ISO Geodetic Registry

Item class GeodeticDatum

Name Korean 1985 Datum

Item status **VALID** Identifier 1004

Information source Title Korean origin of longitude and latitude

> **Author** Geodesy Department, NGII

Publisher National Geographic Information Institute (NGII),

Ministry of Construction and Transportation,

Republic of Korea

Revision date 2018-05

Other citation details Web page in Korean, accessible only within

Korea. https://www.ngii.go.kr/kor/content.do?

sq=189#none (accessed 2023-06-01)

Information source Title Grids & Datums: The Republic of Korea

> Author C.J. Mugnier

Publisher American Society for Photogrammetry and

Remote Sensing

Publication date 2017

Series/Journal name Photogrammetric Engineering & Remote Sensing

Issue identification Volume 83, No. 8, August 2017

Page 537-539

Other citation details https://doi.org/10.14358/PERS.83.8.539

(accessed 2023-04-10)

Korea Geodetic Framework for Sustainable Information source Title

Development

Author J.-H. Kwon

Publisher United Nations Economic and Social Council

Publication date

Series/Journal name Nineteenth United Nations Regional Cartographic

Conference for Asia and the Pacific, Bangkok, 29

October – 1 November 2012

E/CONF.102/IP.17 Issue identification

Other citation details https://unstats.un.org/unsd/

geoinfo/rcc/docs/rccap19/ip/

E_Conf.102_IP17_Korea_19th_UNRCC-AP_Session3_26%20Oct.pdf (accessed

2023-04-10)

ISO Geodetic Registry Data source Remarks Replaced by KGD2002

Anchor definition Korean 1985 Datum is the first Korean Triangulation Network based

> on the Bessel 1841 ellipsoid. Approximately 7,000 points had been observed with EDM and TRANSIT since 1975, and adjusted through two campaigns by NGII. The origin of the datum was observed and determined by astronomical surveying over 4 years (1981 - 1985).

Release date 1985.0

Scope Spatial referencing Ellipsoid Bessel 1841 Prime Meridian Greenwich

Extent

Description Republic of Korea - onshore and offshore

ISO Geodetic Registry

Item class Ellipsoid

Name Bessel 1841

Item statusVALIDIdentifier996AliasBessel

Information source Title The Universal Grids and the Transverse Mercator

and Polar Stereographic Map Projections

Author National Geospatial-Intelligence Agency Publisher Office of Geomatics, National Geospatial-

Intelligence Agency

Revision date 2014-03-25 Edition Version 2.0.0

Series/Journal name National Geospatial-Intelligence Agency

Standardization Document

Issue identification NGA.SIG.0012_2.0.0_UTMUPS

Information source Title Ueber einen Fehler in der Berechnung der

französischen Gradmessung und seinen Einfluss

auf die Bestimmung der Figur der Erde

Author F.W. Bessel Publication date 1841-12-01

Series/Journal name Astronomische Nachrichten (Astronomical Notes)

Issue identification Volumes 19, Issue 7-8, No. 438

Page 97-116

Other citation details https://doi.org/10.1002/asna.18420190702

(accessed 2023-04-10)

Data source ISO Geodetic Registry

Remarks The Bessel ellipsoid was derived in 1841 by Friedrich Wilhelm Bessel,

based on several meridian arcs and other data of continental geodetic networks of Europe, Russia and the British Survey of India. It is based on 10 meridional arcs and 38 precise measurements of astrogeodetic latitude and longitude. The dimensions of the ellipsoid axes were defined by logarithms in keeping with former calculation methods. The original axes were defined as a=3272077.14 and b=3261139.33 toise. This was based a weighted mean of values from several authors but did not account for differences in the length of the various toise. The

"Bessel toise" is therefore of uncertain length.

Semi-major axis 6377397.155 m Inverse flattening 299.1528128 m

ISO Geodetic Registry

Item class PrimeMeridian

Name Greenwich

Item status VALID
Identifier 25

Alias Zero meridian

Information source Title Why the Greenwich meridian moved

Author S. Malys, J.H. Seago, N.K. Pavlis, P.K.

Seidelmann, G.H. Kaplan

Publisher Springer International Publishing

Publication date 2015-12

Series/Journal name Journal of Geodesy Issue identification Volume 89, No. 12

Page 1263–1272

Information source Title IERS Conventions (2010)

Author G. Petit, B.J. Luzum (eds)

Publisher Verlag des Bundesamts fur Kartographie und

Geodasie

Publication date 2010

Edition date

Series/Journal name IERS Technical Notes

Issue identification 36.0

Other citation details ISSN: 1019-4568

Data source ISO Geodetic Registry

Greenwich longitude 0.0 °