ISO Geodetic Registry

Item class Transformation

Name GDA2020 to AVWS - NHt [GA v1]

Item status **INVALID** Identifier 791

Alias Australian Geodetic Quasi-Geoid

Alias **AGQG**

Alias AGQG 20191107

Information source Title AGQG 20191107.gsb Author Geoscience Australia

Publisher Geoscience Australia

Revision date 2019-11-07

Other citation details https://s3-ap-southeast-2.amazonaws.com/

geoid/AGQG/AGQG_20191107.gsb (accessed

2021-09-27)

Title Australian Vertical Working Surface (AVWS): Information source

Technical Implementation Plan

Author Intergovernmental Committee on Surveying and

Mapping (ICSM)

Publisher Geoscience Australia

Revision date 2020-08-26 Edition Version 1.2 Edition date 2020-08-26

Other citation details https://www.icsm.gov.au/sites/default/

files/2020-08/AVWS%20Technical

%20Implementation%20Plan V1.2.pdf (accessed

2021-09-27)

Information source Title Australian Vertical Working Surface

Author Geoscience Australia Publisher Geoscience Australia

Revision date 2020

Other citation details Website. https://www.icsm.gov.au/australian-

vertical-working-surface (accessed 2021-09-27)

Data source ISO Geodetic Registry

Remarks AGQG is used to realise the AVWS datum. Uncertainties (4-8 cm

> across mainland Australia) are given in the accompanying grid file AGQG_uncertainty_20191107.gsb. This version of the AGQG model contains a systematic bias of ~0.91 m due to an error in information from suppliers of the global model used in its creation. This AGQG

> model has been replaced with version GAv2 called AGQG_20201120.

Operation version GA v1

Scope Spatial referencing

 $0.1 \, m$ Operation accuracy

Source CRS GDA2020 - LatLonEHt

Target CRS AVWS - NHt

Operation method Geographic3D to GravityRelatedHeight (AUSGeoid v2)

Extent

Description Australia including Lord Howe Island,

Macquarie Island, Ashmore and Cartier Islands, Christmas Island, Cocos (Keeling) Islands, Norfolk Island, All onshore and offshore.

| Geographic Bounding Box | West-bound longitude | 93.41 | |
|-------------------------|----------------------|--------|--|
| | North-bound latitude | -8.47 | |
| | East-bound longitude | 173.34 | |
| | South-bound latitude | -60.56 | |

Operation parameter values

| Geoid (height correction) model file | AGQG_20191107.gsb | |
|--------------------------------------|-------------------|--|
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ISO Geodetic Registry

Item class OperationMethod

Name Geographic3D to GravityRelatedHeight

(AUSGeoid v2)

Item statusVALIDIdentifier83

Alias AUSGeoid09

Data source ISO Geodetic Registry

Remarks The Information Source references software which offers both bi-cubic

and bi-linear interpolation methods. Unlike earlier Australian models which used bi-linear interpolation, AUSGeoid09 uses the bi-cubic

method. See Info Source for file format doc.

Formula The AUSGeoid09 model of the Australian Height Datum

Operation parameters

Geoid (height correction) model file