ISO Geodetic Registry

Item class	Transformation	
Name	**ITRF2014 to NAD 83 (MA11) Epoch 2010 [NGS v1]**	
Item status	VALID	
Identifier	986	
Information source	*Title*	Multi-Year CORS Solution 2 (MYCS2) Coordinates
	Author	U.S. National Geodetc Survey (NGS)
	Publisher	National Geodetc Survey (NGS), National Oceanic and Atmospheric Administration (NOAA)
	Publication date	2021-11-17
	Other citation details	Website: https://geodesy.noaa.gov/CORS/news/mycs2/mycs2.shtml#htdp_params (accessed 2023-01-28)
Data source	ISO Geodetic Registry	
Remarks	Transformation defines NAD 83 (MA11) with respect to ITRF2014 and is treated as errorless.	
Operation version	NGS v1	
Scope	Spatial referencing	
Operation accuracy	0.0 m	
Source CRS	ITRF2014 - XYZ	
Target CRS	NAD 83 (MA11) Epoch 2010 - XYZ	
Operation method	Time-Dependent Coordinate Frame Transformation (geocentric Cartesian domain)	

Extent

Description	**Guam - onshore and offshore. Northern Mariana Islands - onshore and offshore. Palau - onshore and offshore.**	
Geographic Bounding Box	*West-bound longitude*	129.48
	North-bound latitude	23.9
	East-bound longitude	149.55
	South-bound latitude	1.64

Operation parameter values

Time reference	2010.0 year
Rate of change of scale difference	0.11 parts per billion per year
Rate of change of Z-axis rotation	-0.347 milliarc-second per year
Rate of change of Y-axis rotation	0.105 milliarc-second per year
Rate of change of X-axis rotation	-0.02 milliarc-second per year
Rate of change of Z-axis translation	-0.0019 metre per year
Rate of change of Y-axis translation	1.0E-4 metre per year
Rate of change of X-axis translation	1.0E-4 metre per year
Scale difference	2.12 parts per billion
Z-axis rotation	4.417 milliarc-second
Y-axis rotation	11.785 milliarc-second
X-axis rotation	28.711 milliarc-second

Z-axis translation	-0.5863 metre
Y-axis translation	-2.0129 metre
X-axis translation	0.9109 metre

ISO Geodetic Registry

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

Operation parameters

X-axis translation
Y-axis translation
Z-axis translation
X-axis rotation
Y-axis rotation
Z-axis rotation
Scale difference
Rate of change of X-axis translation
Rate of change of Y-axis translation
Rate of change of Z-axis translation
Rate of change of X-axis rotation
Rate of change of Y-axis rotation
Rate of change of Z-axis rotation
Rate of change of scale difference
Time reference