Item class GeodeticCRS Name GDA94 - XYZ Item status **VALID** Identifier 362 Alias GDA94 Information source Title Geocentric Datum of Australia Technical Manual Version 2.4 Permanent Committee on Geodesy of the **Author** Intergovernmental Committee on Surveying and Mapping Publisher Intergovernmental Committee on Surveying and Mapping Publication date 2014-12-02 Edition date Data source ISO Geodetic Registry

Scope Spatial referencing.

Datum Geocentric Datum of Australia 1994

Coordinate System

Geocentric 3D right-handed Cartesian CS. Axes: Geocentric X,Y,Z.

Orientation: Z to North Pole, [X and Y in the equatorial plane, X at

Prime Meridian | X in the equatorial plane at the Prime Meridian]. UoM:

m.

#### Extent

Description	Australia - onshore and offshore - mainland, Tasmania, Lord Howe Island, Norfolk Island, Macquarie Island. Christmas Island - onshore and offshore. Cocos (Keeling) Islands - onshore and offshore.	
Geographic Bounding Box	West-bound longitude	93.41
	North-bound latitude	-8.47
	East-bound longitude	173.4
	South-bound latitude	-60.56

Item class GeodeticDatum

Name Geocentric Datum of Australia 1994

Item statusVALIDIdentifier182AliasGDA94

Information source Title Geocentric Datum of Australia Technical Manual

Version 2.4

Author Permanent Committee on Geodesy of the

Intergovernmental Committee on Surveying and

Mapping

Publisher Intergovernmental Committee on Surveying and

Mapping

Publication date 2014-12-02

Edition date

Data source ISO Geodetic Registry

Remarks Replaces AGD84 except for the Australian Capital Territory.

Anchor definition ITRF92 at epoch 1994.0.

Release date 1998-01-14 Coordinate Reference Epoch 1994.0

Scope Spatial referencing

Ellipsoid GRS 1980
Prime Meridian Greenwich

#### Extent

Description	Australia - onshore and offshore - mainland, Tasmania, Lord Howe Island, Norfolk Island, Macquarie Island. Christmas Island - onshore and offshore. Cocos (Keeling) Islands - onshore and offshore.	
Geographic Bounding Box	West-bound longitude	93.41
	North-bound latitude	-8.47
	East-bound longitude	173.4
	South-bound latitude	-60.56

Item class Ellipsoid

Name GRS 1980

Item status VALID Identifier 27

Alias Geodetic Reference System 1980

Alias GRS1980
Alias IAG GRS80

Alias International 1979

Alias GRS80

Information source Title Geodetic Reference System 1980

Author H. Moritz

Publisher Springer International Publishing

Publication date 2003-03

Series/Journal name Journal of Geodesy Issue identification Volume 74, No. 1

Page 128–162

Information source Title Geodetic Reference System 1980

Author H. Moritz

Publisher International Association of Geodesy

Publication date 1984

Series/Journal name Bulletin Geodesique Issue identification Volume 58, No. 3

Page 395-405

Data source ISO Geodetic Registry

Remarks Adopted by IUGG 1979 Canberra. Inverse flattening is derived from

geocentric gravitational constant GM = 3986005e8 m\*m\*m/s/s, dynamic form factor J2 = 108263e-8 and Earth's angular velocity =

7292115e-11 rad/s.

 Semi-major axis
 6378137.0 m

 Inverse flattening
 298.257222101 m

Item class PrimeMeridian

Name Greenwich

Item statusVALIDIdentifier25

Alias Zero meridian

Information source Title Why the Greenwich meridian moved

Author S. Malys, J.H. Seago, N.K. Pavlis, P.K.

Seidelmann, G.H. Kaplan

Publisher Springer International Publishing

Publication date 2015-12

Series/Journal name Journal of Geodesy Issue identification Volume 89, No. 12

Page 1263–1272

Information source Title IERS Conventions (2010)

Author G. Petit, B.J. Luzum (eds)

Publisher Verlag des Bundesamts fur Kartographie und

Geodasie

Publication date 2010

Edition date

Series/Journal name IERS Technical Notes

Issue identification 36.0

Other citation details ISSN: 1019-4568

Data source ISO Geodetic Registry

Greenwich longitude 0.0 °

CartesianCS Item class

Name Geocentric 3D right-handed Cartesian CS.

Axes: Geocentric X,Y,Z. Orientation: Z to North

Pole, [X and Y in the equatorial plane, X at

Prime Meridian | X in the equatorial plane at the

Prime Meridian]. UoM: m.

Item status **VALID** Identifier 45

Alias Earth centred, earth fixed, right-handed 3D coordinate system,

> consisting of 3 orthogonal axes with X and Y axes in the equatorial plane, positive Z-axis parallel to mean earth rotation axis and pointing

towards North Pole. UoM: m.

Alias **ECEF** 

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

International Organization for Standardization Author

(ISO)

Publisher International Organization for Standardization

(ISO)

2007-07-01 Publication date Second Edition Edition Series/Journal name International Standard

Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

Used in geocentric coordinate reference systems. Remarks

#### Axes

Item class CoordinateSystemAxis Name **Geocentric X** Item status **VALID** Identifier 33 Information source Title ISO 19111 Geographical information - Spatial referencing by coordinates Author International Organization for Standardization Publisher International Organization for Standardization (ISO) Publication date 2007-07-01 Edition Second Edition Series/Journal name International Standard Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

Abbreviation Χ

Direction Geocentre > equator/0°E

Unit metre

Item class CoordinateSystemAxis

Name **Geocentric Y** 

**VALID** Item status Identifier 37

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

Author International Organization for Standardization

(ISO)

Publisher International Organization for Standardization

(ISO)

Publication date 2007-07-01

Edition Second Edition

Series/Journal name International Standard

Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

*Abbreviation* Y

Direction Geocentre > equator/90°E

Unit metre

Item class CoordinateSystemAxis

Name Geocentric Z

Item statusVALIDIdentifier39

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

Author International Organization for Standardization

(ISO)

Publisher International Organization for Standardization

(ISO)

Publication date 2007-07-01

Edition Second Edition

Series/Journal name International Standard

Issue identification ISO 19111:2007

ISO Geodetic Registry

Abbreviation Z

Data source

Direction Geocentre > north pole

Unit metre