



## About Tellus

Tellus is a ground and airborne geoscience mapping programme, collecting chemical and geophysical data that will inform the management of Ireland's environment and natural resources. Tellus is undertaken by the Geological Survey of Ireland and is funded by the Department of Communications, Energy and Natural Resources.

Tellus surveying has been completed in Northern Ireland & Cavan-Monaghan (2004-2008), the border region of Ireland (2011-2013) the north midlands of Ireland (2014-2015) and the east of Ireland (2015). Planning is underway to survey in the west of Ireland in spring of 2016. Tellus aims to complete surveying the entire island of Ireland on a phased basis, completing 50% by end 2017.

Download data and view interactive maps at

[www.tellus.ie](http://www.tellus.ie).

## Geophysical Surveys

The initial two surveys (Northern Ireland and Tellus Border) and the latest survey in the east of Ireland were flown by JAC/SGL using a de Havilland Twin Otter aircraft collecting magnetic, gamma-ray spectrometry and frequency domain electromagnetics data.

The north midlands survey was flown by CGG Airborne Ltd using two Cessna 208B Caravan aircraft collecting magnetic, gamma-ray spectrometry and time domain electromagnetics data. These help measure variations in the Earth's magnetic field, natural radiation and the conductivity of rocks and soils respectively.

The surveys were flown at a ground clearance of 60m/90m on a 345° heading in rural areas. Flight lines were spaced 200m apart. To date over 175,000 line km have been flown.

## Thorium

The map shows fully integrated airborne thorium from the merged datasets. The data shows radiogenic equivalent thorium in parts per million across the region. The data is gridded using a 50m cell size, illuminated at 45°.

Thorium highs are concentrated in south east and north west and are associated with acidic igneous and metamorphic rocks. Ordovician rocks of the Southern-Uplands terrain also show generally high concentrations of thorium.

Local variations in geomorphology and soil / subsoils types can be mapped and show strong characteristics of the underlying geology.

Thorium lows are seen over the Antrim Basalts to the north east. Low values are also present over bodies of water and areas of saturated soil and peat deposits.