Item class GeodeticCRS

NAD 83 (PACP00) - XYZ

 Item status
 VALID

 Identifier
 315

 Information source
 Title

Title Introducing Two Spatial Reference Frames for

Regions of the Pacific Ocean

Author R.A. Snay

Publisher American Cobgress on Surveying and Mapping

Publication date 2003-01-01 Edition date 2003-01-01

Series/Journal name Surveying and Land Information Systems

Issue identification Volume 63, No. 1

Page 5-12

Other citation details MARP00, PACP00

Title CORS Coordinates

Author National Geodetic Survey

Publisher National Oceanic and Atmospheric Administration

(NOAA) National Geodetic Survey (NGS)

Revision date 2017-05-16

Series/Journal name NGS Online listing of transformation parameters

Other citation details webpage

Data source ISO Geodetic Registry
Scope Spatial referencing

Datum North American Datum of 1983 (PACP00)

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

Information source

Description	American Samoa - onshore and offshore.  Marshall Islands - onshore and offshore. United States (USA) - onshore and offshore - Hawaii.  United States Minor Outlying Islands - onshore and offshore.	
Geographic Bounding Box	West-bound longitude	157.47
	North-bound latitude	31.8
	East-bound longitude	-151.27
	South-bound latitude	-17.56

Item class GeodeticDatum

North American Datum of 1983 (PACP00)

Item status VALID Identifier 113

Alias NAD83 (PACP00)

Information source Title NGS No Longer Updates Published CORS

Coordinates in the Following Reference Frames

Author National Geodetic Survey

Publisher National Oceanic and Atmospheric Administration

(NOAA) National Geodetic Survey (NGS)

Revision date 2017-03-16 Edition date 2017-03-16

Series/Journal name NGS Online listing of transformation parameters

Other citation details webpage

Information source Title Introducing HTDP 3.1 to transform coordinates

across time and spatial reference frames

Author C. Pearson, R.A. Snay
Publisher Springer-Verlag
Publication date 2013-01-01
Edition date 2013-01-01
Series/Journal name GPS Solutions
Issue identification Volume 17, No. 1

Page 1-15

Other citation details NAD83 (2011), NAD83 (MA11), NAD83 (PA11)

transformation from IGb08

Information source Title Introducing Two Spatial Reference Frames for

Regions of the Pacific Ocean

Author R.A. Snay

Publisher American Cobgress on Surveying and Mapping

Publication date 2003-01-01 Edition date 2003-01-01

Series/Journal name Surveying and Land Information Systems

Issue identification Volume 63, No. 1

Page 5-12

Other citation details MARP00, PACP00

Data source ISO Geodetic Registry

Remarks Replaces NAD83 (HARN). Replaced by NAD83(PA11) from

2011-09-06.

Anchor definition Realization of the NAD83. The frame is defined by a time-dependent

seven parameter transformation of ITRF2000 3D geocentric Cartesian coordinates and velocities at reference epoch 1993.62. The frame is kept aligned to the Pacific plate at other epochs based on an Euler pole calculated from 16 sites located on the North American, Mariana, and Pacific plates. The original web listing erroneously showed values for this frame as being identical to NAD83 (CORS96) Epoch 2002. However, the original HTDP (version 2.7) implementation used the

transformation given in the reference.

Release date 2003 Coordinate Reference Epoch 1993.6

Scope Spatial referencing

Ellipsoid GRS 1980

Prime Meridian Greenwich

### Extent

Description	American Samoa - onshore and offshore.  Marshall Islands - onshore and offshore. United States (USA) - onshore and offshore - Hawaii.  United States Minor Outlying Islands - onshore and offshore.	
Geographic Bounding Box	West-bound longitude	157.47
	North-bound latitude	31.8
	East-bound longitude	-151.27
	South-bound latitude	-17.56

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 °

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

ISO Geodetic Registry

Used in geocentric coordinate reference systems. Remarks

#### Axes

Data source

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

ISO Geodetic Registry

Abbreviation Χ

Data source

Direction Geocentre > equator/0°E

Unit metre

Item class CoordinateSystemAxis

Name **Geocentric Y** 

**VALID** Item status Identifier 37

Title ISO 19111 Geographical information - Spatial Information source

referencing by coordinates

**Author** International Organization for Standardization

Publisher International Organization for Standardization

(ISO)

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

Issue identification ISO 19111:2007

Data source ISO Geodetic Registry

Abbreviation

Direction Geocentre > equator/90°E

Unit metre

Item class CoordinateSystemAxis

Name **Geocentric Z** 

**VALID** Item status Identifier 39

Information source Title ISO 19111 Geographical information - Spatial

referencing by coordinates

**Author** International Organization for Standardization

(ISO)

Publisher International Organization for Standardization

(ISO)

2007-07-01 Publication date Edition Second Edition Series/Journal name International Standard Issue identification ISO 19111:2007

ISO Geodetic Registry

Abbreviation Ζ

Data source

Direction Geocentre > north pole

Unit metre