

Broadcast Planning Instruction

Title: Geocentric Datum of Australia (GDA)	
Instruction no: 1	Version release: 2
	Date of effect: Immediate

Background

The ACMA uses the mapping coordinate system known as the Geocentric Datum of Australia (GDA). Initially defined in 1994, GDA94 is an earth-centred coordinate system compatible with satellite-based navigation systems and other major international geographic systems.

GDA94 is an earth-centred coordinate system compatible with satellite-based navigation systems and other major international geographic systems.

The ACMA is a user of both mapping and spatial data. Printed topographic maps, typically of 1:100 000 and 1:250 000 map-scale, are used extensively in support of planning. The majority of these maps use geographic (i.e., geodetic latitude/longitude) and projected coordinates based on the AGD94 datum¹. In addition to print maps, the ACMA makes use of spatial data that is also referenced to the AGD94 datum. This data is incorporated into RADCOM and is used extensively by the CHIRplus planning system, the GIS Area Management Tool, and other RADCOM applications.

Australia's national mapping agency – Geoscience Australia (GA) – has announced its policy to migrate products and services to GDA2020.

The upgrade to GDA2020 is to ensure spatial data can be more closely aligned to positions observed using Global Navigation Satellite System (e.g., GPS).

More information about GDA94 and GDA2020 and other datums used in Australia can be found at the following URLs:

- > Geoscience Australia: <https://www.ga.gov.au/scientific-topics/positioning-navigation>
- > ICSM: <https://www.icsm.gov.au/gda2020>

Instruction

The ACMA has yet to establish a timeframe for the transition to GDA2020 and is unlikely to consider the issue until 2022, at the earliest.

GA and most other Australian map and spatial data providers now supply most data using the GDA94 datum. As data and printed maps using the older datums are still in widespread use, it is important that Planning Staff be fully aware of the datum(s) in use when dealing with map and/or spatial data. Situations where differing datum are likely to be encountered include, but are not limited to:

¹ AGD coordinates projected using the Universal Transverse Mercator (UTM) projection are known as Australian Map Grid (AMG) coordinates. GDA coordinates projected using UTM are known as Map Grid of Australia (MGA) coordinates.

- (a) use of printed maps in support of Licence Area Planning (AUSLIG 1:50 000 scale maps are currently available using AGD66 or WGS84 datums while 1:100 000 and 1:250 000 scale maps are available using AGD66 or GDA datums, depending on revision date);
- (b) assessment of map referenced data, for example field strength readings provided in support of a submission (depending on the individual map, data may be referenced to AGD66/84, WGS84 or GDA94 datum); and the
- (c) assessment of GPS referenced data (GPS receivers use WGS84 by default, but many units are also capable of referencing coordinates to other datums).

Planning staff requiring additional information or advice in relation to this Instruction should contact the EIS Section.

Authorised: [SIGNED] Manager Broadcast Spectrum Planning Section	Date: 1/06/2021
---	------------------------