

# ISO Geodetic Registry

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

## Extent

<i>Description</i>	<b>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.</b>	
<i>Geographic Bounding Box</i>	<i>West-bound longitude</i>	-9.56
	<i>North-bound latitude</i>	77.07
	<i>East-bound longitude</i>	69.16
	<i>South-bound latitude</i>	35.95

# ISO Geodetic Registry

<i>Item class</i>	OperationMethod
<i>Name</i>	<b>EVRF2019 zero-tide normal height to mean-tide normal height</b>
<i>Item status</i>	VALID
<i>Identifier</i>	762
<i>Data source</i>	ISO Geodetic Registry
<i>Remarks</i>	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.
<i>Formula</i>	$\text{EVRF2019mean} = \text{EVRF2019} + 0.29541 \cdot \sin^2(\text{lat}) + 0.00042 \cdot \sin^4(\text{lat}) - 0.0994 - 0.08593 \text{ [m]}$