Item class GeodeticCRS

Name ATRF2014 - LatLon

Item status VALID Identifier 787

Alias Australian Terrestrial Reference Frame 2014

Information source Title Australian Terrestrial Reference Frame

AuthorGeoscience AustraliaPublisherGeoscience Australia

Revision date 2020

Other citation details Website. https://www.icsm.gov.au/australian-

terrestrial-reference-frame (accessed 2021-09-27)

Information source Title Australian Terrestrial Reference Frame (ATRF):

Technical Implementation Plan

Author Intergovernmental Committee on Surveying and

Mapping (ICSM)

Publisher Geoscience Australia

Revision date 2020-02-12 Edition Version 2.3 Edition date 2020-02-12

Other citation details https://www.icsm.gov.au/sites/default/

files/2020-02/ATRF%20Technical

%20Implementation%20Plan%20v2.3_1.pdf

(accessed 2021-09-27)

Data source ISO Geodetic Registry
Scope Spatial referencing

Datum Australian Terrestrial Reference Frame 2014

Coordinate System Ellipsoidal 2D CS. Axes: latitude, longitude. Orientations: north, east.

UoM: degree

Extent

Description	Australia including Lord Howe Island, Macquarie Island, Ashmore and Cartier Islands Christmas Island, Cocos (Keeling) Islands, Norfolk Island. All onshore and offshore.	
Geographic Bounding Box	West-bound longitude	93.41
	North-bound latitude	-8.47
	East-bound longitude	173.34
	South-bound latitude	-60.56

Item class GeodeticDatum

Name Australian Terrestrial Reference Frame 2014

Item statusVALIDIdentifier783

Alias ATRF2014

Information source Title Australian Terrestrial Reference Frame

Author Geoscience Australia
Publisher Geoscience Australia

Revision date 2020

Other citation details Website. https://www.icsm.gov.au/australian-

terrestrial-reference-frame (accessed 2021-09-27)

Information source Title Australian Terrestrial Reference Frame (ATRF):

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Author Intergovernmental Committee on Surveying and

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Publisher Geoscience Australia

Revision date 2020-02-12
Edition Version 2.3
Edition date 2020-02-12

Other citation details https://www.icsm.gov.au/sites/default/

files/2020-02/ATRF%20Technical

%20Implementation%20Plan%20v2.3 1.pdf

(accessed 2021-09-27)

Data source ISO Geodetic Registry

Remarks Densification of ITRF2014 in the Australian region.

Anchor definition ATRF2014 is aligned to ITRF2014 at epoch 2020.0. Horizontal

velocities from the Australian Plate Motion Model are used to propagate

the horizontal coordinates to any other desired epoch.

Release date 2020-01-01 Coordinate Reference Epoch 2020.0

Scope Spatial referencing

Ellipsoid GRS 1980
Prime Meridian Greenwich

Extent

Australia including Lord Howe Island,
Macquarie Island, Ashmore and Cartier Islands,

Christmas Island, Cocos (Keeling) Islands, Norfolk Island. All onshore and offshore.

Geographic Bounding Box West-bound longitude 93.41
North-bound latitude -8.47

East-bound longitude 173.34 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 status VALID
Identifier 25

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 °

Item class EllipsoidalCS

Name Ellipsoidal 2D CS. Axes: latitude, longitude.

Orientations: north, east. UoM: degree

Item status VALID

Identifier 43

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

Remarks Used in geographic 2D coordinate reference systems. Coordinates

referenced to this CS are in degrees. Any degree representation (e.g. DMSH, decimal, etc.) may be used but that used must be declared for

the user by the supplier of data.

Axes

Item class CoordinateSystemAxis

Name Geodetic latitude

Item status VALID
Identifier 38

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

ICO Condation Designation

Data source ISO Geodetic Registry

Remarks Used in geographic 2D and geographic 3D coordinate reference

systems.

Abbreviation Lat
Direction north

Unit degree (supplier to define representation)

Item class CoordinateSystemAxis

Name Geodetic longitude

Item status VALID
Identifier 34

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

Remarks Used in geographic 2D and geographic 3D coordinate reference

systems.

Abbreviation Lon
Direction east

Unit degree (supplier to define representation)