

# ISO Geodetic Registry

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|---------------------------|--|
| <i>Item class</i>         | Ellipsoid  |
| <i>Name</i>               | <b>Bessel 1841</b>   |
| <i>Item status</i>        | VALID  |
| <i>Identifier</i>         | 996  |
| <i>Alias</i>              | Bessel   |
| <i>Information source</i> | <p><i>Title</i> The Universal Grids and the Transverse Mercator and Polar Stereographic Map Projections</p> <p><i>Author</i> National Geospatial-Intelligence Agency</p> <p><i>Publisher</i> Office of Geomatics, National Geospatial-Intelligence Agency</p> <p><i>Revision date</i> 2014-03-25</p> <p><i>Edition</i> Version 2.0.0</p> <p><i>Series/Journal name</i> National Geospatial-Intelligence Agency Standardization Document</p> <p><i>Issue identification</i> NGA.SIG.0012_2.0.0_UTMUPS</p>   |
| <i>Information source</i> | <p><i>Title</i> Ueber einen Fehler in der Berechnung der französischen Gradmessung und seinen Einfluss auf die Bestimmung der Figur der Erde</p> <p><i>Author</i> F.W. Bessel</p> <p><i>Publication date</i> 1841-12-01</p> <p><i>Series/Journal name</i> Astronomische Nachrichten (Astronomical Notes)</p> <p><i>Issue identification</i> Volumes 19, Issue 7-8, No. 438</p> <p><i>Page</i> 97-116</p> <p><i>Other citation details</i> <a href="https://doi.org/10.1002/asna.18420190702">https://doi.org/10.1002/asna.18420190702</a> (accessed 2023-04-10)</p>  |
| <i>Data source</i>        | ISO Geodetic Registry  |
| <i>Remarks</i>            | 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. |
| <i>Semi-major axis</i>    | 6377397.155 m  |
| <i>Inverse flattening</i> | 299.1528128 m  |