



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.

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.

Magnetic Intensity

The map displays the residual magnetic intensity resulting from the different magnetic properties of the rocks in the area. Data is illuminated from the NE, with all data reduced to pole. Negative values correspond to rocks with an opposite polarity to Earth's current magnetic field. The data shows the response of rocks from the surface to several kilometres depth.

The highest amplitudes are associated with intrusive rocks particularly the basalts in county Antrim, felsic rocks of the Mourne and volcanic rocks in counties Sligo and Roscommon. Linear NW-SE features show dolerite dykes across the region, offsets of these dykes highlight fault locations.

This data will help in the remapping of existing geological maps and identifying new geological features and structures.

Further data products are available including 1st and 2nd derivatives.