Item class GeodeticCRS

Name SIRGAS-CON DGF04P01 - LatLon

 Item status
 VALID

 Identifier
 366

 Alias
 SIRGAS

 Alias
 DGF04P01

 Alias
 SIRGAS-CON

 Alias
 DGF104P01

Alias SIRGAS Multi-Year Solution 2004

Alias Geocentric Reference System for the Americas

Alias Sistema de Referencia Geocentrico para las Americas

Information source Title Deformation of the South American crust

estimated from finite element and collocation

methods

Author H. Drewes, O. Heidbach Publisher Springer Berlin Heidelberg

Publication date 2005

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

Title Station positions and velocities of the IGS

regional network for SIRGAS

Author W. Seemüller, K. Kaniuth, H. Drewes

Publisher Deutsches Geodaetisches Forschungsinstitut,

Munich, Germany

Publication date 2004 Series/Journal name DGFI Report

Issue identification No. 76

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

Data source ISO Geodetic Registry
Scope Spatial referencing

Datum SIRGAS Continuously Operating Network DGF04P01

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

UoM: degree

### Extent

Information source

South America - onshore and offshore. Central
America - onshore and offshore. Mexico onshore and offshore.

Geographic Bounding Box
West-bound longitude
North-bound latitude
32.72

East-bound longitude	
South-bound latitude	

-25.28 -59.87

Item class GeodeticDatum

Name SIRGAS Continuously Operating Network

**DGF04P01** 

Item statusVALIDIdentifier160AliasSIRGASAliasDGF04P01AliasSIRGAS-CONAliasDGF104P01

Alias SIRGAS Multi-Year Solution 2004

Alias Geocentric Reference System for the Americas

Alias Sistema de Referencia Geocentrico para las Americas

Information source Title Sistema de Referencia Geocentrico para las

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Munich, Germany

Publication date 2004
Series/Journal name DGFI Report
Issue identification No. 76

Data source ISO Geodetic Registry

Remarks Replaces DGF02P01. Replaced by DGF05P01.

Anchor definition Realized by a frame of 69 continuously operating stations using GPS

observations from June 1996 to July 2004 and aligned to ITRF2000 at epoch 2003.0. Velocity model VEMOS2003 used to propagate coordinates from an arbitrary epoch to the 2003.0 reference epoch.

Release date 2004
Coordinate Reference Epoch 2003.0

Scope Spatial referencing

Ellipsoid GRS 1980
Prime Meridian Greenwich

Extent

Description	South America - onshore and offshore. Central America - onshore and offshore. Mexico - onshore and offshore.	
Geographic Bounding Box	West-bound longitude North-bound latitude East-bound longitude South-bound latitude	-122.19 32.72 -25.28 -59.87

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 °

Item class EllipsoidalCS

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

Orientations: north, east. UoM: degree

**VALID** Item status

Identifier 43

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

International Organization for Standardization **Author** 

(ISO)

International Organization for Standardization Publisher

(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

**VALID** Item status Identifier 38

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

**Author** International Organization for Standardization

(ISO)

International Organization for Standardization Publisher

(ISO)

2007-07-01 Publication date 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 Lat Direction north

Unit degree (supplier to define representation)

CoordinateSystemAxis Item class

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)