ISO Geodetic Registry

Item class	Transformation	
Name	**EVRF2019 to EVRF2019mean [EUREF v1]**	
Item status	VALID	
Identifier	767	
Information source	*Title*	Conventions for the Definition and Realization of a European Vertical Reference System (EVRS) - EVRS Conventions 2007
	Author	J. Ihde, J. Mäkinen, M. Sacher
	Publisher	International Association of Geodesy Subcommission 1.3a EUREF
	Revision date	2019-01-11
	Other citation details	https://evrs.bkg.bund.de/SharedDocs/Downloads/EVRS/EN/Publications/EVRFConventions2007.pdf (accessed 2020-11-30)
Data source	ISO Geodetic Registry	
Remarks	Converts EVRF2019 zero-tide normal heights to EVRF2019 mean-tide normal heights.	
Operation version	EUREF v1	
Scope	Spatial referencing and oceangraphic applications	
Operation accuracy	0.0 m	
Source CRS	EVRF2019 - NHt	
Target CRS	EVRF2019mean - NHt	
Operation method	EVRF2019 zero-tide normal height to mean-tide normal height	

Extent

Description	**Europe - onshore - Andorra, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France - mainland, Germany, Gibraltar, Hungary, Italy - mainland, Latvia, Liechtenstein, Lithuania, Luxembourg, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russia - west of approximately 60 deg E, San Marino, Slovakia, Slovenia, Spain - mainland, Sweden, Switzerland, Ukraine, United Kingdom - Great Britain mainland, Vatican City State.**	
Geographic Bounding Box	*West-bound longitude*	-9.56
	North-bound latitude	77.07
	East-bound longitude	69.16
	South-bound latitude	35.95

ISO Geodetic Registry

Item class	OperationMethod
Name	**EVRF2019 zero-tide normal height to mean-tide normal height**
Item status	VALID
Identifier	762
Data source	ISO Geodetic Registry
Remarks	The transformation formula applies to normal heights. A constant offset of -0.08593 m was added to the transformation of zero-tide normal height to mean-tide normal height in order to maintain a zero normal height at the EVRF2000 origin in Amsterdam.
Formula	EVRF2019mean = EVRF2019 + 0.29541·sin^2(lat) + 0.00042·sin^4(lat) - 0.0994 - 0.08593 [m]