



Further Analysis of the Kent Earthquake

Detailed analysis of all available seismic data from Saturday's (28 April) earthquake by the British Geological Survey shows that the epicentre was less than 1 km east of Folkestone and close to the area of maximum reported damage. However, uncertainties in epicentre determination are still of the order of 5 km. The event occurred at shallow depth, probably less than 5 km below the surface.

Over one thousand replies have been received to our online macro seismic survey. The preliminary map of the results can be seen at <http://www.earthquakes.bgs.ac.uk>. The maximum intensity is currently assessed as 8 EMS (European Macro seismic Scale); it is possible this may be downgraded to 7 EMS when the data have been fully analysed. This is the highest recorded intensity for a British earthquake in over 100 years.

The worst damage is concentrated within one area of Folkestone. In the most affected group of streets, serious structural damage to a few houses was observed, including large cracks in load-bearing walls. There have been many cases of damage to chimneys, with fall of chimney pots and fall of brickwork from the upper part of the chimney stacks, with secondary damage to roofs from falling masonry. A detailed damage survey is being carried out by BGS. The damage seems to have been exacerbated by local site conditions. BGS intend to install a number of sensors in southeast England to study any possible aftershocks or further earthquake activity.

This is the largest earthquake in this region since a magnitude 4.4 ML earthquake in 1950. Significant earthquakes also struck the Dover Straits in 1776 and 1580; the latter had an approximate magnitude of 5.7 ML and reportedly caused damage in London. Earthquakes of magnitude 4.2 ML occur in mainland UK roughly every 5 years although are more common in offshore areas. A magnitude 4.7 ML earthquake struck Dudley, West Midlands in 2002 and was widely felt across England and Wales.

Members of the Public are asked to help BGS record their experiences of the earthquake online at <http://www.earthquakes.bgs.ac.uk/questionnaire/>

Summary

Locality

Folkestone, Kent

Date/Time

28 April 2007 07:18 UTC (08:18 BST)

Latitude/Longitude

51.088° North / 1.206° East

GridE/GridN

624.49 / 137.02

Depth

5.0 km

Magnitude

4.2 ML

-Ends-

For further details contact seismologists at :

British Geological Survey,
Murchison House,
West Mains Road,
Edinburgh,
EH9 3LA
Telephone: +44 (0)131 6671000
<http://www.earthquakes.bgs.ac.uk>

Alternatively contact :

Dr. Marie Cowan,
BGS Press Office,
Kingsley Dunham Centre,
Keyworth,
Nottingham,
NG12 5GG
Telephone: +44 (0)28 9038 8462
Fax: +44 (0)28 9038 8461
Mobile: 0781 4212644
E-mail: mtc@bgs.ac.uk

Notes to Editors:

The British Geological Survey (BGS), a component body of the Natural Environment Research Council (NERC), is the nation's principal supplier of objective, impartial and up-to-date geological expertise and information for decision making for governmental, commercial and individual users. The BGS maintains and develops the nation's understanding of its geology to improve policy making, enhance national wealth and reduce risk. It also collaborates with the national and international scientific community in carrying out research in strategic areas, including energy and natural resources, our vulnerability to environmental change and hazards, and our general knowledge of the Earth system. More about the BGS can be found at www.bgs.ac.uk.

