDRN) is a geographical dataset that is fundamental to the information management operations of most Queensland Government agencies
QSIS Custodianship Standard	QSIS		2001	Draft	Yes	Yes	Maybe		Yes	The purpose of this standard is to describe the obligations of an organisation that accepts a custodian role for a dataset within the Queensland Spatial Information Infrastructure Strategy initiative
Standards of competence for hydrographic surveyors	IHO		2001		No	No	No		Yes	
Intelligent transport systems - Geographic Data Files (GDF) - Overall data specification	ISO/TC 204	ISO 14825	2004		Yes	Maybe	Yes		Cost	
Spatial data transfer standard (SDTS)	SA	AS4270			No	No	No		Yes	
Canadian Geopolitical Boundaries, Feature catalog	GeoBase		2003		Yes	No	Yes		Yes	
Canadian Geopolitical Boundaries, Product specifications	GeoBase		2003		Yes	Yes	No		Yes	
Canadian Geographic Names Service, Data Model and Data Dictionary	GeoBase		2003		Yes	No	Yes		Yes	
Canadian Spatial Reference System Data Base, Data Model and Data Dictionary	GeoBase		2002		Maybe	Maybe	Maybe		Yes	
Canadian Geographic Names, Product specifications	GeoBase		2003		Yes	Yes	No		Yes	
Canadian Digital Elevation Data, Product specifications	GeoBase		2003		Yes	Yes	No		Yes	
Canadian Base Networks, Product specifications	GeoBase		2003		Yes	Yes	No		Yes	
A Geocoded National address File for Australia	PSMA Australia Limited		2003		Yes	No	Yes		Yes	
Federal 2D Densification Network, North of Canada, Product specifications	GeoBase		2003		Maybe	Maybe	No		Yes	
Federal 3D Densification Network, Canada, Product specifications	GeoBase		2003		Maybe	Maybe	No		Yes	
Primary Vertical bench Marks, Canada, Product specifications	GeoBase		2003		Maybe	Maybe	No		Yes	
Guidelines and standards for Digital Parcel Data Sets for use in a Geographical information system	RIGIS		2003	draft	Yes	Yes			Yes	To provide content guidelines for digital data with respect to spacial accuracy, attribute coding and documentation (metadata) for Rhode Island cities and towns who are creating new or updating existing digital data representing municipal parcel or tax assessment maps for use in a Geographic Information System GIS. - To encourage a common spatial base for municipal parcel and related attribute data to better enable future use in a state wide or regional geography involving multiple town analysis of land related information. - To establish minimal standards for cities and towns producing or maintaining digital parcel data funded or partially funded by grants received from Rhode Island State government agencies.
National Vector Data Change Management	GeoBase		2003		No	No	No		Yes	
National Vector Data External Databases	GeoBase		2003		No	No	No		Yes	
National Vector Data Identification rules	GeoBase		2003		No	No	No		Yes	
National Road Networks, Canada, Data Models	GeoBase		2003		Maybe	Maybe	Maybe		Yes	
National Road Networks, Canada, LRS Feature Catalogue	GeoBase		2003		Yes	No	Yes		Yes	
National Road Networks, Canada, Segmented Feature Catalogue	GeoBase		2003		Yes	No	Yes		Yes	
National Road Networks, Canada, Product specifications	GeoBase		2003		Yes	No	Yes		Yes	
LandSat 7 Orthorectified Imagery over Canada, Product specifications	GeoBase		2003		Yes	No	Yes		Yes	
National Vector Data Metadata Specifications	GeoBase		2003		Yes	No	Yes		Yes	
National Road Network	GeoBase		2003		Maybe	Maybe	Maybe		Yes	
The development of national standards and other normative Documents	Stan SA		2003		Yes	No	No		??	
Map Scale and Accuracy Standard	Indiana Geographic Information Council		2001		Maybe	Maybe	No		Yes	The goal of this standard and the recommendations committee is to provide recommendations and guidelines to Indiana GIS user communities to facilitate the collection, maintenance and analysis of GIS data, and to communicate existing Federal state and local data standards.
Japanese Standards for Geographic Information (JSGI)	JSGI				Yes	Yes	No	Probably in Japa	Cost	Japanese implementation of the ISO 19100 standards
Zimbabwe National Standard; Digital Geographic Information	Zimbabwe		1996	draft	Yes	Yes	Yes		Yes	The national standard in geographical information aims to be a document established by consensus and approved by a recognised body, that provides for common and repeated use, rules, guidelines or characteristics for activities or their results aimed at the achieving the optimum degree of order in a given context. This version of the standard is limited to definition of principles and data models within important areas of geographical information, and a first proposal of classification of features and attributes defined in the data models.
Zimbabwe National Standard; Metadata	Zimbabwe		1996	draft		Yes			Yes	The main purpose of this standard is to define those data structures which shall be used to describe a geographic dataset. The standard identifies those data which are mandatory for describing geographic datasets, the minimum set of metadata.
Zimbabwe National Standard; Cadastral	Zimbabwe		1996	draft	Yes	Yes	Yes		Yes	This standard is designed primarily for use with digital geographic datasets, but the principles can also be used to describe geographic datasets in other form, such as paper maps or lists, and building metadata bases.
Zimbabwe National Standard; Transport	Zimbabwe		1996	draft	Yes	Yes	Yes		Yes	positioning and graphical presentation eg Cadastral maps. The attribute part of the standard is limited to the necessary
Zimbabwe National Standard; Building	Zimbabwe		1996	draft	Yes	Yes	Yes		Yes	The main purpose of this standard is to define data structures of transport information that is related to spatial positioning and graphical presentation, eg road maps, topographical maps at different scales. The attribute part of the standard is limited to the information that is usually presented on maps, or carries the link to other transport information systems.
Zimbabwe National Standard; Utilities	Zimbabwe		1996	draft	Yes	Yes	Yes		Yes	The main purpose of this standard is to define data structures of information on buildings that are related to spatial positioning and graphical presentation, eg city maps, topographic maps in different scales. The attribute part of the standard is limited to the information that is usually presented on maps, or carries the link to other information systems that pertain to buildings.
Zimbabwe National Standard; Land Description	Zimbabwe		1996	draft	Yes	Yes	Yes		Yes	The main purpose of this standard is to define data structures of utility information that is related to spatial positioning and graphical presentation, eg utility maps, topographic maps in different scales. The attribute part of the standard is limited to the information that is usually presented on maps and general information about utility networks (eg pipelines and cables) without defining any specific data structures eg specific data about electricity, water and sewage. The standard will specify links to area specific information.
Zimbabwe National Standard; Administration	Zimbabwe		1996	draft	Yes	Yes	Yes		Yes	The main purpose of this standard is to define data structures for landuse and landcover classification which are spatially described as areas. The attribute part of the standard will define the necessary information on how to classify both land use and land cover at large and small scale maps.
Zimbabwe National Standard; Water	Zimbabwe		1996	draft	Yes	Yes	Yes		Yes	The main purpose of this standard is to define data structures for administrative units spatially described as borderlines and areas. The attribute part of the standard will define the necessary information to map out administrative units in standard map-series, and to use administrative units or borderlines for identifying other information.
Zimbabwe National Standard; Heights	Zimbabwe		1996	draft	Yes	Yes	Yes		Yes	The main purpose of this standard is to define data structures for water features that are related to spatial positioning and graphical presentation, eg topographical maps. The attribute part of the standard will define the necessary information that is usually presented on maps, or carries the link to other water information systems. In addition, information about how rivers are connected in a drainage system can be stored.
Zimbabwe National Standard; Control Points	Zimbabwe		1996	draft	Yes	Yes	Yes		Yes	The main purpose of this standard is to define data structures for exchange of the varying forms elevation information. For grid matrices and triangular methods only simple transfer mechanisms are defined.
Zimbabwe National Standard; Annotation and Text	Zimbabwe		1996	draft	Yes	Yes	Yes		Yes	The main purpose of this standard is to define data structures for storing position, identification and classification for control points of all categories. The attribute part of the covers necessary link to relevant information through the identification of the points.
Property Information Systems Common Exchange Standard (PISCES)	PISCES	Version 1.6.1	2004	published	Yes	Maybe	No	Not available	No	The standard is only available to PISCES members and those considering becoming licenced by PISCES, and hence is not available for this project
Open Standards Consortium for Real Estate (OSCRE)	OSCRE			uncertain	Yes	Maybe	No	Not available	No	Basically, the international version of PISCES
Statistical Data and Metadata Exchange	SDMX	SDMX	2004		Yes	Yes	No		Yes	Proposed to become ISO/DTS 17369 under ISO/TC 154
Standard for Map and Chart Warehousing	National Topographic Hydrographic Auth		2001		Yes					The purpose of this document is to state the conditions the Service Provider must meet when warehousing topographic and hydrographic information for LINZ.
Standard for Printed New Zealand Topographic 260 series maps	National Topographic Hydrographic Auth		2000		Yes					The purpose of this document is to define the standards to be met by Printers producing Series 260 1:50 000 scale New Zealand Topographic Maps for Land information New Zealand.
Land Information New Zealand Guide for Field Checking NZTopo Data v1.1	National Topographic-Hydrographic Auth		2002		Yes					The purpose of this document is to act as a guide for field checking by defining those attributes and objects, which are, • most likely to be encountered, or only able to be ascertained, in the field • of high importance • important for safety reasons • dynamic in nature such as vegetation
Land Information New Zealand Guide for Field Checking NZTopo Data v1.2	National Topographic-Hydrographic Auth		2003		Yes					The purpose of this document is to act as a guide for field checking by defining those attributes and objects, which are, • most likely to be encountered, or only able to be ascertained, in the field • of high importance • important for safety reasons • dynamic in nature such as vegetation
Technical Specification for the Maintenance of NZTopo data v1.5	National Topographic-Hydrographic Auth		2003		Yes					The purpose of this document is to define the standards to be met in Maintaining NZTopo data.
Technical Specification for the Maintenance of NZTopo data v1.6	National Topographic-Hydrographic Auth		2004		Yes					The purpose of this document is to define the standards to be met in Maintaining NZTopo data.
Pennsylvania Geospatial Data Sharing Standard (PGDSS)	PaMAGIC									