# ISO Geodetic Registry

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|---|---|---|
| *Item class* | GeodeticCRS | |
| *Name* | **NAD 83 (PACP00) - LatLonEHt** | |
| *Item status* | VALID | |
| *Identifier* | 455 | |
| *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 |
| *Information source* | Title | NADCON 5.0: Geometric Transformation Tool for points in the National Spatial Reference System |
| | Author | D. Smith, A. Bilich |
| | Publisher | NOAA's National Geodetic Survey |
| | Publication date | 2017-03-27 |
| | Edition date | 2017-03-27 |
| | Series/Journal name | NGS Technical Report |
| | Other citation details | Replaces version 4.2 and all earlier. Provides gridding algorithm, datum transformations, and extents of covnversion grids. |
| *Information source* | 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 |
| *Information source* | Title | Notice to Adopt Standard Method for Horizontal Datum Transformation |
| | Author | US Government |
| | Publisher | Office of Federal Register, NARA |
| | Publication date | 1990-08-10 |
| | Edition date | 1990-08-10 |
| | Series/Journal name | Federal Register Notice |
| | Issue identification | Volume 55, No. 155, Document: 00-18809 |
| | Page | 32681.0 |
| | Other citation details | Mandates use of NADCON for official transformations between datums |
| *Data source* | ISO Geodetic Registry | |
| *Scope* | Spatial referencing | |
| *Datum* | North American Datum of 1983 (PACP00) | |
| *Coordinate System* | Ellipsoidal 3D CS. Axes: latitude, longitude, ellipsoidal height. Orientations: north, east, up. UoM: degree, degree, metre. | |

## 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 |

# ISO Geodetic Registry

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|---|---|---|
| *Item class* | GeodeticDatum | |
| *Name* | **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 |

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|---|---|
| *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<br>*Author* H. Moritz<br>*Publisher* Springer International Publishing<br>*Publication date* 2003-03<br>*Series/Journal name* Journal of Geodesy<br>*Issue identification* Volume 74, No. 1<br>*Page* 128–162 |
| *Information source* | *Title* Geodetic Reference System 1980<br>*Author* H. Moritz<br>*Publisher* International Association of Geodesy<br>*Publication date* 1984<br>*Series/Journal name* Bulletin Geodesique<br>*Issue identification* Volume 58, No. 3<br>*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 |

# ISO Geodetic Registry

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|---|---|---|
| *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 ° | |

# ISO Geodetic Registry

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|---|---|
| *Item class* | EllipsoidalCS |
| *Name* | **Ellipsoidal 3D CS. Axes: latitude, longitude, ellipsoidal height. Orientations: north, east, up. UoM: degree, degree, metre.** |
| *Item status* | VALID |
| *Identifier* | 46 |

| *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 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

| | |
|---|---|
| *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) |

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|---|---|
| *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) | |

| | | |
|---|---|---|
| Item class | CoordinateSystemAxis | |
| Name | **Ellipsoidal height** | |
| Item status | VALID | |
| Identifier | 36 | |
| 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 only as part of an ellipsoidal 3D coordinate system in a geographic 3D coordinate reference system, never on its own. | |
| Abbreviation | h | |
| Direction | up | |
| Unit | metre | |