



## Western Regional Group of the Geological Society

Evening Lecture

### The New UK Seismic Hazard Maps

*R.M.W. Musson, British Geological Survey*

Tuesday 10th November 2009, 6.00 for 6.30pm

#### **Synopsis:**

As part of the work for the production of the UK National Annex to the Eurocode 8 earthquake building regulations, the British Geological Survey was requested to produce updated national seismic hazard maps for return periods of 475 and 2,500 years. These were developed using a new seismic source model for the UK, evolved from previous models, latest ground motion prediction equations, and an earthquake catalogue expressed in moment magnitude (Mw). The key design decisions were taken at an advisory panel meeting including representatives of major stakeholders in the UK seismic hazard community; thus the outcome is really a consensus decision. Because these maps are intended for guidance as to areas where hazard might be relatively high, and are not intended to supply design parameters, it was specifically requested that these should be "best estimate" maps rather than conservative. As a result, the actual values plotted seem low in comparison to previous studies.

#### **Biographical Details:**

Roger Musson was educated at Queen's University Belfast (BSc) and Edinburgh University (PhD); he then joined the Institute of Geological Sciences (now British Geological Survey, BGS) in 1980 as a seismologist. Since 1987 he has been in charge of the Seismic Hazard section of BGS, and has been responsible for numerous seismic hazard assessment projects in all parts of the world. These have included studies for government, oil, reinsurance, nuclear and other engineering sectors. He has been project leader in several major seismic hazard mapping studies, including those in the UK and UAE, and has participated in several major international hazard projects, such as GSHAP, SESAME and PEGASOS. He has been active in the development of methodology for seismic hazard and risk assessment, and is the author of several software tools in wide international use. Other research interests include historical seismology (author of the main catalogue of British earthquakes) and macroseismology (author or co-author of several standard reference works on the subject, including the EMS-98 macroseismic scale). He is well-known internationally as a conference speaker and broadcaster.

#### **Venue:**

S H Reynolds Lecture Theatre (Room G25), Department of Earth Sciences, University of Bristol, Wills Memorial Building, Queen's Road, Bristol BS8 1RJ

For directions see: <http://www.gly.bris.ac.uk/about/directions.html>

#### **Convenor:**

Charlotte Woodhall-Jones ([charlotte.woodhall-jones@hotmail.co.uk](mailto:charlotte.woodhall-jones@hotmail.co.uk))

#### **Notes:**

Refreshments will be available from 6 pm. For any enquiries regarding this event please contact the Convenor or visit <http://www.geolsoc.org.uk/gsl/groups/regional/wrg>

For any other enquiries please contact the Western Regional Group on [westernregionalgroup@hotmail.co.uk](mailto:westernregionalgroup@hotmail.co.uk)