Item class GeodeticCRS

Name SIRGAS-CON SIR09P01 - LatLon

Item statusVALIDIdentifier395AliasSIRGASAliasSIRGAS-CON

Alias SIRGAS Multi-Year Solution 2009

Alias Geocentric Reference System for the Americas

Alias Sistema de Referencia Geocentrico para las Americas

Alias SIR09P01

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 The 2009 Horizontal Velocity Field for South

America and the Caribbean

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

Publication date 2012

Series/Journal name International Association of Geodesy Symposia

Issue identification 136.0 Page 657-664

Other citation details In Kenyon S., Pacino M., Marti U. (eds) Geodesy

for Planet Earth. International Association of Geodesy Symposia, Vol 136. Springer, Berlin,

Heidelberg

Information source Title The position and velocity solution SIR09P01 of

the IGS Regional Network Associate Analysis

Centre for SIRGAS (IGS RNAAC SIR)

Author W. Seemueller, M. Seitz, L. Sanchez, H. Drewes Publisher Deutsches Geodaetisches Forschungsinstitut,

Munich, Germany

Publication date 2009 Series/Journal name DGFI Report Issue identification No. 85

Information source Title The new Multi-year Position and Velocity Solution

SIR09P01 of the IGS Regional Network Associate

Analysis Centre (IGS RNAAC SIR)

Author W. Seemueller, L. Sanchez, M. Seitz

Publisher Springer Berlin Heidelberg

Publication date 2011

Series/Journal name International Association of Geodesy Symposia

Issue identification 136.0 Page 675-680

Data source ISO Geodetic Registry
Scope Spatial referencing

Datum SIRGAS Continuously Operating Network SIR09P01

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

UoM: degree

#### 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 GeodeticDatum

Name SIRGAS Continuously Operating Network

**SIR09P01** 

Item statusVALIDIdentifier181AliasSIRGASAliasSIRGAS-CON

Alias SIRGAS Multi-Year Solution 2009

Alias Geocentric Reference System for the Americas

Alias Sistema de Referencia Geocentrico para las Americas

Alias SIR09P01

Information source Title The position and velocity solution SIR09P01 of

the IGS Regional Network Associate Analysis

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for Planet Earth. International Association of Geodesy Symposia, Vol 136. Springer, Berlin,

Heidelberg

Information source Title The new Multi-year Position and Velocity Solution

SIR09P01 of the IGS Regional Network Associate

Analysis Centre (IGS RNAAC SIR) W. Seemueller, L. Sanchez, M. Seitz

Author W. Seemueller, L. Sanchez, M. S

Publisher Springer Berlin Heidelberg

Publication date 2011

Series/Journal name International Association of Geodesy Symposia

Issue identification 136.0 Page 675-680

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

Remarks Replaces DGF08P01. Replaced by SIR10P01.

Anchor definition Realized by a frame of 128 continuously operating stations using

GPS observations from January 2000 to January 2009 and aligned to IGS05 at epoch 2005.0. GPS data from January 2000 to November

2006 reprocessed using the first reprocessing campaign products (IG1) of the International GNSS Service and absolute phase centre calibrations referring to the IGS05/IGb05 reference frame. Velocity model VEMOS2009 used to propagate coordinates from an arbitrary

epoch to the 2005.0 reference epoch.

Release date 2009
Coordinate Reference Epoch 2005.0

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	-122.19 32.72 -25.28
	South-bound latitude	-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 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

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)