



## 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.

## Uranium

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

Uranium highs are concentrated in the east and west and are associated with acidic igneous and metamorphic rocks, although some shales also exhibit high values. The highest values are recorded over the Newry, Carlingford and Barnsmore Granites, black shales in the east and north east. Local variations in geomorphology and soil / subsoils types can be mapped and show strong characteristics of the underlying geology.

Uranium lows are seen over the Antrim Basalts to the northeast. Low values are also seen over bodies of water, saturated soils and peat deposits.