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]