ISO Geodetic Registry

Item class VerticalDatum

Name European Vertical Reference Frame 2019 mean

tide

Item status VALID Identifier 764

Alias EVRF2019mean

Information source Title EVRF2019

Author Bundesamt fuer Kartogrphie und Geodaesie Publisher Bundesamt fuer Kartogrphie und Geodaesie

Revision date 2020-09-07

Other citation details Website. https://evrs.bkg.bund.de/Subsites/

EVRS/EN/EVRF2019/evrf2019.html (accessed

2020-11-30)

Data source ISO Geodetic Registry

Remarks EVRF2019 is realized by an adjustment of geopotential numbers of

the Unified European Levelling Network in the mean tide system, followed by computation of Normal heights, referenced to GRS80 ellipsoid. Measurements of BY, CH, DK, EE, FI, LT, LV, NO, RU, SE were reduced to epoch 2000 using the velocity model NKG2016LU for Nordic countries and a set of velocities for Switzerland, provided by Swisstopo. See EVRF2019 for zero-tide realization of EVRF2019

consistent with EVRS conventions.

Anchor definition Height at Normal Amsterdams Peil (NAP) is zero, realised by

least squares fit to 12 datum points of EVRF2007 solution,

transformed to mean tide by Cmean = Czero + $0.28841 \cdot \sin^2(\text{phi}) + 0.00195 \cdot \sin^4(\text{phi}) - 0.09722 - 0.08432$ [kgal·m]. The constant 0.08432 kgal·m is used to force the mean-tide height to equal the zero-tide

height at the EVRF2000 origin in Amsterdam.

Release date 2020-09
Coordinate Reference Epoch 2000.0

Scope Spatial referencing and oceanographic applications

East-bound longitude

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

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