Intensities for the Ramsgate Earthquake of 22/5/2015

Data from our online questionnaire were processed automatically to produce a macroseismic map showing the intensity of the ground shaking caused by the earthquake. Data from the questionnaires are grouped by location into 5x5 km squares using postcodes and an intensity value is assigned to each square, given at least five responses are received from any square. Where fewer responses are received (often the case in sparsely populated areas) the intensity is either given as “felt” (F) or “not felt” (1).

To date, over 1800 questionnaires from 300 different postcode locations have been completed for the Ramsgate earthquake. The results are shown in Figure 1. These suggest that the maximum observed intensity was 5 EMS (European Macroseismic Scale,Grünthal, 1998). This level of ground shaking was observed up to 20 km from the epicentre, with lower levels of ground shaking observed at greater distances. The most distant reports have been received from Norwich, North Walsham and Cromer.

Earthquake intensity is a qualitative measure of an earthquake determined from the observed effects on people, objects and buildings. A number of intensity scales have been developed including Modified Mercalli (MM) and the European Macroseismic Scale (EMS). These consist of increasing levels of intensity, each designated by a Roman numeral, and ranging from imperceptible shaking (I) to catastrophic destruction (XII). For a given earthquake, intensity is normally greatest at the epicentre and decreases with distance from the epicentre.