

GDA2020 - Where do I look?

Land Tasmania



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Modernising Australia's Datum

Providing an accurate spatial reference system for the nation.

The Geocentric Datum of Australia (GDA) will be improved to ensure that Australia has access to the most accurate location-based information achievable. The existing national datum can no longer provide the accuracies needed to support our modern economy.

The current Australian datum is now over 20 years old. Since its realisation in 1994, there have been significant developments in technology that provides ready access to accurate positioning systems. Centimetre-level systems that utilise the Continuously Operating Reference Station (CORS) network or LIDAR 3D scanners are now fundamental technologies used by surveyors and spatial data experts. There has also been a rapid uptake of GPS-enabled technologies such as smartphones that gives the Australian community real-time access to precise positioning. The spatial accuracy of some of these systems currently surpasses the inherent uncertainty in GDA94 coordinates.



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With the expectation that there will be an even greater proliferation of highly accurate positioning systems and techniques, the need to modernise Australia's reference frame is critical to ensure confidence in Australia's spatial information now and into the future.

Australia and most of its territories sit on the fastest moving continental tectonic plate on Earth. Consequently, GDA94 coordinates used to spatially reference features in Australia decay with time. These positions are now over 1.5 metres different to the International Terrestrial Reference Frame (ITRF) coordinates used by Global Navigation Satellite Systems, such as GPS.

To address the accuracy requirements of Australia's broad range of spatial information users, two reference frames will be developed. Firstly, there will be a datum that is fixed to the Australian continent, where coordinates do not change with time. The second will be a

Source: <http://www.icsm.gov.au/gda2020/index.html>




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Datum Modernisation - GDA2020

A national working group has been established to enable the introduction of a new datum for Australia - called GDA2020. Simply, the Australian tectonic plate is moving up to 7cm per year and our current datum GDA94 is being left behind. By 2020 their will be 1.8m difference between the coordinates from GDA94 and those global coordinates provided by your smartphone or tablet. GDA2020 will provide a current datum that will coincide with global coordinates in 2020, while a longer term solution is implemented - a time dependant reference frame that will ensure coordinates are corrected into the future.

See below for more detail and information about datums and the datum modernisation project.



Source: <http://dpipwe.tas.gov.au/land-tasmania/datum-modernisation>