# ISO Geodetic Registry

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|---|---|---|
| *Item class* | Transformation | |
| *Name* | **WGS 84 (G730) to WGS 84 EGM84 - OHt [1]** | |
| *Item status* | VALID | |
| *Identifier* | 585 | |
| *Information source* | *Title* | WGS 84, N=M=180 Earth Gravitational Model |
| | *Author* | NGA Office of Geomatics |
| | *Publisher* | National Geospatial-Intelligence Agency |
| | *Revision date* | 2014-09-15 |
| | *Edition date* | |
| | *Other citation details* | Website |
| *Data source* | ISO Geodetic Registry | |
| *Remarks* | Transformation from WGS 84 (G730) ellipsoidal heights to EGM84 orthometric heights using the EGM 84 geoid grid. | |
| *Operation version* | 1.0 | |
| *Scope* | Spatial referencing | |
| *Operation accuracy* | 1.0 m | |
| *Source CRS* | WGS 84 (G730) - LatLonEHt | |
| *Target CRS* | WGS 84 EGM84 - OHt | |
| *Operation method* | Geographic3D to Gravity Related Height (EGM84) | |

## Extent

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| *Description* | **World.** | |
| *Geographic Bounding Box* | *West-bound longitude* | -180.0 |
| | *North-bound latitude* | 90.0 |
| | *East-bound longitude* | 180.0 |
| | *South-bound latitude* | -90.0 |

## Operation parameter values

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|---|---|
| *Geoid (height correction) model file* | wwgrid.exe |

# ISO Geodetic Registry

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|---|---|
| *Item class* | OperationMethod |
| *Name* | **Geographic3D to Gravity Related Height (EGM84)** |
| *Item status* | VALID |
| *Identifier* | 76 |
| *Data source* | ISO Geodetic Registry |
| *Remarks* | This transformation involves the application of a geoid-ellipsoid separation value interpolated from a geoid model. The model provides separation values at the nodes on a regular grid of latitude and longitude intersection points. The geodetic latitude and longitude used to interpolate within the grid are not affected by this transformation. The grid is referenced to a specific geographic CRS (the source CRS) and interpolation must be made in this system. Calculation of the separation is achieved through a bi-linear interpolation of the EGM84 grid, using the latitude and longitude of the point. This step provides the geoid-ellipsoid separation (N) above the ellipsoid of the source Geographic 3D CRS. The orthometeric height (H) is then computed from the ellipsoid height (h) in the source Geographic 3D CRS using: H = h - N Applies to EGM84 models. For later models see Geographic3D to GravityRelatedHeight (EGM96) and Geographic3D to GravityRelatedHeight (EGM2008). |

## Operation parameters

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| *Geoid (height correction) model file* |