



- **Geoscience Australia update in response to COVID-19**
Geoscience Australia is responding to the outbreak of COVID-19. [See more for an update on our actions and the impact on our services.](#)



Australian Government

Geoscience Australia

Digital Elevation Data

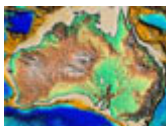
Australia's future safety, prosperity and sustainability depends on making informed policy and investment decisions that meet the needs of today, and the decades ahead. Digital elevation data which describes Australia's landforms and seabed is crucial for addressing issues relating to the impacts of climate change, disaster management, water security, environmental management, urban planning and infrastructure design. Geoscience Australia is working collaboratively across all levels of government, industry and academia to ensure decision makers, investors and communities have access to the best available elevation data to meet local, regional and national needs.

National Elevation Data Framework (NEDF)



[Elevation Foundation Spatial Data](#)

Ensuring decision makers, investors and the community have access to the best available elevation data describing Australia's landforms and sea bed to address the needs of today and the decades ahead.



[National Elevation Data Framework](#)

Ensuring decision makers, investors and the community have access to the best available elevation data describing Australia's landforms and sea bed to address the needs of today and the decades ahead.



[2011 Audit of High Resolution Coastal Elevation Data in Australia](#)

An audit of high resolution elevation data capture in relation to densely populated areas.



[2011 National Elevation Data Audit](#)

The 2011 National Elevation Audit is a series of maps illustrating the areas where elevation data has been captured or will be completed until the end of 2012 and their relative vertical accuracy.

Online data



[Elevation Foundation Spatial Data](#)

Ensuring decision makers, investors and the community have access to the best available elevation data describing Australia's landforms and sea bed to address the needs of today and the decades ahead.



[ELVIS \(Elevation Information System\)](#)

Ensuring decision makers, investors and the community have access to Geoscience Australia elevation data describing Australia's landforms and sea bed to address the needs of today and the decades ahead.



[Geophysical Archive Data Delivery System](#)

This system provides magnetic, radiometric, gravity and digital elevation data from Australian National, State and Territory Government geophysical data archives.

Packaged data



[Digital Elevation Model \(DEM\) of Australia derived from LiDAR 5 Metre Grid](#)

The Digital Elevation Model (DEM) 5 Metre Grid of Australia derived from LiDAR model represents a National 5 metre (bare earth) DEM which has been derived from some 236 individual LiDAR surveys between 2001 and 2015 covering an area in excess of 245,000 square kilometres.



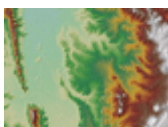
[GEODATA 9 Second DEM and D8 Flow Direction Grid 2008 Version 3.0](#)

The national 9 second (~250m) national DEM and flow direction grid describing the principal directions of surface drainage across the whole of Australia.



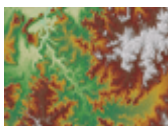
[3 second SRTM Derived Digital Elevation Model \(DEM\) Version 1.0](#)

The 3 second (~90m) Shuttle Radar Topographic Mission (SRTM) Digital Elevation Model (DEM) version 1.0 was derived from resampling the 1 arc second (~30m) gridded DEM (ANZCW0703013355). The DEM represents ground surface topography, and excludes vegetation features. The dataset was derived from the 1 second Digital Surface Model (DSM; ANZCW0703013336) by automatically removing vegetation offsets identified using several vegetation maps and directly from the DSM. The 1 second product provides substantial improvements in the quality and consistency of the data relative to the original SRTM data, but is not free from artefacts. Man-made structures such as urban areas and power line towers have not been treated. The removal of vegetation effects has produced satisfactory results over most of the continent and areas with defects are identified in the quality assessment layers distributed with the data and described in the User Guide (Geoscience Australia and CSIRO Land & Water, 2010). A full description of the methods is in progress (Read et al., in prep; Gallant et al., in prep). The 3 second DEM was produced for use by government and the public under Creative Commons attribution.



[SRTM-derived 1 Second Digital Elevation Models Version 1.0](#)

The national 1 second (~30m) DEMs suite contains three publicly released national models; Digital Elevation Model (DEM), Smoothed DEM (DEM-S) and Hydrologically Enforced DEM (DEM-H). These 1 second products are a significant improvement on the Shuttle Radar Topographic Mission (SRTM) digital surface model (DSM) from which they were derived.



[SRTMGL1v003-DSM](#)

NASA Shuttle Radar Topography Mission (SRTM) datasets result from a collaborative effort by the National

Aeronautics and Space Administration (NASA) and the National Geospatial-Intelligence Agency (NGA - previously known as the National Imagery and Mapping Agency, or NIMA), as well as the participation of the German and Italian space agencies. The purpose of SRTM was to generate a near-global digital elevation model (DEM) of the Earth using radar interferometry. SRTM was a primary component of the payload on the Space Shuttle Endeavour during its STS-99 mission. Endeavour launched February 11, 2000 and flew for 11 days.

Users of this product must acknowledge the use with; "SRTM data (SRTMGL1V003) courtesy of the NASA EOSDIS Land Processes Distributed Active Archive Center (LP DAAC)."

Related Information



Online Tools

- [Geophysical Archive Data Delivery System](#)



Publications

- [ICSM Guidelines for Digital Elevation Data Version 1.0](#)
- [ICSM LiDAR Acquisition Specifications and Tender Template Version 1.0](#)



Maps

- [2011 Audit of High Resolution Coastal Elevation Data in Australia](#)
- [2011 National Elevation Data Audit](#)
- [2009 National Data Audit Map](#)



Data

- [GEODATA 9 Second DEM v3.0](#)
- [SRTM-derived 3 Second Digital Elevation Models Version 1.0](#)
- [SRTM-derived 1 Second Digital Elevation Models Version 1.0](#)



Related Pages

- [National Surface Water Information](#)
- [C.L.I.C.K. - Centre for LiDAR Coordination and Knowledge USGS](#)
- [ANZLIC - National Elevation Data Framework](#)
- [Urban DEM Project](#)
- [OzCoasts](#)

