Coordinate your GPS system with Topo50

Land Information New Zealand (LINZ) launched the new 1:50,000 topographic map series in September 2009 called Topo50.

From September 2009, the entire Topo50 map series was available from map retailers. Topo50 replaced LINZ's previous 1:50,000 scale NZMS260 series while still providing the same representation at 1:50,000 scale.

A new datum (NZGD2000) and map projection (NZTM2000) are being used for the Topo50 maps. This means that the latitude, longitude and grid coordinates (eastings and northings) will be different from what is on a NZMS260 map. LINZ has changed the datum to one that is for all practical purposes the same as that used in modern navigational systems, such as the Global Positioning System (GPS). The Transverse Mercator projection is one that is commonly used internationally.

EMERGENCY SERVICES SHIFTING TO NZTM2000 AND Topo50 MAPS

Emergency services and defence agencies switched their emergency and base mapping to NZTM2000 and the new Topo50 maps at the time of launch in September 2009.

To coincide with this LINZ encourages map users to purchase Topo50 printed maps that use the NZTM2000 projection.

GPS SYSTEM USERS

Setting the datum, NZGD2000, on your GPS unit

For those currently using GPS systems, you can set your GPS receiver to NZGD2000, the datum used by Topo50 to determine latitudes and longitudes.

If your GPS does not support NZGD2000, it will still be able to support Topo50.

You can simply set your GPS receiver to the default datum setting of WGS84. WGS84 is the datum the GPS system uses and for all practical purposes it is the same as NZGD2000. This means that latitudes and longitudes from your GPS receiver will be compatible with those shown on Topo50 maps.

Setting the projection, NZTM2000, on your GPS unit

To get Topo50 grid coordinates, eastings and northings, you can check that your GPS supports the projection used for Topo50 maps, NZTM2000, by consulting the projections defined in your GPS. You can either select the appropriate menu in the GPS or consult the user manual.

If your GPS does not support NZTM2000, the receiver may have the capability to input a user defined projection. You will need to set up your receiver with the NZTM2000 parameters.

Note that many receivers have this capability and you will need to consult your user manual as to how to access this feature.

The parameters defining the NZTM2000 projection are:

Projection:	Transverse Mercator
Origin Latitude:	0.0 degrees South
Origin Longitude:	173.0 degrees East
False Northing:	10,000,000 m North
False Easting:	1,600,000 m East
Central Meridian scale factor:	0.9996

Note that this projection is the same as a Universal Transverse Mercator (UTM) but with a different origin of longitude and false origin.

MORE TECHNICAL GPS INFORMAON

For more technical GPS information please contact you GPS retailer or manufacturer.

MORE ON TOPOGRAPHIC MAPS

For more information, check out www.linz.govt.nz/topo50.