

# ISO Geodetic Registry

<i>Item class</i>	GeodeticCRS	
<i>Name</i>	<b>SIRGAS95 - LatLonEHt</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	306	
<i>Alias</i>	South American Geocentric Reference System 1995	
<i>Alias</i>	SIRGAS	
<i>Alias</i>	SIRGAS 1995	
<i>Alias</i>	SIRGAS1995	
<i>Alias</i>	SIRGAS95	
<i>Alias</i>	Geocentric Reference System for South America	
<i>Information source</i>	<i>Title</i>	Sistema de Referencia Geocentrico para las Americas (SIRGAS)
	<i>Author</i>	Sistema de Referencia Geocéntrico para las Américas (SIRGAS)
	<i>Publisher</i>	Sistema de Referencia Geocéntrico para las Américas (SIRGAS)
	<i>Publication date</i>	2018
	<i>Other citation details</i>	Website
<i>Information source</i>	<i>Title</i>	South American Geocentric Reference System: Final Report, Working Groups I and II
	<i>Author</i>	SIRGAS Working Groups I and II
	<i>Publisher</i>	Instituto Brasileiro de Geografia e Estatística (IBGE), Rio de Janeiro, Brasil
	<i>Publication date</i>	1997
	<i>Other citation details</i>	Report in both English and Spanish.
<i>Information source</i>	<i>Title</i>	Deformation of the South American crust estimated from finite element and collocation methods
	<i>Author</i>	H. Drewes, O. Heidbach
	<i>Publisher</i>	Springer Berlin Heidelberg
	<i>Publication date</i>	2005
	<i>Series/Journal name</i>	International Association of Geodesy Symposia
	<i>Issue identification</i>	128.0
	<i>Page</i>	544-549
	<i>Other citation details</i>	In Sanso F. (eds) A Window on the Future of Geodesy. International Association of Geodesy Symposia, Vol 128. Springer, Berlin, Heidelberg
<i>Data source</i>	ISO Geodetic Registry	
<i>Scope</i>	Spatial referencing	
<i>Datum</i>	Sistema de Referencia Geocentrico para America del Sur 1995	
<i>Coordinate System</i>	Ellipsoidal 3D CS. Axes: latitude, longitude, ellipsoidal height. Orientations: north, east, up. UoM: degree, degree, metre.	

## Extent

<i>Description</i>	<b>South America - onshore and offshore</b>	
<i>Geographic Bounding Box</i>	<i>West-bound longitude</i>	-113.21
	<i>North-bound latitude</i>	16.75
	<i>East-bound longitude</i>	-26.0
	<i>South-bound latitude</i>	-59.87

# ISO Geodetic Registry

Item class	GeodeticDatum	
Name	Sistema de Referencia Geocentrico para America del Sur 1995	
Item status	VALID	
Identifier	150	
Alias	South American Geocentric Reference System 1995	
Alias	SIRGAS	
Alias	SIRGAS 1995	
Alias	SIRGAS1995	
Alias	SIRGAS95	
Alias	Geocentric Reference System for South America	
Information source	Title	South American Geocentric Reference System: Final Report, Working Groups I and II
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	Publisher	Instituto Brasileiro de Geografia e Estatistica (IBGE), Rio de Janeiro, Brasil
	Publication date	1997
	Other citation details	Report in both English and Spanish.
Information source	Title	Sistema de Referencia Geocentrico para las Americas (SIRGAS)
	Author	Sistema de Referencia Geocéntrico para las Américas (SIRGAS)
	Publisher	Sistema de Referencia Geocéntrico para las Américas (SIRGAS)
	Publication date	2018
	Other citation details	Website
Information source	Title	Deformation of the South American crust estimated from finite element and collocation methods
	Author	H. Drewes, O. Heidbach
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	Series/Journal name	International Association of Geodesy Symposia
	Issue identification	128.0
	Page	544-549
	Other citation details	In Sanso F. (eds) A Window on the Future of Geodesy. International Association of Geodesy Symposia, Vol 128. Springer, Berlin, Heidelberg
Data source	ISO Geodetic Registry	
Remarks	Replaced by SIRGAS2000.	
Anchor definition	Realized by a frame of 58 stations observed in 1995 and aligned to ITRF94 at epoch 1995.4. Velocity model VEMOS2003 used to propagate coordinates from an arbitrary epoch to the 1995.4 reference epoch.	
Release date	1997	
Coordinate Reference Epoch	1995.4	
Scope	Spatial referencing	
Ellipsoid	GRS 1980	
Prime Meridian	Greenwich	

Extent

<i>Description</i>	<b>South America - onshore and offshore</b>	
<i>Geographic Bounding Box</i>	<i>West-bound longitude</i>	-113.21
	<i>North-bound latitude</i>	16.75
	<i>East-bound longitude</i>	-26.0
	<i>South-bound latitude</i>	-59.87

# ISO Geodetic Registry

<i>Item class</i>	Ellipsoid														
<i>Name</i>	<b>GRS 1980</b>														
<i>Item status</i>	VALID														
<i>Identifier</i>	27														
<i>Alias</i>	Geodetic Reference System 1980														
<i>Alias</i>	GRS1980														
<i>Alias</i>	IAG GRS80														
<i>Alias</i>	International 1979														
<i>Alias</i>	GRS80														
<i>Information source</i>	<table> <tr> <td><i>Title</i></td><td>Geodetic Reference System 1980</td></tr> <tr> <td><i>Author</i></td><td>H. Moritz</td></tr> <tr> <td><i>Publisher</i></td><td>Springer International Publishing</td></tr> <tr> <td><i>Publication date</i></td><td>2003-03</td></tr> <tr> <td><i>Series/Journal name</i></td><td>Journal of Geodesy</td></tr> <tr> <td><i>Issue identification</i></td><td>Volume 74, No. 1</td></tr> <tr> <td><i>Page</i></td><td>128–162</td></tr> </table>	<i>Title</i>	Geodetic Reference System 1980	<i>Author</i>	H. Moritz	<i>Publisher</i>	Springer International Publishing	<i>Publication date</i>	2003-03	<i>Series/Journal name</i>	Journal of Geodesy	<i>Issue identification</i>	Volume 74, No. 1	<i>Page</i>	128–162
<i>Title</i>	Geodetic Reference System 1980														
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<i>Title</i>	Geodetic Reference System 1980														
<i>Author</i>	H. Moritz														
<i>Publisher</i>	International Association of Geodesy														
<i>Publication date</i>	1984														
<i>Series/Journal name</i>	Bulletin Geodesique														
<i>Issue identification</i>	Volume 58, No. 3														
<i>Page</i>	395-405														
<i>Data source</i>	ISO Geodetic Registry														
<i>Remarks</i>	Adopted by IUGG 1979 Canberra. Inverse flattening is derived from geocentric gravitational constant $GM = 3986005e8 \text{ m}^3/\text{s}^2$ , dynamic form factor $J_2 = 108263e-8$ and Earth's angular velocity = $7292115e-11 \text{ rad/s}$ .														
<i>Semi-major axis</i>	6378137.0 m														
<i>Inverse flattening</i>	298.257222101 m														

# ISO Geodetic Registry

<i>Item class</i>	PrimeMeridian	
<i>Name</i>	<b>Greenwich</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	25	
<i>Alias</i>	Zero meridian	
<i>Information source</i>	<i>Title</i>	Why the Greenwich meridian moved
	<i>Author</i>	S. Malys, J.H. Seago, N.K. Pavlis, P.K. Seidelmann, G.H. Kaplan
	<i>Publisher</i>	Springer International Publishing
	<i>Publication date</i>	2015-12
	<i>Series/Journal name</i>	Journal of Geodesy
	<i>Issue identification</i>	Volume 89, No. 12
	<i>Page</i>	1263–1272
<i>Information source</i>	<i>Title</i>	IERS Conventions (2010)
	<i>Author</i>	G. Petit, B.J. Luzum (eds)
	<i>Publisher</i>	Verlag des Bundesamts für Kartographie und Geodäsie
	<i>Publication date</i>	2010
	<i>Edition date</i>	
	<i>Series/Journal name</i>	IERS Technical Notes
	<i>Issue identification</i>	36.0
<i>Data source</i>	<i>Other citation details</i>	ISSN: 1019-4568
	ISO Geodetic Registry	
<i>Greenwich longitude</i>	0.0 °	

# ISO Geodetic Registry

<i>Item class</i>	EllipsoidalCS	
<i>Name</i>	<b>Ellipsoidal 3D CS. Axes: latitude, longitude, ellipsoidal height. Orientations: north, east, up. UoM: degree, degree, metre.</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	46	
<i>Information source</i>	<i>Title</i>	ISO 19111 Geographical information - Spatial referencing by coordinates
	<i>Author</i>	International Organization for Standardization (ISO)
	<i>Publisher</i>	International Organization for Standardization (ISO)
	<i>Publication date</i>	2007-07-01
	<i>Edition</i>	Second Edition
	<i>Series/Journal name</i>	International Standard
	<i>Issue identification</i>	ISO 19111:2007
<i>Data source</i>	ISO Geodetic Registry	
<i>Remarks</i>	Used in geographic 3D coordinate reference systems. Horizontal 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.	

## Axes

<i>Item class</i>	CoordinateSystemAxis	
<i>Name</i>	<b>Geodetic latitude</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	38	
<i>Information source</i>	<i>Title</i>	ISO 19111 Geographical information - Spatial referencing by coordinates
	<i>Author</i>	International Organization for Standardization (ISO)
	<i>Publisher</i>	International Organization for Standardization (ISO)
	<i>Publication date</i>	2007-07-01
	<i>Edition</i>	Second Edition
	<i>Series/Journal name</i>	International Standard
	<i>Issue identification</i>	ISO 19111:2007
<i>Data source</i>	ISO Geodetic Registry	
<i>Remarks</i>	Used in geographic 2D and geographic 3D coordinate reference systems.	
<i>Abbreviation</i>	Lat	
<i>Direction</i>	north	
<i>Unit</i>	degree (supplier to define representation)	

  

<i>Item class</i>	CoordinateSystemAxis	
<i>Name</i>	<b>Geodetic longitude</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	34	
<i>Information source</i>	<i>Title</i>	ISO 19111 Geographical information - Spatial referencing by coordinates
	<i>Author</i>	International Organization for Standardization (ISO)

	<i>Publisher</i>	International Organization for Standardization (ISO)
	<i>Publication date</i>	2007-07-01
	<i>Edition</i>	Second Edition
	<i>Series/Journal name</i>	International Standard
	<i>Issue identification</i>	ISO 19111:2007
<i>Data source</i>	ISO Geodetic Registry	
<i>Remarks</i>	Used in geographic 2D and geographic 3D coordinate reference systems.	
<i>Abbreviation</i>	Lon	
<i>Direction</i>	east	
<i>Unit</i>	degree (supplier to define representation)	

  

<i>Item class</i>	CoordinateSystemAxis	
<i>Name</i>	<b>Ellipsoidal height</b>	
<i>Item status</i>	VALID	
<i>Identifier</i>	36	
<i>Information source</i>	<i>Title</i>	ISO 19111 Geographical information - Spatial referencing by coordinates
	<i>Author</i>	International Organization for Standardization (ISO)
	<i>Publisher</i>	International Organization for Standardization (ISO)
	<i>Publication date</i>	2007-07-01
	<i>Edition</i>	Second Edition
	<i>Series/Journal name</i>	International Standard
	<i>Issue identification</i>	ISO 19111:2007
<i>Data source</i>	ISO Geodetic Registry	
<i>Remarks</i>	Used only as part of an ellipsoidal 3D coordinate system in a geographic 3D coordinate reference system, never on its own.	
<i>Abbreviation</i>	h	
<i>Direction</i>	up	
<i>Unit</i>	metre	