

Australia is changing its mapping and spatial information systems to a new datum – the Geocentric Datum of Australia 1994, or GDA94. Put simply, all coordinates – latitude, longitude, east and north – will alter by between 130 and 170 metres each. This change will take place during the year 2000, and will impact on everyone who uses

- Charts, maps and plans
- GIS, CAD, seismic and other spatial data
- GPS and other positioning/navigation systems

The changeover has been adopted by both state and commonwealth governments and means, in practice, that all Australians will need to adjust.

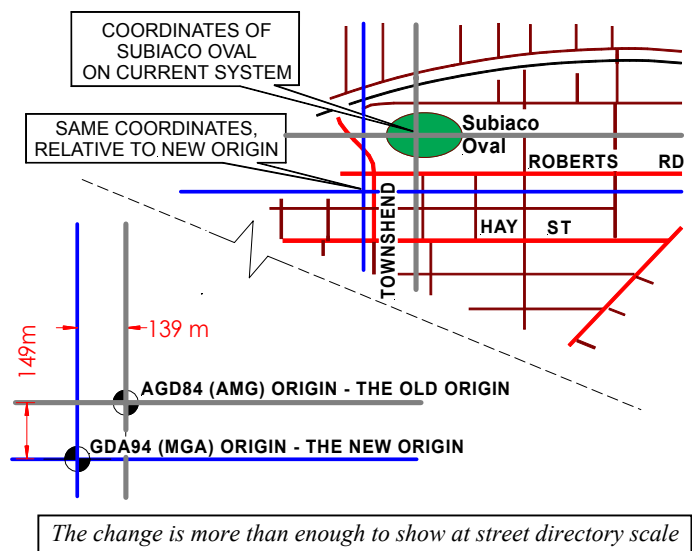
The government rationale is to bring our map systems into line with international usage, and with modern positioning technologies, particularly the Global Positioning System (GPS). A point located relative to the new datum will be approximately 200metres south-west of the point denoted by the same latitude and longitude on the previous datum.

Conversion does NOT mean that permits, structures or points will move. However, wherever locations are mapped or stored in latitude and longitude, or in east and north, those coordinate values WILL change. Nor will it affect OWNERSHIP of permits, leases, etc. But it WILL open significant risks of confusion and 200m errors.

The new datum - the base from which coordinates are measured - is named GDA94. Maps based on a UTM projection from this datum will be referred to as MGA94, or Map Grid of Australia. GDA and MGA will replace AGD(84) and AMG respectively.

*Prevention is better than cure.*

With planning, and with assistance where you cannot divert the resources yourself, changeover to GDA is easily managed. Geoproject Solutions hopes this checklist will be useful, and would be pleased to provide any further assistance.



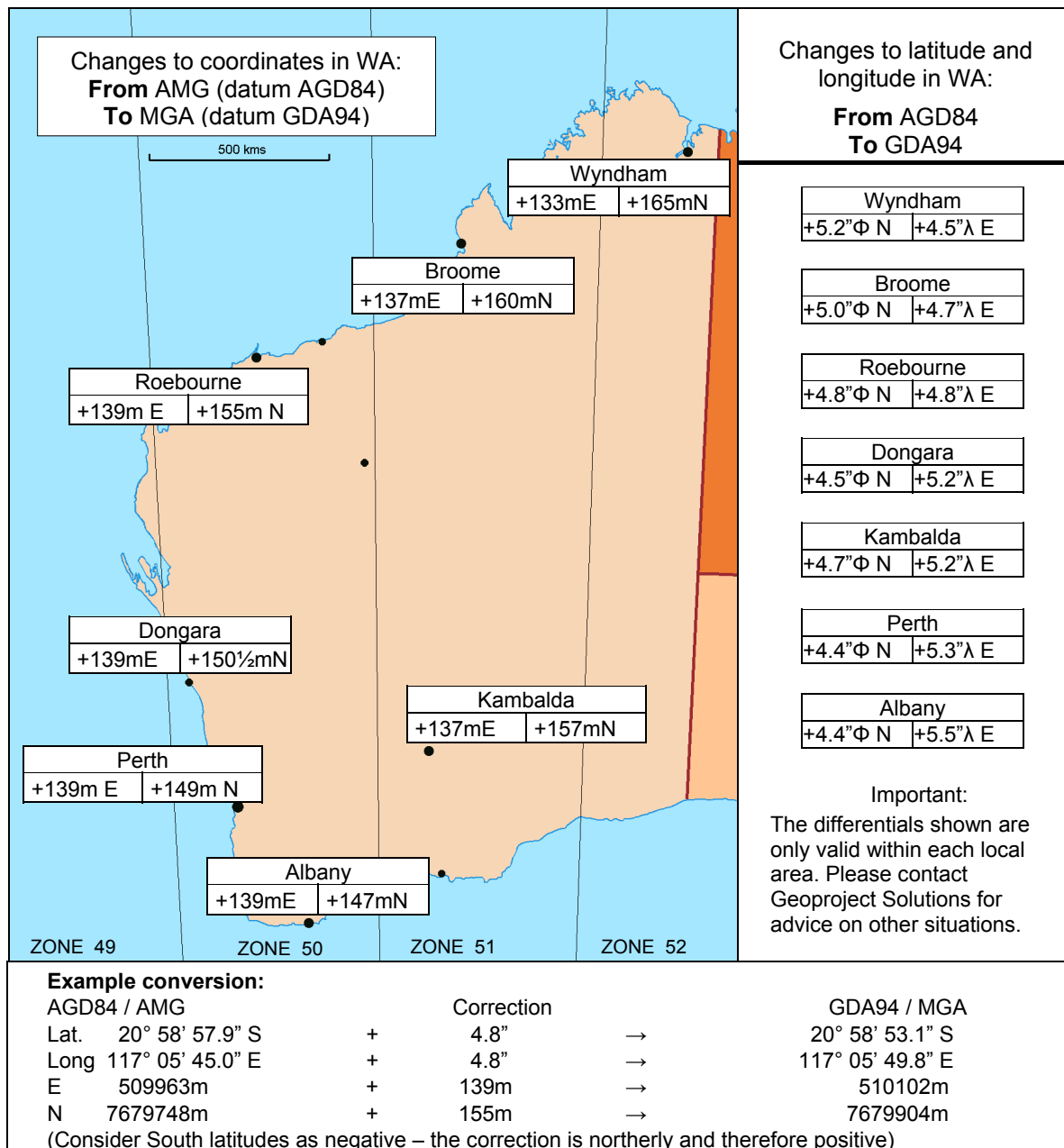
**Check list** for minimising GDA hassles:

Obligations	When must information to government be GDA-based?	<input type="checkbox"/>
Education	Information for colleagues / staff / management	<input type="checkbox"/>
	Make clients aware of your plans	<input type="checkbox"/>
Management systems:	Quality system affected?	<input type="checkbox"/>
Spatial data stored in GIS or	Can your GIS/CAD/Seismic software transform?	<input type="checkbox"/>
CAD systems:	Determine and publicise conversion date	<input type="checkbox"/>
Data being acquired	Make sure datum for incoming data is known. When will suppliers change to GDA?	<input type="checkbox"/>
Paper charts and plans which you need to continue using	How will they be marked to avoid mistakes by future users?	<input type="checkbox"/>
Supplying digital data	How will recipients be advised as to datum? Changeover date	<input type="checkbox"/>
Exploration permits	Ensure familiarity with DM&E schema, especially graticular licenses bounded by regular latitude and longitude values.	<input type="checkbox"/>

**Preliminary conversion factors**

This map shows the differences in coordinates at specific locations.

- Use:** Conversion of smaller scale maps and for preliminary check of conversion routines.
- Intended for** maps and data derived from points for which AGD84/AMG positions have been provided by government authorities.
- Precision** (estimated standard deviation) , ±1-2m within 100 km, if used as intended.
- Other positions:** Not appropriate to positions based on other networks, e.g OmniSTAR.



**Important DATES for GDA94 implementation in Western Australia:**

Spatial Cadastral Database (SCDB) converted to GDA by DOLA	4 December 2000
Tenement Registers, Department of Minerals and Energy, converted to GDA	18 December 2000
Commonwealth promulgates GDA regulations under Petroleum (Submerged Lands) Act ( estimated date)	May 2002

Website for further information:

[www.geoproject.com.au/gda.html](http://www.geoproject.com.au/gda.html)