

ISO Geodetic Registry

| | | |
|---------------------------|--|--|
| <i>Item class</i> | Transformation | |
| <i>Name</i> | ITRF2014 to NAD 83 (PA11) Epoch 2010 [NGS v1] | |
| <i>Item status</i> | VALID | |
| <i>Identifier</i> | 990 | |
| <i>Information source</i> | <i>Title</i> | Multi-Year CORS Solution 2 (MYCS2) |
| | | Coordinates |
| | <i>Author</i> | U.S. National Geodetic Survey (NGS) |
| | <i>Publisher</i> | National Geodetic Survey (NGS), National Oceanic and Atmospheric Administration (NOAA) |
| | <i>Publication date</i> | 2021-11-17 |
| | <i>Other citation details</i> | Website: https://geodesy.noaa.gov/CORS/news/mycs2/mycs2.shtml#htdp_params (accessed 2023-01-28) |
| <i>Data source</i> | ISO Geodetic Registry | |
| <i>Remarks</i> | Transformation defines NAD 83 (PA11) with respect to ITRF2014 and is treated as errorless. | |
| <i>Operation version</i> | NGS v1 | |
| <i>Scope</i> | Spatial referencing | |
| <i>Operation accuracy</i> | 0.0 m | |
| <i>Source CRS</i> | ITRF2014 - XYZ | |
| <i>Target CRS</i> | NAD 83 (PA11) Epoch 2010 - XYZ | |
| <i>Operation method</i> | Time-Dependent Coordinate Frame Transformation (geocentric Cartesian domain) | |

Extent

| | | |
|--------------------------------|--|---------|
| <i>Description</i> | 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. | |
| <i>Geographic Bounding Box</i> | <i>West-bound longitude</i> | 157.47 |
| | <i>North-bound latitude</i> | 31.8 |
| | <i>East-bound longitude</i> | -151.27 |
| | <i>South-bound latitude</i> | -17.56 |

Operation parameter values

| | |
|---|-------------------------|
| <i>X-axis translation</i> | 0.9109 metre |
| <i>Y-axis translation</i> | -2.0129 metre |
| <i>Z-axis translation</i> | -0.5863 metre |
| <i>X-axis rotation</i> | 22.749 milliarc-second |
| <i>Y-axis rotation</i> | 26.56 milliarc-second |
| <i>Z-axis rotation</i> | -25.706 milliarc-second |
| <i>Scale difference</i> | 2.12 parts per billion |
| <i>Rate of change of X-axis translation</i> | 1.0E-4 metre per year |
| <i>Rate of change of Y-axis translation</i> | 1.0E-4 metre per year |
| <i>Rate of change of Z-axis translation</i> | -0.0019 metre per year |

| | |
|---|---------------------------------|
| <i>Rate of change of X-axis rotation</i> | -0.384 milliarc-second per year |
| <i>Rate of change of Y-axis rotation</i> | 1.007 milliarc-second per year |
| <i>Rate of change of Z-axis rotation</i> | -2.186 milliarc-second per year |
| <i>Rate of change of scale difference</i> | 0.11 parts per billion per year |
| <i>Time reference</i> | 2010.0 year |

ISO Geodetic Registry

| | |
|--------------------|--|
| <i>Item class</i> | OperationMethod |
| <i>Name</i> | Time-Dependent Coordinate Frame Transformation (geocentric Cartesian domain) |
| <i>Item status</i> | VALID |
| <i>Identifier</i> | 94 |
| <i>Alias</i> | Time-Dependent 7-Parameter Transformation |
| <i>Alias</i> | 14-Parameter Transformation |
| <i>Alias</i> | Time-Dependent Coordinate Frame Transformation |
| <i>Data source</i> | ISO Geodetic Registry |
| <i>Remarks</i> | Note the analogy with the Time-dependent Position Vector Transformation but beware of the differences! The Position Vector Transformation convention is used by IAG. |
| <i>Formula</i> | Geomatics Guidance Note No 7, part 2: Coordinate Conversions and Transformations including Formulas |

Operation parameters

| |
|---|
| <i>X-axis translation</i> |
| <i>Y-axis translation</i> |
| <i>Z-axis translation</i> |
| <i>X-axis rotation</i> |
| <i>Y-axis rotation</i> |
| <i>Z-axis rotation</i> |
| <i>Scale difference</i> |
| <i>Rate of change of X-axis translation</i> |
| <i>Rate of change of Y-axis translation</i> |
| <i>Rate of change of Z-axis translation</i> |
| <i>Rate of change of X-axis rotation</i> |
| <i>Rate of change of Y-axis rotation</i> |
| <i>Rate of change of Z-axis rotation</i> |
| <i>Rate of change of scale difference</i> |
| <i>Time reference</i> |