

BRITISH GEOLOGICAL SURVEY

REPORT OR/17/061

Bulletin of British Earthquakes 2016

D D Galloway (Editor)

Contributors: J Bukits and G D Ford



The National Grid and other Ordnance Survey data are used with the permission of the Controller of Her Majesty's Stationery Office. Ordnance Survey licence number 100017897/2005

Bibliographical reference

GALLOWAY, D D 2017. Bulletin of British Earthquakes 2016. *British Geological Survey Internal Report, OR/17/061*

© NERC 2017

Edinburgh British Geological Survey 2017

BRITISH GEOLOGICAL SURVEY

The full range of Survey publications is available from the BGS Sales Desks at Nottingham and Edinburgh; see contact details below or shop online at www.thebgs.co.uk

The London Information Office maintains a reference collection of BGS publications including maps for consultation.

The Survey publishes an annual catalogue of its maps and other publications; this catalogue is available from any of the BGS Sales Desks.

The British Geological Survey carries out the geological survey of Great Britain and Northern Ireland (the latter as an agency service for the government of Northern Ireland), and of the surrounding continental shelf, as well as its basic research projects. It also undertakes programmes of British technical aid in geology in developing countries as arranged by the Department for International Development and other agencies.

The British Geological Survey is a component body of the Natural Environment Research Council.

Keyworth, Nottingham NG12 5GG

☎ 0115-936 3241 Fax 0115-936 3488
e-mail: sales@bgs.ac.uk
www.bgs.ac.uk
Shop online at: www.thebgs.co.uk

Lyell Centre, Research Avenue South, Edinburgh EH14 4AP

☎ 0131-667 1000 Fax 0131-668 2683
e-mail: scotsales@bgs.ac.uk

London Information Office at the Natural History Museum (Earth Galleries), Exhibition Road, South Kensington, London SW7 2DE

☎ 020-7589 4090 Fax 020-7584 8270
☎ 020-7942 5344/45 email: bgs_london@bgs.ac.uk

Forde House, Park Five Business Centre, Harrier Way, Sowton, Exeter, Devon EX2 7HU

☎ 01392-445271 Fax 01392-445371

Geological Survey of Northern Ireland, 20 College Gardens, Belfast BT9 6BS

☎ 028-9066 6595 Fax 028-9066 2835

Maclean Building, Crowmarsh Gifford, Wallingford, Oxfordshire OX10 8BB

☎ 01491-838800 Fax 01491-692345

Parent Body

Natural Environment Research Council, Polaris House, North Star Avenue, Swindon, Wiltshire SN2 1EU

☎ 01793-411500 Fax 01793-411

Contents

- Contents..... 1**
- 1 Introduction..... 3**
- 2 The BGS UK Seismograph Network..... 3**
- 3 Earthquake Parameters and Their Errors 4**
 - Hypocentre Location 4
 - Magnitude 4
 - Intensity..... 5
 - Focal Mechanism 5
- 4 Summary of 2016 Seismicity 5**
- 5 UK Seismicity Statistics 8**
- Acknowledgements..... 10**
- References 11**
- Figures 12**
- Tables..... 25**
- Appendix 1 Key to Catalogue Encoding 66**
- Appendix 2 Key to Phase Data Encoding..... 67**
- Appendix 3 The European Macroseismic Scale (EMS 98)..... 68**

FIGURES

Figure 1. Epicentre map of earthquakes in 2016 as listed in Table 1.

Figure 2. Seismograph stations operated by BGS during 2016. The contours show earthquake detection capability in terms of Richter local magnitude (ML) calculated for average background noise conditions (4nm) where the detection criterion is that the signal has to exceed 4nm at 10Hz at 4 stations.

Figure 3. Epicentres of earthquakes with magnitudes of 2.5 ML and above, in the period 1979 to 2016.

Figure 4. Epicentres of earthquakes with magnitudes of 3.5 ML and above, in the period 1970 to 2016.

Figure 5. Seismograms of the ground displacement from the Northern North Sea earthquake, 3 November 2016, recorded by BGS seismograph stations.

Figure 6. Seismograms of the ground displacement from the Liskeard, Cornwall earthquake, 27 October 2016, recorded by BGS seismograph stations.

Figure 7. Seismograms of the ground displacement from the Thame, Oxfordshire earthquake, 6 March 2016, recorded by BGS seismograph stations.

Figure 8. Seismograms of the ground displacement from the Oban earthquake, 18 May 2016, recorded by BGS seismograph stations.

Figure 9. Seismograms of the ground displacement from the Colwyn Bay earthquake, 13 June 2016, recorded by BGS seismograph stations.

Figure 10. Seismograms of the ground displacement from the Mull earthquake, 19 August 2016, recorded by BGS seismograph stations.

Figure 11. Histogram showing the number of events, magnitude 2.0 ML or greater, 1970 - 2016.

Figure 12. Histogram showing the number of felt events, 1979 - 2016.

Figure 13. Histogram showing the split between the number of felt events in coalfield areas and those which are natural earthquakes, 1979 - 2016.

TABLES

Table 1. Catalogue of events in chronological order: 2016.

Table 2. Phase data of the earthquakes in Table 1.

Table 3. Geographic coordinates and instrumentation of BGS seismograph stations.

Table 4. Depth / crustal velocity models used in earthquake locations.

1 Introduction

The British Geological Survey's (BGS) Seismic Monitoring and Information Service operate a nationwide network of seismograph stations in the United Kingdom (UK). Earthquakes in the UK and coastal waters are detected within limits dependent on the distribution of seismograph stations. Location accuracy is improved in offshore areas through data exchange with neighbouring countries. This bulletin contains locations, magnitudes and phase data for all earthquakes detected and located by the BGS during 2016, listed in Tables 1 and 2. Maps showing seismic activity in 2016 (Figure 1), and the larger magnitude events since 1979 ($ML > 2.5$) and since 1970 ($ML > 3.5$) are also included. The bulletin covers all of the UK land mass and its coastal waters including the North Sea ($11^{\circ}W$ to $6^{\circ}E$ and $48^{\circ}N$ to $64^{\circ}N$).

All events believed to be of true tectonic origin are included. Coalfield events are also included. Acoustic disturbances, such as sonic booms from supersonic aircraft, are included when they are felt. The airborne waves are readily identified by their slow travel time across an array but they are frequently mistaken as small earthquakes by the public. They are indicated by 'SONIC' in both the locality and comments column of Table 1.

Significant non-natural events, such as explosions, which received media attention or were greater than magnitude 2.5 ML or felt by local residents, are also included in Table 1. Smaller events that are known, or suspected to be of explosive origin are excluded from the bulletin where possible. These include explosions due to quarrying, mining, weapon testing or disposal, naval exercises, geophysical prospecting and civil engineering. Unfortunately, identification by record character, location and time of occurrence is not always conclusive and some man-made events may be included in the bulletin or, more rarely, a small natural event may have been excluded.

2 The BGS UK Seismograph Network

The UK seismograph network consists of 91 (77 permanent and 14 temporary) stations with broadband, short period and strong motion accelerometers. Of the permanent sites, some 43 are equipped with broadband seismometers and 30 have strong motion accelerometers, 23 of which are co-located with broadband sensors. The remaining 28 sites are equipped with short period seismometers, one of which is co-located with a strong motion accelerometer. Data from all stations are transferred in near real-time to the BGS offices in Edinburgh for automatic processing, analysis and archiving. Seismic events are detected using automatic processing algorithms, but they can also be extracted manually from the archive of continuous data, then analysed to determine event types, locations and magnitudes. Operational BGS seismograph stations are shown in Figure 2.

The detection capabilities of a network depend upon station distribution, instrument sensitivity and background noise levels. Figure 2 also shows the magnitude detection thresholds for the seismograph stations operational in December 2016. The contours illustrate the lower threshold magnitude for an earthquake to significantly exceed 4 nanometres of noise (average) at 10 Hz on at least four seismographs. These detection levels hold true only if data from all stations are continuously monitored. Smaller events may go undetected unless they are felt and reported to BGS by local inhabitants, in which case detection can be strongly dependent on the population density.

The whole of the UK is covered by the seismograph network for approximately magnitude 1.5 ML, and above, at times of average ambient noise levels. Noise sources such as wind, ocean waves and traffic vary considerably with time (typically 0.5 to 15 nanometres, at 10 Hz) causing the magnitude thresholds to increase or decrease. In conditions of high noise, 0.8 ML should be added

to the contour values, causing the threshold to rise to about 2.3 ML. Normally, however, an earthquake of this size would be felt, if not detected, in the areas of poorer instrumental coverage. The bulletin can, therefore, be assumed to be complete for all earthquakes of magnitude 2.3 ML and above.

Given the variability in the earthquake detection threshold, as governed by ambient noise conditions and the geometry of the observing network, the bulletin is biased towards certain localities. Figure 3 shows only earthquakes with magnitude 2.5 ML or above, in the period 1979 to 2016. The data set is considered complete for these magnitudes in all localities onshore. Seismicity for the period 1970 to 2016 is shown in Figure 4 with a threshold magnitude of 3.5 ML. This is the period covered by BGS instrumentation that, in the early years, only consisted of the network around Edinburgh (LOWNET) and Eskdalemuir (ESK) and a station near Kyle of Lochalsh (KYL). The data set is likely to be complete for such magnitudes.

3 Earthquake Parameters and Their Errors

HYPOCENTRE LOCATION

By accurately timing the signal onsets at a minimum of three stations, a location can be found for an earthquake that satisfies the observed pattern of arrivals. Instrumental locations in the bulletin were obtained using the computer program HYPOCENTER (Lienert and Havskov 1995) that iteratively adjusts a trial hypocentre (latitude, longitude, depth, and origin time) until the observed and computed arrival times coincide closely.

The accuracy of locations is dependent on distances from the closest stations, the distribution of the stations around the epicentre, the resolution to which signal onsets can be timed from the records, and the accuracy with which the seismic wave velocities through the Earth are known.

The accurate determination of earthquake depth presents a more difficult problem, mainly because phase arrival patterns at the seismographs can still be satisfied for a large range of depths merely by adjusting the origin time to suit. Depth is usually only well constrained when there is a station very close to the epicentre.

The best depth determinations are obtained when an earthquake or earthquake series occurs almost beneath a network. For events at larger distances the depth errors can be many kilometres.

MAGNITUDE

All earthquakes in the bulletin have been assigned a local magnitude (ML) as defined by Richter (1935):

$$ML = \log_{10} (A / A_0)$$

Where A is the maximum deflection (centre to peak in mm) registered on a Wood-Anderson seismograph and A_0 is that for a 'standard' magnitude zero earthquake at the same distance. The A_0 term is thus a distance correction factor, tabulated by Richter to 200 km, and later adjusted to include up to 600 km. Although Richter intended his method to be an approximate quantification of earthquake size and his attenuation term, A_0 , strictly only applies to California, the formula is still used worldwide today. The ML magnitudes in this bulletin have been calculated according to Richter's formula after converting the output of the BGS instruments to an equivalent Wood-Anderson deflection. Ideally, the measurements are made on two horizontal instruments and averaged but, if this is not possible, the mean of the magnitudes from a number of verticals are used. Ground motion registered at a seismograph varies with site conditions, distance and direction from the earthquake, and the nature of the ray path. Consequently, it is important to take

the mean from a good distribution of stations. The resulting errors on magnitudes quoted in the bulletin will normally be less than 0.4 ML.

INTENSITY

Intensity is a measure of the effect of the shaking produced by the earthquake on people, structures and objects. It decreases with distance from a maximum value (I_{\max}) usually found close to the epicentre. The maximum felt intensity is quoted, where known, with reference to the European Macroseismic Scale (EMS), (Grünthal, 1998).

FOCAL MECHANISM

Earthquake focal mechanisms provide information on the fault geometry and type of faulting that caused the earthquake, and can be used to better understand tectonic processes occurring within the Earth's crust. Calculating them involves mapping directions where the initial motion of the seismic waves is up (compressional) or down (dilatational) on a spherical projection. This results in distinctive "beach-ball" diagrams that show two shaded quadrants and two white quadrants that represent upward and downward initial motions. The dividing lines between the quadrants on the "beach-ball" define the orientation of the fault planes and the directions of slip. It is not possible to determine which of the two possible fault planes shown in the mechanism is the actual fault, so *a priori* information such as aftershock distribution are sometimes used to determine the causative fault. The strike and dip describe the orientation of the fault, and the rake describes the direction of slip (-90° for thrust or reverse faulting, 90° for normal faulting and 0° or 180° for strike-slip). The axes of maximum and minimum compression are denoted by black and white squares, respectively. The grid search method of Snoke *et al.* (1984) is used to determine the best-fitting fault plane solutions. For 2016, there were no earthquakes where focal mechanisms could be reliably determined.

4 Summary of 2016 Seismicity

There were 205 earthquakes located by the BGS seismic monitoring network during the year, with 22 having magnitudes of 2.0 ML or above and three having magnitudes of 3.0 ML or above. Two events with a magnitude of 2.0 ML or above were reported felt, together with a further thirteen smaller ones, bringing the total to fifteen felt earthquakes in 2016.

The largest earthquakes of the year occurred in the Northern North Sea on 9 September and on 3 November, both with a magnitude of 3.9 ML. The 9 September event was located approximately 275 km ENE of Lerwick, Shetland Islands and around 45 km SSE of the magnitude 4.8 ML North Sea earthquake on 26 July 1977. The 3 November event (Figure 5) was located approximately 280 km northeast of Aberdeen and is the largest earthquake in the general region (within 100 km) since a magnitude 4.7 ML on 23 March 1971. A further 20 events occurred in the North Sea and surrounding waters during the year, with magnitudes ranging between 1.5 ML and 3.8 ML. None were reported felt.

One of the largest onshore earthquakes during the year, with a magnitude of 2.3 ML, occurred on 27 October, at 02:08 UTC, and located approximately 9 km northwest of Liskeard, Cornwall (Figure 6). The BGS received some 45 reports from residents of Liskeard and the surrounding towns and villages who reported feeling the earthquake. Analysis of these reports shows that most of them came from within a 25 km radius of the epicentre. Typical reports described "the house shook slightly under my feet", "the noise woke us up, then we felt the house tremble and the windows rattle", "felt slight vibrations through my bed", "it sounded like an underground train", "the bedroom door creaked" and "it felt and sounded like an huge articulated lorry going over a

speed bump outside the house”, indicating an intensity of 3 EMS. This is the largest event to occur in this region of Cornwall since the magnitude 2.7 ML earthquake on 12 June 1981, which was felt, mostly between Liskeard and Plymouth, with a maximum intensity of 4 EMS. Historically, the largest earthquakes to have occurred nearby, within 20 km, were the magnitude 4.2 ML Launceston event that occurred on 25 June 1883, which was felt throughout Cornwall and Devon and the magnitude 3.4 ML Callington event that occurred on 12 August 1852, which was felt over most of east Cornwall. Minor damage, mainly damage to plaster, was reported for both these events indicating a maximum intensity of between 5 and 6 EMS.

Another earthquake with a magnitude of 2.3 ML occurred during the year, at 23:12 UTC on 6 March with an epicentre approximately 4 km southeast of Thame, Oxfordshire (Figure 7). The BGS received several felt reports from residents in the villages of Chinnor and Watlington (Oxfordshire) and from Bledlow, Bledlow Ridge, Princes Risborough, Monks Risborough and Aylesbury (Buckinghamshire). Reports received described, “thought our son had fallen out of bed”, “felt like a bus or a lorry had hit the house with a thud”, “sounded like distant thunder” and “it was if something heavy had fallen over upstairs”. An intensity of 3 EMS was assigned for this earthquake. This is the largest event detected in the general area since a magnitude 2.6 ML Basingstoke earthquake on 12 January 2006, some 48 km to the SSW. Historically, the largest event to have occurred in this area was the magnitude 3.4 ML Oxford earthquake on 6 November 1764, which was felt in Oxfordshire, Berkshire, Hampshire and Wiltshire, with a maximum intensity of 5 EMS.

On 27 January, at 23:28 UTC, an earthquake with a magnitude of 0.8 ML, occurred near Penryn, Cornwall. A single felt report was received from a resident in the village of Rame, some 5 km to the west of the epicentre, who described “initially thought it was the quarry but it was a different sort of rumble” and “felt a weak vibration”, indicating an intensity of 2 EMS.

Two earthquakes, on 11 and 14 March, both with magnitudes of 1.0 ML, occurred near Oakham, Rutland, in the same area and at similar depths as the magnitude 3.8 ML Oakham event of 28 January 2015, which was felt throughout the region with a maximum intensity of 4 EMS. The 11 March event, at 20:30 UTC, was felt by several residents in Oakham, Langham, Burley, Barleythorpe and Cottsmore who described “there was a rumbling noise lasting for a couple of seconds”, “it was loud enough to hear over the television”, “sounded like a passing truck”, “very weak compared to previous earthquakes in the area” and “we thought it was a clap of thunder”, indicating an intensity of 3 EMS. The 14 March event, at 18:06 UTC, was felt by a few residents in Oakham, who described “felt a slight vibration through my feet” and “the kitchen window rattled”, indicating an intensity of 2 EMS.

On 13 April, at 13:11 UTC, an earthquake with a magnitude of 1.6 ML, occurred offshore the parish of St Martin, Guernsey, Channel Islands, around 6 km SSE of the capital, St Peter Port. The BGS received a few reports from residents of Guernsey which described, “a rattle, a rumble and then a thud” and “there was a rumbling noise, louder and deeper than our normal running machinery”, indicating an intensity of 2 EMS. It locates approximately 6 km NNW of the magnitude 4.3 ML Jersey earthquake on 11 July 2014, which was felt throughout the Channel Islands and was also felt in Devon, Dorset and in France, with a maximum intensity of 4 EMS. Historically, larger events have been known to occur in the area, the largest being a magnitude 4.4 ML earthquake on 22 December 1843, which caused a considerable amount of damage to buildings on Guernsey and caused panic among the inhabitants.

An earthquake with a magnitude of 1.7 ML occurred 9 km SSW of Hereford, Herefordshire, at 20:49 UTC, on 18 April. The BGS received two felt reports, from residents in the villages of Little Dewchurch and Much Dewchurch, who both described a slight shaking, indicating an intensity of 2 EMS. This event locates 5 km southwest of the magnitude 5.2 ML Hereford earthquake on 6 October 1863, which was felt throughout most of England and Wales, and caused minor damage

in Hereford, Ross-on-Wye, Hay-on-Wye, Monmouth and Abergavenny. It also locates approximately 14 km WSW of the magnitude 5.3 ML Hereford earthquake which occurred on 17 December 1896, which was also felt throughout England and Wales and caused significant damage in Hereford and its surrounding villages, where over 200 chimneys were damaged or twisted.

A magnitude of 1.3 ML earthquake occurred at 11:25 UTC on 9 May, near Finnart, Perth and Kinross. A single report was received from a resident in the nearby village of Dall, which described, “the windows rattled and we felt a slight shudder”, indicating an intensity of 2 EMS.

On 17 May, at 15:56 UTC, a magnitude 1.9 ML earthquake occurred near Loch Goil, Argyll and Bute. The BGS received a single felt report, from the village of Lochgoilhead, which described, “felt a distinct vibration and heard a noise like thunder”, indicating an intensity of 2 EMS.

A magnitude 1.9 ML earthquake occurred, at 23:00 UTC, on 18 May, with an epicentre 2 km SSW of Oban, Argyll & Bute (Figure 8). Some 25 reports were received from residents of Oban and surrounding villages who felt the event, describing, “house vibrated slightly and ceiling creaked”, “slight shaking for a few seconds”, “badly fitted doors rattled”, “felt like a tube train went under the house” and “it was like a short rumble of thunder”, indicating an intensity of at least 3 EMS. It locates approximately 12 km southeast of the magnitude 4.1 ML Oban earthquake of 29 September 1986, which was felt over an area of around 30,000 km² with a maximum intensity of 5 EMS. It also locates approximately 25 km NNW of the magnitude 5.2 ML Argyll earthquake on 28 November 1880, the largest of all recorded Scottish earthquakes, which was felt all along the west coast of Scotland, east as far as Perthshire, throughout the Inner and Outer Hebrides and extensively in Northern Ireland.

An earthquake with a magnitude of 1.3 ML, occurred at 04:10 UTC on 30 May, with a location near the village of Shieldaig, Highland. A single felt report was received from a resident of Charlestown, a small hamlet some 4 km NNW of the epicentre, who described, “the bed trembled”, indicating an intensity of 2 EMS.

On 13 June, at 21:40 UTC, a magnitude 1.9 ML earthquake occurred approximately 5 km south of the town and seaside resort of Colwyn Bay, Conwy (Figure 9). Some 48 reports were received from residents in Conwy, Gwynedd and Anglesey who reported feeling the event. The reports described, “a closed door rattled in its frame”, “low rumbling noise which lasted a few seconds”, “sounded like a jet with afterburners engaged”, “felt and sounded like a lorry going up the lane” and “thought the quarry had started blasting later than normal”, indicating an intensity of at least 3 EMS. This event locates approximately 10 km ENE of the magnitude 3.9 ML Llanrwst earthquake, on 29 August 1780, which was felt over more or less all of North Wales with maximum intensities of 5 EMS. It also locates approximately 50 km northeast of the magnitude 5.4 ML Llyn Peninsula earthquake, on 19 July 1984, which was felt throughout England and Wales and into Scotland and Ireland, with a maximum intensity of 6 EMS. Historically, larger earthquakes have also been known to occur in the area, the largest being a magnitude 5.3 ML earthquake that occurred on 9 November 1852 and a magnitude 5.2 ML earthquake that occurred on 7 October 1690, which were both felt at intensities of 6 EMS.

On 29 June, at 20:58 UTC, an earthquake with a magnitude of 1.4 ML occurred near the town of Middleton, Greater Manchester. The BGS received two felt reports from residents of Middleton, who described “both me and my husband felt the sofa shake” and “we felt quite a weak rumble”, indicating an intensity of 2 EMS.

Nine earthquakes, with magnitudes ranging between 0.9 ML and 1.9 ML, occurred on the Island of Mull, Argyll and Bute during the year. Two were reported felt. The largest occurred at 13:38 UTC on 19 August (Figure 10) and was felt in the hamlets of Lochbuie, Kinlochspelve, Killiechronan, Aros, Croggan, Craignure, Tiroran, Pennyghael and Gruline on the island. Reports described “sounded like thunder”, “we were mildly alarmed”, “there was a slight shaking at floor

level” and “the windows rattled and there was a rumble through the kitchen floor”, indicating an intensity of at least 3 EMS. The other felt earthquake, with a magnitude of 1.2 ML, occurred, at 17:26 UTC, on 22 June, and was felt by a single resident in the hamlet of Tiroran, Mull, who described, “a faint vibration through the floor”. An intensity of 2 EMS was assigned to this event.

An earthquake, with a magnitude of 2.0 ML, occurred at 03:51 UTC on 2 November in the English Channel region, approximately 75 km southeast of Lizard Point, Cornwall. Three other offshore earthquakes occurred in the English Channel region during the year, with magnitudes of 1.2 ML, 1.6 ML and 1.9 ML. None were reported felt.

On 14 November, at 07:20 UTC, a magnitude 2.1 ML earthquake occurred approximately 4 km NNW of the town of Crickhowell, Powys. No felt reports were received for this event.

5 UK Seismicity Statistics

In Figure 11, the histogram of earthquakes above magnitude 2.0 detected per year in different magnitude ranges, shows significant variation across the 47 years of modern instrumental monitoring. In the early years, the 1970s, instrumental coverage across the UK was sparse, and that influences the picture, although it was improving in the second half of the decade. The annual catalogues are thought to be complete at magnitude 3.5 ML or greater for 1970 to 1978, and for magnitude 2.5 ML and greater from 1979. Almost all of the earthquakes above 2.5 ML would be felt by people. Some of the peaks seen in Figure 11 have obvious explanations:

- In 1980, there was a continuing long aftershock sequence of the Carlisle earthquake of 26 December 1979 (4.7 ML). The largest two (both 3.8 ML) occurred in January and December 1980, the latter almost one year later than the mainshock. A local, temporary station was installed in a Longtown church three days after the mainshock, followed by three more distant stations in 1980.
- The largest onshore earthquake known in the UK’s history occurred on the Llyn Peninsula, Gwynedd in 1984 (19 July) with a magnitude of 5.4 ML. A multi-station monitoring network was installed, shortly afterwards, across North Wales. The aftershock sequence continued for more than a year and confirmed that the activity was relatively deep for UK earthquakes, at around 20 km.
- The high peak in 2002 is dominated by an earthquake sequence near Manchester, which started on 19 October 2002 and continued until January 2003. Some 53 events above magnitude 2.0 ML were recorded and 37 were felt, the largest with a magnitude of 3.9 ML. Temporary stations were deployed to record the smaller events.
- The peak in 2014, is the result of an extended coal-mining induced series of earthquakes near New Ollerton, Nottinghamshire, which were studied with a temporary mobile network of monitoring stations. Some 65 events were felt, of which ten were magnitude 2.0 ML or greater.

In 1974-75, there are clear peaks in earthquakes with magnitudes of 3.0 ML and greater during this period; around half of them were centred near Kintail, NW Scotland. There were few monitoring stations in the UK at this time, so it is not known whether they were accompanied by many or a few smaller magnitude events.

- The Bishops Castle, Shropshire, earthquake in April 1990 (5.1 ML) and the Market Rasen, Lincolnshire earthquake in February 2008 (5.2 ML), both showed very limited aftershock sequences despite being well monitored. The former had seven aftershocks (all less than or equal to 1.5 ML and none felt) and the latter had eleven aftershocks, with magnitudes ranging between 0.6 ML and 2.8 ML, (the largest felt locally).

- Finally, the year 2016 is remarkable for producing the fewest earthquakes in the whole 47 year series, in all magnitude ranges above 2.0 ML, with a total of only three events in the 2.0 ML - 2.9 ML range and none above that.

Figures 12 and 13 show the statistics for all earthquakes known to be felt from 1979 to 2016, including those below magnitude 2.0 ML. As might be expected, Figure 12 shows three of the same peaks as for the event occurrences seen in Figure 11; namely the 1984 Lleyn, 2002 Manchester and 2014 New Ollerton events. However, there were many events felt with magnitudes below 2.0 ML, and these were mainly related to coal mining.

Figure 13 shows the split between the number of felt events in coalfield areas (most of them mining-induced) and those which are natural earthquakes. It can be seen that the coalfield event distribution across the 38 years (1979 - 2016), largely mirrors the distribution of smaller events (2.0 ML or less) in Figure 12. As UK mining-induced events almost always occur within one km of the surface, they are felt at low magnitudes as they are close to the communities exposed. Natural earthquakes in the UK are generally in the depth range 3 - 20km. By the year 2000, deep coal mining across the UK was tailing off and the upsurge in the mining-induced events in 2014 was associated with the Thoresby mine at New Ollerton, Nottinghamshire, which closed in 2015. The lack of mining events in 1984 is caused by the general miners' strike that year.

Acknowledgements

We are indebted to the States of Jersey Meteorological Office and many individuals who assisted with station operation. This report is published with the approval of the Director of the British Geological Survey (NERC).

The work was supported in part by:

Office for Nuclear Regulation
Department for Communities and Local Government
Magnox Ltd
EDF Energy
Horizon Nuclear Power
Sellafield Ltd
Jersey Water
Scottish & Southern Energy plc
Scottish Power
Scottish Water
Natural Environment Research Council

Interchange of data with UK and European agencies, has contributed to the accuracy of location of some of these events and to the determination of their magnitudes. They include:

Atomic Weapons Establishment (Blacknest, UK)
Centre Seismologique Euro-Mediterranean (Bruyères-le-Châtel, France)
Dublin Institute for Advanced Studies (Dublin, Ireland)
GEUS (Geological Survey of Denmark and Greenland)
Institute de Physique du Globe (Paris, France)
Koninklijk Nederlands Meteorologisch Instituut (Ae de Bilt, Netherlands)
Laboratoire de Detection et de Geophysique (Bruyères-le-Châtel, France)
NORSAR (Oslo, Norway)
University of Bergen (Bergen, Norway)
University of Keele (Keele, UK)

References

Grünthal, G., (Ed) 1998. European Macroseismic scale 1998. Cahiers du Centre European de Geodynamique et de Seismologie. **Vol 15**.

Lienert, B.R.E., and Havskov, J., 1995. A computer program for locating earthquakes both locally and globally, *Seis. Res. Lett.*, **66**, 26-36.

Richter, C., 1935. An instrumental earthquake magnitude scale, *Bull.Seism. Soc.Am.*,**25**, 1-32.

Snoke, J. A., J. W. Munsey, A. C. Teague, and G. A. Bollinger (1984). A program for focal mechanism determination by combined use of polarity and SV –P amplitude ratio data, *Earthquake Notes*, **55, 3, 15**.



Figure 1. Epicentre map of earthquakes in 2016 as listed in Table 1.

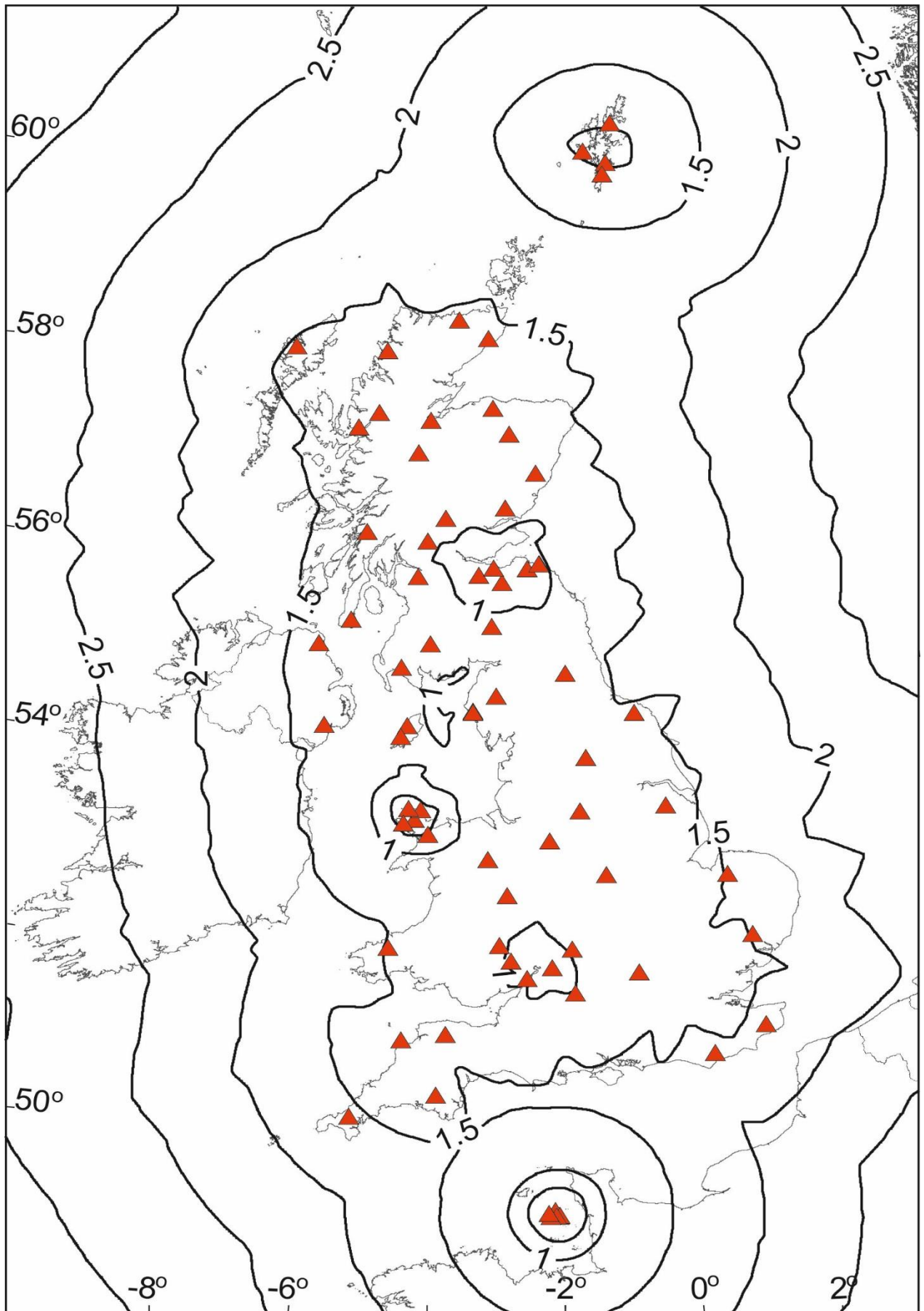


Figure 2. Seismograph stations operated by BGS during 2016. The contours show earthquake detection capability in terms of Richter local magnitude (ML) calculated for average background noise conditions (4nm) where the detection criterion is that the signal has to exceed 4nm at 10Hz at 4 stations.

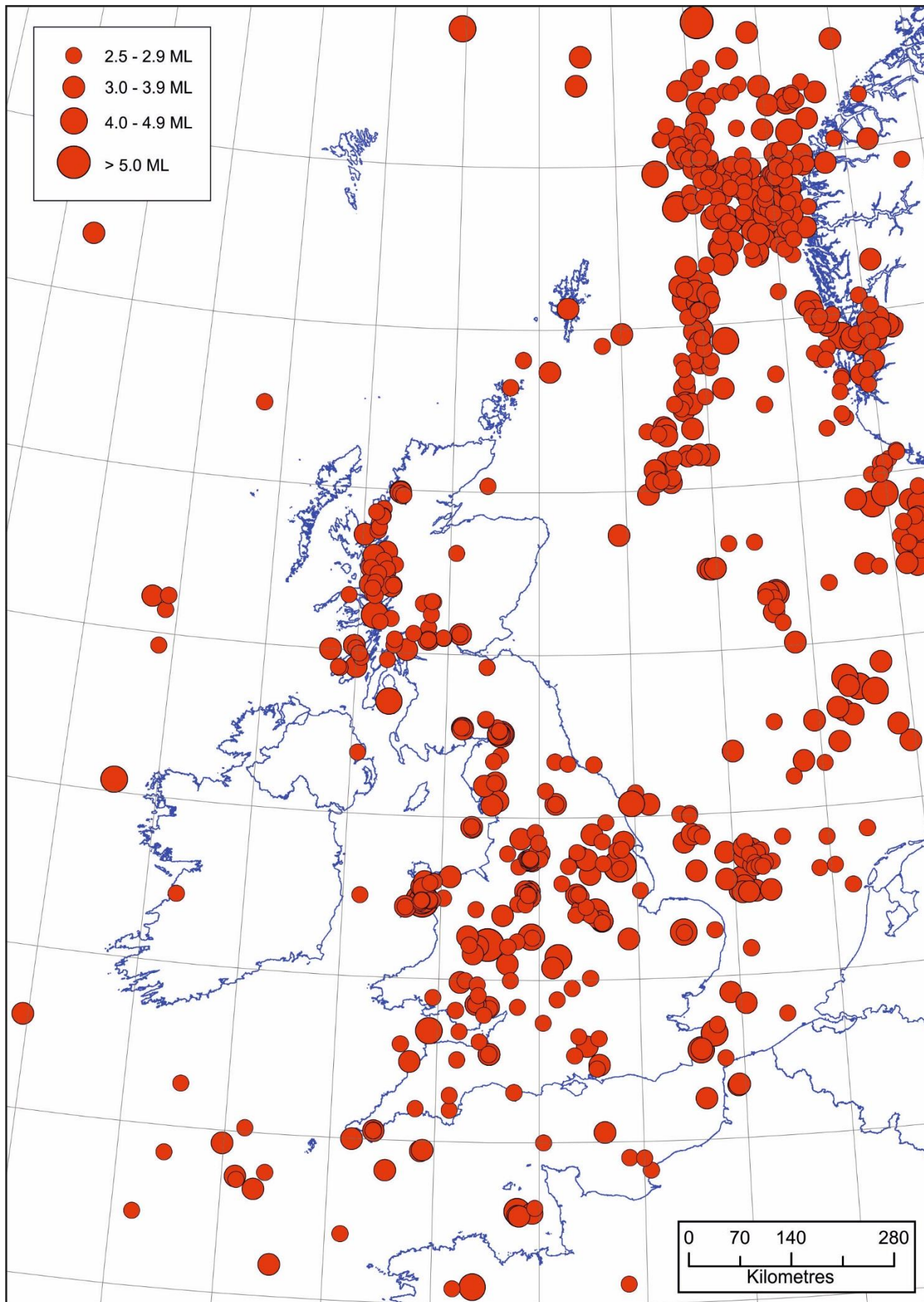


Figure 3. Epicentres of earthquakes with magnitudes of 2.5 ML and above, in the period 1979 to 2016.



Figure 4. Epicentres of earthquakes with magnitudes of 3.5 ML and above, in the period 1970 – 2016.

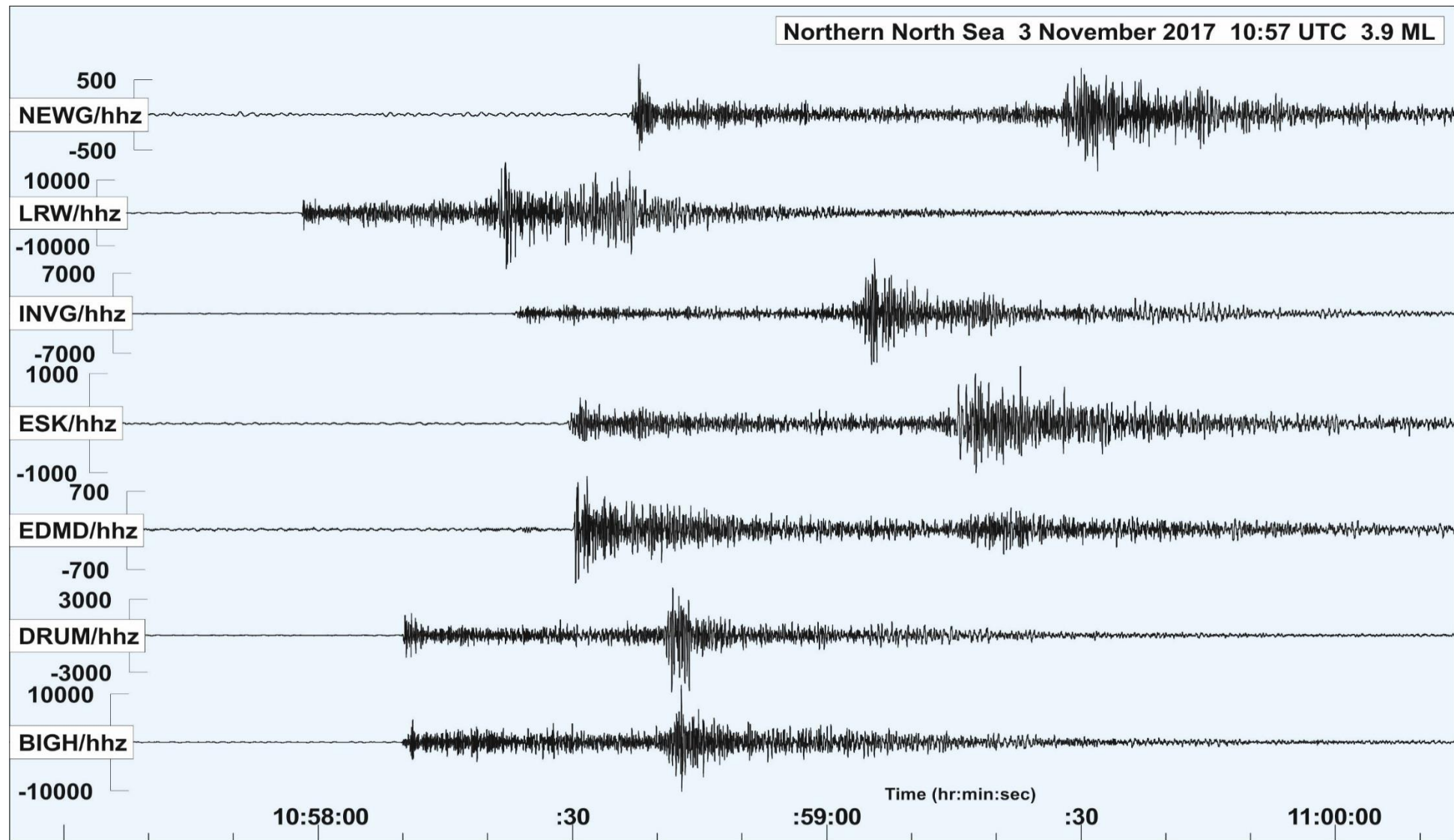


Figure 5. Seismograms of the ground displacement from the magnitude 3.9 ML Northern North Sea earthquake, 3 November 2016, recorded by BGS seismograph stations.

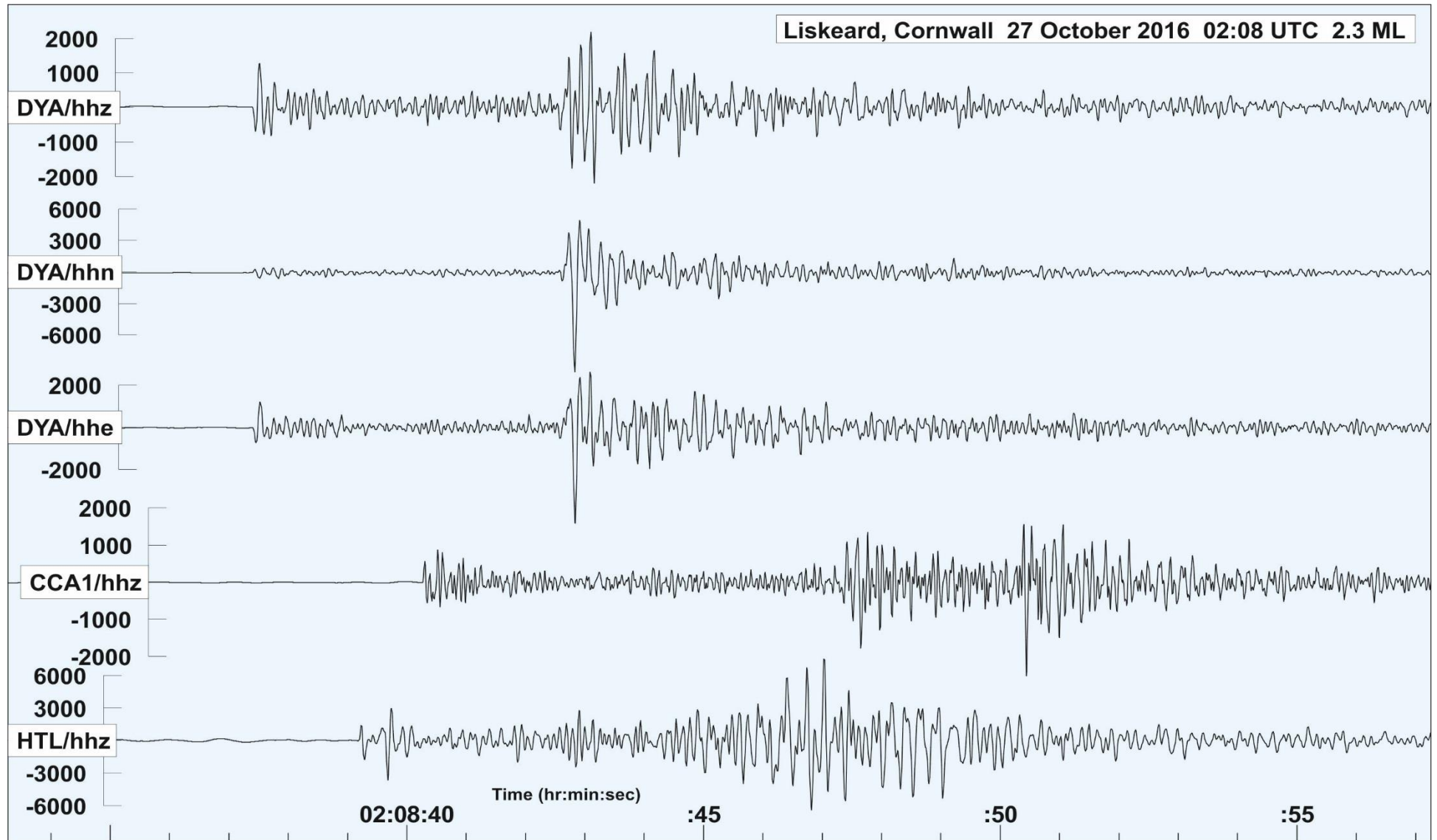


Figure 6. Seismograms of the ground displacement from the magnitude 2.3 ML Liskeard earthquake, 27 October 2016, recorded by BGS seismograph stations.

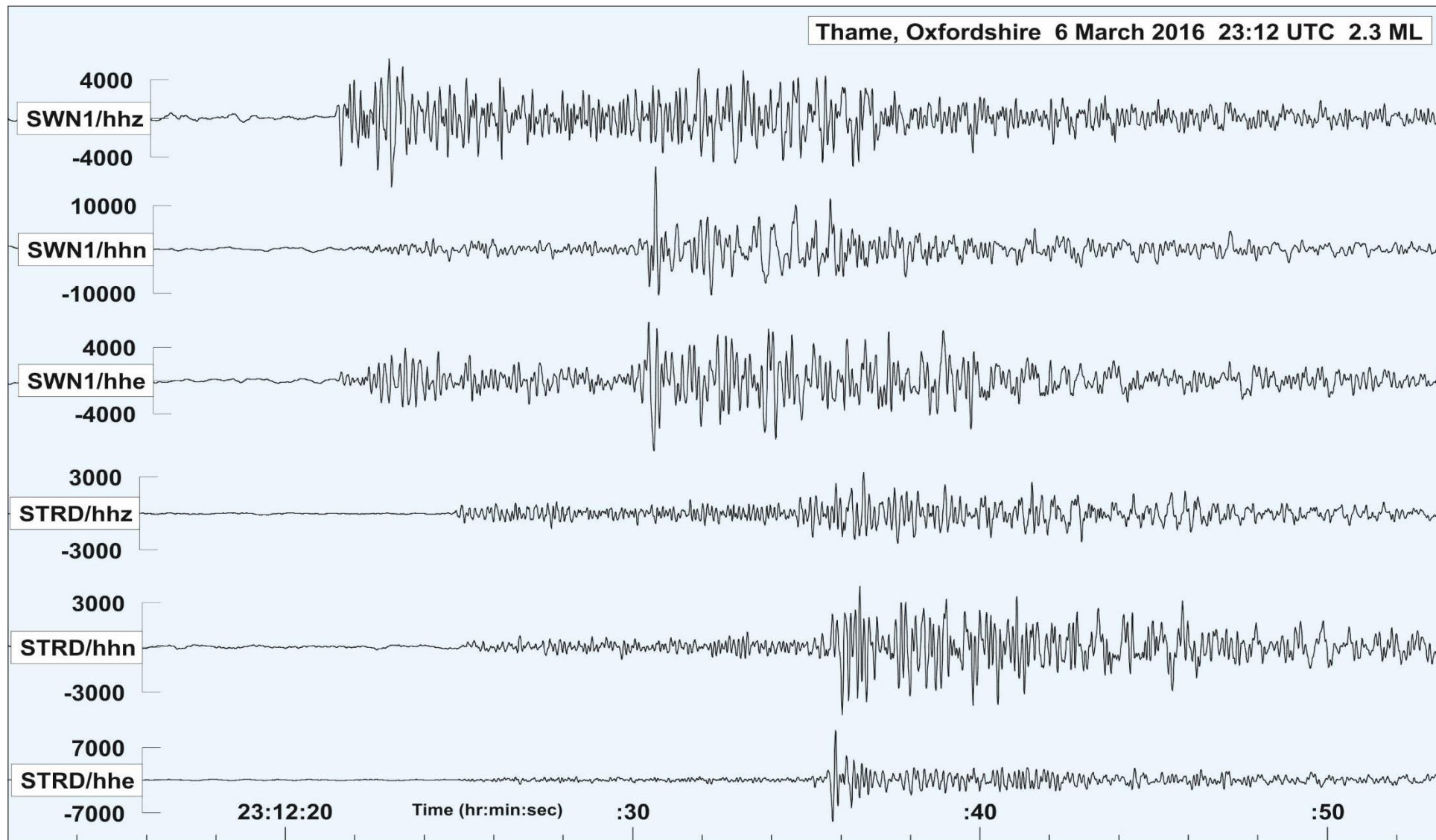


Figure 7. Seismograms of the ground displacement from the magnitude 2.3 ML Thame earthquake, 6 March 2016, recorded by BGS seismograph stations.

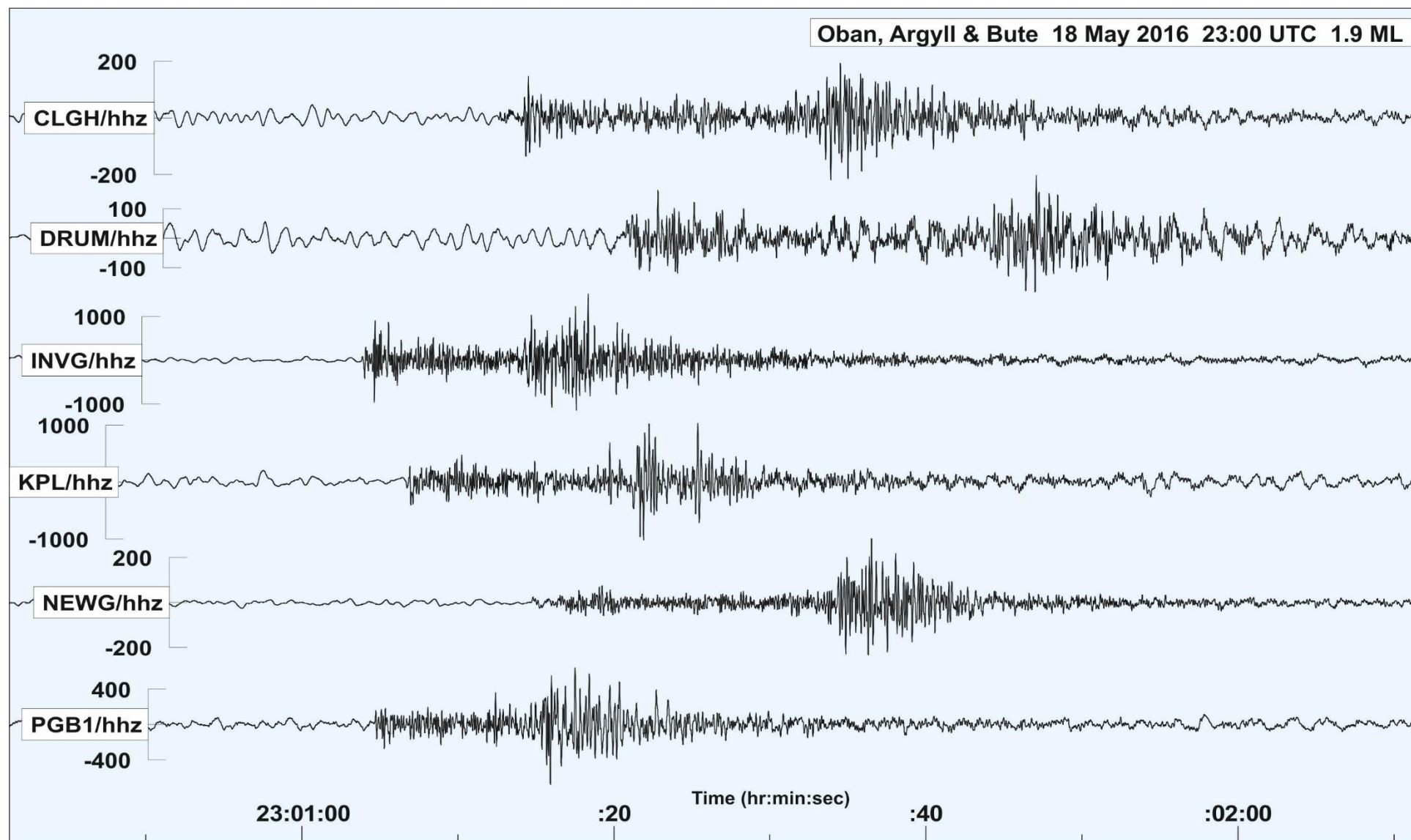


Figure 8. Seismograms of the ground displacement from the magnitude 1.9 ML Oban earthquake, 18 May 2016, recorded by BGS seismograph stations.

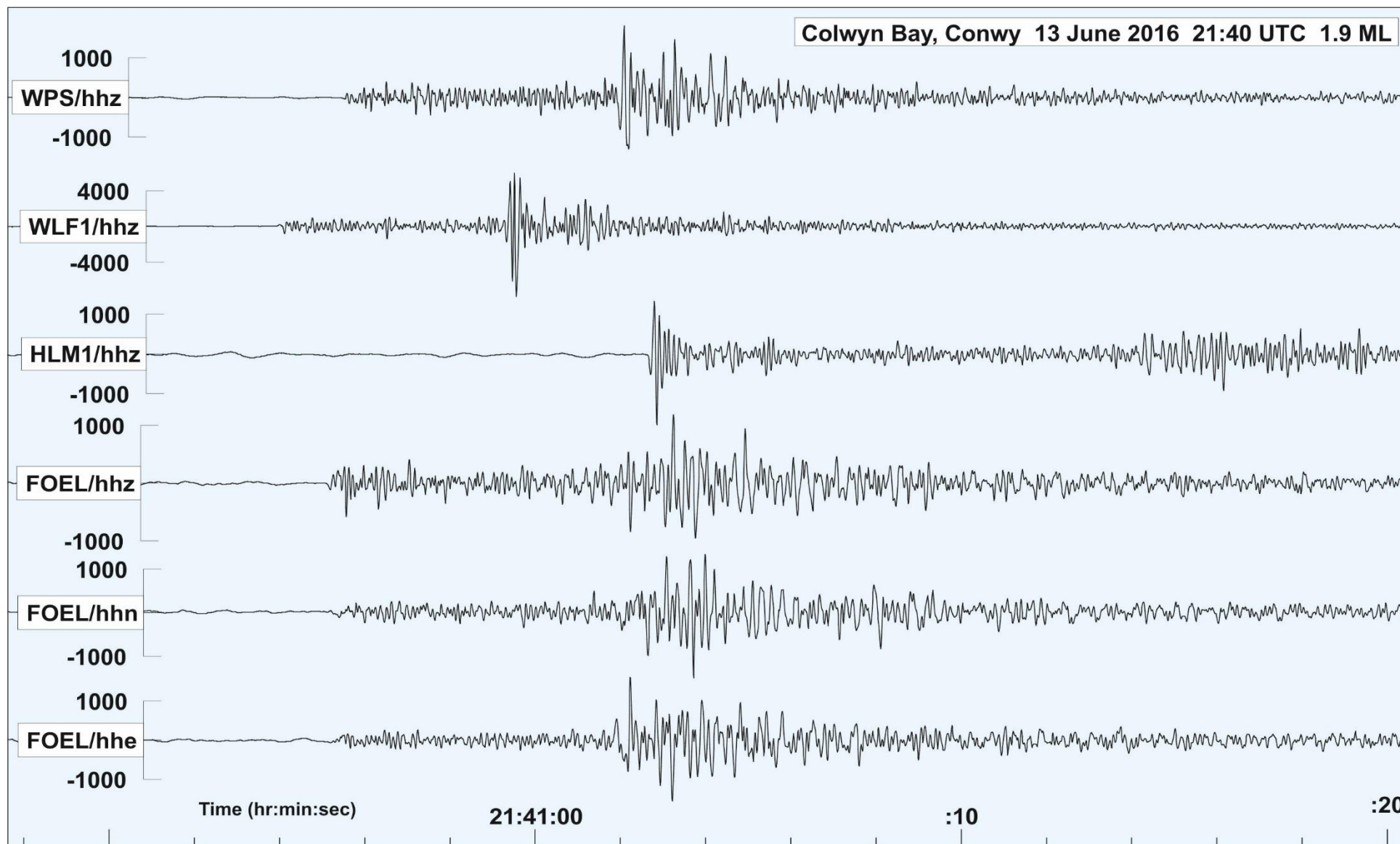


Figure 9. Seismograms of the ground displacement from the magnitude 1.9 ML Colwyn Bay earthquake, 13 June 2016, recorded by BGS seismograph stations.

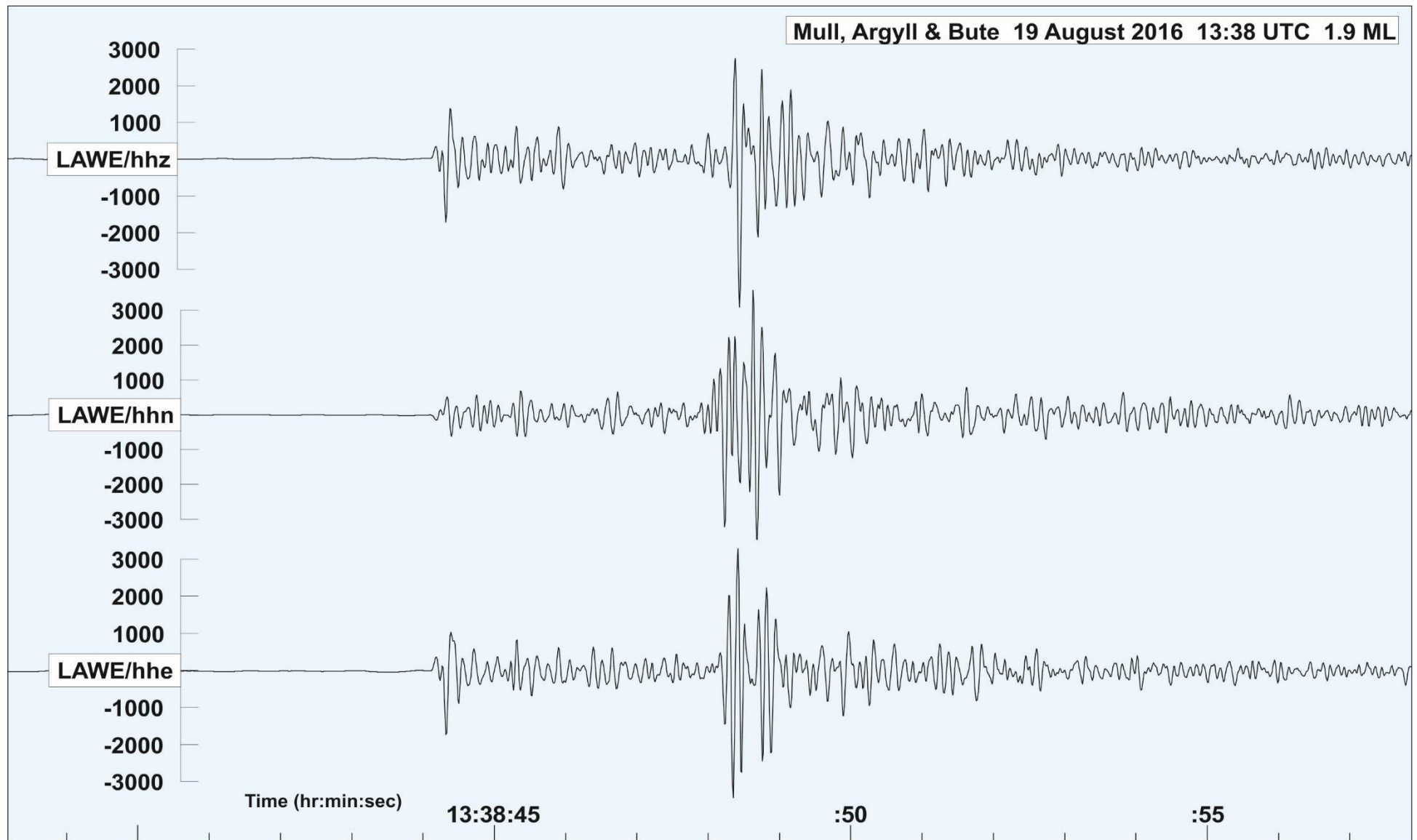


Figure 10. Seismograms of the ground displacement from the magnitude 1.9 ML Mull earthquake, 19 August 2016, recorded by BGS seismograph stations.

MAGNITUDE BY YEAR MAINLAND UK EARTHQUAKES (1970 - 2016)

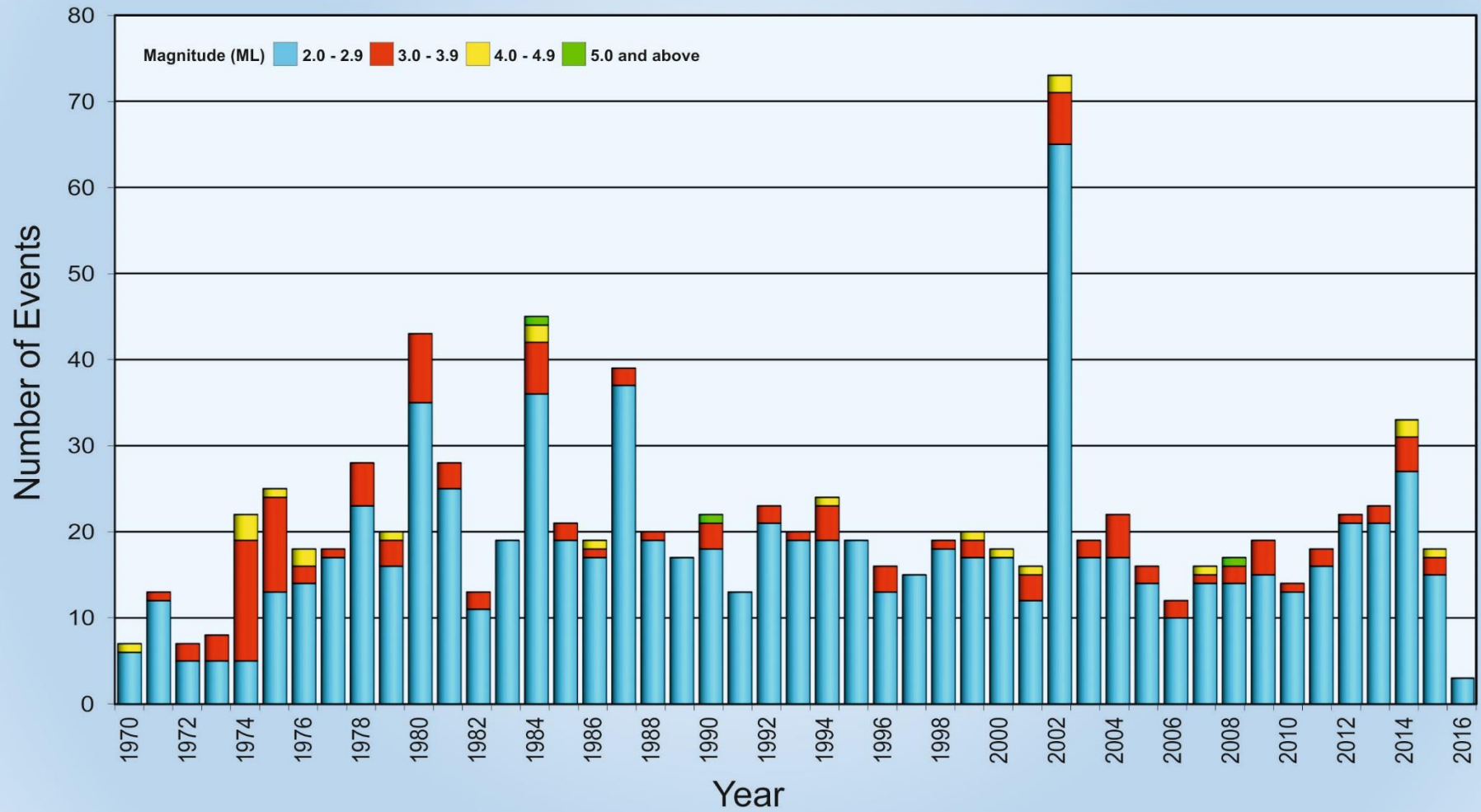


Figure 11. Histogram showing the number of events, magnitude 2.0 ML or greater, detected 1970-2016.

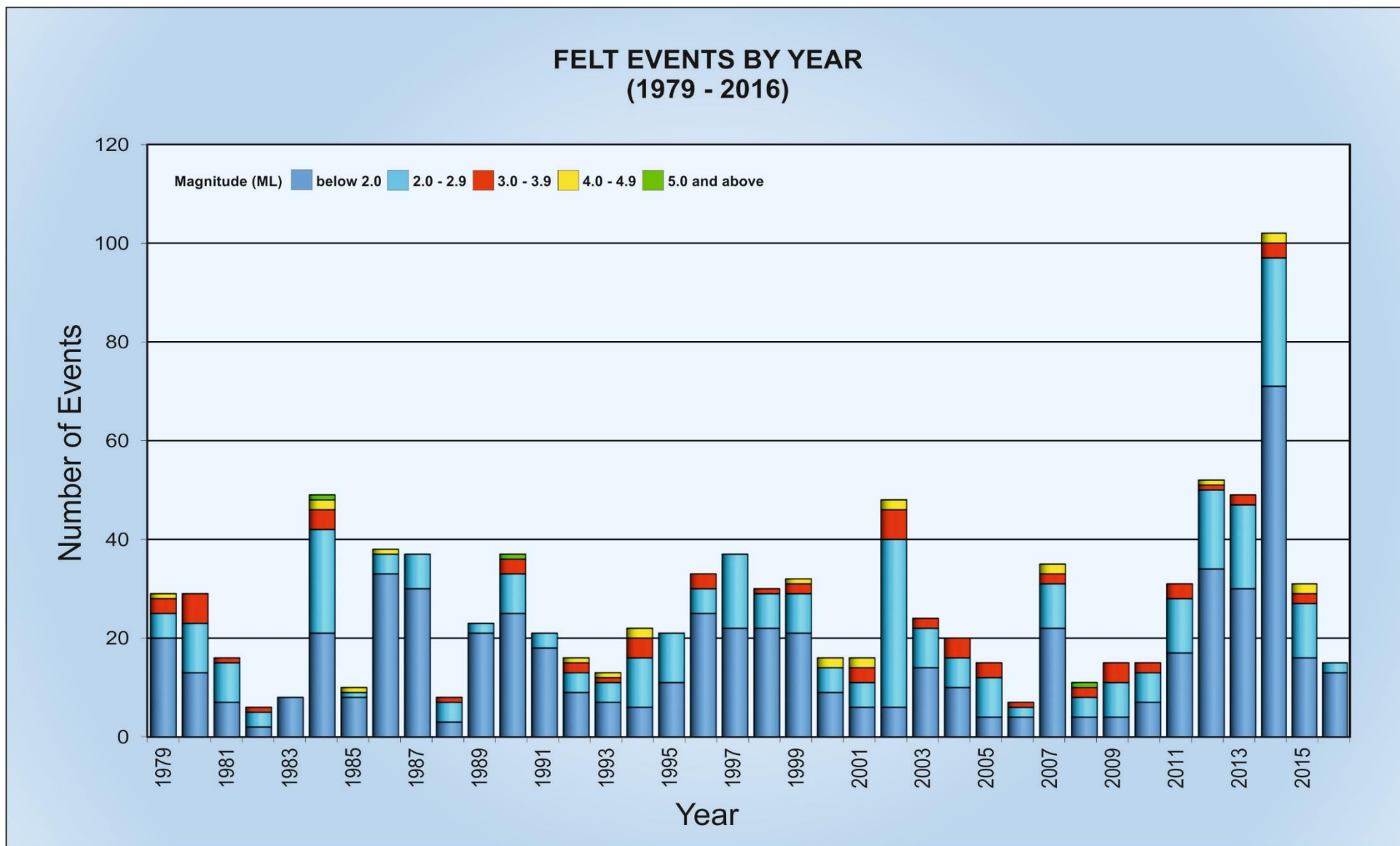


Figure 12. Histogram showing the number of felt events, 1979 -2016.

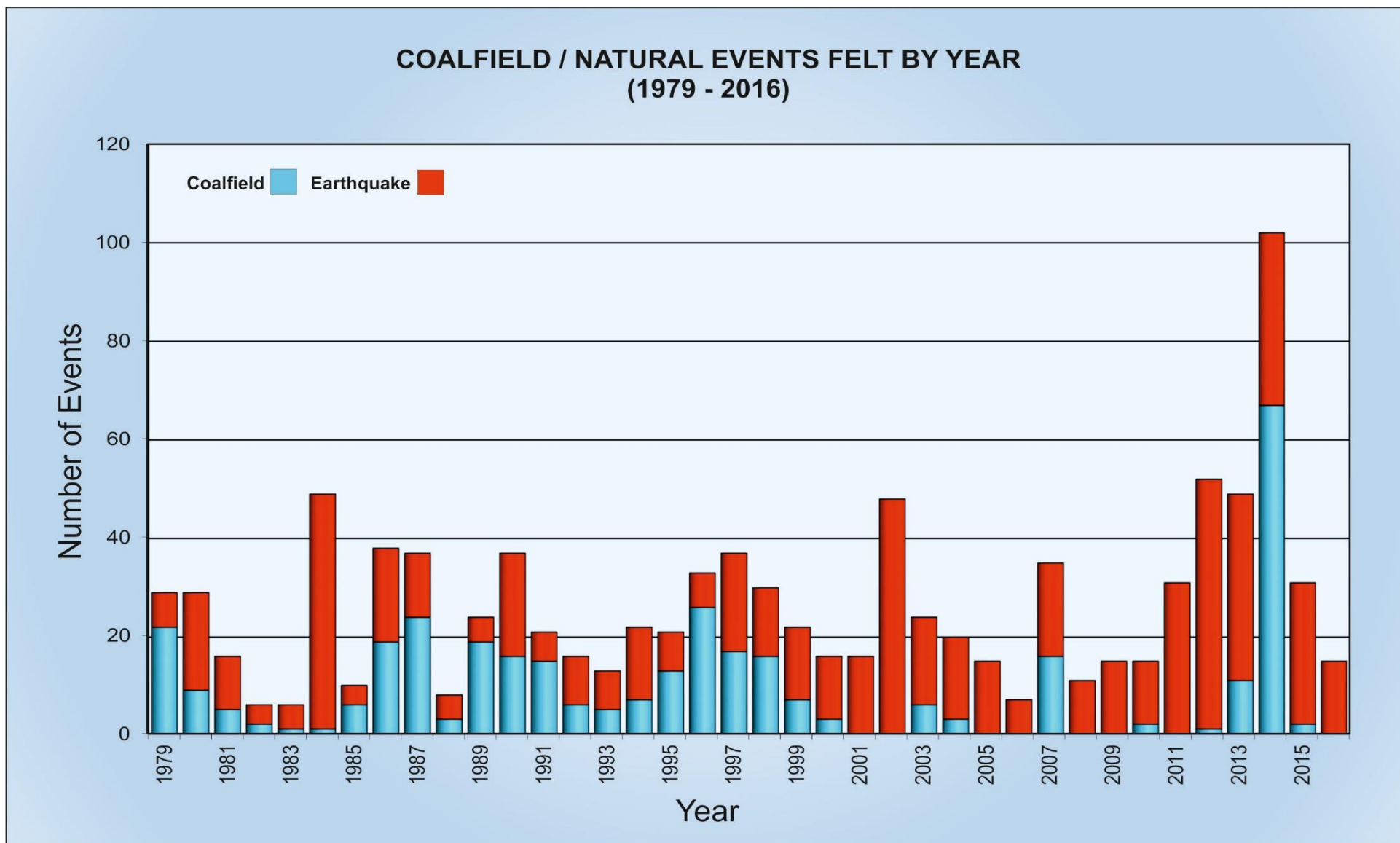


Figure 13. Histogram showing the split between the number of felt events in coalfield areas and those which are natural earthquakes, 1979 - 2016.

TABLE 1 : CATALOGUE OF EVENTS : 2016

YearMoDy	HrMnSecs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments	
20160101	043032.9	53.15	-3.43	304.4	362.1	9.6	0.8	DENBIGH, DENBIGHSHIRE		5	151	0.30	4.75	8.90		
20160101	223221.3	51.66	-3.16	319.6	196.8	7.9	1.2	NEWBRIDGE, CAERPHILLY		6	156	0.50	9.93	2.60		
20160107	185225.5	53.09	-5.15	188.9	359.7	11.5	1.8	IRISH SEA		11	140	0.20	2.69	3.00	40KM SW HOLYHEAD	
20160107	214721.1	55.36	-2.23	385.7	607.1	7.7	0.9	BYRNNESS, NORTHUMBERLAND		4	258	0.30	7.44	3.00		
20160107	220348.6	51.28	0.51	575.2	156.5	3.5	1.6	MAIDSTONE, KENT		7	89	0.40	3.28	3.90		
20160108	184658.4	52.22	-3.04	329.2	258.1	4.8	0.8	KINGTON, HEREFORDSHIRE		5	121	0.10	2.72	3.40		
20160109	162039.6	55.25	-2.82	347.9	595.5	8.0	0.6	NEWCASTLETON, BORDERS		5	204	0.20	4.38	5.60		
20160110	143420.2	58.00	-5.07	218.6	905.0	7.0	1.1	DRUMRUNIE, HIGHLAND		5	130	0.20	4.44	4.80		
20160112	000034.3	57.99	-5.06	219.1	904.5	7.7	1.1	DRUMRUNIE, HIGHLAND		6	130	0.10	1.89	4.40		
20160114	072445.2	56.30	-5.91	157.9	719.2	12.4	1.4	MULL, ARGYLL & BUTE		7	182	0.10	1.80	4.00	OFFSHORE LOCATION	
20160115	144441.4	57.99	-5.06	219.3	904.6	7.0	1.1	DRUMRUNIE, HIGHLAND		4	130	0.20	2.00	0.00		
20160118	144349.9	56.28	-6.13	144.6	717.2	8.3	1.5	MULL, ARGYLL & BUTE		7	169	0.10	2.21	2.90	OFFSHORE LOCATION	
20160120	064147.7	49.07	-2.25	381.9	-92.0	7.4	0.4	JERSEY, CHANNEL ISLES		5	324	0.10	2.28	1.20	10KM SSW JERSEY	
20160120	185920.8	58.89	1.42	597.2	1005.7	8.8	2.3	NORTHERN NORTH SEA		4	196	0.30	8.59	8.90	200KM SE LERWICK	
20160121	000033.9	57.99	-5.06	219.0	904.7	7.9	0.7	DRUMRUNIE, HIGHLAND		3	156	0.10	2.02	5.20		
20160121	185105.5	59.17	1.97	627.1	1038.0	12.2	1.9	NORTHERN NORTH SEA		5	155	0.20	7.22	8.00	205KM SE LERWICK	
20160123	004632.7	52.85	-2.12	392.3	328.7	6.8	1.0	STAFFORD, STAFFORDSHIRE		7	104	0.20	2.47	5.40		
20160125	170830.7	55.41	-3.37	313.5	613.3	3.7	0.6	BODESBECK, D & G		5	146	0.20	8.13	5.00		
20160127	232848.5	50.16	-5.12	177.2	34.1	1.5	0.8	PENRYN, CORNWALL	2	3	254	0.10	3.16	1.70	FELT RAME	
20160131	060239.6	51.59	-3.07	326.2	188.1	10.8	0.9	ROGERSTONE, NEWPORT		6	271	0.20	5.78	0.30		
20160202	215530.2	54.18	-2.42	372.4	475.7	4.7	1.1	INGLETON, N YORKSHIRE		6	116	0.20	2.91	4.90		
20160203	052824.8	55.51	-6.12	139.6	631.8	7.0	1.0	ISLAY, ARGYLL & BUTE		4	252	0.30	9.86	2.40	OFFSHORE LOCATION	
20160203	203419.6	57.99	-5.05	219.7	904.0	7.8	0.8	DRUMRUNIE, HIGHLAND		4	146	0.40	5.55	4.70		
20160204	020115.5	56.99	-4.59	242.6	791.8	11.4	1.1	MELGARVE, HIGHLAND		6	158	0.00	0.72	0.80		
20160214	003414.3	56.98	-5.74	172.6	793.7	7.5	0.5	MALLAIG, HIGHLAND		3	203	0.20	9.68	3.00		
20160215	231209.7	49.90	-3.11	320.4	0.4	5.0	1.6	ENGLISH CHANNEL		8	173	0.30	6.00	2.00	60KM NW GUERNSEY	
20160218	025442.7	52.94	-4.33	243.3	341.1	14.3	1.0	LLEYN PENINSULA		10	140	0.10	1.34	1.20		
20160218	061000.2	53.95	-3.47	303.7	451.5	8.2	1.0	IRISH SEA		4	180	0.30	9.63	4.80	30KM WEST FLEETWOOD	
20160218	141200.0	53.66	-0.45	502.7	419.9	6.9	1.2	BARTON, NORTH Lincs		4	177	0.30	9.56	1.30		
20160223	020301.0	52.94	-2.68	354.5	338.7	11.5	0.2	WHITCHURCH, SHROPSHIRE		6	122	0.10	1.14	1.70		
20160223	112253.0	52.52	-2.33	377.7	291.4	4.4	1.5	CLAVERLEY, SHROPSHIRE		10	102	0.40	3.49	5.90		
20160225	122613.2	51.50	2.90	740.2	189.5	9.7	2.7	SOUTHERN NORTH SEA		26	146	0.50	7.50	3.30	100KM ENE RAMSGATE	
20160225	220831.3	58.78	1.42	597.5	993.4	10.3	2.4	NORTHERN NORTH SEA		7	282	0.30	7.14	4.50	210KM SE LERWICK	
20160229	184400.0							SONIC-NE SCOTLAND		1					FELT ANGUS	
20160304	074533.7	51.72	-2.40	372.5	201.9	13.7	0.7	BREADSTONE, GLOS		6	162	0.20	3.69	2.80		
20160305	041659.6	53.37	2.36	690.2	395.0	5.0	2.4	SOUTHERN NORTH SEA		4	300	0.20	7.34	0.00	105KM NE NORWICH	
20160306	231209.5	51.72	-0.94	473.6	202.7	3.9	2.3	THAME, OXFORDSHIRE		3	15	91	0.40	5.28	6.10	FELT BUCKS...
20160307	054033.9	61.56	3.84	710.0	1311.3	10.0	2.9	NORTHERN NORTH SEA		5	336	0.60	8.36	8.00	310KM ENE LERWICK	
20160307	201154.8	58.41	1.11	581.4	951.1	6.2	2.4	CENTRAL NORTH SEA		14	240	0.40	5.52	8.40	240KM NE ABERDEEN	
20160311	203033.5	52.69	-0.72	486.4	310.5	3.9	1.0	OAKHAM, RUTLAND	3	4	158	0.80	7.87	1.60	FELT OAKHAM	
20160313	015229.7	55.13	-3.66	294.2	582.7	3.1	0.6	LOCHARBRIGGS, D & G		5	120	0.40	6.96	1.20		
20160314	180659.9	52.67	-0.76	483.6	309.3	3.7	1.0	OAKHAM, RUTLAND	2	4	158	0.30	5.52	4.50	FELT OAKHAM	

TABLE 1 : CATALOGUE OF EVENTS : 2016

YearMoDy	HrMnSecs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments
20160317	043400.5	53.15	-4.67	221.4	364.7	9.2	1.0	OFFSHORE ANGLESEY		6	254	0.10	4.49	3.00	15KM SSW HOLYHEAD
20160317	193336.7	53.08	-4.22	251.2	355.9	8.5	0.2	Y FRON,GWYNEDD		4	318	0.00	1.80	3.80	
20160318	083054.7	52.19	-2.52	364.2	254.4	4.9	1.4	BROMYARD,HEREFORDSHIRE		6	130	0.10	2.25	3.40	
20160320	203702.5	53.03	-3.71	285.4	349.3	9.4	0.6	PENTREFOELAS,CONWY		8	158	0.20	5.66	5.40	
20160321	220451.8	53.35	-3.92	272.5	385.4	5.6	0.4	OFFSHORE ANGLESEY		6	215	0.10	1.86	2.90	7KM ENE LLANDUDNO
20160321	231521.6	51.66	-3.22	315.8	196.7	3.3	0.9	NEWBRIDGE,CAERPHILLY		9	121	0.30	2.64	5.50	
20160324	000704.1	54.03	-3.73	287.0	461.1	21.1	0.7	IRISH SEA		5	175	0.10	2.38	5.60	45KM WNW FLEETWOOD
20160325	160404.0	53.17	-4.63	224.1	366.5	11.3	0.7	CAERNARFON BAY		7	244	0.10	3.10	1.90	10KM SW RHOSNEIGR
20160325	162204.2	56.27	-6.00	152.1	715.8	7.7	0.9	MULL,ARGYLL & BUTE		8	187	0.30	4.52	7.40	OFFSHORE LOCATION
20160327	071357.1	52.88	-4.50	231.5	334.5	7.3	0.7	LLEYN PENINSULA		9	164	0.20	2.01	1.00	
20160327	190709.4	54.52	-4.00	270.2	515.7	6.9	0.4	IRISH SEA		5	150	0.20	2.16	6.30	27KM WSW WHITEHAVEN
20160405	060129.4	53.69	-0.43	503.7	422.9	6.5	1.5	BARTON,NORTH Lincs		14	169	0.30	3.48	2.30	
20160405	184359.1	56.28	-4.13	268.1	711.6	5.0	0.7	CALLANDER,STIRLING		7	109	0.30	3.77	5.60	
20160410	211138.9	55.79	-6.46	120.6	664.6	7.0	0.9	ISLAY,ARGYLL & BUTE		4	247	0.30	7.25	1.00	
20160411	130442.0	54.47	-2.91	340.9	508.1	6.6	1.1	AMBLESIDE,CUMBRIA		7	203	0.30	4.11	4.00	5KM NE AMBLESIDE
20160413	131131.0	49.41	-2.50	364.0	-53.8	9.3	1.6	GUERNSEY,CHANNEL ISLES	2	7	182	0.10	5.70	5.90	FELT GUERNSEY
20160413	215034.4	54.75	-3.64	294.6	540.8	7.9	0.8	SOLWAY FIRTH		7	111	0.40	5.69	2.70	10KM NW MARYPORT
20160413	220105.0	54.75	-3.64	294.4	540.8	6.2	1.7	SOLWAY FIRTH		15	73	0.40	2.84	5.50	10KM NW MARYPORT
20160414	165828.4	56.02	-5.85	160.3	688.0	8.1	0.9	JURA,ARGYLL & BUTE		6	218	0.30	6.86	6.00	
20160415	182617.0	62.05	2.19	618.7	1359.6	10.0	2.8	NORTHERN NORTH SEA		11	244	0.30	7.64	8.00	275KM NE LERWICK
20160418	204937.0	51.97	-2.75	348.3	230.9	4.0	1.7	HEREFORD,HEREFORDSHIRE	2	15	79	0.40	6.35	9.60	FELT MUCH DEWCHURCH
20160420	163934.9	51.22	-3.26	311.9	147.0	7.4	1.1	BRISTOL CHANNEL		6	197	0.20	4.56	4.60	6KM NE WATCHET
20160421	012229.8	58.93	1.46	599.3	1009.8	18.3	2.1	NORTHERN NORTH SEA		10	154	0.50	8.90	8.40	200KM SE LERWICK
20160422	093010.5	54.18	-2.42	372.9	475.9	5.9	1.4	CHAPEL-LE-DALE,N YORKS		8	74	0.40	3.45	8.30	
20160425	012529.6	59.87	0.41	534.9	1111.3	5.1	1.8	NORTHERN NORTH SEA		5	164	0.80	5.99	8.90	95KM ESE LERWICK
20160426	144922.2	56.35	-5.44	187.3	722.5	3.8	1.4	KILMORE,ARGYLL & BUTE		8	157	0.10	1.49	1.40	7KM SSE OBAN
20160430	172225.5	55.78	-6.44	121.5	663.5	7.7	1.1	ISLAY,ARGYLL & BUTE		6	246	0.20	1.02	7.50	
20160430	200219.3	53.12	-0.61	493.2	358.8	7.2	1.3	LINCOLN,LINCONSHIRE		9	111	0.20	2.28	6.00	10KM SSW LINCOLN
20160502	205100.0							SONIC-WEST YORKSHIRE		1					FELT YORKSHIRE
20160503	224946.4	51.96	-2.90	338.2	229.5	8.7	0.8	PONTRILAS,HEREFORDSHIRE		8	61	0.30	3.14	2.90	
20160508	113747.4	54.06	-3.45	304.8	463.3	7.7	1.0	IRISH SEA		10	74	0.20	2.75	3.60	37KM NW BLACKPOOL
20160509	081853.1	55.98	-4.24	260.3	678.3	8.6	0.9	LENNOXTOWN,E DUNBARTON		6	166	0.20	3.16	8.80	
20160509	112507.7	56.67	-4.38	254.4	755.4	2.7	1.3	FINNART,PERTH & KINROSS	2	8	107	0.40	5.10	4.70	FELT DALL
20160511	025203.1	52.89	-3.86	274.9	333.9	12.5	0.1	TRAWSFYNYDD,GWYNEDD		6	117	0.10	2.72	2.60	
20160513	212904.6	55.98	-4.25	259.8	678.1	7.7	0.4	LENNOXTOWN,E DUNBARTON		3	205	0.20	5.02	7.30	
20160514	115123.5	56.40	-5.45	187.3	728.7	2.8	1.3	OBAN,ARGYLL & BUTE		10	157	0.30	5.38	6.30	
20160514	131751.7	57.24	-4.49	249.6	819.8	3.3	1.2	FOYERS,HIGHLAND		8	100	0.40	4.17	7.80	
20160515	173107.2	59.81	2.45	649.6	1111.4	10.0	2.3	NORTHERN NORTH SEA		17	150	0.60	9.94	4.00	200KM ESE LERWICK
20160515	181641.1	55.80	-6.36	127.1	664.5	5.8	0.8	ISLAY,ARGYLL & BUTE		4	275	0.60	1.15	4.50	
20160516	152109.7	54.72	-2.98	336.6	536.9	2.9	1.3	MILLHOUSE,CUMBRIA		10	81	0.40	4.24	9.20	
20160516	203318.8	56.66	-4.39	253.5	754.9	2.7	0.8	FINNART,PERTH & KINROSS		5	94	0.50	6.63	2.40	
20160517	081552.4	52.45	-3.83	275.5	285.2	7.2	1.1	PONTERWYD,CEREDIGION		10	102	0.20	2.51	6.90	

TABLE 1 : CATALOGUE OF EVENTS : 2016

YearMoDy	HrMnSecs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments
20160517	155626.2	56.16	-4.93	217.8	699.8	9.0	1.9	LOCH GOIL, ARGYLL/BUTE	2	15	80	0.40	3.47	8.30	FELT LOCHGOILHEAD
20160518	230049.1	56.39	-5.48	185.5	727.7	4.2	1.9	OBAN, ARGYLL & BUTE	3	18	159	0.30	4.55	4.10	FELT OBAN...
20160521	153813.6	57.99	-5.06	219.2	904.0	5.2	0.6	DRUMRUNIE, HIGHLAND		4	145	0.10	2.30	2.80	
20160524	030559.4	53.49	-2.26	382.6	399.5	3.4	0.8	MANCHESTER, GTR MCH		6	120	0.20	2.66	2.70	
20160524	080819.6	51.73	-4.02	260.4	205.2	6.7	0.7	PONTARDDULAIS, SWANSEA		6	121	0.20	1.56	4.30	
20160530	041020.9	57.68	-5.65	182.6	871.2	7.5	1.3	SHIELDAIG, HIGHLAND	2	8	126	0.20	2.15	4.60	FELT CHARLESTOWN
20160601	034408.6	55.37	-3.43	309.6	609.7	12.0	0.3	MOFFAT, D & G		4	168	0.20	4.90	9.70	4KM NNE MOFFAT
20160601	175940.1	54.07	-3.13	326.3	464.3	1.2	1.3	RAMPSIDE, CUMBRIA		8	141	0.30	3.05	2.60	
20160603	181452.4	57.22	-5.76	172.8	820.5	7.5	0.5	SKYE, HIGHLAND		6	160	0.30	5.51	8.50	9KM ESE BROADFORD
20160603	233402.6	57.22	-5.77	172.7	820.4	7.5	0.7	SKYE, HIGHLAND		6	160	0.20	5.65	5.10	9KM ESE BROADFORD
20160604	132207.6	60.74	2.20	628.9	1213.7	19.3	2.8	NORTHERN NORTH SEA		12	165	0.40	7.37	8.40	195KM ENE LERWICK
20160605	035547.6	55.97	-4.24	260.3	677.9	7.9	0.6	LENNOXTOWN, E DUNBARTON		8	125	0.20	2.47	8.40	
20160605	072337.1	56.66	-4.29	259.7	754.5	2.9	1.0	FINNART, PERTH & KINROSS		5	108	0.20	2.08	0.00	
20160609	025638.7	53.10	-1.23	451.5	356.1	2.5	1.0	MANSFIELD, NOTTS		10	172	0.40	8.27	9.20	C/F
20160611	111507.5	57.99	-5.06	219.0	904.4	6.8	0.6	DRUMRUNIE, HIGHLAND		4	144	0.20	2.58	2.70	
20160613	165513.0	53.29	-2.07	395.2	376.6	4.9	1.0	BOLLINGTON, CHESHIRE		5	122	0.20	2.13	3.80	
20160613	214046.4	53.24	-3.74	283.7	372.6	8.8	1.9	COLWYN BAY, CONWY	3	19	90	0.30	3.94	5.80	FELT COLWYN BAY...
20160615	214312.6	57.11	-5.33	198.5	806.7	4.8	0.7	KINLOCH HOURN, HIGHLAND		5	189	0.30	8.25	5.70	
20160616	023317.7	57.10	-5.41	193.7	806.7	3.8	0.7	KINLOCH HOURN, HIGHLAND		5	192	0.20	6.33	4.10	
20160621	075116.8	56.36	-5.85	162.1	725.7	2.8	1.0	MULL, ARGYLL & BUTE		6	180	0.30	6.37	6.80	
20160622	172611.2	56.29	-5.86	161.4	717.1	2.5	1.2	MULL, ARGYLL & BUTE	2	6	179	0.20	7.07	5.60	FELT MULL
20160623	185821.6	51.56	-1.48	436.4	184.5	9.7	1.2	WANTAGE, OXFORDSHIRE		6	142	0.20	4.05	2.40	
20160624	222245.9	59.75	1.78	612.2	1101.6	10.0	2.3	NORTHERN NORTH SEA		11	135	0.50	6.16	4.00	170KM ESE LERWICK
20160626	191618.9	55.78	-5.93	153.5	661.1	5.3	0.5	JURA, ARGYLL & BUTE		5	159	0.30	5.66	9.60	OFFSHORE LOCATION
20160628	003948.8	52.45	-5.42	167.7	289.1	7.3	0.9	ST GEORGE'S CHANNEL		6	125	0.10	1.03	2.80	72KM ENE WEXFORD
20160628	015628.6	57.28	-4.41	254.5	823.2	4.3	0.8	ERROGIE, HIGHLAND		6	134	0.50	8.15	7.50	
20160629	205804.9	53.51	-2.17	388.4	401.9	3.0	1.4	MIDDLETON, GTR MCH	2	9	79	0.40	3.96	1.00	FELT MIDDLETON
20160630	170720.3	55.77	-6.39	124.5	661.5	7.3	0.7	ISLAY, ARGYLL & BUTE		4	185	0.30	4.66	8.90	
20160701	014000.0	52.67	-1.92	405.5	308.0	6.5	1.2	BURNTWOOD, STAFFORDSHIRE		8	110	0.30	4.31	7.30	
20160702	213210.9	53.76	-3.17	322.7	429.6	1.0	1.2	OFFSHORE BLACKPOOL		15	61	0.30	2.30	0.00	10KM SW BLACKPOOL
20160705	025137.5	56.61	-4.62	239.0	749.2	7.8	1.0	ACHALLADER, ARGYLL/BUTE		8	138	0.60	4.37	2.10	8KM NE ACHALLADER
20160705	042934.0	56.62	-4.64	237.8	750.2	7.5	1.1	ACHALLADER, ARGYLL/BUTE		13	93	0.70	7.74	2.20	8KM NE ACHALLADER
20160705	121211.6	49.01	-2.69	349.8	-98.7	8.2	1.2	ENGLISH CHANNEL		4	352	0.00	4.90	6.70	40KM SW JERSEY
20160706	081301.0	56.60	-4.62	239.3	748.0	7.0	0.9	ACHALLADER, ARGYLL/BUTE		7	96	0.40	4.94	0.00	8KM NE ACHALLADER
20160706	140910.9	56.60	-4.62	238.9	748.6	7.5	1.4	ACHALLADER, ARGYLL/BUTE		10	91	0.30	3.76	0.10	8KM NE ACHALLADER
20160708	021645.1	56.58	-5.67	174.9	749.3	7.7	0.6	MORVERN, HIGHLAND		4	183	0.10	2.91	7.00	
20160716	191717.5	57.63	-5.65	182.2	866.0	4.3	0.7	SHIELDAIG, HIGHLAND		5	128	0.30	8.51	6.80	6KM SSE SHIELDAIG
20160722	003820.4	51.93	-3.12	323.1	226.2	16.3	0.6	CRICKHOWELL, POWYS		6	168	0.20	2.36	2.10	
20160724	193942.9	51.19	-4.20	246.0	145.8	7.7	0.6	WOOLACOMBE, DEVON		4	191	0.20	8.93	5.60	
20160724	235334.2	57.27	-4.45	252.6	822.3	10.6	0.8	ERROGIE, HIGHLAND		5	132	0.30	2.53	6.60	
20160725	030805.0	51.95	-2.70	352.0	227.7	6.9	0.6	ORCOP, HEREFORDSHIRE		6	128	0.20	1.72	2.80	5KM ENE ORCOP
20160725	052528.2	56.38	-5.86	161.7	727.6	11.4	1.0	MULL, ARGYLL & BUTE		4	180	0.10	4.44	5.70	

TABLE 1 : CATALOGUE OF EVENTS : 2016

YearMoDy	HrMnSecs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments
20160727	044852.0	55.32	-2.65	358.7	603.2	2.5	1.1	SAUGHTREE, BORDERS		10	139	0.30	3.89	3.60	6KM NNE SAUGHTREE
20160729	023607.5	52.66	1.47	634.7	312.8	10.8	1.3	BLOFIELD, NORFOLK		4	261	0.30	7.28	5.80	
20160801	182231.6	54.71	-3.13	327.3	535.6	7.3	0.4	ULDALE, CUMBRIA		5	107	0.20	2.64	4.00	
20160802	194654.4	52.98	-4.38	240.2	345.4	21.1	0.5	LLEYN PENINSULA		7	144	0.30	5.55	4.50	
20160815	042556.8	52.85	-1.37	442.2	327.8	4.7	1.0	CASTLE DONINGTON, LEICS		6	167	0.10	1.49	2.20	
20160815	101405.8	52.96	-2.55	362.9	340.8	7.3	1.0	WILKESLEY, CHESHIRE		8	129	0.50	5.22	1.60	
20160819	133838.5	56.39	-5.85	162.4	728.3	2.5	1.9	MULL, ARGYLL & BUTE	3	15	180	0.40	2.40	5.00	FELT MULL...
20160820	140816.0	56.45	-4.83	225.6	732.7	2.5	0.5	DALMALLY, ARGYLL & BUTE		6	120	0.40	5.10	5.60	10KM NE DALMALLY
20160823	052110.4	54.70	-2.94	339.4	534.9	6.9	0.5	SKELTON, CUMBRIA		4	143	0.10	1.72	2.10	
20160824	061021.7	56.42	-4.09	271.3	727.6	1.9	0.9	COMRIE, PERTH & KINROSS		6	103	0.20	3.16	1.30	7KM NW COMRIE
20160824	111537.7	54.50	-2.87	343.5	511.7	5.4	1.4	HARTSOP, CUMBRIA		6	247	0.10	9.88	9.50	
20160825	145916.7	52.57	-2.64	356.4	297.1	7.5	1.7	HUGHLEY, SHROPSHIRE		7	154	0.40	5.85	1.20	
20160826	014149.3	52.74	-2.29	380.1	315.5	8.3	0.4	MORETON, STAFFORDSHIRE		5	130	0.20	2.33	6.60	
20160826	014914.2	52.86	-2.18	387.9	329.7	7.7	0.3	STONE, STAFFORDSHIRE		4	125	0.10	4.03	8.60	4KM SW STONE
20160828	201521.8	53.68	-2.50	367.1	420.5	6.6	1.0	DARWEN, LANCASHIRE		7	123	0.20	2.66	4.70	
20160828	225850.9	52.20	-3.76	279.7	257.6	11.5	1.2	TREGARON, CEREDIGION		8	117	0.30	2.44	7.30	12KM ESE TREGARON
20160831	193800.9	50.12	-0.38	515.6	25.2	7.7	1.9	ENGLISH CHANNEL		3	199	0.00	2.44	1.20	80KM SSW BRIGHTON
20160902	220555.0	56.65	-5.54	182.9	756.2	7.8	1.4	STRONTIAN, HIGHLAND		10	187	0.50	0.50	9.40	
20160903	033406.6	51.32	-2.32	377.4	158.3	3.8	1.2	BATH, BATH & NE SOMERSET		7	170	0.20	4.96	4.90	
20160907	022729.3	52.72	-2.51	365.5	313.3	8.4	0.3	WELLINGTON, SHROPSHIRE		5	155	0.30	3.12	6.50	
20160909	120621.9	55.80	-6.11	142.3	664.0	7.7	0.9	ISLAY, ARGYLL & BUTE		4	221	0.40	6.69	7.10	
20160909	220041.7	61.07	3.57	700.1	1256.1	10.0	3.9	NORTHERN NORTH SEA		15	160	0.80	3.48	0.00	275KM ENE LERWICK
20160910	150556.3	57.65	-5.64	182.6	868.5	3.7	1.2	SHIELDSAIG, HIGHLAND		8	127	0.40	5.80	8.50	
20160911	205358.8	55.11	-0.68	484.4	580.8	10.0	1.5	CENTRAL NORTH SEA		4	268	0.40	7.77	0.00	50KM ENE SUNDERLAND
20160921	022308.7	56.17	-5.83	162.6	704.6	3.8	0.9	SCARBA, ARGYLL & BUTE		8	176	0.20	3.31	3.90	OFFSHORE LOCATION
20160921	082801.7	56.17	-4.90	219.8	701.0	8.1	0.9	LOCH GOIL, ARGYLL/BUTE		4	132	0.30	3.42	4.70	
20161001	054448.0	52.43	-3.22	317.0	282.2	7.7	1.3	ANCHOR, SHROPSHIRE		9	89	0.50	4.18	2.30	
20161003	110706.0	56.71	-6.34	134.4	765.9	5.4	1.6	COLL, ARGYLL & BUTE		7	260	0.30	4.79	6.00	OFFSHORE LOCATION
20161007	101726.6	52.23	-4.22	248.1	261.2	8.1	0.6	ABERAERON, CEREDIGION		7	123	0.30	4.12	7.50	
20161008	131126.3	55.07	-6.82	92.7	585.6	7.0	1.0	RINGSSEND, COLERAINE		5	177	0.70	9.27	1.50	
20161009	124826.1	62.49	2.18	615.2	1407.9	28.1	3.8	NORTHERN NORTH SEA		20	214	0.70	5.34	5.50	310KM NE LERWICK
20161009	172710.2	57.30	-4.39	256.1	825.8	7.2	1.2	ERROGIE, HIGHLAND		9	73	0.40	3.94	4.50	
20161009	185641.0	53.91	-3.39	308.8	446.9	3.7	0.6	IRISH SEA		10	126	0.40	5.19	3.80	25KM NW BLACKPOOL
20161010	135710.5	58.07	-5.49	194.3	914.4	7.9	0.8	REIFF, HIGHLAND		4	146	0.30	3.67	1.00	OFFSHORE LOCATION
20161012	052318.7	52.18	-2.51	365.3	253.5	4.1	0.4	BROMYARD, HEREFORDSHIRE		5	242	0.10	2.96	1.90	
20161013	180911.7	51.74	-3.37	305.4	205.4	11.6	0.7	MERTHYR TYDFIL, MERTHYR		7	109	0.10	1.35	3.60	
20161015	000901.7	51.15	-2.39	372.9	138.8	3.4	1.0	UPTON NOBLE, SOMERSET		7	158	0.20	3.85	2.70	
20161015	114151.7	56.31	-5.02	213.2	717.3	2.5	1.0	INVERARAY, ARGYL & BUTE		8	85	0.30	3.50	3.80	9KM NNE INVERARAY
20161015	213341.5	54.97	-2.03	398.1	563.6	5.5	1.9	HEXHAM, NORTHUMBERLAND		9	146	0.20	2.61	3.00	
20161017	224928.2	52.56	-3.42	303.9	296.6	14.7	1.0	CAERSWS, POWYS		11	81	0.30	3.44	5.40	
20161021	173137.4	51.45	-2.62	356.8	172.8	11.8	0.5	BRISTOL, CITY OF BRISTOL		6	250	0.20	4.22	3.00	
20161025	205349.4	55.65	-6.17	137.6	647.4	9.5	0.6	ISLAY, ARGYLL & BUTE		4	219	0.20	5.57	7.40	

TABLE 1 : CATALOGUE OF EVENTS : 2016

YearMoDy	HrMnSecs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments
20161027	020829.5	50.51	-4.53	220.4	70.9	11.1	2.3	LISKEARD,CORNWALL	3	10	133	0.30	2.72	3.70	FELT CORNWALL...
20161027	045654.9	50.52	-4.52	221.2	71.6	8.5	0.2	LISKEARD,CORNWALL		4	132	0.10	1.00	2.70	
20161029	014353.2	54.67	-2.59	362.0	531.1	4.8	0.3	CULGAITH,CUMBRIA		6	185	0.30	3.75	4.20	
20161029	020235.0	51.67	-3.72	281.2	198.7	9.0	1.0	NEATH,NEATH PORT TALBOT		8	103	0.20	1.84	3.00	
20161029	192049.7	59.99	2.30	639.9	1130.8	10.0	2.4	NORTHERN NORTH SEA		12	152	0.70	2.10	0.00	190KM EAST LERWICK
20161030	133925.8	53.03	-2.94	337.0	348.3	5.1	0.5	MARCHWIEL,WREXHAM		8	173	0.30	4.56	5.70	
20161102	035145.2	49.53	-4.38	227.4	-38.1	4.7	2.0	ENGLISH CHANNEL		7	218	0.40	8.35	9.70	75KM SE LIZARD PT
20161103	105727.0	58.74	1.63	609.9	989.1	23.8	3.9	NORTHERN NORTH SEA		34	74	0.40	6.13	1.50	220KM SE LERWICK
20161103	141942.7	57.26	-4.75	234.1	821.7	4.8	1.7	INVERMORISTON,HIGHLAND		9	80	0.40	4.70	7.90	
20161105	173132.8	54.12	-2.06	396.4	469.7	0.0	0.9	CONISTONE,N YORKSHIRE		3	185	0.30	5.39	1.00	
20161105	182823.7	55.24	-3.53	303.0	594.7	4.4	0.4	JOHNSTONEBRIDGE,D & G		5	220	0.10	2.42	7.50	
20161107	020256.1	53.01	2.20	681.9	353.7	10.0	2.1	SOUTHERN NORTH SEA		4	292	0.40	1.50	0.00	60KM ENE CROMER
20161108	000341.0	56.37	-5.75	168.6	726.1	11.9	0.8	MULL,ARGYLL & BUTE		6	174	0.30	6.46	4.70	
20161108	001826.6	55.24	-3.51	303.8	594.9	4.5	0.6	JOHNSTONEBRIDGE,D & G		9	121	0.30	4.48	4.00	
20161108	094210.8	55.26	-3.52	303.5	597.4	4.3	0.4	JOHNSTONEBRIDGE,D & G		4	182	0.20	4.36	3.40	
20161108	192447.5	55.26	-3.52	303.7	596.8	4.5	0.3	JOHNSTONEBRIDGE,D & G		6	179	0.20	4.88	9.30	
20161109	161253.5	54.14	-1.92	405.0	472.0	3.7	0.9	LOFTHOUSE,N YORKSHIRE		5	167	0.20	3.19	3.10	
20161109	224105.3	51.70	-2.16	389.2	200.1	9.9	0.8	CHALFORD,GLOS		4	263	0.20	5.66	2.90	
20161111	132033.3	57.26	-4.79	232.0	822.7	4.4	1.2	INVERMORISTON,HIGHLAND		7	84	0.30	4.08	6.90	
20161111	135422.9	51.70	-3.00	330.7	201.1	14.9	0.8	PONTYPOOL,TORFAEN		8	107	0.30	3.26	2.10	
20161113	052135.5	52.07	-2.93	336.5	242.2	11.6	0.4	MOCCAS,HEREFORDSHIRE		4	107	0.10	1.03	0.90	
20161114	072009.1	51.89	-3.17	319.5	221.7	4.9	2.1	CRICKHOWELL,POWYS		13	85	0.50	3.86	6.30	
20161118	083243.5	51.18	-4.57	220.3	145.7	10.6	0.6	BRISTOL CHANNEL		5	159	0.00	0.71	0.70	6KM EAST LUNDY
20161203	095010.1	53.52	-4.16	257.0	405.3	18.8	0.6	OFFSHORE ANGLESEY		6	174	0.10	4.27	2.30	22KM NE AMLWCH
20161210	012217.7	51.80	-4.03	260.0	212.8	11.8	1.9	SARON,CARMARTHENSHIRE		8	114	0.30	2.50	4.30	
20161210	184152.2	52.77	-0.72	486.4	320.0	2.7	0.8	WYMONDHAM,LEICS		4	167	0.40	4.81	2.90	
20161213	020607.4	55.06	3.65	760.6	588.1	12.5	2.1	CENTRAL NORTH SEA		11	268	0.50	7.04	7.70	320KM EAST SUNDERLAND
20161213	145826.5	58.19	0.84	566.9	925.9	14.8	2.4	CENTRAL NORTH SEA		10	233	0.30	9.65	9.60	210KM NE ABERDEEN
20161218	151636.4	54.63	-3.07	331.0	526.2	8.8	0.9	THRELKELD,CUMBRIA		6	137	0.20	2.94	2.60	
20161221	171002.0	58.22	0.99	575.7	929.0	11.4	1.8	CENTRAL NORTH SEA		6	236	0.30	4.07	7.40	220KM NE ABERDEEN
20161222	041658.0	55.85	-6.29	131.9	670.4	10.4	0.8	ISLAY,ARGYLL & BUTE		5	238	0.20	7.45	4.70	
20161223	015648.9	56.38	-5.68	173.1	726.8	9.2	0.8	MULL,ARGYLL & BUTE		5	170	0.20	3.20	2.60	
20161227	001827.2	54.54	-3.65	293.2	517.5	4.3	0.6	WHITEHAVEN,CUMBRIA		5	162	0.20	2.76	3.10	3KM OFF WHITEHAVEN
20161227	184521.3	51.51	-3.11	322.7	179.4	13.0	0.9	RUMNEY,CARDIFF		9	140	0.20	2.79	3.80	
20161228	123056.7	53.15	-4.46	235.7	363.9	3.5	0.7	CAERNARFON BAY		6	187	0.20	4.72	4.00	
20161229	061240.7	53.53	-2.15	389.8	403.3	4.4	0.7	OLDHAM,GTR MANCHESTER		5	140	0.20	2.69	3.10	
20161229	202910.2	55.91	-6.00	150.2	675.9	7.5	1.0	JURA,ARGYLL & BUTE		5	198	0.40	7.12	7.80	
20161230	215748.3	51.72	-3.68	284.2	203.7	7.5	0.4	GLYNNEATH,NP TALBOT		6	101	0.20	2.77	8.10	
20161231	074614.7	54.72	-2.27	382.9	536.0	2.9	0.9	HARWOOD,COUNTY DURHAM		7	143	0.30	4.34	3.90	

TABLE 2 : PHASE DATA

January 1 2016										Time: 04:30 32.9 UTC				Magnitude: 0.8 ML							
Lat: 53.147N										Lon: -3.430W				Depth: 9.6 km							
Grid Ref: 304.37 kmE 362.08 kmN										RMS: 0.30 secs											
Locality: DENBIGH, DENBIGHSHIRE																					
Velocity model: Lownet										Xnear: 100.0				Xfar: 200.0							
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
LLW	BZ	36.7	EP			04:30	39.71			0.22	EDMD	HZ	61.0	EP			21:47	31.46			0.06
LLW	BN	36.7	ES			04:30	44.43			0.14	EDMD	HE	61.0	ES			21:47	38.58			-0.34
WLF1	HZ	66.5	EP			04:30	44.51			0.43	EDMD	HN	61.0	IAML			21:47	41.23	4	0.32	
WLF1	HE	66.5	ES			04:30	51.70			-0.53	EDMD	HE	61.0	IAML			21:47	41.49	4	0.19	
WLF1	HN	66.5	IAML			04:30	52.25	8	0.29		ESK	BZ	62.4	EP			21:47	31.65			-0.01
WLF1	HE	66.5	IAML			04:30	52.54	6	0.22		ESK	HN	62.4	ES			21:47	39.08			-0.29
HLM1	HZ	79.2	EP			04:30	46.12			0.00	KESW	HZ	103.0	EP			21:47	38.43			0.54
HLM1	HN	79.2	ES			04:30	55.41			-0.34	KESW	HE	103.0	ES			21:47	50.25			0.10
HLM1	HN	79.2	IAML			04:30	55.90	2	0.06		KESW	HN	103.0	IAML			21:47	51.26	4	0.43	
HLM1	HE	79.2	IAML			04:30	56.03	2	0.14		KESW	HE	103.0	IAML			21:47	51.73	4	0.50	
LBWR	HZ	117.0	EP			04:30	52.22			0.26	GALL	HZ	168.0	EP			21:47	47.71			0.30
LBWR	HE	117.0	ES			04:31	05.71			-0.14	GALL	HE	168.0	IAML			21:48	08.54	2	0.35	
LBWR	HE	117.0	IAML			04:31	07.24	4	0.22		GALL	HN	168.0	IAML			21:48	08.93	2	0.18	
LBWR	HN	117.0	IAML			04:31	07.76	4	0.29		January 7 2016										
MCH1	HN	131.0	ES			04:31	09.26			0.00	Time: 22:03 48.6 UTC										
MCH1	HN	131.0	IAML			04:31	09.58	3	0.21		Lat: 51.280N										
MCH1	HE	131.0	IAML			04:31	11.97	2	0.20		Lon: 0.512W										
										Grid Ref: 575.17 kmE 156.48 kmN											
										RMS: 0.40 secs											
										Locality: MAIDSTONE, KENT											
										Velocity model: Lownet											
										Xnear: 100.0											
										Xfar: 300.0											
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
ELSH	HZ	45.9	EP			22:03	56.69			-0.21	ELSH	HZ	45.9	EP			22:03	56.69			-0.21
ELSH	HN	45.9	ES			22:04	02.84			-0.10	ELSH	HN	45.9	ES			22:04	03.91	29	0.16	
ELSH	HE	45.9	IAML			22:04	04.26			26 0.10	ELSH	HE	45.9	IAML			22:04	04.26			26 0.10
HMNX	HZ	47.5	EP			22:03	57.26			0.11	HMNX	HZ	47.5	EP			22:03	57.26			0.11
HMNX	HN	47.5	ES			22:04	03.54			0.17	HMNX	HN	47.5	ES			22:04	03.54			0.17
HMNX	HN	47.5	IAML			22:04	04.94			37 0.45	HMNX	HN	47.5	IAML			22:04	04.94			37 0.45
HMNX	HE	47.5	IAML			22:04	06.48			36 0.31	HMNX	HE	47.5	IAML			22:04	06.48			36 0.31
ELMS	HZ	96.3	EP			22:04	05.15			0.39	ELMS	HZ	96.3	EP			22:04	05.15			0.39
ELMS	HE	96.3	ES			22:04	16.06			-0.48	ELMS	HE	96.3	ES			22:04	16.06			-0.48
ELMS	HN	96.3	IAML			22:04	18.21			24 0.13	ELMS	HN	96.3	IAML			22:04	18.21			24 0.13
ELMS	HE	96.3	IAML			22:04	20.12			21 0.20	ELMS	HE	96.3	IAML			22:04	20.12			21 0.20
WOL	BZ	121.0	EP			22:04	08.61			0.00	WOL	BZ	121.0	EP			22:04	08.61			0.00
WOL	BE	121.0	ES			22:04	22.55			-0.65	WOL	BE	121.0	ES			22:04	22.55			-0.65
WOL	BN	121.0	IAML			22:04	23.55			16 0.29	WOL	BN	121.0	IAML			22:04	23.55			16 0.29
WOL	BE	121.0	IAML			22:04	25.18			7 0.13	WOL	BE	121.0	IAML			22:04	25.18			7 0.13
WACR	HZ	161.0	EP			22:04	14.54			0.11	WACR	HZ	161.0	EP			22:04	14.54			0.11
WACR	HE	161.0	ES			22:04	34.01			0.75	WACR	HE	161.0	ES			22:04	34.01			0.75
WACR	HN	161.0	IAML			22:04	35.79			22 0.16	WACR	HN	161.0	IAML			22:04	35.79			22 0.16
WACR	HE	161.0	IAML			22:04	36.64			18 0.20	WACR	HE	161.0	IAML			22:04	36.64			18 0.20
SWN1	HE	163.0	ES			22:04	34.27			0.44	SWN1	HE	163.0	ES			22:04	34.27			0.44
SWN1	HE	163.0	IAML			22:04	35.44			24 0.28	SWN1	HE	163.0	IAML			22:04	35.44			24 0.28
SWN1	HN	163.0	IAML			22:04	36.32			12 0.34	SWN1	HN	163.0	IAML			22:04	36.32			12 0.34
CWF	HZ	205.0	EP			22:04	20.26			0.10	CWF	HZ	205.0	EP			22:04	20.26			0.10
January 7 2016											Time: 18:52 25.5 UTC										
Lat: 53.092N											Lon: -5.153W										
Grid Ref: 188.90 kmE 359.66 kmN											RMS: 0.20 secs										
Locality: IRISH SEA											Velocity model: Lownet										
Comment: 40KM SW HOLYHEAD											Xnear: 100.0										
											Xfar: 200.0										
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
YRC	EZ	42.5	EP			18:52	33.23			0.29	MCH1	HZ	24.4	IP			18:47	03.11			0.06
WLF1	HZ	55.1	EP			18:52	34.98			0.08	MCH1	HN	24.4	ES			18:47	06.42			-0.04
WLF1	HN	55.1	ES			18:52	41.35			-0.43	MCH1	HN	24.4	IAML			18:47	06.82	29	0.07	
WLF1	HE	55.1	IAML			18:52	42.15	86	0.27		MCH1	HE	24.4	IAML			18:47	06.82	38	0.05	
WLF1	HN	55.1	IAML			18:52	42.35	146	0.08		HLM1	HZ	35.3	EP			18:47	04.93			0.00
YLL	EZ	66.0	EP			18:52	36.69			0.09	HLM1	HE	35.3	ES			18:47	09.70			-0.01
WME	EZ	66.1	EP			18:52	36.71			0.10	HLM1	HE	35.3	IAML			18:47	10.69	6	0.11	
LLW	BZ	104.0	EP			18:52	42.40			-0.01	HLM1	HN	35.3	IAML			18:47	10.69	7	0.16	
LLW	BE	104.0	ES			18:52	54.85			0.08	RSBS	HZ	121.0	EP			18:47	18.00			-0.18
WIM	EZ	122.0	EP			18:52	45.00			-0.03	RSBS	HE	121.0	ES			18:47	32.69			0.06
RSBS	HZ	130.0	EP			18:52	46.08			-0.09	RSBS	HN	121.0	IAML			18:47	34.37	2	0.13	
RSBS	HN	130.0	ES			18:53	01.01			-0.27	RSBS	HE	121.0	IAML			18:47	34.51	2	0.09	
RSBS	HE	130.0	IAML			18:53	03.73	14	0.14		CWF	HZ	131.0	EP			18:47	19.76			0.01
RSBS	HN	130.0	IAML			18:53	04.03	12	0.12		WLF1	HZ	151.0	EP			18:47	22.61			0.09
IWEX	BZ	136.0	EP			18:52	46.69			-0.29	January 9 2016										
IWEX	BN	136.0	ES			18:53	02.81			0.13	Time: 16:20 39.6 UTC										
IWEX	BE	136.0	IAML			18:53	04.01	18	0.20		Lat: 55.251N										
IWEX	BN	136.0	IAML			18:53	04.60	12	0.20		Lon: -2.819W										
IOMK	HZ	136.0	EP			18:52	47.01			0.01	Grid Ref: 347.94 kmE 595.51 kmN										
IOMK	HN	136.0	ES			18:53	02.59			-0.12	RMS: 0.20 secs										
IOMK	HN	136.0	IAML			18:53	03.86	17	0.14		Locality: NEWCASTLETON, BORDERS										
IOMK	HE	136.0	IAML			18:53	05.38	29	0.08		Velocity model: Lownet										
HLM1	HZ	166.0	EP			18:52	51.56			0.29	Xnear: 100.0										
HLM1	HN	166.0	ES			18:53	10.68			0.58	Xfar: 200.0										
HLM1	HE	166.0	IAML			18:53	12.43	6	0.30		STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
HLM1	HN	166.0	IAML			18:53	12.46	8	0.12		ESK	HZ	25.6	EP			16:20	44.61			0.17
MCH1	HZ	190.0	EP			18:52	54.53			0.28	ESK	HN	25.6	ES			16:20	47.89			-0.10
MCH1	HN	190.0	ES			18:53	16.11			0.84	ESK	HE	25.6	IAML			16:20	48.25	4	0.18	
MCH1	HE	190.0	IAML			18:53	17.30	14	0.40		ESK	HN	25.6	IAML			16:20	48.25	13	0.11	
MCH1	HN	190.0	IAML			18:53	17.43	12	0.22		EDMD	HE	72.0	ES			16:21	00.16			-0.20
January 7 2016											EDMD										
Time: 21:47 21.1 UTC											HN										
Lat: 55.358N											72.0										
Lon: -2.225W											IAML										
Grid Ref: 385.74 kmE 607.14 kmN											16:21										
Locality: BYRNESS, NORTHUMBERLAND											02.83										
Velocity model: Lownet											6 0.13										
Xnear: 100.0											16:21										
Xfar: 150.0																					

TABLE 2 : PHASE DATA

Lat: 57.997N	Lon: -5.070W	Depth: 7.0 km	LEWI HN 108.0 IAML 14:45 12.13 2 0.10
Grid Ref: 218.58 kmE 904.96 kmN		RMS: 0.20 secs	LEWI HE 108.0 IAML 14:45 15.02 4 0.32
Locality: DRUMRUNIE,HIGHLAND			
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0			
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	January 18 2016	Time: 14:43 49.9 UTC	Magnitude: 1.5 ML
LINV HZ 18.3 EP 14:34 23.98 0.10	Lat: 56.278N	Lon: -6.127W	Depth: 8.3 km
LINV HE 18.3 ES 14:34 26.47 -0.10	Grid Ref: 144.57 kmE 717.15 kmN		RMS: 0.10 secs
LINV HE 18.3 IAML 14:34 26.70 52 0.14	Locality: MULL,ARGYLL & BUTE		
LINV HN 18.3 IAML 14:34 27.09 14 0.08	Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0		
KAC EZ 57.1 EP 14:34 29.67 -0.30	Comment: OFFSHORE LOCATION		
KPL HZ 81.1 EP 14:34 33.90 0.25	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES		
KPL HE 81.1 ES 14:34 43.47 0.00	PGB1 HZ 115.0 EP 14:44 08.60 0.04		
KPL HE 81.1 IAML 14:34 46.83 4 0.32	PGB1 HE 115.0 ES 14:44 22.20 0.00		
KPL HN 81.1 IAML 14:34 49.25 4 0.16	PGB1 HE 115.0 IAML 14:44 23.30 13 0.26		
BIGH HZ 87.7 EP 14:34 34.80 0.11	PGB1 HN 115.0 IAML 14:44 25.57 8 0.39		
BIGH HE 87.7 ES 14:34 45.20 -0.06	KPL HZ 122.0 EP 14:44 09.49 -0.07		
BIGH HN 87.7 IAML 14:34 48.14 23 0.19	KPL HN 122.0 ES 14:44 24.06 0.13		
BIGH HE 87.7 IAML 14:34 48.82 20 0.26	KPL HE 122.0 IAML 14:44 26.86 13 0.20		
MCD EZ 117.0 EP 14:34 39.34 0.00	KPL HN 122.0 IAML 14:44 28.58 7 0.31		
	INVG HZ 130.0 EP 14:44 10.56 -0.22		
	INVG HN 130.0 ES 14:44 26.06 0.01		
	INVG HN 130.0 IAML 14:44 27.69 11 0.14		
	INVG HE 130.0 IAML 14:44 28.07 13 0.34		
	KAC EZ 145.0 EP 14:44 13.12 0.18		
	MDO EZ 168.0 EP 14:44 16.30 0.04		
	LEWI HZ 213.0 EP 14:44 21.57 -0.20		
	CLGH HZ 133.0 EP 14:44 11.27 0.05		
	CLGH HN 133.0 ES 14:44 26.85 0.04		
	CLGH HE 133.0 IAML 14:44 30.88 11 0.28		
	CLGH HN 133.0 IAML 14:44 30.65 10 0.22		
January 12 2016	Time: 00:00 34.3 UTC	Magnitude: 1.1 ML	
Lat: 57.993N	Lon: -5.060W	Depth: 7.7 km	
Grid Ref: 219.15 kmE 904.48 kmN		RMS: 0.10 secs	
Locality: DRUMRUNIE,HIGHLAND			
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0			
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
MDO EZ 74.1 EP 00:00 46.52 -0.20			
KPL HZ 80.9 EP 00:00 47.77 0.08			
KPL HE 80.9 ES 00:00 57.41 -0.05			
KPL HE 80.9 IAML 00:00 58.79 4 0.21			
KPL HN 80.9 IAML 00:01 03.28 4 0.14			
BIGH HZ 87.6 EP 00:00 48.77 0.04			
BIGH HN 87.6 ES 00:00 59.17 -0.10			
BIGH HN 87.6 IAML 00:01 02.16 27 0.22			
BIGH HE 87.6 IAML 00:01 02.82 24 0.23			
LEWI HZ 108.0 EP 00:00 52.20 0.24			
LEWI HN 108.0 ES 00:01 04.66 -0.18			
LEWI HN 108.0 IAML 00:01 05.05 3 0.09			
LEWI HE 108.0 IAML 00:01 07.79 3 0.17			
MCD EZ 117.0 EP 00:00 53.44 0.15			
INVG HZ 185.0 EP 00:01 02.78 0.02			
INVG HN 185.0 IAML 00:01 26.44 3 0.17			
INVG HE 185.0 IAML 00:01 27.48 3 0.61			
January 14 2016	Time: 07:24 45.2 UTC	Magnitude: 1.4 ML	
Lat: 56.303N	Lon: -5.914W	Depth: 12.4 km	
Grid Ref: 157.90 kmE 719.16 kmN		RMS: 0.10 secs	
Locality: MULL,ARGYLL & BUTE			
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0			
Comment: OFFSHORE LOCATION			
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
PGB1 HZ 105.0 EP 07:25 02.37 0.11			
PGB1 HN 105.0 ES 07:25 14.65 -0.04			
PGB1 HN 105.0 IAML 07:25 15.46 10 0.60			
PGB1 HE 105.0 IAML 07:25 16.14 14 0.26			
INVG HZ 116.0 EP 07:25 03.87 -0.10			
INVG HE 116.0 ES 07:25 17.69 0.05			
INVG HN 116.0 IAML 07:25 19.01 15 0.36			
INVG HE 116.0 IAML 07:25 21.87 9 0.38			
KPL HZ 116.0 EP 07:25 03.91 -0.01			
KPL HE 116.0 ES 07:25 17.51 -0.05			
KPL HE 116.0 IAML 07:25 19.67 4 0.30			
KPL HN 116.0 IAML 07:25 20.65 4 0.15			
CLGH HZ 136.0 EP 07:25 06.74 -0.09			
CLGH HN 136.0 ES 07:25 22.71 0.13			
CLGH HN 136.0 IAML 07:25 25.56 11 0.18			
CLGH HE 136.0 IAML 07:25 27.76 12 0.70			
MDO EZ 158.0 EP 07:25 10.12 0.17			
NEWG HZ 169.0 EP 07:25 11.14 -0.15			
NEWG HN 169.0 IAML 07:25 34.14 6 0.28			
NEWG HE 169.0 IAML 07:25 34.42 5 0.27			
GALL HZ 177.0 EP 07:25 12.24 -0.02			
GALL HN 177.0 IAML 07:25 35.09 3 0.38			
GALL HE 177.0 IAML 07:25 36.60 3 0.21			
January 15 2016	Time: 14:44 41.4 UTC	Magnitude: 1.1 ML	
Lat: 57.994N	Lon: -5.057W	Depth: 7.0 km	
Grid Ref: 219.33 kmE 904.59 kmN		RMS: 0.20 secs	
Locality: DRUMRUNIE,HIGHLAND			
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0			
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
MDO EZ 74.2 EP 14:44 53.66 -0.18			
KPL HZ 81.2 EP 14:44 54.97 0.14			
BIGH HZ 87.3 EP 14:44 55.90 0.10			
BIGH HN 87.3 ES 14:45 06.27 -0.06			
BIGH HE 87.3 IAML 14:45 08.70 16 0.41			
BIGH HN 87.3 IAML 14:45 09.24 16 0.21			
LEWI HZ 108.0 EP 14:44 59.28 0.20			
LEWI HE 108.0 ES 14:45 11.80 -0.21			
	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES		
	KPL HZ 81.1 EP 00:00 47.29 0.00		
	KPL HE 81.1 ES 00:00 57.04 -0.05		
	KPL HE 81.1 IAML 00:00 58.20 2 0.61		
	KPL HN 81.1 IAML 00:01 02.65 2 0.51		
	BIGH HZ 87.5 EP 00:00 48.34 0.06		
	BIGH HE 87.5 ES 00:00 58.71 -0.09		
	BIGH HE 87.5 IAML 00:01 01.14 4 0.12		
	BIGH HN 87.5 IAML 00:01 01.73 4 0.11		
	LEWI HZ 108.0 EP 00:00 51.73 0.24		
	LEWI HN 108.0 ES 00:01 04.20 -0.16		
	LEWI HE 108.0 IAML 00:01 06.93 2 0.60		
	LEWI HN 108.0 IAML 00:01 07.30 3 0.57		
January 20 2016	Time: 06:41 47.7 UTC	Magnitude: 0.4 ML	
Lat: 49.072N	Lon: -2.248W	Depth: 7.4 km	
Grid Ref: 381.89 kmE -91.97 kmN		RMS: 0.10 secs	
Locality: JERSEY,CHANNEL ISLES			
Velocity model: Lownet Xnear: 50.0 Xfar: 100.0			
Comment: 10KM SSW JERSEY			
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
JSA HZ 14.1 EP 06:41 50.72 0.00			
JSA HN 14.1 ES 06:41 52.84 -0.08			
JSA HE 14.1 IAML 06:41 53.28 16 0.16			
JSA HN 14.1 IAML 06:41 53.41 16 0.27			
JVM EZ 16.4 EP 06:41 51.08 -0.01			
JVM EZ 16.4 ES 06:41 53.63 0.05			
JRS EZ 17.6 EP 06:41 51.38 0.10			
JRS EE 17.6 ES 06:41 53.92 0.03			
JRS EN 17.6 IAML 06:41 54.32 5 0.10			
JRS EE 17.6 IAML 06:41 54.36 11 0.09			
JQE EZ 20.9 EP 06:41 51.73 -0.07			
JLP EZ 22.3 EP 06:41 52.00 -0.03			
January 20 2016	Time: 18:59 20.8 UTC	Magnitude: 2.3 ML	
Lat: 58.894N	Lon: 1.423W	Depth: 8.8 km	
Grid Ref: 597.19 kmE 1005.74 kmN		RMS: 0.30 secs	
Locality: NORTHERN NORTH SEA			
Velocity model: North Sea Xnear: 400.0 Xfar: 600.0			
Comment: 200KM SE LERWICK			
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
LRW HZ 202.0 EP 18:59 50.86 0.37			
LRW HN 202.0 ES 19:00 12.33 0.13			
LRW HE 202.0 IAML 19:00 15.80 43 0.32			
LRW HN 202.0 IAML 19:00 15.82 44 0.26			
BIGH HZ 312.0 EP 19:00 04.15 -0.04			
BIGH HN 312.0 ES 19:00 35.39 -0.51			
BIGH HN 312.0 IAML 19:00 36.83 10 0.22			
BIGH HE 312.0 IAML 19:00 36.89 10 0.14			
DRUM HZ 320.0 EP 19:00 04.82 -0.33			
DRUM HN 320.0 ES 19:00 38.04 0.49			
DRUM HE 320.0 IAML 19:00 39.07 6 0.22			
DRUM HN 320.0 IAML 19:00 41.52 6 0.28			
FOO HE 362.0 ES 19:00 46.39 -0.11			
January 21 2016	Time: 00:00 33.9 UTC	Magnitude: 0.7 ML	
Lat: 57.995N	Lon: -5.062W	Depth: 7.9 km	
Grid Ref: 219.04 kmE 904.71 kmN		RMS: 0.10 secs	
Locality: DRUMRUNIE,HIGHLAND			
Velocity model: Lownet Xnear: 150.0 Xfar: 300.0			
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
KPL HZ 81.1 EP 00:00 47.29 0.00			
KPL HE 81.1 ES 00:00 57.04 -0.05			
KPL HE 81.1 IAML 00:00 58.20 2 0.61			
KPL HN 81.1 IAML 00:01 02.65 2 0.51			
BIGH HZ 87.5 EP 00:00 48.34 0.06			
BIGH HE 87.5 ES 00:00 58.71 -0.09			
BIGH HE 87.5 IAML 00:01 01.14 4 0.12			
BIGH HN 87.5 IAML 00:01 01.73 4 0.11			
LEWI HZ 108.0 EP 00:00 51.73 0.24			
LEWI HN 108.0 ES 00:01 04.20 -0.16			
LEWI HE 108.0 IAML 00:01 06.93 2 0.60			
LEWI HN 108.0 IAML 00:01 07.30 3 0.57			

TABLE 2 : PHASE DATA

January 21 2016										Time: 18:51 05.5 UTC										Magnitude: 1.9 ML													
Lat: 59.168N										Lon: 1.974W										Depth: 12.2 km													
Grid Ref: 627.09 kmE										1037.97 kmN										RMS: 0.20 secs													
Locality: NORTHERN NORTH SEA																																	
Velocity model: North Sea Xnear: 400.0 Xfar: 600.0																																	
Comment: 205KM SE LERWICK																																	
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
BER	HN	232.0	ES			18:52	00.01			-0.20	BER	HN	232.0	IAML			18:52	00.38	5	0.18		BER	HN	232.0	IAML			18:52	00.80	5	0.42		
BER	HE	232.0	IAML			18:52	00.80				FOO	HZ	319.0	EP			18:51	48.33			0.43	FOO	HN	319.0	ES			18:52	18.71			-0.15	
FOO	HN	319.0	ES			18:52	18.71				FOO	HE	319.0	IAML			18:52	20.34	4	0.19		FOO	HN	319.0	IAML			18:52	21.22	4	0.08		
BIGH	HZ	348.0	EP			18:51	51.38			-0.10	BIGH	HN	348.0	ES			18:52	24.98			-0.08	BIGH	HN	348.0	IAML			18:52	25.23	6	0.30		
BIGH	HN	348.0	IAML			18:52	25.23				BIGH	HE	348.0	IAML			18:52	26.71	4	0.09		DRUM	HZ	364.0	EP			18:51	53.71			0.24	
BIGH	HE	348.0	IAML			18:52	26.71				DRUM	HE	364.0	ES			18:52	28.40			-0.11	DRUM	HE	364.0	IAML			18:52	29.05	4	0.13		
DRUM	HZ	364.0	EP			18:51	53.71			0.24	DRUM	HN	364.0	IAML			18:52	29.71	6	0.34		EDMD	HZ	539.0	EP			18:52	14.81			-0.36	
DRUM	HE	364.0	ES			18:52	28.40			-0.11	EDMD	HN	364.0	IAML			18:52	29.71	6	0.34													
DRUM	HN	364.0	IAML			18:52	29.71			0.24																							
EDMD	HZ	539.0	EP			18:52	14.81			-0.36																							
January 23 2016										Time: 00:46 32.7 UTC										Magnitude: 1.0 ML													
Lat: 52.855N										Lon: -2.115W										Depth: 6.8 km													
Grid Ref: 392.26 kmE										328.65 kmN										RMS: 0.20 secs													
Locality: STAFFORD,STAFFORDSHIRE																																	
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0																																	
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
CWF	HZ	56.0	EP			00:46	42.35			0.08	CWF	HE	56.0	ES			00:46	48.83			-0.42	CWF	HN	56.0	IAML			00:46	49.31	7	0.28		
CWF	HE	56.0	ES			00:46	48.83			-0.42	CWF	HN	56.0	IAML			00:46	49.31	7	0.28		CWF	HE	56.0	IAML			00:46	49.46	3	0.22		
CWF	HN	56.0	IAML			00:46	49.31			0.08	HLM1	HZ	63.9	EP			00:46	43.63			0.08	HLM1	HN	63.9	ES			00:46	51.33			-0.13	
CWF	HE	56.0	IAML			00:46	49.46			-0.42	HLM1	HN	63.9	ES			00:46	51.33			-0.13	HLM1	HN	63.9	IAML			00:46	55.90	3	0.11		
HLM1	HZ	63.9	EP			00:46	43.63			0.08	HLM1	HE	63.9	ES			00:46	55.90	3	0.11		HLM1	HE	63.9	IAML			00:46	56.27	2	0.30		
HLM1	HN	63.9	ES			00:46	51.33			-0.13	LBWR	HZ	66.2	EP			00:46	44.14			0.25	LBWR	HN	66.2	ES			00:46	52.00			-0.04	
HLM1	HN	63.9	IAML			00:46	55.90			0.11	LBWR	HE	66.2	IAML			00:46	52.97	12	0.23		LBWR	HE	66.2	IAML			00:46	52.97	12	0.23		
HLM1	HE	63.9	IAML			00:46	56.27			0.25	LBWR	HN	66.2	IAML			00:46	53.29	9	0.34		LLW	BN	104.0	ES			00:47	01.98			-0.25	
LBWR	HZ	66.2	EP			00:46	44.14			0.25	LLW	BN	104.0	ES			00:47	03.09	4	0.07		LLW	BN	104.0	IAML			00:47	03.09	4	0.07		
LBWR	HN	66.2	ES			00:46	52.00			-0.04	LLW	BE	104.0	IAML			00:47	03.19	2	0.40		MCH1	HZ	113.0	EP			00:46	51.23			0.15	
LBWR	HE	66.2	IAML			00:46	52.97			-0.04	MCH1	HN	113.0	ES			00:47	04.34			-0.15	MCH1	HN	113.0	ES			00:47	04.34			-0.15	
LBWR	HN	66.2	IAML			00:46	53.29			-0.25	MCH1	HN	113.0	IAML			00:47	04.83	5	0.40		MCH1	HN	113.0	IAML			00:47	04.83	5	0.40		
LLW	BN	104.0	ES			00:47	01.98			-0.25	MCH1	HE	113.0	IAML			00:47	07.62	4	0.16		MCH1	HE	113.0	IAML			00:47	07.62	4	0.16		
LLW	BN	104.0	IAML			00:47	03.09			0.15	STRD	HN	120.0	ES			00:47	07.01			0.55	STRD	HN	120.0	ES			00:47	07.01			0.55	
LLW	BE	104.0	IAML			00:47	03.19			-0.15	STRD	HE	120.0	IAML			00:47	08.16	8	0.28		STRD	HE	120.0	IAML			00:47	08.16	8	0.28		
MCH1	HZ	113.0	EP			00:46	51.23			0.15	STRD	HN	120.0	IAML			00:47	10.68	9	0.31		STRD	HN	120.0	IAML			00:47	10.68	9	0.31		
MCH1	HN	113.0	ES			00:47	04.34			-0.15	HPK	HE	127.0	ES			00:47	08.33			0.11	HPK	HE	127.0	ES			00:47	08.33			0.11	
MCH1	HN	113.0	IAML			00:47	04.83			0.16	HPK	HE	127.0	IAML			00:47	10.16	16	0.42		HPK	HE	127.0	IAML			00:47	10.16	16	0.42		
MCH1	HE	113.0	IAML			00:47	07.62			0.16	HPK	HN	127.0	IAML			00:47	10.82	16	0.14		HPK	HN	127.0	IAML			00:47	10.82	16	0.14		
STRD	HN	120.0	ES			00:47	07.01			0.55																							
STRD	HE	120.0	IAML			00:47	08.16			0.11																							
STRD	HN	120.0	IAML			00:47	10.68			0.11																							
HPK	HE	127.0	ES			00:47	08.33			0.11																							
HPK	HE	127.0	IAML			00:47	10.16			0.14																							
HPK	HN	127.0	IAML			00:47	10.82			0.14																							
January 25 2016										Time: 17:08 30.7 UTC										Magnitude: 0.6 ML													
Lat: 55.406N										Lon: -3.366W										Depth: 3.7 km													
Grid Ref: 313.51 kmE										613.30 kmN										RMS: 0.20 secs													
Locality: BODESBECK,D & G																																	
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0																																	
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
ESK	HZ	14.2	EP			17:08	33.72			0.10	ESK	HE	14.2	ES			17:08	35.58			-0.17	ESK	HN	14.2	IAML			17:08	35.72	20	0.14		
ESK	HE	14.2	ES			17:08	35.58			-0.17	ESK	HN	14.2	IAML			17:08	35.72	20	0.14		ESK	HE	14.2	IAML			17:08	38.97			0.01	
ESK	HN	14.2	IAML			17:08	35.72			0.10	EBL	EZ	45.5	EP			17:08	38.97			0.01	EBL	EZ	45.5	EP			17:08	38.97			0.01	
ESK	HE	14.2	IAML			17:08	35.78			0.10	NEWG	HZ	63.6	EP			17:08	41.55			-0.22	NEWG	HZ	63.6	EP			17:08	41.55			-0.22	
EBL	EZ	45.5	EP			17:08	38.97			0.01	NEWG	HN	63.6	ES			17:08	49.54			-0.31	NEWG	HN	63.6	ES			17:08	49.54			-0.31	
NEWG	HZ	63.6	EP			17:08	41.55			-0.22	NEWG	HN	63.6	IAML			17:08	50.35	2	0.27		NEWG	HN	63.6	IAML			17:08	50.35	2	0.27		
NEWG	HN	63.6	ES			17:08	49.54			-0.31	NEWG	HE	63.6	IAML			17:08	50.42	2	0.07		NEWG	HE	63.6	IAML			17:08	50.42	2	0.07		
NEWG	HN	63.6	IAML			17:08	50.35			0.16	KESW	HZ	92.5	EP			17:08	46.42			0.16	KESW	HZ	92.5	EP			17:08	46.42			0.16	
NEWG	HE	63.6	IAML			17:08	50.42			0.16	GAL1	HZ	105.0	EP			17:08	48.28			0.15	GAL1	HZ	105.0	EP			17:08	48.28			0.15	
KESW	HZ	92.5	EP			17:08	46.42			0.16	GAL1	HN	105.0	ES			17:09	01.18			0.32	GAL1	HN	105.0	ES			17:09	01.18			0.32	
GAL1	HZ	105.0	EP			17:08	48.28			0.15	GAL1	HE	105.0	IAML			17:09	02.13	3	0.47		GAL1	HE	105.0	IAML			17:09	02.13	3	0.47		
GAL1	HN	105.0	ES			17:09	01.18			0.32	GAL1	HN	105.0	IAML			17:09	03.83	3	0.52		GAL1	HN	105.0	IAML			17:09	03.83	3	0.52		
GAL1	HE	105.0	IAML			17:09	02.13			0.32																							
GAL1	HN	105.0	IAML																														

TABLE 2 : PHASE DATA

February 3 2016										Time: 20:34 19.6 UTC										Magnitude: 0.8 ML										Locality: LLEYN PENINSULA																																							
Lat: 57.989N					Lon: -5.051W					Depth: 7.8 km					STAT CO DIST PHAS WT P					HrMn SECS					AMPL PERI RES																																												
Grid Ref: 219.66 kmE					904.01 kmN					RMS: 0.40 secs					YLL EZ 24.4 EP					02:54 47.78																																																	
Locality: DRUMRUNIE, HIGHLAND										Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0										WLF1 HZ 37.8 EP										02:54 49.46										-0.10																													
STAT CO DIST PHAS WT P										HrMn SECS										AMPL PERI RES										WLF1 HE 38.7 EP										02:54 49.63										-0.06																			
KAC EZ 56.5 EP										20:34 28.99										-0.27										WLF1 HE 38.7 ES										02:54 54.82										0.03																			
KAC EZ 56.5 ES										20:34 35.66										-0.63										WLF1 HE 38.7 IAML										02:54 55.05										54 0.10																			
KPL HZ 80.7 EP										20:34 33.39										0.41										WLF1 HN 38.7 IAML										02:54 55.06										34 0.26																			
KPL HE 80.7 ES										20:34 43.31										0.58										LLW BZ 46.1 EP										02:54 50.87										0.03																			
KPL HE 80.7 IAML										20:34 46.03										2 0.21										LLW BN 46.1 ES										02:54 56.79										0.02																			
KPL HN 80.7 IAML										20:34 46.13										2 0.16										LLW BN 46.1 IAML										02:54 57.45										5 0.20																			
BIGH HZ 87.5 EP										20:34 34.15										0.12										LLW BE 46.1 IAML										02:54 57.54										5 0.15																			
BIGH HN 87.5 ES										20:34 44.47										-0.08										WME EZ 50.4 EP										02:54 51.49										-0.00																			
BIGH HN 87.5 IAML										20:34 46.61										10 0.48										WPS HZ 52.0 EP										02:54 51.66										-0.05																			
BIGH HE 87.5 IAML										20:34 46.94										12 0.38										WPS HN 52.0 ES										02:54 58.25										-0.03																			
LEWI HZ 109.0 EP										20:34 37.49										0.13										WPS HN 52.0 IAML										02:54 58.55										5 0.10																			
LEWI HN 109.0 ES										20:34 50.07										-0.25										WPS HE 52.0 IAML										02:54 58.85										9 0.10																			
LEWI HN 109.0 IAML										20:34 50.38										1 0.10										FOEL HZ 76.4 EP										02:54 55.57										0.03																			
LEWI HE 109.0 IAML										20:34 53.28										2 0.30										FOEL HE 76.4 ES										02:55 04.79										-0.12																			
																														FOEL HN 76.4 IAML										02:55 05.57										7 0.44																			
																														FOEL HE 76.4 IAML										02:55 06.22										9 0.46																			
February 4 2016										Time: 02:01 15.5 UTC										Magnitude: 1.1 ML										RSBS HZ 114.0 EP										02:55 00.96										-0.01																			
Lat: 56.991N					Lon: -4.591W					Depth: 11.4 km					RSBS HN 114.0 IAML					02:55 14.80					3 0.08					RSBS HE 114.0 IAML					02:55 15.94					10 0.05																													
Grid Ref: 242.60 kmE					791.84 kmN					RMS: 0.00 secs					RSBS HE 114.0 IAML					02:55 15.94					10 0.05					WIM EZ 136.0 EP					02:55 04.28					0.14																													
Locality: MELGARVE, HIGHLAND										Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0										IOMK HE 147.0 ES										02:55 22.49										-0.05																													
STAT CO DIST PHAS WT P										HrMn SECS										AMPL PERI RES										IOMK HE 147.0 IAML										02:55 23.78										4 0.23																			
KAC EZ 70.9 EP										02:01 27.46										0.05										IOMK HN 147.0 IAML										02:55 24.19										5 0.49																			
KPL HZ 75.0 EP										02:01 28.03										0.02																																																	
KPL HN 75.0 ES										02:01 37.08										-0.08																																																	
KPL HN 75.0 IAML										02:01 39.64										6 0.15																																																	
KPL HE 75.0 IAML										02:01 39.67										11 0.18																																																	
MCD EE 104.0 ES										02:01 44.64										-0.02																																																	
MCD EN 104.0 IAML										02:01 45.92										8 0.16																																																	
MCD EE 104.0 IAML										02:01 45.99										9 0.48																																																	
DRUM HZ 128.0 EP										02:01 35.86										0.07																																																	
DRUM HE 128.0 ES										02:01 50.57										-0.05																																																	
DRUM HN 128.0 IAML										02:01 52.45										4 0.14																																																	
DRUM HE 128.0 IAML										02:01 52.71										3 0.11																																																	
EDI HE 147.0 ES										02:01 55.18										-0.02																																																	
LEWI HN 187.0 ES										02:02 04.21										0.02																																																	
February 14 2016										Time: 00:34 14.3 UTC										Magnitude: 0.5 ML										NEWG HZ 139.0 EP										06:10 20.57										-0.12																			
Lat: 56.979N					Lon: -5.742W					Depth: 7.5 km					NEWG HN 139.0 IAML					06:10 20.57					1 0.38					NEWG HE 139.0 IAML					06:10 40.55					2 0.20																													
Grid Ref: 172.64 kmE					793.74 kmN					RMS: 0.20 secs					NEWG HE 139.0 IAML					06:10 40.55					2 0.20					ESK HZ 153.0 EP					06:10 25.44					0.49																													
Locality: MALLAIG, HIGHLAND										Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0										ESK HE 153.0 ES										06:10 42.73										-0.31																													
STAT CO DIST PHAS WT P										HrMn SECS										AMPL PERI RES										ESK HN 153.0 IAML										06:10 43.36										3 0.30																			
KPL HZ 40.5 EP										00:34 21.32										-0.06										ESK HE 153.0 IAML										06:10 45.03										4 0.41																			
KPL HE 40.5 ES										00:34 26.38										-0.20																																																	
KPL HN 40.5 IAML										00:34 26.61										2 0.13																																																	
KPL HE 40.5 IAML										00:34 26.86										2 0.13																																																	
LAW E HZ 82.7 EP										00:34 28.26										0.31																																																	
LAW E HE 82.7 ES										00:34 37.71										-0.23																																																	
LAW E HN 82.7 IAML										00:34 38.11										3 0.16																																																	
LAW E HZ 82.7 IAML										00:34 38.29										5 0.22																																																	
LINV HZ 134.0 EP										00:34 35.71										-0.06																																																	
LINV HE 134.0 ES										00:34 51.72										0.24																																																	
LINV HE 134.0 IAML										00:34 52.62										2 0.15																																																	
LINV HN 134.0 IAML										00:34 52.74										1 0.33																																																	
February 15 2016										Time: 23:12 09.7 UTC										Magnitude: 1.6 ML										GDLE HZ 87.7 EP										14:12 26.76										12 0.34																			
Lat: 49.898N					Lon: -3.109W					Depth: 5.0 km					GDLE HN 87.7 IAML					14:12 26.95					19 0.34					LBWR HZ 89.8 EP					14:12 14.62					-0.29																													
Grid Ref: 320.36 kmE					0.42 kmN					RMS: 0.30 secs					LBWR HN 89.8 ES					14:12 25.89					0.14					LBWR HN 89.8 IAML					14:12 26.37					11 0.12																													
Locality: ENGLISH CHANNEL										Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0										LBWR HE 89.8 IAML										14:12 26.65										11 0.20																													
Comment: 60KM NW GUERNSEY										STAT CO DIST PHAS WT P										HrMn SECS										AMPL PERI RES										CWF HE 118.0 ES										14:12 32.75										0.05									
JVM EZ 100.0 EP										23:12 25.96										-0.30																																																	
JLP EZ 102.0 EP										23:12 26.36										-0.30																																																	
JQE EZ 110.0 EP										23:12 27.45										-0.31																																																	
JDC EZ 110.0 EP										23:12 27.76										0.00																																																	
JDC EN 110.0 ES										23:12 41.23										0.32																																																	
JDC EN 110.0 IAML										23:12 42.65										69 0.16																																																	
JDC EE 110.0 IAML										23:12 44.99										31 0.20																																																	
SBD BZ 135.0 EP										23:12 31.49										-0.12																																																	
SBD BE 135.0 ES										23:12 46.98										-0.60																																																	
SBD BN 135.0 IAML										23:12 49.04										12 0.23																																																	
SBD BE 135.0 IAML										23:12 49.11										9 0.29																																																	
HTL HZ 156.0 EP										23:12 35.16										0.50																																																	
HTL HE 156.0 ES										23:12 53.18										0.33																																																	
HTL HE 156.0 IAML										23:12 56.74										6 0.23																																																	
HTL HN 156.0 IAML										23:12 58.50										8 0.60																																																	
ROSF BZ 174.0 EP										23:12 37.51										0.36																																																	
ROSF BN 174.0 ES										23:12 57.27										0.11																																																	
MCH1 HE 234.0 IAML										23:13 16.62										3 0.21																																																	
MCH1 HN 234.0 IAML										23:13 18.72										2 0.33																																																	
February 18 2016										Time: 02:54 42.7 UTC										Magnitude: 1.0 ML										LBWR HZ 81.6 EP										02:03 14.49										-0.09																			
Lat: 52.944N					Lon: -4.332W					Depth: 14.3 km					CWF HN 95.0 ES					02:03 28.15					0.11					MCH1 HN 107.0 ES					02:03 31.36					0.07																													
Grid Ref: 243.32 kmE					341.09 kmN					RMS: 0.10 secs																																																											

TABLE 2 : PHASE DATA

<table border="0" style="width: 100%;"> <tr><td>SWN1</td><td>HE</td><td>64.1</td><td>ES</td><td></td><td>23:12</td><td>30.14</td><td></td><td></td><td>0.50</td><td></td></tr> <tr><td>SWN1</td><td>HE</td><td>64.1</td><td>IAML</td><td></td><td>23:12</td><td>30.71</td><td>139</td><td>0.18</td><td></td><td></td></tr> <tr><td>SWN1</td><td>HN</td><td>64.1</td><td>IAML</td><td></td><td>23:12</td><td>30.78</td><td>221</td><td>0.23</td><td></td><td></td></tr> <tr><td>STRD</td><td>HZ</td><td>85.0</td><td>EP</td><td></td><td>23:12</td><td>24.67</td><td></td><td></td><td>0.29</td><td></td></tr> <tr><td>STRD</td><td>HE</td><td>85.0</td><td>ES</td><td></td><td>23:12</td><td>35.07</td><td></td><td></td><td>-0.18</td><td></td></tr> <tr><td>STRD</td><td>HE</td><td>85.0</td><td>IAML</td><td></td><td>23:12</td><td>35.85</td><td>348</td><td>0.16</td><td></td><td></td></tr> <tr><td>STRD</td><td>HN</td><td>85.0</td><td>IAML</td><td></td><td>23:12</td><td>36.13</td><td>155</td><td>0.20</td><td></td><td></td></tr> <tr><td>OLDB</td><td>HZ</td><td>112.0</td><td>EP</td><td></td><td>23:12</td><td>28.92</td><td></td><td></td><td>0.41</td><td></td></tr> <tr><td>CWF</td><td>HZ</td><td>116.0</td><td>IP</td><td>D</td><td>23:12</td><td>28.73</td><td></td><td></td><td>-0.52</td><td></td></tr> <tr><td>MONM</td><td>HZ</td><td>130.0</td><td>EP</td><td></td><td>23:12</td><td>31.39</td><td></td><td></td><td>0.09</td><td></td></tr> <tr><td>MCH1</td><td>HZ</td><td>146.0</td><td>IP</td><td>D</td><td>23:12</td><td>33.58</td><td></td><td></td><td>-0.05</td><td></td></tr> <tr><td>WACR</td><td>HZ</td><td>155.0</td><td>EP</td><td></td><td>23:12</td><td>34.58</td><td></td><td></td><td>-0.34</td><td></td></tr> <tr><td>ELSH</td><td>HZ</td><td>157.0</td><td>EP</td><td></td><td>23:12</td><td>36.09</td><td></td><td></td><td>0.79</td><td></td></tr> <tr><td>HLMI</td><td>HZ</td><td>160.0</td><td>EP</td><td></td><td>23:12</td><td>35.86</td><td></td><td></td><td>0.07</td><td></td></tr> <tr><td>STNC</td><td>HZ</td><td>176.0</td><td>EP</td><td></td><td>23:12</td><td>38.18</td><td></td><td></td><td>0.26</td><td></td></tr> <tr><td>LBWR</td><td>HZ</td><td>195.0</td><td>EP</td><td></td><td>23:12</td><td>40.21</td><td></td><td></td><td>-0.14</td><td></td></tr> <tr><td>FOEL</td><td>HZ</td><td>202.0</td><td>EP</td><td></td><td>23:12</td><td>41.61</td><td></td><td></td><td>0.33</td><td></td></tr> <tr><td>RSBS</td><td>HZ</td><td>264.0</td><td>EP</td><td></td><td>23:12</td><td>48.50</td><td></td><td></td><td>-0.46</td><td></td></tr> <tr><td>SBD</td><td>BZ</td><td>292.0</td><td>EP</td><td></td><td>23:12</td><td>51.95</td><td></td><td></td><td>-0.52</td><td></td></tr> </table>	SWN1	HE	64.1	ES		23:12	30.14			0.50		SWN1	HE	64.1	IAML		23:12	30.71	139	0.18			SWN1	HN	64.1	IAML		23:12	30.78	221	0.23			STRD	HZ	85.0	EP		23:12	24.67			0.29		STRD	HE	85.0	ES		23:12	35.07			-0.18		STRD	HE	85.0	IAML		23:12	35.85	348	0.16			STRD	HN	85.0	IAML		23:12	36.13	155	0.20			OLDB	HZ	112.0	EP		23:12	28.92			0.41		CWF	HZ	116.0	IP	D	23:12	28.73			-0.52		MONM	HZ	130.0	EP		23:12	31.39			0.09		MCH1	HZ	146.0	IP	D	23:12	33.58			-0.05		WACR	HZ	155.0	EP		23:12	34.58			-0.34		ELSH	HZ	157.0	EP		23:12	36.09			0.79		HLMI	HZ	160.0	EP		23:12	35.86			0.07		STNC	HZ	176.0	EP		23:12	38.18			0.26		LBWR	HZ	195.0	EP		23:12	40.21			-0.14		FOEL	HZ	202.0	EP		23:12	41.61			0.33		RSBS	HZ	264.0	EP		23:12	48.50			-0.46		SBD	BZ	292.0	EP		23:12	51.95			-0.52		<table border="0" style="width: 100%;"> <tr><td colspan="4">Locality: OAKHAM,RUTLAND</td></tr> <tr><td colspan="4">Velocity model: Lownet Xnear: 100.0 Xfar: 200.0</td></tr> <tr><td colspan="4">Comment: FELT OAKHAM Intensity: 3</td></tr> <tr><td>STAT</td><td>CO</td><td>DIST</td><td>PHAS</td><td>WT</td><td>P</td><td>HrMn</td><td>SECS</td><td>AMPL</td><td>PERI</td><td>RES</td></tr> <tr><td>CWF</td><td>HZ</td><td>40.1</td><td>EP</td><td></td><td></td><td>20:30</td><td>42.03</td><td></td><td></td><td>1.19</td></tr> <tr><td>CWF</td><td>HE</td><td>40.1</td><td>ES</td><td></td><td></td><td>20:30</td><td>44.93</td><td></td><td></td><td>-1.24</td></tr> <tr><td>CWF</td><td>HE</td><td>40.1</td><td>IAML</td><td></td><td></td><td>20:30</td><td>45.34</td><td>8</td><td>0.06</td><td></td></tr> <tr><td>CWF</td><td>HN</td><td>40.1</td><td>IAML</td><td></td><td></td><td>20:30</td><td>45.34</td><td>14</td><td>0.08</td><td></td></tr> <tr><td>WACR</td><td>HZ</td><td>91.3</td><td>EP</td><td></td><td></td><td>20:30</td><td>49.21</td><td></td><td></td><td>0.41</td></tr> <tr><td>WACR</td><td>HE</td><td>91.3</td><td>ES</td><td></td><td></td><td>20:30</td><td>59.30</td><td></td><td></td><td>-0.64</td></tr> <tr><td>WACR</td><td>HN</td><td>91.3</td><td>IAML</td><td></td><td></td><td>20:31</td><td>01.20</td><td>8</td><td>0.15</td><td></td></tr> <tr><td>WACR</td><td>HE</td><td>91.3</td><td>IAML</td><td></td><td></td><td>20:31</td><td>01.31</td><td>5</td><td>0.31</td><td></td></tr> <tr><td>LBWR</td><td>HZ</td><td>104.0</td><td>EP</td><td></td><td></td><td>20:30</td><td>50.80</td><td></td><td></td><td>-0.07</td></tr> <tr><td>LBWR</td><td>HE</td><td>104.0</td><td>ES</td><td></td><td></td><td>20:31</td><td>03.78</td><td></td><td></td><td>0.25</td></tr> <tr><td>MCH1</td><td>HZ</td><td>173.0</td><td>EP</td><td></td><td></td><td>20:31</td><td>01.76</td><td></td><td></td><td>0.81</td></tr> <tr><td>MCH1</td><td>HN</td><td>173.0</td><td>ES</td><td></td><td></td><td>20:31</td><td>21.81</td><td></td><td></td><td>0.86</td></tr> <tr><td>MCH1</td><td>HN</td><td>173.0</td><td>IAML</td><td></td><td></td><td>20:31</td><td>22.28</td><td>3</td><td>0.22</td><td></td></tr> <tr><td>MCH1</td><td>HE</td><td>173.0</td><td>IAML</td><td></td><td></td><td>20:31</td><td>23.56</td><td>2</td><td>0.16</td><td></td></tr> </table>	Locality: OAKHAM,RUTLAND				Velocity model: Lownet Xnear: 100.0 Xfar: 200.0				Comment: FELT OAKHAM Intensity: 3				STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	CWF	HZ	40.1	EP			20:30	42.03			1.19	CWF	HE	40.1	ES			20:30	44.93			-1.24	CWF	HE	40.1	IAML			20:30	45.34	8	0.06		CWF	HN	40.1	IAML			20:30	45.34	14	0.08		WACR	HZ	91.3	EP			20:30	49.21			0.41	WACR	HE	91.3	ES			20:30	59.30			-0.64	WACR	HN	91.3	IAML			20:31	01.20	8	0.15		WACR	HE	91.3	IAML			20:31	01.31	5	0.31		LBWR	HZ	104.0	EP			20:30	50.80			-0.07	LBWR	HE	104.0	ES			20:31	03.78			0.25	MCH1	HZ	173.0	EP			20:31	01.76			0.81	MCH1	HN	173.0	ES			20:31	21.81			0.86	MCH1	HN	173.0	IAML			20:31	22.28	3	0.22		MCH1	HE	173.0	IAML			20:31	23.56	2	0.16																																																																																																																																																																																																																																																																								
SWN1	HE	64.1	ES		23:12	30.14			0.50																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
SWN1	HE	64.1	IAML		23:12	30.71	139	0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
SWN1	HN	64.1	IAML		23:12	30.78	221	0.23																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
STRD	HZ	85.0	EP		23:12	24.67			0.29																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
STRD	HE	85.0	ES		23:12	35.07			-0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
STRD	HE	85.0	IAML		23:12	35.85	348	0.16																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
STRD	HN	85.0	IAML		23:12	36.13	155	0.20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
OLDB	HZ	112.0	EP		23:12	28.92			0.41																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
CWF	HZ	116.0	IP	D	23:12	28.73			-0.52																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
MONM	HZ	130.0	EP		23:12	31.39			0.09																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
MCH1	HZ	146.0	IP	D	23:12	33.58			-0.05																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
WACR	HZ	155.0	EP		23:12	34.58			-0.34																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
ELSH	HZ	157.0	EP		23:12	36.09			0.79																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
HLMI	HZ	160.0	EP		23:12	35.86			0.07																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
STNC	HZ	176.0	EP		23:12	38.18			0.26																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
LBWR	HZ	195.0	EP		23:12	40.21			-0.14																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
FOEL	HZ	202.0	EP		23:12	41.61			0.33																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
RSBS	HZ	264.0	EP		23:12	48.50			-0.46																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
SBD	BZ	292.0	EP		23:12	51.95			-0.52																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Locality: OAKHAM,RUTLAND																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Comment: FELT OAKHAM Intensity: 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
CWF	HZ	40.1	EP			20:30	42.03			1.19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
CWF	HE	40.1	ES			20:30	44.93			-1.24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
CWF	HE	40.1	IAML			20:30	45.34	8	0.06																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
CWF	HN	40.1	IAML			20:30	45.34	14	0.08																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
WACR	HZ	91.3	EP			20:30	49.21			0.41																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
WACR	HE	91.3	ES			20:30	59.30			-0.64																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
WACR	HN	91.3	IAML			20:31	01.20	8	0.15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
WACR	HE	91.3	IAML			20:31	01.31	5	0.31																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
LBWR	HZ	104.0	EP			20:30	50.80			-0.07																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LBWR	HE	104.0	ES			20:31	03.78			0.25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
MCH1	HZ	173.0	EP			20:31	01.76			0.81																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
MCH1	HN	173.0	ES			20:31	21.81			0.86																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
MCH1	HN	173.0	IAML			20:31	22.28	3	0.22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
MCH1	HE	173.0	IAML			20:31	23.56	2	0.16																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
<table border="0" style="width: 100%;"> <tr><td colspan="4">March 7 2016</td><td>Time: 05:40</td><td>33.9 UTC</td><td>Magnitude: 2.9 ML</td></tr> <tr><td colspan="2">Lat: 61.558N</td><td colspan="2">Lon: 3.840W</td><td colspan="3">Depth: 10.0 km</td></tr> <tr><td colspan="2">Grid Ref: 709.98 kmE</td><td colspan="2">1311.27 kmN</td><td colspan="3">RMS: 0.60 secs</td></tr> <tr><td colspan="4">Locality: NORTHERN NORTH SEA</td></tr> <tr><td colspan="4">Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0</td></tr> <tr><td colspan="4">Comment: 310KM ENE LERWICK</td></tr> <tr><td>STAT</td><td>CO</td><td>DIST</td><td>PHAS</td><td>WT</td><td>P</td><td>HrMn</td><td>SECS</td><td>AMPL</td><td>PERI</td><td>RES</td></tr> <tr><td>LRW</td><td>HZ</td><td>315.0</td><td>EP</td><td></td><td></td><td>05:41</td><td>18.82</td><td></td><td></td><td>0.43</td></tr> <tr><td>LRW</td><td>HE</td><td>315.0</td><td>ES</td><td></td><td></td><td>05:41</td><td>50.72</td><td></td><td></td><td>-0.18</td></tr> <tr><td>LRW</td><td>HN</td><td>315.0</td><td>IAML</td><td></td><td></td><td>05:41</td><td>53.24</td><td>6</td><td>0.28</td><td></td></tr> <tr><td>LRW</td><td>HE</td><td>315.0</td><td>IAML</td><td></td><td></td><td>05:41</td><td>57.54</td><td>8</td><td>0.47</td><td></td></tr> <tr><td>BIGH</td><td>HZ</td><td>550.0</td><td>EP</td><td></td><td></td><td>05:41</td><td>47.59</td><td></td><td></td><td>-0.14</td></tr> <tr><td>BIGH</td><td>HE</td><td>550.0</td><td>ES</td><td></td><td></td><td>05:42</td><td>42.06</td><td></td><td></td><td>0.40</td></tr> <tr><td>BIGH</td><td>HE</td><td>550.0</td><td>IAML</td><td></td><td></td><td>05:42</td><td>42.27</td><td>15</td><td>0.22</td><td></td></tr> <tr><td>BIGH</td><td>HN</td><td>550.0</td><td>IAML</td><td></td><td></td><td>05:42</td><td>43.58</td><td>14</td><td>0.50</td><td></td></tr> <tr><td>DRUM</td><td>HE</td><td>630.0</td><td>ES</td><td></td><td></td><td>05:42</td><td>59.35</td><td></td><td></td><td>0.29</td></tr> <tr><td>DRUM</td><td>HN</td><td>630.0</td><td>IAML</td><td></td><td></td><td>05:43</td><td>03.94</td><td>14</td><td>0.40</td><td></td></tr> <tr><td>DRUM</td><td>HE</td><td>630.0</td><td>IAML</td><td></td><td></td><td>05:43</td><td>04.99</td><td>16</td><td>0.32</td><td></td></tr> <tr><td>LINV</td><td>HZ</td><td>632.0</td><td>EP</td><td></td><td></td><td>05:41</td><td>57.40</td><td></td><td></td><td>-0.60</td></tr> <tr><td>LAW</td><td>HE</td><td>793.0</td><td>ES</td><td></td><td></td><td>05:43</td><td>32.54</td><td></td><td></td><td>-1.73</td></tr> </table>	March 7 2016				Time: 05:40	33.9 UTC	Magnitude: 2.9 ML	Lat: 61.558N		Lon: 3.840W		Depth: 10.0 km			Grid Ref: 709.98 kmE		1311.27 kmN		RMS: 0.60 secs			Locality: NORTHERN NORTH SEA				Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0				Comment: 310KM ENE LERWICK				STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	LRW	HZ	315.0	EP			05:41	18.82			0.43	LRW	HE	315.0	ES			05:41	50.72			-0.18	LRW	HN	315.0	IAML			05:41	53.24	6	0.28		LRW	HE	315.0	IAML			05:41	57.54	8	0.47		BIGH	HZ	550.0	EP			05:41	47.59			-0.14	BIGH	HE	550.0	ES			05:42	42.06			0.40	BIGH	HE	550.0	IAML			05:42	42.27	15	0.22		BIGH	HN	550.0	IAML			05:42	43.58	14	0.50		DRUM	HE	630.0	ES			05:42	59.35			0.29	DRUM	HN	630.0	IAML			05:43	03.94	14	0.40		DRUM	HE	630.0	IAML			05:43	04.99	16	0.32		LINV	HZ	632.0	EP			05:41	57.40			-0.60	LAW	HE	793.0	ES			05:43	32.54			-1.73	<table border="0" style="width: 100%;"> <tr><td colspan="4">March 13 2016</td><td>Time: 01:52</td><td>29.7 UTC</td><td>Magnitude: 0.6 ML</td></tr> <tr><td colspan="2">Lat: 55.127N</td><td colspan="2">Lon: -3.659W</td><td colspan="3">Depth: 3.1 km</td></tr> <tr><td colspan="2">Grid Ref: 294.23 kmE</td><td colspan="2">582.67 kmN</td><td colspan="3">RMS: 0.40 secs</td></tr> <tr><td colspan="4">Locality: LOCHARBRIGGS,D & G</td></tr> <tr><td colspan="4">Velocity model: Lownet Xnear: 60.0 Xfar: 100.0</td></tr> <tr><td>STAT</td><td>CO</td><td>DIST</td><td>PHAS</td><td>WT</td><td>P</td><td>HrMn</td><td>SECS</td><td>AMPL</td><td>PERI</td><td>RES</td></tr> <tr><td>ESK</td><td>HZ</td><td>35.8</td><td>EP</td><td></td><td></td><td>01:52</td><td>36.30</td><td></td><td></td><td>0.07</td></tr> <tr><td>ESK</td><td>HE</td><td>35.8</td><td>ES</td><td></td><td></td><td>01:52</td><td>40.73</td><td></td><td></td><td>-0.31</td></tr> <tr><td>ESK</td><td>HE</td><td>35.8</td><td>IAML</td><td></td><td></td><td>01:52</td><td>41.64</td><td>11</td><td>0.16</td><td></td></tr> <tr><td>ESK</td><td>HN</td><td>35.8</td><td>IAML</td><td></td><td></td><td>01:52</td><td>41.71</td><td>6</td><td>0.17</td><td></td></tr> <tr><td>NEWG</td><td>HZ</td><td>36.4</td><td>EP</td><td></td><td></td><td>01:52</td><td>36.73</td><td></td><td></td><td>0.41</td></tr> <tr><td>NEWG</td><td>HN</td><td>36.4</td><td>ES</td><td></td><td></td><td>01:52</td><td>40.94</td><td></td><td></td><td>-0.25</td></tr> <tr><td>NEWG</td><td>HN</td><td>36.4</td><td>IAML</td><td></td><td></td><td>01:52</td><td>41.17</td><td>14</td><td>0.22</td><td></td></tr> <tr><td>NEWG</td><td>HE</td><td>36.4</td><td>IAML</td><td></td><td></td><td>01:52</td><td>41.28</td><td>11</td><td>0.20</td><td></td></tr> <tr><td>KESW</td><td>HZ</td><td>69.7</td><td>EP</td><td></td><td></td><td>01:52</td><td>41.70</td><td></td><td></td><td>0.03</td></tr> <tr><td>KESW</td><td>HE</td><td>69.7</td><td>IAML</td><td></td><td></td><td>01:52</td><td>52.40</td><td>2</td><td>0.22</td><td></td></tr> <tr><td>KESW</td><td>HN</td><td>69.7</td><td>IAML</td><td></td><td></td><td>01:52</td><td>53.36</td><td>2</td><td>0.48</td><td></td></tr> <tr><td>GALL</td><td>HZ</td><td>73.3</td><td>EP</td><td></td><td></td><td>01:52</td><td>42.43</td><td></td><td></td><td>0.24</td></tr> <tr><td>GALL</td><td>HN</td><td>73.3</td><td>ES</td><td></td><td></td><td>01:52</td><td>50.82</td><td></td><td></td><td>-0.52</td></tr> <tr><td>GALL</td><td>HN</td><td>73.3</td><td>IAML</td><td></td><td></td><td>01:52</td><td>53.01</td><td>3</td><td>0.16</td><td></td></tr> <tr><td>GALL</td><td>HE</td><td>73.3</td><td>IAML</td><td></td><td></td><td>01:52</td><td>54.90</td><td>3</td><td>0.28</td><td></td></tr> <tr><td>EBL</td><td>EZ</td><td>81.7</td><td>EP</td><td></td><td></td><td>01:52</td><td>44.48</td><td></td><td></td><td>0.93</td></tr> </table>	March 13 2016				Time: 01:52	29.7 UTC	Magnitude: 0.6 ML	Lat: 55.127N		Lon: -3.659W		Depth: 3.1 km			Grid Ref: 294.23 kmE		582.67 kmN		RMS: 0.40 secs			Locality: LOCHARBRIGGS,D & G				Velocity model: Lownet Xnear: 60.0 Xfar: 100.0				STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	ESK	HZ	35.8	EP			01:52	36.30			0.07	ESK	HE	35.8	ES			01:52	40.73			-0.31	ESK	HE	35.8	IAML			01:52	41.64	11	0.16		ESK	HN	35.8	IAML			01:52	41.71	6	0.17		NEWG	HZ	36.4	EP			01:52	36.73			0.41	NEWG	HN	36.4	ES			01:52	40.94			-0.25	NEWG	HN	36.4	IAML			01:52	41.17	14	0.22		NEWG	HE	36.4	IAML			01:52	41.28	11	0.20		KESW	HZ	69.7	EP			01:52	41.70			0.03	KESW	HE	69.7	IAML			01:52	52.40	2	0.22		KESW	HN	69.7	IAML			01:52	53.36	2	0.48		GALL	HZ	73.3	EP			01:52	42.43			0.24	GALL	HN	73.3	ES			01:52	50.82			-0.52	GALL	HN	73.3	IAML			01:52	53.01	3	0.16		GALL	HE	73.3	IAML			01:52	54.90	3	0.28		EBL	EZ	81.7	EP			01:52	44.48			0.93																																																																																																																																																																																																																																																						
March 7 2016				Time: 05:40	33.9 UTC	Magnitude: 2.9 ML																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Lat: 61.558N		Lon: 3.840W		Depth: 10.0 km																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Grid Ref: 709.98 kmE		1311.27 kmN		RMS: 0.60 secs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Locality: NORTHERN NORTH SEA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Comment: 310KM ENE LERWICK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LRW	HZ	315.0	EP			05:41	18.82			0.43																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LRW	HE	315.0	ES			05:41	50.72			-0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LRW	HN	315.0	IAML			05:41	53.24	6	0.28																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
LRW	HE	315.0	IAML			05:41	57.54	8	0.47																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
BIGH	HZ	550.0	EP			05:41	47.59			-0.14																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
BIGH	HE	550.0	ES			05:42	42.06			0.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
BIGH	HE	550.0	IAML			05:42	42.27	15	0.22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
BIGH	HN	550.0	IAML			05:42	43.58	14	0.50																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
DRUM	HE	630.0	ES			05:42	59.35			0.29																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
DRUM	HN	630.0	IAML			05:43	03.94	14	0.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
DRUM	HE	630.0	IAML			05:43	04.99	16	0.32																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
LINV	HZ	632.0	EP			05:41	57.40			-0.60																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LAW	HE	793.0	ES			05:43	32.54			-1.73																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
March 13 2016				Time: 01:52	29.7 UTC	Magnitude: 0.6 ML																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Lat: 55.127N		Lon: -3.659W		Depth: 3.1 km																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Grid Ref: 294.23 kmE		582.67 kmN		RMS: 0.40 secs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Locality: LOCHARBRIGGS,D & G																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Velocity model: Lownet Xnear: 60.0 Xfar: 100.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
ESK	HZ	35.8	EP			01:52	36.30			0.07																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
ESK	HE	35.8	ES			01:52	40.73			-0.31																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
ESK	HE	35.8	IAML			01:52	41.64	11	0.16																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
ESK	HN	35.8	IAML			01:52	41.71	6	0.17																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
NEWG	HZ	36.4	EP			01:52	36.73			0.41																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
NEWG	HN	36.4	ES			01:52	40.94			-0.25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
NEWG	HN	36.4	IAML			01:52	41.17	14	0.22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
NEWG	HE	36.4	IAML			01:52	41.28	11	0.20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
KESW	HZ	69.7	EP			01:52	41.70			0.03																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
KESW	HE	69.7	IAML			01:52	52.40	2	0.22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
KESW	HN	69.7	IAML			01:52	53.36	2	0.48																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
GALL	HZ	73.3	EP			01:52	42.43			0.24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
GALL	HN	73.3	ES			01:52	50.82			-0.52																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
GALL	HN	73.3	IAML			01:52	53.01	3	0.16																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
GALL	HE	73.3	IAML			01:52	54.90	3	0.28																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
EBL	EZ	81.7	EP			01:52	44.48			0.93																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
<table border="0" style="width: 100%;"> <tr><td colspan="4">March 7 2016</td><td>Time: 20:11</td><td>54.8 UTC</td><td>Magnitude: 2.4 ML</td></tr> <tr><td colspan="2">Lat: 58.411N</td><td colspan="2">Lon: 1.106W</td><td colspan="3">Depth: 6.2 km</td></tr> <tr><td colspan="2">Grid Ref: 581.43 kmE</td><td colspan="2">951.11 kmN</td><td colspan="3">RMS: 0.40 secs</td></tr> <tr><td colspan="4">Locality: CENTRAL NORTH SEA</td></tr> <tr><td colspan="4">Velocity model: North Sea Xnear: 400.0 Xfar: 600.0</td></tr> <tr><td colspan="4">Comment: 240KM NE ABERDEEN</td></tr> <tr><td>STAT</td><td>CO</td><td>DIST</td><td>PHAS</td><td>WT</td><td>P</td><td>HrMn</td><td>SECS</td><td>AMPL</td><td>PERI</td><td>RES</td></tr> <tr><td>LRW</td><td>HZ</td><td>232.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>28.50</td><td></td><td></td><td>-0.03</td></tr> <tr><td>LRW</td><td>HE</td><td>232.0</td><td>ES</td><td></td><td></td><td>20:12</td><td>53.34</td><td></td><td></td><td>0.18</td></tr> <tr><td>LRW</td><td>HE</td><td>232.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>02.01</td><td>7</td><td>0.22</td><td></td></tr> <tr><td>LRW</td><td>HN</td><td>232.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>02.40</td><td>10</td><td>0.14</td><td></td></tr> <tr><td>DRUM</td><td>HZ</td><td>272.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>34.23</td><td></td><td></td><td>0.77</td></tr> <tr><td>DRUM</td><td>HN</td><td>272.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>04.38</td><td>13</td><td>0.34</td><td></td></tr> <tr><td>DRUM</td><td>HE</td><td>272.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>05.12</td><td>21</td><td>0.48</td><td></td></tr> <tr><td>MCD</td><td>EZ</td><td>274.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>34.20</td><td></td><td></td><td>0.47</td></tr> <tr><td>BIGH</td><td>HZ</td><td>293.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>36.03</td><td></td><td></td><td>-0.06</td></tr> <tr><td>BIGH</td><td>HE</td><td>293.0</td><td>ES</td><td></td><td></td><td>20:13</td><td>05.82</td><td></td><td></td><td>-0.41</td></tr> <tr><td>BIGH</td><td>HN</td><td>293.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>06.99</td><td>19</td><td>0.19</td><td></td></tr> <tr><td>BIGH</td><td>HE</td><td>293.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>07.18</td><td>15</td><td>0.22</td><td></td></tr> <tr><td>MDO</td><td>EZ</td><td>341.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>42.58</td><td></td><td></td><td>0.43</td></tr> <tr><td>ESY</td><td>EZ</td><td>357.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>43.96</td><td></td><td></td><td>-0.15</td></tr> <tr><td>LINV</td><td>HZ</td><td>371.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>45.41</td><td></td><td></td><td>-0.35</td></tr> <tr><td>LINV</td><td>HE</td><td>371.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>24.01</td><td>6</td><td>0.16</td><td></td></tr> <tr><td>LINV</td><td>HN</td><td>371.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>24.03</td><td>6</td><td>0.40</td><td></td></tr> <tr><td>EDI</td><td>HZ</td><td>380.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>46.80</td><td></td><td></td><td>-0.06</td></tr> <tr><td>EDI</td><td>HN</td><td>380.0</td><td>ES</td><td></td><td></td><td>20:13</td><td>25.41</td><td></td><td></td><td>0.55</td></tr> <tr><td>EDI</td><td>HN</td><td>380.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>26.94</td><td>9</td><td>0.56</td><td></td></tr> <tr><td>EDI</td><td>HE</td><td>380.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>27.01</td><td>8</td><td>0.22</td><td></td></tr> <tr><td>KAC</td><td>EZ</td><td>392.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>48.25</td><td></td><td></td><td>-0.21</td></tr> <tr><td>KPL</td><td>HZ</td><td>418.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>51.57</td><td></td><td></td><td>-0.07</td></tr> <tr><td>ESK</td><td>HZ</td><td>433.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>53.25</td><td></td><td></td><td>-0.29</td></tr> <tr><td>ESK</td><td>HE</td><td>433.0</td><td>ES</td><td></td><td></td><td>20:13</td><td>36.34</td><td></td><td></td><td>-0.08</td></tr> <tr><td>ESK</td><td>HN</td><td>433.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>38.88</td><td>4</td><td>0.28</td><td></td></tr> <tr><td>ESK</td><td>HE</td><td>433.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>40.62</td><td>4</td><td>0.42</td><td></td></tr> <tr><td>EDMD</td><td>HZ</td><td>441.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>54.15</td><td></td><td></td><td>-0.29</td></tr> <tr><td>EDMD</td><td>HE</td><td>441.0</td><td>ES</td><td></td><td></td><td>20:13</td><td>37.55</td><td></td><td></td><td>-0.43</td></tr> <tr><td>EDMD</td><td>HN</td><td>441.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>39.08</td><td>5</td><td>0.40</td><td></td></tr> <tr><td>EDMD</td><td>HE</td><td>441.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>39.56</td><td>10</td><td>0.40</td><td></td></tr> <tr><td>LAW</td><td>HZ</td><td>459.0</td><td>EP</td><td></td><td></td><td>20:12</td><td>56.05</td><td></td><td></td><td>-0.66</td></tr> <tr><td>LAW</td><td>HE</td><td>459.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>44.17</td><td>10</td><td>0.14</td><td></td></tr> <tr><td>LAW</td><td>HN</td><td>459.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>44.63</td><td>10</td><td>0.26</td><td></td></tr> <tr><td>GALL</td><td>HZ</td><td>532.0</td><td>EP</td><td></td><td></td><td>20:13</td><td>05.41</td><td></td><td></td><td>-0.35</td></tr> <tr><td>GALL</td><td>HE</td><td>532.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>58.62</td><td>3</td><td>0.40</td><td></td></tr> <tr><td>GALL</td><td>HN</td><td>532.0</td><td>IAML</td><td></td><td></td><td>20:13</td><td>59.49</td><td>3</td><td>0.21</td><td></td></tr> </table>	March 7 2016				Time: 20:11	54.8 UTC	Magnitude: 2.4 ML	Lat: 58.411N		Lon: 1.106W		Depth: 6.2 km			Grid Ref: 581.43 kmE		951.11 kmN		RMS: 0.40 secs			Locality: CENTRAL NORTH SEA				Velocity model: North Sea Xnear: 400.0 Xfar: 600.0				Comment: 240KM NE ABERDEEN				STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	LRW	HZ	232.0	EP			20:12	28.50			-0.03	LRW	HE	232.0	ES			20:12	53.34			0.18	LRW	HE	232.0	IAML			20:13	02.01	7	0.22		LRW	HN	232.0	IAML			20:13	02.40	10	0.14		DRUM	HZ	272.0	EP			20:12	34.23			0.77	DRUM	HN	272.0	IAML			20:13	04.38	13	0.34		DRUM	HE	272.0	IAML			20:13	05.12	21	0.48		MCD	EZ	274.0	EP			20:12	34.20			0.47	BIGH	HZ	293.0	EP			20:12	36.03			-0.06	BIGH	HE	293.0	ES			20:13	05.82			-0.41	BIGH	HN	293.0	IAML			20:13	06.99	19	0.19		BIGH	HE	293.0	IAML			20:13	07.18	15	0.22		MDO	EZ	341.0	EP			20:12	42.58			0.43	ESY	EZ	357.0	EP			20:12	43.96			-0.15	LINV	HZ	371.0	EP			20:12	45.41			-0.35	LINV	HE	371.0	IAML			20:13	24.01	6	0.16		LINV	HN	371.0	IAML			20:13	24.03	6	0.40		EDI	HZ	380.0	EP			20:12	46.80			-0.06	EDI	HN	380.0	ES			20:13	25.41			0.55	EDI	HN	380.0	IAML			20:13	26.94	9	0.56		EDI	HE	380.0	IAML			20:13	27.01	8	0.22		KAC	EZ	392.0	EP			20:12	48.25			-0.21	KPL	HZ	418.0	EP			20:12	51.57			-0.07	ESK	HZ	433.0	EP			20:12	53.25			-0.29	ESK	HE	433.0	ES			20:13	36.34			-0.08	ESK	HN	433.0	IAML			20:13	38.88	4	0.28		ESK	HE	433.0	IAML			20:13	40.62	4	0.42		EDMD	HZ	441.0	EP			20:12	54.15			-0.29	EDMD	HE	441.0	ES			20:13	37.55			-0.43	EDMD	HN	441.0	IAML			20:13	39.08	5	0.40		EDMD	HE	441.0	IAML			20:13	39.56	10	0.40		LAW	HZ	459.0	EP			20:12	56.05			-0.66	LAW	HE	459.0	IAML			20:13	44.17	10	0.14		LAW	HN	459.0	IAML			20:13	44.63	10	0.26		GALL	HZ	532.0	EP			20:13	05.41			-0.35	GALL	HE	532.0	IAML			20:13	58.62	3	0.40		GALL	HN	532.0	IAML			20:13	59.49	3	0.21		<table border="0" style="width: 100%;"> <tr><td colspan="4">March 14 2016</td><td>Time: 18:06</td><td>59.9 UTC</td><td>Magnitude: 1.0 ML</td></tr> <tr><td colspan="2">Lat: 52.675N</td><td colspan="2">Lon: -0.764W</td><td colspan="3">Depth: 3.7 km</td></tr> <tr><td colspan="2">Grid Ref: 483.56 kmE</td><td colspan="2">309.34 kmN</td><td colspan="3">RMS: 0.30 secs</td></tr> <tr><td colspan="4">Locality: OAKHAM,RUTLAND</td></tr> <tr><td colspan="4">Velocity model: Lownet Xnear: 100.0 Xfar: 200.0</td></tr> <tr><td colspan="4">Comment: FELT OAKHAM Intensity: 2</td></tr> <tr><td>STAT</td><td>CO</td><td>DIST</td><td>PHAS</td><td>WT</td><td>P</td><td>HrMn</td><td>SECS</td><td>AMPL</td><td>PERI</td><td>RES</td></tr> <tr><td>CWF</td><td>HZ</td><td>37.4</td><td>EP</td><td></td><td></td><td>18:07</td><td>06.61</td><td></td><td></td><td>-0.01</td></tr> <tr><td>CWF</td><td>HE</td><td>37.4</td><td>ES</td><td></td><td></td><td>18:07</td><td>11.21</td><td></td><td></td><td>-0.29</td></tr> <tr><td>CWF</td><td>HE</td><td>37.4</td><td>IAML</td><td></td><td></td><td>18:07</td><td>11.52</td><td>7</td><td>0.10</td><td></td></tr> <tr><td>CWF</td><td>HN</td><td>37.4</td><td>IAML</td><td></td><td></td><td>18:07</td><td>11.59</td><td>13</td><td>0.10</td><td></td></tr> <tr><td>WACR</td><td>HZ</td><td>94.3</td><td>EP</td><td></td><td></td><td>18:07</td><td>15.83</td><td></td><td></td><td>0.43</td></tr> <tr><td>WACR</td><td>HN</td><td>94.3</td><td>ES</td><td></td><td></td><td>18:07</td><td>26.26</td><td></td><td></td><td>-0.43</td></tr> <tr><td>LBWR</td><td>HZ</td><td>103.0</td><td>EP</td><td></td><td></td><td>18:07</td><td>17.27</td><td></td><td></td><td>0.40</td></tr> <tr><td>LBWR</td><td>HE</td><td>103.0</td><td>ES</td><td></td><td></td><td>18:07</td><td>29.12</td><td></td><td></td><td>-0.11</td></tr> <tr><td>LBWR</td><td>HE</td><td>103.0</td><td>IAML</td><td></td><td></td><td>18:07</td><td>35.47</td><td>6</td><td>0.42</td><td></td></tr> <tr><td>LBWR</td><td>HN</td><td>103.0</td><td>IAML</td><td></td><td></td><td>18:07</td><td>35.51</td><td>6</td><td>0.33</td><td></td></tr> <tr><td>MCH1</td><td>HZ</td><td>170.0</td><td>EP</td><td></td><td></td><td>18:07</td><td>26.75</td><td></td><td></td><td>0.22</td></tr> <tr><td>MCH1</td><td>HE</td><td>170.0</td><td>ES</td><td></td><td></td><td>18:07</td><td>46.06</td><td></td><td></td><td>0.12</td></tr> <tr><td>MCH1</td><td>HN</td><td>170.0</td><td>IAML</td><td></td><td></td><td>18:07</td><td>51.12</td><td>2</td><td>0.18</td><td></td></tr> <tr><td>MCH1</td><td>HE</td><td>170.0</td><td>IAML</td><td></td><td></td><td>18:07</td><td>51.84</td><td>3</td><td>0.20</td><td></td></tr> </table>	March 14 2016				Time: 18:06	59.9 UTC	Magnitude: 1.0 ML	Lat: 52.675N		Lon: -0.764W		Depth: 3.7 km			Grid Ref: 483.56 kmE		309.34 kmN		RMS: 0.30 secs			Locality: OAKHAM,RUTLAND				Velocity model: Lownet Xnear: 100.0 Xfar: 200.0				Comment: FELT OAKHAM Intensity: 2				STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	CWF	HZ	37.4	EP			18:07	06.61			-0.01	CWF	HE	37.4	ES			18:07	11.21			-0.29	CWF	HE	37.4	IAML			18:07	11.52	7	0.10		CWF	HN	37.4	IAML			18:07	11.59	13	0.10		WACR	HZ	94.3	EP			18:07	15.83			0.43	WACR	HN	94.3	ES			18:07	26.26			-0.43	LBWR	HZ	103.0	EP			18:07	17.27			0.40	LBWR	HE	103.0	ES			18:07	29.12			-0.11	LBWR	HE	103.0	IAML			18:07	35.47	6	0.42		LBWR	HN	103.0	IAML			18:07	35.51	6	0.33		MCH1	HZ	170.0	EP			18:07	26.75			0.22	MCH1	HE	170.0	ES			18:07	46.06			0.12	MCH1	HN	170.0	IAML			18:07	51.12	2	0.18		MCH1	HE	170.0	IAML			18:07	51.84	3	0.20	
March 7 2016				Time: 20:11	54.8 UTC	Magnitude: 2.4 ML																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Lat: 58.411N		Lon: 1.106W		Depth: 6.2 km																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Grid Ref: 581.43 kmE		951.11 kmN		RMS: 0.40 secs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Locality: CENTRAL NORTH SEA																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Velocity model: North Sea Xnear: 400.0 Xfar: 600.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Comment: 240KM NE ABERDEEN																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LRW	HZ	232.0	EP			20:12	28.50			-0.03																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LRW	HE	232.0	ES			20:12	53.34			0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LRW	HE	232.0	IAML			20:13	02.01	7	0.22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
LRW	HN	232.0	IAML			20:13	02.40	10	0.14																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
DRUM	HZ	272.0	EP			20:12	34.23			0.77																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
DRUM	HN	272.0	IAML			20:13	04.38	13	0.34																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
DRUM	HE	272.0	IAML			20:13	05.12	21	0.48																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
MCD	EZ	274.0	EP			20:12	34.20			0.47																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
BIGH	HZ	293.0	EP			20:12	36.03			-0.06																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
BIGH	HE	293.0	ES			20:13	05.82			-0.41																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
BIGH	HN	293.0	IAML			20:13	06.99	19	0.19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
BIGH	HE	293.0	IAML			20:13	07.18	15	0.22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
MDO	EZ	341.0	EP			20:12	42.58			0.43																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
ESY	EZ	357.0	EP			20:12	43.96			-0.15																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LINV	HZ	371.0	EP			20:12	45.41			-0.35																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LINV	HE	371.0	IAML			20:13	24.01	6	0.16																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
LINV	HN	371.0	IAML			20:13	24.03	6	0.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
EDI	HZ	380.0	EP			20:12	46.80			-0.06																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
EDI	HN	380.0	ES			20:13	25.41			0.55																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
EDI	HN	380.0	IAML			20:13	26.94	9	0.56																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
EDI	HE	380.0	IAML			20:13	27.01	8	0.22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
KAC	EZ	392.0	EP			20:12	48.25			-0.21																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
KPL	HZ	418.0	EP			20:12	51.57			-0.07																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
ESK	HZ	433.0	EP			20:12	53.25			-0.29																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
ESK	HE	433.0	ES			20:13	36.34			-0.08																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
ESK	HN	433.0	IAML			20:13	38.88	4	0.28																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
ESK	HE	433.0	IAML			20:13	40.62	4	0.42																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
EDMD	HZ	441.0	EP			20:12	54.15			-0.29																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
EDMD	HE	441.0	ES			20:13	37.55			-0.43																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
EDMD	HN	441.0	IAML			20:13	39.08	5	0.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
EDMD	HE	441.0	IAML			20:13	39.56	10	0.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
LAW	HZ	459.0	EP			20:12	56.05			-0.66																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LAW	HE	459.0	IAML			20:13	44.17	10	0.14																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
LAW	HN	459.0	IAML			20:13	44.63	10	0.26																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
GALL	HZ	532.0	EP			20:13	05.41			-0.35																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
GALL	HE	532.0	IAML			20:13	58.62	3	0.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
GALL	HN	532.0	IAML			20:13	59.49	3	0.21																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
March 14 2016				Time: 18:06	59.9 UTC	Magnitude: 1.0 ML																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Lat: 52.675N		Lon: -0.764W		Depth: 3.7 km																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Grid Ref: 483.56 kmE		309.34 kmN		RMS: 0.30 secs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Locality: OAKHAM,RUTLAND																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Comment: FELT OAKHAM Intensity: 2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
CWF	HZ	37.4	EP			18:07	06.61			-0.01																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
CWF	HE	37.4	ES			18:07	11.21			-0.29																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
CWF	HE	37.4	IAML			18:07	11.52	7	0.10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
CWF	HN	37.4	IAML			18:07	11.59	13	0.10																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
WACR	HZ	94.3	EP			18:07	15.83			0.43																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
WACR	HN	94.3	ES			18:07	26.26			-0.43																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LBWR	HZ	103.0	EP			18:07	17.27			0.40																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LBWR	HE	103.0	ES			18:07	29.12			-0.11																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
LBWR	HE	103.0	IAML			18:07	35.47	6	0.42																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
LBWR	HN	103.0	IAML			18:07	35.51	6	0.33																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
MCH1	HZ	170.0	EP			18:07	26.75			0.22																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
MCH1	HE	170.0	ES			18:07	46.06			0.12																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
MCH1	HN	170.0	IAML			18:07	51.12	2	0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
MCH1	HE	170.0	IAML			18:07	51.84	3	0.20																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
<table border="0" style="width: 100%;"> <tr><td colspan="4">March 11 2016</td><td>Time: 20:30</td><td>33.5 UTC</td><td>Magnitude: 1.0 ML</td></tr> <tr><td colspan="2">Lat: 52.685N</td><td colspan="2">Lon: -0.721W</td><td colspan="3">Depth: 3.9 km</td></tr> <tr><td colspan="2">Grid Ref: 486.45 kmE</td><td colspan="2">310.51 kmN</td><td colspan="3">RMS: 0.80 secs</td></tr> </table>	March 11 2016				Time: 20:30	33.5 UTC	Magnitude: 1.0 ML	Lat: 52.685N		Lon: -0.721W		Depth: 3.9 km			Grid Ref: 486.45 kmE		310.51 kmN		RMS: 0.80 secs			<table border="0" style="width: 100%;"> <tr><td colspan="4">March 17 2016</td><td>Time: 04:34</td><td>00.5 UTC</td><td>Magnitude: 1.0 ML</td></tr> <tr><td colspan="2">Lat: 53.149N</td><td colspan="2">Lon: -4.671W</td><td colspan="3">Depth: 9.2 km</td></tr> <tr><td colspan="2">Grid Ref: 221.40 kmE</td><td colspan="2">364.68 kmN</td><td colspan="3">RMS: 0.10 secs</td></tr> <tr><td colspan="4">Locality: OFFSHORE ANGLESEY</td></tr> <tr><td colspan="4">Velocity model: Lleyn Xnear: 80.0 Xfar: 200.0</td></tr> <tr><td colspan="4">Comment: 15KM SSW HOLYHEAD</td></tr> <tr><td>STAT</td><td>CO</td><td>DIST</td><td>PHAS</td><td>WT</td><td>P</td><td>HrMn</td><td>SECS</td><td>AMPL</td><td>PERI</td><td>RES</td></tr> <tr><td>YRC</td><td>EZ</td><td>13.0</td><td>IP</td><td></td><td></td><td>C 04:34</td><td>03.30</td><td></td><td></td><td>0.09</td></tr> <tr><td>WLF1</td><td>HZ</td><td>24.1</td><td>IP</td><td></td><td></td><td>C 04:34</td><td>04.78</td><td></td><td></td><td>-0.08</td></tr> <tr><td>WLF1</td><td>HN</td><td>24.1</td><td>ES</td><td></td><td></td><td>04:34</td><td>08.06</td><td></td><td></td><td>0.23</td></tr> <tr><td>WLF1</td><td>HE</td><td>24.1</td><td>IAML</td><td></td><td></td><td>04:34</td><td>08.40</td><td>26</td><td>0.19</td><td></td></tr> <tr><td>WLF1</td><td>HN</td><td>24.1</td><td>IAML</td><td></td><td></td><td>04:34</td><td>08.41</td><td>34</td><td>0.06</td><td></td></tr> <tr><td>WPS</td><td>HZ</td><td>30.3</td><td>IP</td><td></td><td></td><td>04:34</td><td>05.80</td><td></td><td></td><td>-0.04</td></tr> <tr><td>WPS</td><td>HE</td><td>30.3</td><td>ES</td><td></td><td></td><td>04:34</td><td>09.28</td><td></td><td></td><td>-0.18</td></tr> <tr><td>WPS</td><td>HE</td><td>30.3</td><td>IAML</td><td></td><td></td><td>04:34</td><td>09.64</td><td>24</td><td>0.18</td><td></td></tr> <tr><td>WPS</td><td>HN</td><td>30.3</td><td>IAML</td><td></td><td></td><td>04:34</td><td>10.28</td><td>13</td><td>0.19</td><td></td></tr> <tr><td>WME</td><td>EZ</td><td>36.9</td><td>EP</td><td></td><td></td><td>04:34</td><td>06.79</td><td></td><td></td><td>-0.13</td></tr> <tr><td>FOEL</td><td>HZ</td><td>103.0</td><td>EP</td><td></td><td></td><td>04:34</td><td>17.47</td><td></td><td></td><td>-0.01</td></tr> <tr><td>FOEL</td><td>HE</td><td>103.0</td><td>ES</td><td></td><td></td><td>04:34</td><td>28.98</td><td></td><td></td><td>-0.04</td></tr> <tr><td>FOEL</td><td>HN</td><td>103.0</td><td>IAML</td><td></td><td></td><td>04:34</td><td>29.96</td><td>4</td><td>0.25</td><td></td></tr> <tr><td>FOEL</td><td>HE</td><td>103.0</td><td>I</td></tr></table>	March 17 2016				Time: 04:34	00.5 UTC	Magnitude: 1.0 ML	Lat: 53.149N		Lon: -4.671W		Depth: 9.2 km			Grid Ref: 221.40 kmE		364.68 kmN		RMS: 0.10 secs			Locality: OFFSHORE ANGLESEY				Velocity model: Lleyn Xnear: 80.0 Xfar: 200.0				Comment: 15KM SSW HOLYHEAD				STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	YRC	EZ	13.0	IP			C 04:34	03.30			0.09	WLF1	HZ	24.1	IP			C 04:34	04.78			-0.08	WLF1	HN	24.1	ES			04:34	08.06			0.23	WLF1	HE	24.1	IAML			04:34	08.40	26	0.19		WLF1	HN	24.1	IAML			04:34	08.41	34	0.06		WPS	HZ	30.3	IP			04:34	05.80			-0.04	WPS	HE	30.3	ES			04:34	09.28			-0.18	WPS	HE	30.3	IAML			04:34	09.64	24	0.18		WPS	HN	30.3	IAML			04:34	10.28	13	0.19		WME	EZ	36.9	EP			04:34	06.79			-0.13	FOEL	HZ	103.0	EP			04:34	17.47			-0.01	FOEL	HE	103.0	ES			04:34	28.98			-0.04	FOEL	HN	103.0	IAML			04:34	29.96	4	0.25		FOEL	HE	103.0	I																																																																																																																																																																																																																																																																																																																																																																																																																																																					
March 11 2016				Time: 20:30	33.5 UTC	Magnitude: 1.0 ML																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Lat: 52.685N		Lon: -0.721W		Depth: 3.9 km																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Grid Ref: 486.45 kmE		310.51 kmN		RMS: 0.80 secs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
March 17 2016				Time: 04:34	00.5 UTC	Magnitude: 1.0 ML																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Lat: 53.149N		Lon: -4.671W		Depth: 9.2 km																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Grid Ref: 221.40 kmE		364.68 kmN		RMS: 0.10 secs																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Locality: OFFSHORE ANGLESEY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Velocity model: Lleyn Xnear: 80.0 Xfar: 200.0																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Comment: 15KM SSW HOLYHEAD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
YRC	EZ	13.0	IP			C 04:34	03.30			0.09																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
WLF1	HZ	24.1	IP			C 04:34	04.78			-0.08																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
WLF1	HN	24.1	ES			04:34	08.06			0.23																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
WLF1	HE	24.1	IAML			04:34	08.40	26	0.19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
WLF1	HN	24.1	IAML			04:34	08.41	34	0.06																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
WPS	HZ	30.3	IP			04:34	05.80			-0.04																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
WPS	HE	30.3	ES			04:34	09.28			-0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
WPS	HE	30.3	IAML			04:34	09.64	24	0.18																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
WPS	HN	30.3	IAML			04:34	10.28	13	0.19																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
WME	EZ	36.9	EP			04:34	06.79			-0.13																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
FOEL	HZ	103.0	EP			04:34	17.47			-0.01																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
FOEL	HE	103.0	ES			04:34	28.98			-0.04																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
FOEL	HN	103.0	IAML			04:34	29.96	4	0.25																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
FOEL	HE	103.0	I																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

TABLE 2 : PHASE DATA

Grid Ref: 251.18 kmE 355.87 kmN										RMS: 0.00 secs					March 21 2016					Time: 23:15 21.6 UTC					Magnitude: 0.9 ML																			
Locality: Y FRON, GWYNEDD															Lat: 51.662N					Lon: -3.217W					Depth: 3.3 km																			
Velocity model: Lleyn Xnear: 80.0 Xfar: 200.0															Grid Ref: 315.83 kmE 196.67 kmN					RMS: 0.30 secs					Locality: NEWBRIDGE, CAERPHILLY																			
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
WLF1	HZ	26.2	IP			19:33	41.40			0.01	MONM	HZ	34.7	IP			23:15	27.54			-0.13	MONM	HN	34.7	ES			23:15	32.26			0.20	MONM	HE	34.7	IAML			23:15	32.93	32		0.18	
WLF1	HN	26.2	ES			19:33	44.53			-0.02	MONM	HN	34.7	IAML			23:15	33.13	35			0.18	MONM	HE	34.7	IAML			23:15	32.93			0.18	MCH1	HZ	40.2	IP			23:15	28.58			-0.02
WLF1	HE	26.2	IAML			19:33	45.01	5	0.10		MCH1	HE	40.2	ES			23:15	33.97			0.31	MCH1	HE	40.2	IAML			23:15	34.14	20		0.30	MCH1	HN	40.2	IAML			23:15	34.17	19		0.28	
WLF1	HN	26.2	IAML			19:33	45.35	4	0.24		MCH1	HN	40.2	IAML			23:15	34.17	19		0.28	MCH1	HN	40.2	IAML			23:15	34.17	19		0.28	STRD	HN	74.0	ES			23:15	43.11			-0.14	
YRC	EZ	30.4	EP			19:33	42.01			-0.06	STRD	HN	74.0	IAML			23:15	43.45	6			0.15	STRD	HE	74.0	IAML			23:15	43.70	5		0.20	STRD	HE	74.0	IAML			23:15	43.70	5		0.20
YRC	EZ	30.4	ES			19:33	45.74			0.05	STRD	HE	74.0	IAML			23:15	43.70	5			0.20	STRD	HE	74.0	IAML			23:15	43.70	5		0.20	HLM1	HE	98.0	ES			23:15	49.51			-0.61
WME	EZ	35.8	EP			19:33	42.98			0.04	HLM1	HE	98.0	IAML			23:15	53.27	2			0.19	HLM1	HN	98.0	IAML			23:15	54.20	2		0.32	HLM1	HN	98.0	IAML			23:15	54.20	2		0.32
WPS	HZ	40.3	EP			19:33	43.67			0.01	HLM1	HN	98.0	IAML			23:15	54.20	2			0.32	RSBS	HZ	110.0	EP			23:15	40.19			0.01	RSBS	HE	110.0	ES			23:15	53.52			-0.05
WPS	HN	40.3	ES			19:33	48.35			-0.02	RSBS	HE	110.0	ES			23:15	53.52				-0.05	RSBS	HE	110.0	ES			23:15	53.52			-0.05	RSBS	HE	110.0	IAML			23:15	55.71	2		0.10
March 18 2016										Time: 08:30 54.7 UTC					Magnitude: 1.4 ML					March 24 2016					Time: 00:07 04.1 UTC					Magnitude: 0.7 ML														
Lat: 52.186N										Lon: -2.524W					Depth: 4.9 km					Lat: 54.033N					Lon: -3.726W					Depth: 21.1 km														
Grid Ref: 364.18 kmE 254.37 kmN										RMS: 0.10 secs					Grid Ref: 285.40 kmE 349.26 kmN					RMS: 0.20 secs					Grid Ref: 286.97 kmE 461.07 kmN					RMS: 0.10 secs														
Locality: BROMYARD, HEREFORDSHIRE															Locality: PENTREFOELAS, CONWY										Locality: IRISH SEA																			
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0															Velocity model: Lleyn Xnear: 80.0 Xfar: 200.0										Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0																			
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
HLM1	HZ	44.3	EP			08:31	02.57			-0.14	FOEL	HZ	37.5	EP			20:37	09.16			0.07	FOEL	HZ	37.5	EP			20:37	09.16			0.07	IOMK	HZ	60.4	EP			00:07	14.54			0.09	
HLM1	HE	44.3	ES			08:31	08.44			-0.08	FOEL	HN	37.5	ES			20:37	13.60			0.07	FOEL	HN	37.5	ES			20:37	13.60			0.07	IOMK	HN	60.4	ES			00:07	21.85			-0.15	
HLM1	HE	44.3	IAML			08:31	08.74	25	0.22		FOEL	HE	37.5	IAML			20:37	14.78	8	0.48		FOEL	HE	37.5	IAML			20:37	14.78	8	0.48		IOMK	HE	60.4	IAML			00:07	22.29	4		0.16	
HLM1	HN	44.3	IAML			08:31	09.09	22	0.15		FOEL	HN	37.5	IAML			20:37	15.36	4	0.36		FOEL	HN	37.5	IAML			20:37	15.36	4	0.36		IOMK	HE	60.4	IAML			00:07	22.90	5	0.22		
STRD	HZ	51.9	EP			08:31	03.79			-0.06	WLF1	HE	54.5	EP			20:37	11.70			-0.11	WLF1	HE	54.5	EP			20:37	11.70			-0.11	IOMK	HN	60.4	IAML			00:07	22.90	5	0.22		
STRD	HE	51.9	ES			08:31	10.52			0.02	WLF1	HE	54.5	ES			20:37	18.13			0.02	WLF1	HE	54.5	ES			20:37	18.13			0.02	IOMK	HN	60.4	IAML			00:07	22.90	5	0.22		
FOEL	HZ	90.8	EP			08:31	10.11			0.19	WLF1	HE	54.5	IAML			20:37	18.42	2	0.07		WLF1	HE	54.5	IAML			20:37	18.42	2	0.07		KESW	HZ	73.9	EP			00:07	16.49			0.10	
FOEL	HE	90.8	ES			08:31	21.03			0.03	WLF1	HN	54.5	IAML			20:37	19.14	4	0.26		WLF1	HN	54.5	IAML			20:37	19.14	4	0.26		KESW	HE	73.9	ES			00:07	25.27			-0.09	
FOEL	HN	90.8	IAML			08:31	22.41	9	0.60		WME	EZ	57.1	EP			20:37	12.43			0.17	WME	EZ	57.1	EP			20:37	12.43			0.17	KESW	HE	73.9	IAML			00:07	25.91	7		0.28	
FOEL	HE	90.8	IAML			08:31	25.79	6	0.20		YRC	EZ	63.1	EP			20:37	12.82			-0.40	YRC	EZ	63.1	EP			20:37	12.82			-0.40	KESW	HN	73.9	IAML			00:07	25.99	3	0.26		
LBWR	HE	146.0	EP			08:31	18.39			0.19	WPS	HZ	67.1	EP			20:37	13.84			-0.05	WPS	HZ	67.1	EP			20:37	13.84			-0.05	WPS	HZ	86.9	EP			00:07	18.36			0.16	
LBWR	HE	146.0	ES			08:31	35.22			-0.10	WPS	HN	67.1	ES			20:37	21.85			0.25	WPS	HN	67.1	ES			20:37	21.85			0.25	WPS	HE	86.9	ES			00:07	28.66			0.17	
LBWR	HE	146.0	IAML			08:31	37.62	22	0.18		WPS	HE	67.1	IAML			20:37	24.24	2	0.32		WPS	HE	67.1	IAML			20:37	24.24	2	0.32		WPS	HE	86.9	IAML			00:07	28.78	1	0.12		
LBWR	HN	146.0	IAML			08:31	37.67	16	0.46		HLM1	HZ	79.6	EP			20:37	15.78			-0.14	HLM1	HZ	79.6	EP			20:37	15.78			-0.14	WPS	HN	86.9	IAML			00:07	29.35	2	0.26		
RSBS	HZ	154.0	EP			08:31	19.22			-0.22	HLM1	HE	79.6	ES			20:37	25.15			0.13	HLM1	HE	79.6	ES			20:37	25.15			0.13	WLF1	HZ	93.9	EP			00:07	19.03			-0.17	
RSBS	HE	154.0	ES			08:31	37.67			0.19	MCH1	HZ	124.0	EP			20:37	22.52			-0.27	MCH1	HZ	124.0	EP			20:37	22.52			-0.27	WLF1	HN	93.9	ES			00:07	30.03			-0.19	
RSBS	HE	154.0	IAML			08:31	38.38	8	0.28		MCH1	HN	124.0	ES			20:37	36.35			-0.21	MCH1	HN	124.0	ES			20:37	36.35			-0.21	WLF1	HN	93.9	IAML			00:07	30.75	3	0.33		
RSBS	HN	154.0	IAML			08:31	38.46	13	0.30		MCH1	HE	124.0	IAML			20:37	36.84	1	0.25		MCH1	HE	124.0	IAML			20:37	36.84	1	0.25		WLF1	HE	93.9	IAML			00:07	31.19	8	0.66		
WME	EZ	180.0	EP			08:31	23.01			0.07	RSBS	HN	139.0	ES			20:37	40.99			0.70	RSBS	HN	139.0	ES			20:37	40.99			0.70	GAL1	HZ	113.0	EP			00:07	21.97			0.09	
March 20 2016										Time: 20:37 02.5 UTC					Magnitude: 0.6 ML					March 25 2016					Time: 16:04 04.0 UTC					Magnitude: 0.7 ML														
Lat: 53.028N										Lon: -3.709W					Depth: 9.4 km					Lat: 53.166N					Lon: -4.631W					Depth: 11.3 km														
Grid Ref: 285.40 kmE 349.26 kmN										RMS: 0.20 secs					Grid Ref: 285.40 kmE 349.26 kmN					RMS: 0.20 secs					Grid Ref: 224.14 kmE 366.47 kmN					RMS: 0.10 secs														
Locality: PENTREFOELAS, CONWY															Locality: PENTREFOELAS, CONWY										Locality: CAERNARFON BAY																			
Velocity model: Lleyn Xnear: 80.0 Xfar: 200.0															Velocity model: Lleyn Xnear: 80.0 Xfar: 200.0										Velocity model: Lownet Xnear: 100.0 Xfar: 200.0																			
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	
FOEL	HZ	37.5	EP			20:37	09.16			0.07	YRC	EZ	10.1	EP			16:04	06.72			-0.02	YRC	EZ	10.1	EP			16:04	06.72			-0.02	WLF1	HZ	20.8	IP			16:04	08.19			0.01	
FOEL	HN	37.5	ES			20:37	13.60			0.07	WLF1	HN	20.8	IP			16:04	08.19			0.01	WLF1	HN	20.8	IP			16:04	08.19			0.01	WLF1	HN	20.8	ES			16:04	11.41			0.17	
FOEL	HE	37.5	IAML			20:37	14.78	8	0.48		WLF1	HE	54.5	EP			20:37	11.70			-0.11	WLF1	HE	54.5	EP			20:37	11.70			-0.11	WLF1	HE	20.8	IAML			16:04	11.74	6	0.12		
FOEL	HN	37.5	IAML			20:37	15.36	4	0.36		WLF1	HE	54.5	ES			20:37	18.13			0.02	WLF1	HE	54.5	ES			20:37	18.13			0.02	WLF1	HE	20.8	IAML			16:04					

TABLE 2 : PHASE DATA

FOEL HN 101.0 IAML	16:04	33.53	3	0.28		NEWG HE 68.1 IAML	19:07	29.85	2	0.18
IOMK HE 122.0 ES	16:04	37.87			0.03	NEWG HN 68.1 IAML	19:07	29.88	2	0.10
IOMK HN 122.0 IAML	16:04	38.86	6	0.59		ESK HZ 102.0 EP	19:07	26.00		-0.20
IOMK HE 122.0 IAML	16:04	39.47	6	0.25		ESK HE 102.0 ES	19:07	38.75		0.28
						ESK HN 102.0 IAML	19:07	39.59	1	0.22
March 25 2016	Time: 16:22 04.2 UTC				Magnitude: 0.9 ML	ESK HE 102.0 IAML	19:07	40.37	2	0.15
Lat: 56.270N	Lon: -6.004W				Depth: 7.7 km					
Grid Ref: 152.12 kmE	715.81 kmN				RMS: 0.30 secs	April 5 2016	Time: 06:01 29.4 UTC			Magnitude: 1.5 ML
Locality: MULL, ARGYLL & BUTE						Lat: 53.692N	Lon: -0.430W			Depth: 6.5 km
Velocity model: Lownet	Xnear: 100.0	Xfar: 200.0				Grid Ref: 503.66 kmE	422.90 kmN			RMS: 0.30 secs
Comment: OFFSHORE LOCATION						Locality: BARTON, NORTH LINCS				
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	Velocity model: Lownet Xnear: 60.0 Xfar: 120.0									
LAW E HZ 37.5 EP	16:22	10.55				-0.37	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
LAW E HN 37.5 ES	16:22	15.51				-0.28	LMK HZ 27.1 IP	06:01	34.53	0.02
LAW E HE 37.5 IAML	16:22	15.81	3	0.35			LMK HN 27.1 ES	06:01	38.52	0.26
LAW E HN 37.5 IAML	16:22	15.82	5	0.11			LMK HE 27.1 IAML	06:01	39.38	87 0.21
EAB EZ 104.0 EP	16:22	21.59				0.37	LMK HN 27.1 IAML	06:01	39.49	56 0.25
KPL HZ 121.0 EP	16:22	23.53				-0.31	AU05 HE 34.7 ES	06:01	40.51	0.24
KPL HE 121.0 ES	16:22	38.19				0.05	AU08 HZ 50.4 IP	06:01	37.99	-0.15
KPL HE 121.0 IAML	16:22	40.87	4	0.48			AU08 HE 50.4 ES	06:01	44.75	0.22
KPL HN 121.0 IAML	16:22	42.38	3	0.37			AV06 HZ 52.6 IP	06:01	38.15	-0.32
INVG HZ 122.0 EP	16:22	24.55				0.43	AV06 HE 52.6 ES	06:01	45.15	0.04
INVG HE 122.0 ES	16:22	38.89				0.26	AU07 HE 58.2 ES	06:01	46.96	0.35
INVG HN 122.0 ES	16:22	38.90					AU09 HZ 58.9 IP	06:01	39.40	-0.03
INVG HN 122.0 IAML	16:22	41.59	4	0.13			AU09 HE 58.9 ES	06:01	47.01	0.23
INVG HE 122.0 IAML	16:22	42.16	4	0.36			AU13 HE 61.3 ES	06:01	47.62	0.21
CLGH HZ 132.0 EP	16:22	25.63				0.11	AU18 HZ 64.5 EP	06:01	40.02	-0.29
CLGH HE 132.0 ES	16:22	40.98				-0.08	AU18 HE 64.5 ES	06:01	48.23	-0.07
CLGH HN 132.0 IAML	16:22	42.20	8	0.86			AU15 HE 66.6 ES	06:01	49.14	0.30
CLGH HE 132.0 IAML	16:22	42.48	5	0.44			AU20 HZ 70.6 EP	06:01	41.08	-0.19
KAC EZ 143.0 EP	16:22	27.23				0.13	AU20 HE 70.6 ES	06:01	49.94	-0.01
NEWG HE 170.0 ES	16:22	50.22				-0.01	AT08 HE 73.5 ES	06:01	50.16	-0.51
NEWG HN 170.0 IAML	16:22	52.98	2	0.24			HPK HZ 84.0 EP	06:01	43.03	-0.33
NEWG HE 170.0 IAML	16:22	54.45	3	0.31			HPK HN 84.0 ES	06:01	53.52	-0.05
GALL HE 176.0 ES	16:22	51.49				-0.07	HPK HE 84.0 IAML	06:01	54.52	17 0.16
							HPK HN 84.0 IAML	06:01	55.22	14 0.24
March 27 2016	Time: 07:13 57.1 UTC				Magnitude: 0.7 ML	GDLE HZ 85.1 EP	06:01	43.20		-0.32
Lat: 52.881N	Lon: -4.505W				Depth: 7.3 km	GDLE HE 85.1 ES	06:01	53.43		-0.42
Grid Ref: 231.46 kmE	334.48 kmN				RMS: 0.20 secs	GDLE HN 85.1 IAML	06:01	54.32	30	0.24
Locality: LLEYN PENINSULA						GDLE HE 85.1 IAML	06:01	54.46	17	0.17
Velocity model: Lley n	Xnear: 80.0	Xfar: 200.0				LBWR HZ 91.7 EP	06:01	44.08		-0.50
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	Velocity model: Lownet Xnear: 85.0 Xfar: 170.0									
YLL EZ 36.5 EP	07:14	03.39				0.03	LBWR HE 91.7 ES	06:01	55.47	-0.21
YRC EZ 41.4 EP	07:14	04.28				0.14	LBWR HN 91.7 IAML	06:01	56.08	45 0.30
WLF1 HZ 46.0 EP	07:14	04.78				-0.12	LBWR HE 91.7 IAML	06:01	56.41	25 0.13
WLF1 HE 46.0 ES	07:14	10.25				0.03	April 5 2016	Time: 18:43 59.1 UTC		Magnitude: 0.7 ML
WLF1 HE 46.0 IAML	07:14	10.59	28	0.12			Lat: 56.279N	Lon: -4.131W		Depth: 5.0 km
WLF1 HN 46.0 IAML	07:14	10.79	9	0.14			Grid Ref: 268.08 kmE	711.65 kmN		RMS: 0.30 secs
LLW BZ 56.7 EP	07:14	06.62				-0.04	Locality: CALLANDER, STIRLING			
LLW BE 56.7 ES	07:14	13.15				-0.04	Velocity model: Lownet	Xnear: 85.0	Xfar: 170.0	
LLW BN 56.7 IAML	07:14	13.32	3	0.21			STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
LLW BE 56.7 IAML	07:14	14.13	3	0.25			INVG HZ 17.4 IP	18:44	02.65	0.07
WPS HZ 57.8 EP	07:14	06.83				-0.01	INVG HN 17.4 ES	18:44	04.94	-0.19
WPS HE 57.8 ES	07:14	13.62				0.14	INVG HN 17.4 IAML	18:44	05.33	7 0.17
WPS HE 57.8 IAML	07:14	13.84	4	0.30			INVG HE 17.4 IAML	18:44	05.38	13 0.13
WPS HN 57.8 IAML	07:14	13.95	3	0.22			PGB1 HZ 56.5 EP	18:44	09.08	0.18
WME EZ 58.9 EP	07:14	06.84				-0.19	PGB1 HE 56.5 ES	18:44	16.07	0.00
FOEL HZ 87.8 EP	07:14	11.61				-0.21	PGB1 HN 56.5 IAML	18:44	16.38	3 0.25
FOEL HN 87.8 ES	07:14	21.73				-0.13	PGB1 HE 56.5 IAML	18:44	17.48	4 0.29
RSBS HN 105.0 ES	07:14	26.14				-0.06	LAW E HZ 78.6 EP	18:44	12.56	0.25
RSBS HE 105.0 ES	07:14	26.62					LAW E HN 78.6 ES	18:44	21.76	-0.21
RSBS HN 105.0 IAML	07:14	27.66	4	0.30			LAW E HN 78.6 IAML	18:44	22.01	4 0.20
RSBS HE 105.0 IAML	07:14	28.36	4	0.20			LAW E HE 78.6 IAML	18:44	25.11	4 0.25
HLM1 HZ 117.0 EP	07:14	16.58				0.25	ESK HZ 122.0 EP	18:44	19.48	0.43
HLM1 HE 117.0 ES	07:14	30.01				0.59	ESK HE 122.0 ES	18:44	32.94	-0.68
HLM1 HN 117.0 IAML	07:14	30.79	3	0.16			ESK HE 122.0 IAML	18:44	34.43	1 0.11
HLM1 HE 117.0 IAML	07:14	33.15	2	0.17			ESK HN 122.0 IAML	18:44	35.70	2 0.28
March 27 2016	Time: 19:07 09.4 UTC				Magnitude: 0.4 ML	DRUM HZ 123.0 EP	18:44	18.80		-0.45
Lat: 54.520N	Lon: -4.005W				Depth: 6.9 km	DRUM HN 123.0 ES	18:44	34.59		0.63
Grid Ref: 270.24 kmE	515.72 kmN				RMS: 0.20 secs	DRUM HN 123.0 IAML	18:44	35.48	3	0.25
Locality: IRISH SEA						DRUM HE 123.0 IAML	18:44	35.51	3	0.20
Velocity model: Lownet	Xnear: 100.0	Xfar: 200.0				NEWG HZ 129.0 EP	18:44	20.24		0.05
Comment: 27KM WSW WHITEHAVEN						NEWG HN 129.0 ES	18:44	35.22		-0.38
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0									
IOMK HZ 46.5 EP	19:07	17.41				-0.09	NEWG HN 129.0 IAML	18:44	36.41	1 0.19
IOMK HE 46.5 ES	19:07	23.56				0.13	NEWG HN 129.0 IAML	18:44	36.59	2 0.08
IOMK HE 46.5 IAML	19:07	23.98	3	0.19			GALL HZ 161.0 EP	18:44	25.76	1.01
IOMK HN 46.5 IAML	19:07	24.98	6	0.36			April 10 2016	Time: 21:11 38.9 UTC		Magnitude: 0.9 ML
KESW HZ 58.7 EP	19:07	19.25				-0.17	Lat: 55.794N	Lon: -6.459W		Depth: 7.0 km
KESW HN 58.7 ES	19:07	26.74				-0.01	Grid Ref: 120.56 kmE	664.63 kmN		RMS: 0.30 secs
KESW HN 58.7 IAML	19:07	28.03	2	0.29			Locality: ISLAY, ARGYLL & BUTE			
KESW HE 58.7 IAML	19:07	28.27	3	0.52			Velocity model: Lownet	Xnear: 100.0	Xfar: 200.0	
GALL HZ 59.7 EP	19:07	19.75				0.21	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
GALL HE 59.7 ES	19:07	26.71				-0.24	CLGH HZ 82.2 EP	21:11	52.25	-0.31
GALL HE 59.7 IAML	19:07	27.04	1	0.12			CLGH HE 82.2 ES	21:12	02.73	0.19
GALL HN 59.7 IAML	19:07	27.13	1	0.16			CLGH HE 82.2 IAML	21:12	03.29	4 0.42
NEWG HZ 68.1 EP	19:07	21.08				0.24	CLGH HN 82.2 IAML	21:12	03.49	4 0.14
NEWG HN 68.1 ES	19:07	29.08				-0.13	LAW E HZ 84.0 EP	21:11	53.07	0.26
							LAW E HE 84.0 ES	21:12	02.80	-0.18

TABLE 2 : PHASE DATA

BIGH HZ 290.0 EP	01:26	12.62			1.14	WACR HE 93.9 ES	20:02	45.73			-0.27	
BIGH HN 290.0 ES	01:26	41.69			-0.38	WACR HN 93.9 IAML	20:02	47.78	8	0.26		
BIGH HE 290.0 IAML	01:26	46.55	19	0.55		WACR HE 93.9 IAML	20:02	48.39	13	0.18		
BIGH HN 290.0 IAML	01:26	46.72	24	0.43		AU08 HZ 112.0 EP	20:02	37.38			-0.18	
FOO HZ 318.0 EP	01:26	14.51			-0.40	AU08 HE 112.0 ES	20:02	50.92			0.03	
FOO HE 318.0 ES	01:26	49.64			1.64	HPK HZ 115.0 EP	20:02	37.76			-0.31	
FOO HE 318.0 IAML	01:26	51.47	1	0.04		HPK HE 115.0 ES	20:02	51.45			-0.33	
FOO HN 318.0 IAML	01:26	53.68	1	0.28		HPK HE 115.0 IAML	20:02	53.04	8	0.20		
LINV HZ 375.0 EP	01:26	22.58			0.58	HPK HN 115.0 IAML	20:02	53.12	7	0.26		
<p>April 26 2016 Time: 14:49 22.2 UTC Magnitude: 1.4 ML Lat: 56.347N Lon: -5.442W Depth: 3.8 km Grid Ref: 187.33 kmE 722.49 kmN RMS: 0.10 secs Locality: KILMORE, ARGYLL & BUTE Velocity model: Lownet Xnear: 100.0 Xfar: 200.0 Comment: 7KM SSE OBAN</p>						<p>May 3 2016 Time: 22:49 46.4 UTC Magnitude: 0.8 ML Lat: 51.960N Lon: -2.899W Depth: 8.7 km Grid Ref: 338.23 kmE 229.49 kmN RMS: 0.30 secs Locality: PONTRILAS, HEREFORDSHIRE Velocity model: Lownet Xnear: 100.0 Xfar: 200.0</p>						
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES												
LAW E HZ 10.1 EP	14:49	24.38										
LAW E HE 10.1 ES	14:49	26.03										
LAW E HE 10.1 IAML	14:49	26.07	414	0.10								
LAW E HN 10.1 IAML	14:49	26.08	530	0.10								
EAB EZ 70.7 EP	14:49	34.35			0.04							
PGB1 HZ 84.4 EP	14:49	36.61			0.20							
PGB1 HN 84.4 ES	14:49	46.79			0.00							
PGB1 HE 84.4 IAML	14:49	48.43	10	0.28								
PGB1 HN 84.4 IAML	14:49	48.55	7	0.22								
INVG HZ 86.8 EP	14:49	36.73			-0.08							
INVG HN 86.8 ES	14:49	47.40			-0.07							
INVG HE 86.8 IAML	14:49	49.91	15	0.10								
INVG HN 86.8 IAML	14:49	50.01	15	0.22								
KPL HZ 111.0 EP	14:49	40.45			-0.08							
KPL HE 111.0 ES	14:49	54.00			0.08							
KPL HN 111.0 IAML	14:49	55.58	9	0.32								
KPL HE 111.0 IAML	14:49	55.67	12	0.22								
KAC EZ 129.0 EP	14:49	43.29			0.03							
CLGH HZ 147.0 EP	14:49	45.70			-0.21							
CLGH HE 147.0 ES	14:50	03.13			-0.10							
NEWG HE 157.0 ES	14:50	05.71			0.10							
NEWG HE 157.0 IAML	14:50	05.82	4	0.44								
NEWG HN 157.0 IAML	14:50	06.80	3	0.14								
<p>April 30 2016 Time: 17:22 25.5 UTC Magnitude: 1.1 ML Lat: 55.784N Lon: -6.442W Depth: 7.7 km Grid Ref: 121.55 kmE 663.45 kmN RMS: 0.20 secs Locality: ISLAY, ARGYLL & BUTE Velocity model: Lownet Xnear: 100.0 Xfar: 300.0</p>						<p>May 8 2016 Time: 11:37 47.4 UTC Magnitude: 1.0 ML Lat: 54.057N Lon: -3.454W Depth: 7.7 km Grid Ref: 304.83 kmE 463.34 kmN RMS: 0.20 secs Locality: IRISH SEA Velocity model: Lownet Xnear: 100.0 Xfar: 200.0 Comment: 37KM NW BLACKPOOL</p>						
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES												
CLGH HZ 80.8 EP	17:22	39.30			0.41							
CLGH HE 80.8 ES	17:22	48.26			-0.43							
CLGH HN 80.8 IAML	17:22	50.68	9	0.12								
CLGH HE 80.8 IAML	17:22	50.78	12	0.14								
LAW E HZ 83.9 EP	17:22	39.22			-0.13							
LAW E HE 83.9 ES	17:22	49.44			-0.04							
LAW E HE 83.9 IAML	17:22	52.94	12	0.22								
LAW E HN 83.9 IAML	17:22	53.12	7	0.14								
PGB1 HE 123.0 ES	17:23	00.08			0.13							
PGB1 HN 123.0 IAML	17:23	01.15	7	0.46								
PGB1 HE 123.0 IAML	17:23	02.03	8	0.44								
GALL HE 150.0 ES	17:23	06.63			0.00							
GALL HE 150.0 IAML	17:23	09.59	2	0.20								
GALL HN 150.0 IAML	17:23	10.02	2	0.22								
NEWG HE 158.0 EP	17:22	50.62			0.15							
NEWG HZ 158.0 ES	17:23	08.95			0.23							
NEWG HN 158.0 IAML	17:23	11.82	2	0.10								
NEWG HZ 158.0 IAML	17:23	12.01	2	0.32								
INVG HZ 166.0 EP	17:22	51.53			0.01							
INVG HE 166.0 ES	17:23	10.29			-0.23							
INVG HE 166.0 IAML	17:23	14.68	2	0.24								
INVG HN 166.0 IAML	17:23	16.02	2	0.17								
<p>April 30 2016 Time: 20:02 19.3 UTC Magnitude: 1.3 ML Lat: 53.118N Lon: -0.607W Depth: 7.2 km Grid Ref: 493.22 kmE 358.81 kmN RMS: 0.20 secs Locality: LINCOLN, LINCONSHIRE Velocity model: Lownet Xnear: 100.0 Xfar: 200.0 Comment: 10KM SSW LINCOLN</p>						<p>May 9 2016 Time: 08:18 53.1 UTC Magnitude: 0.9 ML Lat: 55.977N Lon: -4.239W Depth: 8.6 km Grid Ref: 260.30 kmE 678.26 kmN RMS: 0.20 secs Locality: LENNOXTOWN, E DUNBARTON</p>						
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES												
LMK HZ 42.1 EP	20:02	26.85			0.14							
LMK HE 42.1 ES	20:02	32.21			0.07							
LMK HN 42.1 IAML	20:02	32.73	30	0.24								
LMK HE 42.1 IAML	20:02	32.86	25	0.28								
CWF HZ 63.2 EP	20:02	30.17			0.17							
CWF HE 63.2 ES	20:02	37.99			0.18							
CWF HE 63.2 IAML	20:02	38.63	9	0.09								
CWF HN 63.2 IAML	20:02	39.02	9	0.10								
LBWR HZ 81.0 EP	20:02	32.94			0.17							
LBWR HN 81.0 ES	20:02	42.32			-0.30							
LBWR HN 81.0 IAML	20:02	43.54	28	0.32								
LBWR HE 81.0 IAML	20:02	43.93	25	0.12								

TABLE 2 : PHASE DATA

Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										Grid Ref: 187.27 kmE 728.74 kmN					RMS: 0.30 secs															
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	Locality: OBAN, ARGVLL & BUTE																			
PGB1	HZ	23.9	EP			08:18	57.82			0.07	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0																			
PGB1	HN	23.9	ES			08:19	00.90			-0.21	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES									
PGB1	HE	23.9	IAML			08:19	01.03	37	0.12		LAW	HZ	16.2	IP			11:51	26.60			-0.09									
PGB1	HN	23.9	IAML			08:19	01.06	60	0.22		LAW	HN	16.2	ES			11:51	28.71			-0.34									
EAB	EZ	24.3	IP		D	08:18	57.99			0.17	LAW	HE	16.2	IAML			11:51	28.87	246	0.11										
EAB	EZ	24.3	ES			08:19	01.20			-0.04	LAW	HE	16.2	IAML			11:51	28.94	224	0.20										
INVG	HZ	51.6	EP			08:19	02.03			-0.01	EAB	EZ	72.8	EP			11:51	36.15			0.19									
INVG	HE	51.6	ES			08:19	08.33			-0.20	INVG	HZ	86.7	EP			11:51	38.15			0.03									
INVG	HE	51.6	IAML			08:19	10.21	2	0.16		INVG	HE	86.7	ES			11:51	48.53			-0.29									
INVG	HN	51.6	IAML			08:19	11.51	2	0.07		INVG	HN	86.7	IAML			11:51	51.65	6	0.11										
LAW	HZ	78.7	EP			08:19	06.61			0.39	INVG	HE	86.7	IAML			11:51	51.86	8	0.10										
LAW	HN	78.7	ES			08:19	15.59			-0.17	PGB1	HE	89.1	EP			11:51	39.02			0.55									
LAW	HN	78.7	IAML			08:19	15.77	10	0.16		PGB1	HE	89.1	ES			11:51	49.54			0.11									
LAW	HE	78.7	IAML			08:19	15.98	5	0.34		PGB1	HE	89.1	IAML			11:51	50.36	6	0.16										
NEWG	HZ	95.7	EP			08:19	08.87			0.01	PGB1	HN	89.1	IAML			11:51	51.88	14	0.33										
NEWG	HE	95.7	IAML			08:19	20.76	3	0.32		KPL	HZ	105.0	EP			11:51	40.93			0.03									
NEWG	HN	95.7	IAML			08:19	22.65	4	0.23		KPL	HE	105.0	ES			11:51	53.38			-0.26									
CLGH	HN	155.0	ES			08:19	35.31			-0.05	KPL	HE	105.0	IAML			11:51	56.26	6	0.14										
CLGH	HE	155.0	IAML			08:19	36.48	5	0.28		KPL	HN	105.0	IAML			11:51	56.56	5	0.33										
CLGH	HN	155.0	IAML			08:19	37.55	4	0.21		KAC	EZ	122.0	EP			11:51	43.87			0.23									
May 9 2016										Time: 11:25 07.7 UTC					Magnitude: 1.3 ML															
Lat: 56.668N										Lon: -4.376W					Depth: 2.7 km															
Grid Ref: 254.41 kmE 755.42 kmN										RMS: 0.40 secs																				
Locality: FINNART, PERTH & KINROSS										Velocity model: Lownet Xnear: 100.0 Xfar: 200.0																				
Comment: FELT DALL										Intensity: 2																				
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	May 14 2016					Time: 13:17 51.7 UTC		Magnitude: 1.2 ML												
INVG	HZ	33.6	EP			11:25	13.86			-0.03	Lat: 57.244N					Lon: -4.493W					Depth: 3.3 km									
INVG	HE	33.6	ES			11:25	17.80			-0.63	Grid Ref: 249.58 kmE 819.76 kmN					RMS: 0.40 secs														
INVG	HE	33.6	IAML			11:25	18.09	38	0.14		Locality: FOYERS, HIGHLAND					Velocity model: Lownet Xnear: 100.0 Xfar: 200.0														
INVG	HN	33.6	IAML			11:25	18.12	24	0.19		STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES									
EAB	EZ	53.4	EP			11:25	17.50			0.33	MDO	EZ	23.3	IP		D	13:17	56.05			-0.09									
LAW	HZ	77.7	EP			11:25	20.89			-0.02	MDO	EZ	23.3	ES			13:17	59.13			-0.29									
LAW	HN	77.7	ES			11:25	30.60			0.02	KAC	EZ	56.2	EP			13:18	01.39			-0.14									
LAW	HN	77.7	IAML			11:25	34.03	21	0.09		KPL	HZ	70.7	EP			13:18	03.82			0.07									
LAW	HE	77.7	IAML			11:25	34.07	31	0.11		KPL	HN	70.7	ES			13:18	12.44			-0.14									
KAC	EZ	108.0	EP			11:25	25.73			0.08	KPL	HN	70.7	IAML			13:18	12.81	6	0.14										
KPL	HZ	108.0	EP			11:25	25.61			0.06	KPL	HE	70.7	IAML			13:18	15.35	4	0.50										
KPL	HN	108.0	ES			11:25	38.15			-0.45	MCD	EZ	83.5	EP			13:18	06.32			0.54									
KPL	HN	108.0	IAML			11:25	42.13	7	0.31		MCD	EN	83.5	ES			13:18	16.14			0.05									
KPL	HE	108.0	IAML			11:25	40.13	6	0.43		MCD	EN	83.5	IAML			13:18	19.44	20	0.31										
MCD	EZ	122.0	EP			11:25	28.11			0.22	MCD	EE	83.5	IAML			13:18	19.53	13	0.35										
EBL	EZ	129.0	EP			11:25	29.84			0.85	INVG	HZ	95.0	EP			13:18	07.66			0.10									
LINV	HZ	172.0	EP			11:25	35.51			0.48	INVG	HE	95.0	ES			13:18	18.34			-0.83									
May 11 2016										Time: 02:52 03.1 UTC					Magnitude: 0.1 ML															
Lat: 52.888N										Lon: -3.859W					Depth: 12.5 km															
Grid Ref: 274.94 kmE 333.94 kmN										RMS: 0.10 secs																				
Locality: TRAWSFYNYDD, GWYNEDD										Velocity model: Lownet Xnear: 100.0 Xfar: 200.0																				
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	May 15 2016					Time: 17:31 07.2 UTC		Magnitude: 2.3 ML												
LLW	BZ	13.7	EP			02:52	06.65			0.18	Lat: 59.813N					Lon: 2.452W					Depth: 10.0 km									
LLW	BN	13.7	ES			02:52	08.80			-0.10	Grid Ref: 649.57 kmE 1111.41 kmN					RMS: 0.60 secs														
LLW	BE	13.7	IAML			02:52	09.10	3	0.11		Locality: NORTHERN NORTH SEA					Velocity model: North Sea Xnear: 400.0 Xfar: 600.0														
LLW	BN	13.7	IAML			02:52	09.10	5	0.10		Comment: 200KM ESE LERWICK					STAT					CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
FOEL	HZ	44.3	EP			02:52	11.16			0.16	BER	HZ	173.0	EP			17:31	33.86			0.69									
FOEL	HE	44.3	ES			02:52	16.59			-0.15	BER	HE	173.0	ES			17:31	51.05			-1.06									
FOEL	HE	44.3	IAML			02:52	16.78	3	0.16		BER	HN	173.0	IAML			17:31	51.34	4	0.20										
FOEL	HN	44.3	IAML			02:52	17.06	2	0.20		BER	HE	173.0	IAML			17:31	51.56	4	0.14										
WLF1	HZ	57.4	EP			02:52	12.98			0.05	LRW	HZ	206.0	EP			17:31	37.85			0.54									
WLF1	HN	57.4	ES			02:52	19.89			-0.19	LRW	HE	206.0	ES			17:31	59.15			-0.12									
WLF1	HE	57.4	IAML			02:52	19.94	1	0.20		LRW	HE	206.0	IAML			17:32	10.97	8	0.42										
WLF1	HN	57.4	IAML			02:52	19.94	2	0.08		LRW	HN	206.0	IAML			17:32	14.10	9	0.38										
WME	EZ	63.9	EP			02:52	14.12			0.16	FOO	HZ	244.0	EP			17:31	42.94			0.90									
HLM1	HN	77.9	ES			02:52	25.65			-0.03	FOO	HE	244.0	ES			17:32	06.99			-0.46									
HLM1	HN	77.9	IAML			02:52	25.69	1	0.12		FOO	HE	244.0	IAML			17:32	08.70	15	0.56										
HLM1	HE	77.9	IAML			02:52	25.75	1	0.24		FOO	HN	244.0	IAML			17:32	08.83	13	0.38										
RSBS	HZ	120.0	EP			02:52	22.31			-0.12	BIGH	HZ	392.0	EP			17:32	00.78			0.30									
May 13 2016										Time: 21:29 04.6 UTC					Magnitude: 0.4 ML															
Lat: 55.975N										Lon: -4.247W					Depth: 7.7 km															
Grid Ref: 259.80 kmE 678.05 kmN										RMS: 0.20 secs																				
Locality: LENNOXTOWN, E DUNBARTON										Velocity model: Lownet Xnear: 100.0 Xfar: 200.0																				
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	BIGH	HN	392.0	ES			17:32	38.23			-1.12									
PGB1	HZ	23.4	EP			21:29	09.15			0.05	BIGH	HE	392.0	IAML			17:32	40.29	7	0.34										
PGB1	HE	23.4	ES			21:29	12.27			-0.13	BIGH	HN	392.0	IAML			17:32	40.57	6	0.24										
PGB1	HE	23.4	IAML			21:29	12.40	6	0.22		MCD	EZ	413.0	EP			17:32	03.44			0.32									
PGB1	HN	23.4	IAML			21:29	12.42	9	0.22		DRUM	HZ	433.0	EP			17:32	05.90			0.33									
INVG	HZ	51.9	EP			21:29	13.49			-0.05	LINV	HZ	477.0	EP			17:32	10.84			-0.15									
INVG	HE	51.9	ES			21:29	19.99			-0.08	LINV	HE	477.0	IAML			17:32	57.77	4	0.22										
LAW	HZ	78.4	EP			21:29	17.99			0.38	LINV	HN	477.0	IAML			17:32	58.47	4	0.26										
LAW	HE	78.4	ES			21:29	26.94			-0.17	KAC	EZ	518.0	EP			17:32	15.34			-0.76									
May 14 2016										Time: 11:51 23.5 UTC					Magnitude: 1.3 ML															
Lat: 56.403N										Lon: -5.448W					Depth: 2.8 km															

TABLE 2 : PHASE DATA

Table with multiple sections. Each section contains:
- Event Date/Time: May 24 2016, May 30 2016, May 21 2016, May 24 2016, June 1 2016, June 1 2016.
- Coordinates: Lat, Lon, Grid Ref, Depth, RMS.
- Velocity model: Lownet.
- Xnear, Xfar values.
- Intensity (3 or 2).
- Main data table: STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES.
- Secondary data table: STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES.

TABLE 2 : PHASE DATA

LEWI HN 217.0 ES	04:30 30.70		0.62		KPL HE 84.4 ES	02:17 09.14		-0.05
LEWI HE 217.0 IAML	04:30 34.24	4	0.62		KPL HN 84.4 IAML	02:17 11.20	3	0.34
LEWI HN 217.0 IAML	04:30 34.82	2	0.24		KPL HE 84.4 IAML	02:17 11.74	3	0.16
					INVG HZ 101.0 EP	02:17 01.99		0.27
July 5 2016	Time: 12:12 11.6 UTC	Magnitude: 1.2 ML			INVG HE 101.0 ES	02:17 13.71		-0.13
Lat: 49.010N	Lon: -2.686W	Depth: 8.2 km			INVG HN 101.0 IAML	02:17 16.02	2	0.06
Grid Ref: 349.84 kmE	-98.66 kmN	RMS: 0.00 secs			INVG HE 101.0 IAML	02:17 16.10	1	0.10
Locality: ENGLISH CHANNEL					LEWI HN 189.0 ES	02:17 35.16		0.01
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0					July 16 2016 Time: 19:17 17.5 UTC Magnitude: 0.7 ML			
Comment: 40KM SW JERSEY					Lat: 57.631N	Lon: -5.649W	Depth: 4.3 km	
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	Grid Ref: 182.18 kmE 865.95 kmN		RMS: 0.30 secs		Locality: SHIELDAIG, HIGHLAND			
JVM EZ 41.9 IP C 12:12 18.95 -0.03					Velocity model: Lownet Xnear: 50.0 Xfar: 150.0			
JVM EZ 41.9 ES 12:12 24.34 0.00					Comment: 6KM SSE SHIELDAIG			
JSA HZ 42.5 EP 12:12 19.05 -0.02					STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
JSA HN 42.5 ES 12:12 24.50 0.01					KAC EZ 25.6 IP C 19:17 21.92 -0.38			
JSA HN 42.5 IAML 12:12 24.85 25 0.16					KPL HZ 32.5 EP 19:17 23.58 0.14			
JSA HE 42.5 IAML 12:12 25.36 18 0.10					KPL HE 32.5 ES 19:17 27.79 -0.02			
JRS EE 47.9 EP 12:12 19.90 -0.01					KPL HE 32.5 IAML 19:17 27.98 13 0.22			
JRS EE 47.9 IAML 12:12 26.42 21 0.20					KPL HN 32.5 IAML 19:17 28.03 6 0.14			
JRS EN 47.9 IAML 12:12 26.51 23 0.48					MDO EZ 79.9 EP 19:17 31.71 0.60			
JLP EZ 50.1 EP 12:12 20.32 0.05					LEWI HN 92.2 ES 19:17 44.23 -0.11			
July 6 2016 Time: 08:13 01.0 UTC Magnitude: 0.9 ML					LEWI HN 92.2 IAML 19:17 45.98 5 0.23			
Lat: 56.596N	Lon: -4.617W	Depth: 7.0 km			LEWI HZ 92.2 IAML 19:17 46.26 3 0.20			
Grid Ref: 239.34 kmE	747.95 kmN	RMS: 0.40 secs			BIGH HZ 141.0 EP 19:17 40.14 -0.21			
Locality: ACHALLADER, ARGYLL/BUTE					July 22 2016 Time: 00:38 20.4 UTC Magnitude: 0.6 ML			
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0					Lat: 51.929N	Lon: -3.118W	Depth: 16.3 km	
Comment: 8KM NE ACHALLADER					Grid Ref: 323.14 kmE 226.25 kmN		RMS: 0.20 secs	
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	Locality: CRICKHOWELL, POWYS				Velocity model: Lownet Xnear: 100.0 Xfar: 150.0			
INVG HZ 40.0 EP 08:13 08.00 -0.12					STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
INVG HN 40.0 ES 08:13 12.81 -0.52					MCH1 HZ 11.2 EP 00:38 25.02 -0.09			
INVG HN 40.0 IAML 08:13 13.28 4 0.36					MCH1 HN 11.2 ES 00:38 28.56 0.01			
INVG HE 40.0 IAML 08:13 13.84 4 0.20					MCH1 HN 11.2 IAML 00:38 28.73 7 0.15			
EAB EZ 48.5 EP 08:13 09.83 0.38					MCH1 HE 11.2 IAML 00:38 28.77 14 0.15			
LAW E HZ 61.0 EP 08:13 11.35 -0.01					HLM1 HZ 67.5 EP 00:38 31.86 -0.04			
KPL HZ 104.0 EP 08:13 18.27 0.27					HLM1 HE 67.5 ES 00:38 40.38 0.07			
KPL HE 104.0 ES 08:13 30.05 -0.36					HLM1 HN 67.5 IAML 00:38 42.61 2 0.29			
KPL HN 104.0 IAML 08:13 30.25 2 0.28					HLM1 HE 67.5 IAML 00:38 42.76 3 0.15			
KPL HE 104.0 IAML 08:13 33.28 5 0.44					STRD HE 68.0 ES 00:38 40.44 0.10			
KAC EZ 109.0 EP 08:13 18.74 -0.03					FOEL HZ 107.0 EP 00:38 37.11 -0.37			
DRUM HN 135.0 ES 08:13 39.44 0.87					FOEL HN 107.0 ES 00:38 50.16 0.20			
DRUM HE 135.0 IAML 08:13 43.55 4 0.16					FOEL HN 107.0 IAML 00:38 51.22 2 0.13			
DRUM HN 135.0 IAML 08:13 44.41 5 0.36					FOEL HE 107.0 IAML 00:38 51.45 1 0.16			
LEWI HZ 219.0 EP 08:13 33.89 0.05					RSBS HZ 112.0 EP 00:38 38.07 -0.07			
LEWI HE 219.0 IAML 08:14 02.53 2 0.55					RSBS HN 112.0 ES 00:38 51.30 0.20			
LEWI HN 219.0 IAML 08:14 03.90 2 0.38					RSBS HE 112.0 IAML 00:38 52.31 2 0.12			
July 6 2016 Time: 14:09 10.9 UTC Magnitude: 1.4 ML					RSBS HN 112.0 IAML 00:38 52.55 3 0.11			
Lat: 56.602N	Lon: -4.624W	Depth: 7.5 km			DYA HE 176.0 ES 00:39 04.51 -0.46			
Grid Ref: 238.94 kmE	748.63 kmN	RMS: 0.30 secs			July 24 2016 Time: 19:39 42.9 UTC Magnitude: 0.6 ML			
Locality: ACHALLADER, ARGYLL/BUTE					Lat: 51.190N	Lon: -4.204W	Depth: 7.7 km	
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0					Grid Ref: 246.00 kmE 145.79 kmN		RMS: 0.20 secs	
Comment: 8KM NE ACHALLADER					Locality: WOOLACOMBE, DEVON			
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	Velocity model: Lownet Xnear: 100.0 Xfar: 150.0				STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
INVG HZ 40.7 EP 14:09 18.10 0.04					HTL HZ 29.4 IP C 19:39 48.54 0.25			
INVG HN 40.7 ES 14:09 22.83 -0.48					HTL HE 29.4 ES 19:39 52.01 -0.23			
INVG HN 40.7 IAML 14:09 23.14 16 0.14					HTL HE 29.4 IAML 19:39 52.38 7 0.10			
INVG HE 40.7 IAML 14:09 23.55 10 0.29					HTL HN 29.4 IAML 19:39 52.51 8 0.10			
EAB EZ 49.3 EP 14:09 19.89 0.49					DYA HN 86.1 EP 19:39 57.26 0.13			
LAW E HZ 61.1 EP 14:09 21.28 0.08					DYA HZ 86.1 ES 19:40 07.34 -0.19			
LAW E HN 61.1 ES 14:09 28.43 -0.32					DYA HE 86.1 IAML 19:40 08.76 3 0.14			
LAW E HE 61.1 IAML 14:09 34.23 22 0.18					DYA HZ 86.1 IAML 19:40 08.98 4 0.18			
LAW E HN 61.1 IAML 14:09 34.40 34 0.14					RSBS HZ 92.8 EP 19:39 58.45 0.29			
MDO EZ 94.7 EP 14:09 26.17 -0.29					RSBS HE 92.8 ES 19:40 09.04 -0.27			
KPL HZ 103.0 EP 14:09 27.90 0.20					RSBS HN 92.8 IAML 19:40 11.23 1 0.05			
KPL HN 103.0 ES 14:09 39.71 -0.28					RSBS HE 92.8 IAML 19:40 11.23 2 0.07			
KPL HN 103.0 IAML 14:09 42.03 10 0.24					CCAL HN 133.0 EP 19:40 04.66 0.40			
KPL HE 103.0 IAML 14:09 43.68 12 0.24					CCAL HE 133.0 ES 19:40 19.64 -0.23			
KAC EZ 108.0 EP 14:09 28.56 0.09					CCAL HE 133.0 IAML 19:40 20.47 2 0.21			
DRUM HZ 135.0 EP 14:09 32.53 -0.03					CCAL HZ 133.0 IAML 19:40 21.04 2 0.20			
DRUM HN 135.0 IAML 14:09 53.66 16 0.38					July 24 2016 Time: 23:53 34.2 UTC Magnitude: 0.8 ML			
DRUM HE 135.0 IAML 14:09 53.71 11 0.20					Lat: 57.268N	Lon: -4.445W	Depth: 10.6 km	
MCD EZ 137.0 EP 14:09 33.32 0.47					Grid Ref: 252.57 kmE 822.33 kmN		RMS: 0.30 secs	
BIGH HZ 215.0 EP 14:09 42.77 -0.27					Locality: ERROGIE, HIGHLAND			
BIGH HE 215.0 IAML 14:10 11.18 10 0.54					Velocity model: Lownet Xnear: 100.0 Xfar: 200.0			
BIGH HN 215.0 IAML 14:10 11.42 5 0.38					STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			
LEWI HZ 218.0 EP 14:09 43.83 0.29					KAC EZ 57.4 EP 23:53 43.78 -0.23			
July 8 2016 Time: 02:16 45.1 UTC Magnitude: 0.6 ML					KPL HZ 73.2 EP 23:53 46.53 0.11			
Lat: 56.582N	Lon: -5.666W	Depth: 7.7 km			KPL HN 73.2 ES 23:53 55.24 -0.09			
Grid Ref: 174.89 kmE	749.34 kmN	RMS: 0.10 secs			KPL HN 73.2 IAML 23:53 59.51 3 0.20			
Locality: MORVERN, HIGHLAND					KPL HE 73.2 IAML 23:53 59.61 5 0.16			
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0					INVG HZ 96.7 EP 23:53 50.69 0.59			
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	Locality: ERROGIE, HIGHLAND				INVG HE 96.7 ES 23:54 01.46 -0.25			
LAW E HZ 39.4 EP 02:16 52.10 0.01					INVG HE 96.7 IAML 23:54 04.81 7 0.32			
LAW E HE 39.4 ES 02:16 57.10 -0.08								
LAW E HE 39.4 IAML 02:16 57.25 8 0.22								
LAW E HN 39.4 IAML 02:16 57.36 8 0.10								
KPL HZ 84.4 EP 02:16 59.01 -0.02								

TABLE 2 : PHASE DATA

HLML	HN	108.0	ES	04:26	27.92				-0.11	Grid Ref: 225.56 kmE 732.68 kmN	RMS: 0.40 secs	
HLML	HE	108.0	IAML	04:26	29.79	2	0.20			Locality: DALMALLY, ARGYLL & BUTE		
HLML	HN	108.0	IAML	04:26	32.12	2	0.29			Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0		
FOEL	HZ	123.0	EP	04:26	17.23				0.06	Comment: 10KM NE DALMALLY		
FOEL	HE	123.0	ES	04:26	32.01				-0.01			
FOEL	HN	123.0	IAML	04:26	32.69	3	0.48			STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES		
FOEL	HE	123.0	IAML	04:26	33.42	3	0.22			LAW E HZ 41.2 EP 14:08 23.41	-0.08	
HPK	HN	125.0	ES	04:26	32.45				0.02	LAW E HN 41.2 ES 14:08 28.33	-0.62	
HPK	HN	125.0	IAML	04:26	33.95	7	0.40			LAW E HE 41.2 IAML 14:08 28.87	5 0.13	
HPK	HE	125.0	IAML	04:26	34.50	9	0.26			LAW E HN 41.2 IAML 14:08 29.29	3 0.12	
MCH1	HE	145.0	ES	04:26	37.67				0.02	EAB EZ 42.5 EP 14:08 24.08	0.35	
MCH1	HN	145.0	IAML	04:26	38.71	3	0.14			INVG HZ 48.6 EP 14:08 24.75	-0.02	
MCH1	HE	145.0	IAML	04:26	41.06	3	0.05			INVG HN 48.6 ES 14:08 30.36	-0.81	
										INVG HE 48.6 IAML 14:08 30.62	4 0.20	
										INVG HN 48.6 IAML 14:08 30.81	3 0.10	
										PGB1 HE 74.8 ES 14:08 38.59	0.41	
										KPL HE 111.0 ES 14:08 48.12	0.41	
										KPL HE 111.0 IAML 14:08 50.41	3 0.42	
										KPL HN 111.0 IAML 14:08 51.10	2 0.28	
										ESK HN 162.0 ES 14:09 01.44	0.34	
August 15 2016	Time: 10:14	05.8 UTC	Magnitude: 1.0 ML									
Lat: 52.963N	Lon: -2.553W	Depth: 7.3 km	RMS: 0.50 secs									
Grid Ref: 362.86 kmE	340.80 kmN											
Locality: WILKESLEY, CHESHIRE												
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0												
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES												
STNC HZ 27.3 EP 10:14 11.25 0.31												
FOEL HZ 44.3 IP C 10:14 13.04 -0.58												
FOEL HE 44.3 ES 10:14 18.55 -0.77												
FOEL HE 44.3 IAML 10:14 20.02 7 0.12												
FOEL HN 44.3 IAML 10:14 20.84 8 0.19												
HLML HZ 54.2 EP 10:14 15.48 0.33												
HLML HN 54.2 ES 10:14 22.12 0.15												
HLML HE 54.2 IAML 10:14 22.90 10 0.19												
HLML HN 54.2 IAML 10:14 23.60 6 0.09												
LBWR HZ 73.8 EP 10:14 18.39 0.21												
LBWR HE 73.8 ES 10:14 27.18 -0.03												
LBWR HE 73.8 IAML 10:14 28.95 5 0.11												
LBWR HN 73.8 IAML 10:14 30.17 5 0.20												
CFW HZ 87.5 EP 10:14 20.05 -0.22												
CFW HE 87.5 ES 10:14 29.92 -0.91												
CFW HE 87.5 IAML 10:14 30.61 5 0.20												
CFW HN 87.5 IAML 10:14 31.71 8 0.16												
MCH1 HZ 112.0 EP 10:14 24.45 0.44												
MCH1 HN 112.0 ES 10:14 37.51 0.21												
MCH1 HN 112.0 IAML 10:14 37.83 7 0.24												
MCH1 HE 112.0 IAML 10:14 40.62 4 0.13												
HPK HE 127.0 ES 10:14 41.65 0.33												
HPK HE 127.0 IAML 10:14 43.04 15 0.25												
HPK HN 127.0 IAML 10:14 43.67 15 0.18												
RSBS HZ 187.0 EP 10:14 35.07 0.53												
RSBS HN 187.0 IAML 10:14 58.91 2 0.13												
RSBS HE 187.0 IAML 10:14 59.41 1 0.08												
August 19 2016	Time: 13:38	38.5 UTC	Magnitude: 1.9 ML									
Lat: 56.387N	Lon: -5.849W	Depth: 2.5 km	RMS: 0.40 secs									
Grid Ref: 162.44 kmE	728.27 kmN											
Locality: MULL, ARGYLL & BUTE												
Velocity model: Lownet Xnear: 100.0 Xfar: 150.0												
Comment: FELT MULL...												
Intensity: 3												
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES												
LAW E HZ 31.2 IP C 13:38 44.12 -0.21												
LAW E HN 31.2 ES 13:38 47.93 -0.62												
LAW E HE 31.2 IAML 13:38 48.42 184 0.14												
LAW E HN 31.2 IAML 13:38 48.68 190 0.11												
EAB EZ 96.2 EP 13:38 54.80 0.11												
PGB1 HZ 106.0 EP 13:38 56.73 0.46												
PGB1 HN 106.0 ES 13:39 09.45 0.24												
PGB1 HE 106.0 IAML 13:39 11.15 30 0.27												
PGB1 HN 106.0 IAML 13:39 11.36 26 0.42												
KPL HZ 107.0 EP 13:38 56.10 -0.17												
KPL HE 107.0 ES 13:39 09.11 -0.10												
KPL HN 107.0 IAML 13:39 12.16 48 0.15												
KPL HE 107.0 IAML 13:39 12.43 82 0.27												
INVG HZ 112.0 IP D 13:38 57.24 0.17												
INVG HN 112.0 ES 13:39 11.13 0.53												
INVG HN 112.0 IAML 13:39 12.96 34 0.11												
INVG HE 112.0 IAML 13:39 13.13 39 0.10												
KAC EZ 128.0 EP 13:38 59.65 0.00												
CLGH HZ 146.0 EP 13:39 01.48 -0.79												
CLGH HN 146.0 ES 13:39 18.11 -1.49												
CLGH HN 146.0 IAML 13:39 20.63 25 0.16												
CLGH HE 146.0 IAML 13:39 22.09 25 0.28												
MDO EZ 148.0 EP 13:39 02.86 0.27												
NEWG HZ 174.0 EP 13:39 05.35 -0.88												
GAL1 HZ 184.0 EP 13:39 06.80 -0.64												
GAL1 HN 184.0 ES 13:39 27.04 -1.50												
GAL1 HN 184.0 IAML 13:39 31.65 8 0.19												
GAL1 HE 184.0 IAML 13:39 32.45 10 0.19												
EBL EZ 188.0 EP 13:39 09.09 1.12												
ESK HZ 204.0 EP 13:39 10.20 0.21												
MCD EZ 206.0 EP 13:39 09.31 -0.99												
August 23 2016	Time: 05:21	10.4 UTC	Magnitude: 0.5 ML									
Lat: 54.705N	Lon: -2.940W	Depth: 6.9 km	RMS: 0.10 secs									
Grid Ref: 339.44 kmE	534.86 kmN											
Locality: SKELTON, CUMBRIA												
Velocity model: default (Lownet) Xnear: 100.0 Xfar: 200.0												
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES												
KESW HZ 16.7 IP C 05:21 13.95 0.04												
KESW HE 16.7 ES 05:21 16.44 0.00												
KESW HN 16.7 IAML 05:21 16.49 7 0.10												
KESW HE 16.7 IAML 05:21 16.54 5 0.10												
EDMD HZ 64.5 EP 05:21 21.18 -0.13												
EDMD HE 64.5 ES 05:21 29.35 0.10												
EDMD HE 64.5 IAML 05:21 29.78 6 0.22												
EDMD HN 64.5 IAML 05:21 30.05 6 0.29												
NEWG HZ 94.6 EP 05:21 26.15 0.12												
NEWG HE 94.6 ES 05:21 37.35 -0.05												
NEWG HE 94.6 IAML 05:21 38.82 1 0.25												
NEWG HN 94.6 IAML 05:21 39.08 1 0.21												
IOMK HZ 116.0 EP 05:21 29.21 -0.20												
IOMK HE 116.0 ES 05:21 43.35 0.09												
IOMK HE 116.0 IAML 05:21 43.97 2 0.40												
IOMK HN 116.0 IAML 05:21 44.13 3 0.19												
August 24 2016	Time: 06:10	21.7 UTC	Magnitude: 0.9 ML									
Lat: 56.423N	Lon: -4.087W	Depth: 1.9 km	RMS: 0.20 secs									
Grid Ref: 271.29 kmE	727.59 kmN											
Locality: COMRIE, PERTH & KINROSS												
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0												
Comment: 7KM NW COMRIE												
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES												
INVG HZ 2.7 IP D 06:10 22.57 0.03												
INVG HN 2.7 ES 06:10 23.16 -0.02												
INVG HN 2.7 IAML 06:10 23.18 336 0.10												
INVG HE 2.7 IAML 06:10 23.23 485 0.10												
LAW E HZ 83.1 EP 06:10 35.86 -0.02												
LAW E HE 83.1 ES 06:10 46.07 -0.19												
LAW E HN 83.1 IAML 06:10 49.05 6 0.19												
LAW E HE 83.1 IAML 06:10 49.26 9 0.12												
DRUM HZ 112.0 EP 06:10 40.18 -0.23												
DRUM HE 112.0 IAML 06:10 57.29 3 0.32												
DRUM HN 112.0 IAML 06:10 58.95 3 0.30												
ESK HN 135.0 ES 06:11 00.21 0.02												
KPL HZ 140.0 EP 06:10 45.06 0.52												
KPL HN 140.0 ES 06:11 01.41 0.17												
KPL HE 140.0 IAML 06:11 03.33 2 0.48												
KPL HN 140.0 IAML 06:11 04.31 2 0.82												
NEWG HN 146.0 ES 06:11 03.15 0.37												
August 24 2016	Time: 11:15	37.7 UTC	Magnitude: 1.4 ML									
Lat: 54.497N	Lon: -2.872W	Depth: 5.4 km	RMS: 0.10 secs									
Grid Ref: 343.53 kmE	511.66 kmN											
Locality: HARTSOP, CUMBRIA												
Velocity model: Borders Xnear: 50.0 Xfar: 100.0												
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES												
KESW HZ 18.2 IP D 11:15 41.32 -0.05												
KESW HE 18.2 ES 11:15 43.99 0.03												
KESW HN 18.2 IAML 11:15 44.16 74 0.24												
KESW HE 18.2 IAML 11:15 44.41 77 0.10												
EDMD HZ 69.5 EP 11:15 49.79 0.14												
EDMD HE 69.5 ES 11:15 58.03 -0.09												
EDMD HE 69.5 IAML 11:15 58.97 23 0.12												
EDMD HN 69.5 IAML 11:16 01.31 33 0.14												
ESK HZ 93.7 EP 11:15 54.10 0.47												
ESK HE 93.7 IAML 11:16 06.12 8 0.26												
ESK HN 93.7 IAML 11:16 08.15 10 0.32												
NEWG HZ 111.0 EP 11:15 56.40 -0.08												
NEWG HE 111.0 ES 11:16 09.56 -0.24												
NEWG HN 111.0 IAML 11:16 10.82 5 0.10												
NEWG HE 111.0 IAML 11:16 10.88 5 0.18												
August 20 2016	Time: 14:08	16.0 UTC	Magnitude: 0.5 ML									
Lat: 56.454N	Lon: -4.831W	Depth: 2.5 km										

TABLE 2 : PHASE DATA

IOMK HZ 113.0 EP	11:15	56.37	-0.42	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0				
IOMK HN 113.0 IAML	11:16	10.45	22 0.10	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES				
IOMK HE 113.0 IAML	11:16	10.85	11 0.09	LBWR HZ 59.9 EP 20:15 32.34 0.23				
LBWR HZ 143.0 EP	11:16	01.25	0.00	LBWR HE 59.9 ES 20:15 39.55 -0.05				
LBWR HN 143.0 IAML	11:16	19.83	13 0.18	LBWR HE 59.9 IAML 20:15 40.66 9 0.17				
LBWR HE 143.0 IAML	11:16	20.46	14 0.38	LBWR HN 59.9 IAML 20:15 40.69 14 0.15				
August 25 2016 Time: 14:59 16.7 UTC Magnitude: 1.7 ML								
Lat: 52.570N	Lon: -2.643W	Depth: 7.5 km		HPK HZ 65.3 EP 20:15 33.06 0.13				
Grid Ref: 356.42 kmE 297.14 kmN	RMS: 0.40 secs			FOEL HZ 99.7 EP 20:15 38.02 -0.28				
Locality: HUGHLEY, SHROPSHIRE	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0							
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES								
HLM1 HZ 17.1 IP C	14:59	20.49	0.20	FOEL HE 99.7 IAML 20:15 51.79 5 0.37				
HLM1 HN 17.1 ES	14:59	23.17	0.27	FOEL HN 99.7 IAML 20:15 52.30 3 0.20				
HLM1 HN 17.1 IAML	14:59	23.36	521 0.10	HLM1 HZ 132.0 EP 20:15 42.97 -0.23				
HLM1 HE 17.1 IAML	14:59	23.38	500 0.10	HLM1 HN 132.0 ES 20:15 59.19 0.41				
FOEL HZ 51.8 EP	14:59	25.20	-0.46	HLM1 HN 132.0 IAML 20:15 59.90 3 0.18				
FOEL HN 51.8 ES	14:59	31.81	-0.39	HLM1 HE 132.0 IAML 20:15 59.90 5 0.34				
FOEL HE 51.8 IAML	14:59	32.02	22 0.46	CFW HZ 132.0 EP 20:15 42.95 -0.16				
FOEL HN 51.8 IAML	14:59	32.49	14 0.36	CFW HN 132.0 ES 20:15 58.45 -0.18				
MCH1 HZ 68.1 EP	14:59	28.02	-0.14	CFW HE 132.0 IAML 20:15 58.80 2 0.14				
MCH1 HN 68.1 ES	14:59	36.22	-0.30	CFW HN 132.0 IAML 20:15 59.28 2 0.14				
MCH1 HE 68.1 IAML	14:59	36.39	41 0.32	EDMD HE 133.0 ES 20:15 58.65 -0.22				
MCH1 HN 68.1 IAML	14:59	36.55	32 0.41	EDMD HE 133.0 IAML 20:15 58.94 5 0.28				
MONM HZ 82.0 EP	14:59	30.39	0.09	EDMD HN 133.0 IAML 20:15 59.63 3 0.07				
MONM HE 82.0 ES	14:59	40.18	-0.04	WLF1 HZ 133.0 EP 20:15 43.57 0.23				
MONM HE 82.0 IAML	14:59	40.57	30 0.52	WLF1 HN 133.0 ES 20:15 59.13 0.10				
MONM HN 82.0 IAML	14:59	40.65	23 0.16	August 28 2016 Time: 22:58 50.9 UTC Magnitude: 1.2 ML				
LBWR HZ 111.0 EP	14:59	35.14	0.28	Lat: 52.203N Lon: -3.761W Depth: 11.5 km				
LBWR HE 111.0 IAML	14:59	50.26	15 0.50	Grid Ref: 279.67 kmE 257.59 kmN RMS: 0.30 secs				
LBWR HN 111.0 IAML	14:59	51.87	20 0.30	Locality: TREGARON, CEREDIGION				
WLF1 HZ 143.0 EP	14:59	40.17	0.74	Velocity model: Mid Wales Xnear: 80.0 Xfar: 200.0				
WLF1 HE 143.0 ES	14:59	56.61	0.60	Comment: 12KM ESE TREGARON				
WLF1 HN 143.0 IAML	14:59	57.03	20 0.26	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES				
WLF1 HE 143.0 IAML	14:59	58.30	14 0.31	MCH1 HZ 57.0 EP 22:59 00.63 -0.07				
RSBS HZ 159.0 EP	14:59	42.44	0.61	MCH1 HN 57.0 ES 22:59 07.52 -0.25				
RSBS HN 159.0 IAML	15:00	02.59	18 0.26	MCH1 HN 57.0 IAML 22:59 07.65 29 0.10				
RSBS HE 159.0 IAML	15:00	03.75	12 0.10	MCH1 HZ 57.0 IAML 22:59 07.72 36 0.13				
August 26 2016 Time: 01:41 49.3 UTC Magnitude: 0.4 ML								
Lat: 52.736N	Lon: -2.295W	Depth: 8.3 km		HLM1 HE 69.5 EP 22:59 02.63 0.04				
Grid Ref: 380.08 kmE 315.45 kmN	RMS: 0.20 secs			HLM1 HN 69.5 ES 22:59 10.89 -0.13				
Locality: MORETON, STAFFORDSHIRE	Velocity model: Lownet Xnear: 75.0 Xfar: 150.0							
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES								
STNC HZ 40.0 EP	01:41	56.44	0.05	HLM1 HN 69.5 IAML 22:59 11.36 6 0.42				
STNC HN 40.0 ES	01:42	01.44	-0.13	HLM1 HE 69.5 IAML 22:59 11.88 5 0.13				
STNC HE 40.0 IAML	01:42	01.68	23 0.18	LLW BZ 72.2 EP 22:59 03.35 0.38				
STNC HN 40.0 IAML	01:42	01.69	6 0.15	LLW BE 72.2 ES 22:59 11.83 0.15				
HLM1 HZ 46.4 EP	01:41	57.34	-0.08	LLW BN 72.2 IAML 22:59 12.31 6 0.35				
HLM1 HE 46.4 ES	01:42	03.13	-0.22	LLW BE 72.2 IAML 22:59 12.42 12 0.30				
HLM1 HE 46.4 IAML	01:42	03.81	2 0.12	RSBS HZ 73.0 EP 22:59 03.14 0.04				
HLM1 HN 46.4 IAML	01:42	04.18	1 0.24	RSBS HE 73.0 ES 22:59 11.76 -0.14				
CFW HE 66.7 EP	01:42	00.49	-0.03	RSBS HE 73.0 IAML 22:59 14.42 11 0.05				
CFW HN 66.7 ES	01:42	08.56	-0.16	RSBS HN 73.0 IAML 22:59 15.38 13 0.08				
CFW HN 66.7 IAML	01:42	08.65	2 0.22	MONM HZ 77.1 EP 22:59 03.97 0.26				
CFW HZ 66.7 IAML	01:42	09.01	0 0.18	MONM HE 77.1 ES 22:59 13.20 0.25				
LBWR HE 83.4 ES	01:42	13.54	0.30	MONM HN 77.1 IAML 22:59 13.44 28 0.24				
MCH1 HZ 95.1 EP	01:42	05.15	0.23	MONM HE 77.1 IAML 22:59 13.56 24 0.38				
MCH1 HE 95.1 ES	01:42	16.71	0.38	FOEL HZ 85.3 EP 22:59 04.40 -0.58				
MCH1 HN 95.1 IAML	01:42	17.22	2 0.14	FOEL HE 85.3 IAML 22:59 17.07 7 0.50				
MCH1 HE 95.1 IAML	01:42	17.86	2 0.21	FOEL HN 85.3 IAML 22:59 18.51 5 0.62				
August 26 2016 Time: 01:49 14.2 UTC Magnitude: 0.3 ML								
Lat: 52.864N	Lon: -2.180W	Depth: 7.7 km		CFW HZ 177.0 EP 22:59 17.91 -0.06				
Grid Ref: 387.88 kmE 329.66 kmN	RMS: 0.10 secs			CFW HE 177.0 ES 22:59 37.66 0.19				
Locality: STONE, STAFFORDSHIRE	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0							
Comment: 4KM SW STONE								
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES								
STNC HZ 25.4 EP	01:49	19.10	0.13	CFW HE 177.0 IAML 22:59 38.11 4 0.26				
STNC HN 25.4 ES	01:49	22.44	-0.05	CFW HN 177.0 IAML 22:59 38.45 5 0.12				
STNC HN 25.4 IAML	01:49	22.58	8 0.14	DYA HN 197.0 ES 22:59 42.31 0.52				
STNC HE 25.4 IAML	01:49	22.74	11 0.36	DYA HE 197.0 IAML 22:59 45.63 4 0.28				
CFW HZ 60.4 EP	01:49	24.42	0.02	DYA HN 197.0 IAML 22:59 45.95 4 0.18				
CFW HN 60.4 ES	01:49	31.81	-0.07	August 31 2016 Time: 19:38 00.9 UTC Magnitude: 1.9 ML				
HLM1 HZ 61.0 EP	01:49	24.55	0.01	Lat: 50.115N Lon: -0.383W Depth: 7.7 km				
HLM1 HE 61.0 ES	01:49	31.90	-0.22	Grid Ref: 515.60 kmE 25.20 kmN RMS: 0.00 secs				
HLM1 HE 61.0 IAML	01:49	32.64	1 0.22	Locality: ENGLISH CHANNEL				
HLM1 HN 61.0 IAML	01:49	33.21	1 0.39	Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0				
MCH1 HN 111.0 ES	01:49	45.77	0.23	Comment: 80KM SSW BRIGHTON				
MCH1 HE 111.0 IAML	01:49	46.35	1 0.20	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES				
MCH1 HN 111.0 IAML	01:49	46.38	1 0.18	HMNX HZ 98.0 EP 19:38 17.43 0.02				
August 28 2016 Time: 20:15 21.8 UTC Magnitude: 1.0 ML								
Lat: 53.680N	Lon: -2.498W	Depth: 6.6 km		HMNX HE 98.0 ES 19:38 29.49 -0.01				
Grid Ref: 367.11 kmE 420.53 kmN	RMS: 0.20 secs			HMNX HN 98.0 IAML 19:38 32.95 48 0.26				
Locality: DARWEN, LANCASHIRE	Velocity model: Lownet Xnear: 100.0 Xfar: 150.0							
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES								
LAWE HZ 43.9 IP C	22:06	02.39	-0.33	HMNX HE 98.0 IAML 19:38 32.98 44 0.34				
LAWE HN 43.9 ES	22:06	07.64	-0.69	JQE EZ 157.0 EP 19:38 26.28 0.02				
LAWE HE 43.9 IAML	22:06	07.96	22 0.13	JQE EZ 157.0 ES 19:38 44.80 -0.01				

TABLE 2 : PHASE DATA

<p>KPL HE 107.0 IAML 01:57 20.92 4 0.22</p> <p>KPL HN 107.0 IAML 01:57 21.19 3 0.54</p> <p>CLGH HZ 147.0 EP 01:57 12.27 0.20</p> <p>NEWG HN 167.0 ES 01:57 33.65 -0.20</p> <p>NEWG HE 167.0 IAML 01:57 37.44 2 0.14</p> <p>NEWG HN 167.0 IAML 01:57 37.46 2 0.17</p>	<p>Lat: 53.526N Lon: -2.154W Depth: 4.4 km</p> <p>Grid Ref: 389.79 kmE 403.30 kmN RMS: 0.20 secs</p> <p>Locality: OLDHAM,GTR MANCHESTER</p> <p>Velocity model: Lownet Xnear: 100.0 Xfar: 200.0</p>
<p>December 27 2016 Time: 00:18 27.2 UTC Magnitude: 0.6 ML</p> <p>Lat: 54.541N Lon: -3.651W Depth: 4.3 km</p> <p>Grid Ref: 293.20 kmE 517.46 kmN RMS: 0.20 secs</p> <p>Locality: WHITEHAVEN,CUMBRIA</p> <p>Velocity model: Lownet Xnear: 100.0 Xfar: 200.0</p> <p>Comment: 3KM OFF WHITEHAVEN</p>	<p>STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES</p> <p>LBWR HZ 31.7 EP 06:12 46.60 -0.10</p> <p>LBWR HE 31.7 ES 06:12 51.23 0.12</p> <p>LBWR HE 31.7 IAML 06:12 51.89 6 0.12</p> <p>LBWR HN 31.7 IAML 06:12 51.92 14 0.42</p> <p>HPK HN 59.5 ES 06:12 58.80 -0.21</p> <p>HPK HN 59.5 IAML 06:12 59.63 4 0.22</p> <p>HPK HE 59.5 IAML 06:13 03.76 4 0.21</p> <p>FOEL HE 99.5 ES 06:13 09.69 -0.11</p> <p>HLM1 HZ 122.0 EP 06:13 01.23 0.20</p> <p>HLM1 HE 122.0 ES 06:13 15.90 0.00</p> <p>HLM1 HN 122.0 IAML 06:13 17.67 2 0.28</p> <p>HLM1 HE 122.0 IAML 06:13 18.64 2 0.33</p> <p>EDMD HN 146.0 ES 06:13 22.47 0.65</p>
<p>December 27 2016 Time: 18:45 21.3 UTC Magnitude: 0.9 ML</p> <p>Lat: 51.508N Lon: -3.114W Depth: 13.0 km</p> <p>Grid Ref: 322.70 kmE 179.43 kmN RMS: 0.20 secs</p> <p>Locality: RUMNEY,CARDIFF</p> <p>Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0</p>	<p>STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES</p> <p>CLGH HZ 92.4 EP 20:29 25.68 0.23</p> <p>CLGH HN 92.4 ES 20:29 36.11 -0.45</p> <p>CLGH HN 92.4 IAML 20:29 38.56 5 0.22</p> <p>CLGH HE 92.4 IAML 20:29 39.72 6 0.26</p> <p>INVG HZ 134.0 EP 20:29 31.63 -0.20</p> <p>INVG HN 134.0 ES 20:29 47.27 -0.32</p> <p>INVG HE 134.0 IAML 20:29 49.29 4 0.10</p> <p>INVG HN 134.0 IAML 20:29 50.51 3 0.12</p> <p>NEWG HZ 142.0 EP 20:29 33.22 0.27</p> <p>NEWG HN 142.0 ES 20:29 49.39 -0.14</p> <p>NEWG HN 142.0 IAML 20:29 51.71 2 0.20</p> <p>NEWG HE 142.0 IAML 20:29 52.77 3 0.20</p> <p>GALL HZ 142.0 EP 20:29 33.57 0.68</p> <p>GALL HN 142.0 ES 20:29 49.87 0.44</p> <p>GALL HE 142.0 IAML 20:29 50.90 4 0.20</p> <p>GALL HN 142.0 IAML 20:29 51.11 3 0.16</p> <p>IDGL BE 134.0 ES 20:29 47.47 0.08</p>
<p>December 28 2016 Time: 12:30 56.7 UTC Magnitude: 0.7 ML</p> <p>Lat: 53.147N Lon: -4.457W Depth: 3.5 km</p> <p>Grid Ref: 235.70 kmE 363.95 kmN RMS: 0.20 secs</p> <p>Locality: CAERNARFON BAY</p> <p>Velocity model: Lleyn Xnear: 100.0 Xfar: 200.0</p>	<p>December 30 2016 Time: 21:57 48.3 UTC Magnitude: 0.4 ML</p> <p>Lat: 51.720N Lon: -3.676W Depth: 7.5 km</p> <p>Grid Ref: 284.24 kmE 203.74 kmN RMS: 0.20 secs</p> <p>Locality: GLYNNEATH,NP TALBOT</p> <p>Velocity model: Lownet Xnear: 100.0 Xfar: 200.0</p>
<p>STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES</p> <p>WPS HZ 28.4 EP 12:31 01.63 0.04</p> <p>WPS HE 28.4 ES 12:31 05.03 0.13</p> <p>WPS HE 28.4 IAML 12:31 05.10 5 0.10</p> <p>WPS HN 28.4 IAML 12:31 05.34 4 0.12</p> <p>LLW BZ 62.6 EP 12:31 07.19 -0.07</p> <p>LLW BE 62.6 ES 12:31 14.83 0.40</p> <p>LLW BE 62.6 IAML 12:31 14.99 4 0.15</p> <p>LLW BN 62.6 IAML 12:31 14.99 1 0.20</p> <p>FOEL HZ 89.1 EP 12:31 11.33 -0.33</p> <p>FOEL HE 89.1 ES 12:31 21.61 -0.20</p> <p>FOEL HE 89.1 IAML 12:31 22.05 3 0.15</p> <p>FOEL HN 89.1 IAML 12:31 22.67 7 0.46</p> <p>LPW HE 118.0 ES 12:31 29.61 -0.03</p> <p>IOMK HZ 124.0 EP 12:31 17.24 -0.05</p> <p>IOMK HE 124.0 ES 12:31 31.22 -0.06</p> <p>IOMK HN 124.0 IAML 12:31 32.74 8 0.22</p> <p>IOMK HE 124.0 IAML 12:31 33.13 7 0.14</p> <p>HLM1 HZ 127.0 EP 12:31 17.84 0.06</p> <p>HLM1 HN 127.0 ES 12:31 32.27 0.17</p> <p>HLM1 HN 127.0 IAML 12:31 33.74 1 0.27</p> <p>HLM1 HE 127.0 IAML 12:31 34.63 2 0.27</p>	<p>STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES</p> <p>MCH1 HZ 56.0 EP 21:57 57.81 -0.09</p> <p>MCH1 HE 56.0 ES 21:58 04.51 -0.37</p> <p>MCH1 HE 56.0 IAML 21:58 05.13 1 0.32</p> <p>MCH1 HN 56.0 IAML 21:58 06.37 1 0.46</p> <p>RSBS HZ 78.1 EP 21:58 01.38 0.04</p> <p>RSBS HE 78.1 ES 21:58 10.91 0.07</p> <p>HTL HZ 98.4 EP 21:58 04.81 0.35</p> <p>HTL HE 98.4 ES 21:58 15.81 -0.42</p> <p>HTL HN 98.4 IAML 21:58 15.77 5 0.76</p> <p>HTL HE 98.4 IAML 21:58 16.14 2 0.14</p> <p>HLM1 HZ 104.0 EP 21:58 05.54 0.12</p> <p>HLM1 HE 104.0 IAML 21:58 22.55 1 0.27</p> <p>HLM1 HN 104.0 IAML 21:58 22.63 1 0.14</p> <p>STRD HN 105.0 ES 21:58 18.22 0.28</p> <p>DYA HZ 144.0 EP 21:58 11.46 0.14</p> <p>DYA HN 144.0 ES 21:58 28.12 0.03</p>
<p>December 29 2016 Time: 06:12 40.7 UTC Magnitude: 0.7 ML</p>	<p>December 31 2016 Time: 07:46 14.7 UTC Magnitude: 0.9 ML</p> <p>Lat: 54.719N Lon: -2.266W Depth: 2.9 km</p> <p>Grid Ref: 382.87 kmE 536.04 kmN RMS: 0.30 secs</p> <p>Locality: HARWOOD,COUNTY DURHAM</p> <p>Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0</p>
	<p>STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES</p> <p>EDMD HZ 23.2 IP 07:46 19.05 -0.14</p> <p>EDMD HN 23.2 ES 07:46 22.18 -0.31</p> <p>EDMD HN 23.2 IAML 07:46 22.34 57 0.09</p> <p>EDMD HE 23.2 IAML 07:46 22.35 91 0.12</p> <p>KESW HZ 56.0 EP 07:46 23.95 -0.78</p> <p>KESW HE 56.0 IAML 07:46 31.12 3 0.23</p> <p>KESW HN 56.0 IAML 07:46 31.41 2 0.16</p> <p>ESK HZ 89.6 EP 07:46 30.15 0.22</p> <p>ESK HN 89.6 ES 07:46 41.14 0.08</p> <p>ESK HN 89.6 IAML 07:46 41.44 3 0.43</p> <p>ESK HE 89.6 IAML 07:46 43.26 2 0.22</p> <p>GDLE HE 99.5 ES 07:46 44.03 0.33</p> <p>GDLE HZ 99.5 IAML 07:46 45.10 5 0.10</p> <p>GDLE HN 99.5 IAML 07:46 45.81 14 0.24</p> <p>NEWG HZ 133.0 EP 07:46 37.14 0.43</p> <p>NEWG HE 133.0 ES 07:46 52.58 -0.21</p> <p>NEWG HN 133.0 IAML 07:46 53.17 3 0.31</p>

TABLE 2 : PHASE DATA

NEWG	HE	133.0	IAML	07:46	53.59	2	0.37	
IOMK	HZ	158.0	EP	07:46	40.04			-0.11
IOMK	HN	158.0	IAML	07:46	59.92	3	0.14	
IOMK	HE	158.0	IAML	07:47	00.96	2	0.17	
GAL1	HZ	158.0	EP	07:46	40.68			0.46
GAL1	HN	158.0	ES	07:46	58.88			0.02
GAL1	HE	158.0	IAML	07:46	59.76	1	0.26	
GAL1	HN	158.0	IAML	07:47	00.07	3	0.31	

TABLE 3

GEOGRAPHIC COORDINATES OF SEISMOGRAPH STATIONS, 2016

Code	Name	Lat	Lon	E (km)	N (km)	Ht (m)	Comp
AQ02	BANKS	53.6905	-2.8967	340.79	421.96	17	BB
AQ03	WARTON	53.7595	-2.8866	341.55	429.62	23	BB
AQ04	BALLAM	53.7760	-2.9690	336.15	431.53	11	BB
AT08	MYTON-ON-SWALE	54.0985	-1.3110	445.05	467.19	19	BB
AU05	LAYTHAM	53.8599	-0.8741	474.04	441.01	3	BB
AU07	BIRKDALE	54.1120	-0.9590	468.04	468.97	102	BB
AU08	SOUTH WOLD	54.1238	-0.6613	487.48	470.62	175	BB
AU09	BARTON-LE-STREET	54.1460	-0.8910	472.43	472.82	103	BB
AU11	EAST NESS	54.1974	-0.9325	469.63	478.51	34	BB
AU13	KIRBY MISPERTON2	54.1993	-0.7941	478.66	478.86	25	BB
AU15	NORMANBY	54.2285	-0.8794	473.04	482.20	60	BB
AU18	THORNTON DALE	54.2482	-0.7095	484.07	484.39	83	BB
AU20	PICKERING	54.2940	-0.7870	478.94	489.40	151	BB
AV06	GANTON	54.1630	-0.4820	499.10	475.21	173	BB
BIGH	UPPER BIGHOUSE	58.4932	-3.9102	288.75	957.69	70	BBSMR
CCA1	CARNMENELLIS	50.1866	-5.2277	169.62	36.90	210	BBSMR
CLGH	CUSHENDALL	55.0828	-6.1106	137.76	584.21	239	BBR
CWF	CHARNWOOD FST	52.7385	-1.3076	446.74	315.91	203	BBSMR
DRUM	DRUMTOCHTY	56.9123	-2.4865	370.48	780.23	208	BBSMR
DYA	YADSWORTHY	50.4353	-3.9310	262.88	61.34	292	BBR
EAB	ABERFOYLE	56.1887	-4.3373	254.97	702.02	279	1R
EAU	AUCHINOON	55.8454	-3.4474	309.38	662.30	359	1R
EBL	BROAD LAW	55.7723	-3.0445	334.48	653.71	436	1R
EDI	EDINBURGH	55.9233	-3.1875	325.80	670.66	125	BBR
EDMD	EDMUNDBYERS	54.8312	-1.9636	402.43	548.48	337	BBR
EDU	DUNDEE	56.5477	-3.0110	337.85	739.97	421	1R
ELMS	ELMSETT	52.0934	0.9895	604.88	248.11	75	BBSMR
ELSH	ELHAM	51.1482	1.1345	619.32	143.44	126	BBSMR
ESK	ESKDALEMUIR	55.3165	-3.2052	323.52	603.16	261	BBR
ESY	STONEYPATH	55.9175	-2.6141	361.62	669.55	337	1R
FOEL	FOEL WYLFA	52.8898	-3.2012	319.27	333.15	449	BBSMR
GAL1	GALLOWAY	54.8664	-4.7114	226.02	555.78	117	BBR
GDLE	GLAISDALE	54.4218	-0.8157	476.94	503.57	228	BBSMR
GMK	MULL OF KINTYRE	55.3458	-5.5934	172.19	611.64	164	1R
GMM	MTNS OF MOURNE	54.2377	-5.9498	142.66	489.67	155	1R
GVIE	GLENDOE VIEW	57.1010	-4.5590	245.04	804.04	663	BB
HEX	EXMOOR	51.0664	-3.8026	273.71	131.28	230	1R
HLM1	LONG MYND	52.5184	-2.8807	340.25	291.57	429	BBR
HMX	HERSTMONCEUX	50.8674	0.3363	564.49	110.15	26	BBR
HPK	HAVERAH PARK	53.9581	-1.6241	424.66	451.42	233	BBSMR
HTL	HARTLAND	50.9943	-4.4849	225.64	124.66	86	BBSMR
INVG	INVERGELDIE	56.4273	-4.0452	273.96	727.99	279	BBSMR
IOMK	KIRK MICHAEL	54.2605	-4.5662	232.95	488.02	188	BBR
JDC	DAM (CREST)	49.1947	-2.0469			39	SMR
JDG	DAM (GALLERY)	49.1947	-2.0469			7	SMR
JLP	LES PLATONS	49.2486	-2.1039			129	1R
JQE	QUEENS EAST	49.2000	-2.0383			58	1R
JRS	MAISON ST LOUIS	49.1922	-2.0922			56	3R
JSA	ST AUBINS	49.1878	-2.1717			39	BBR
JVM	VALLE DE LA MARE	49.2169	-2.2067			64	1R
KAC	ACHNASHELLACH	57.4989	-5.2988	202.36	850.19	206	1R
KESW	KESWICK	54.5886	-3.1048	328.70	522.05	282	BBSMR
KPL	PLOCKTON	57.3391	-5.6527	180.21	833.50	13	BBSMR
LAW	LOCH AWE	56.2601	-5.3990	189.58	712.71	137	BBSMR
LBWR	LADYBOWER	53.4016	-1.7248	418.40	389.45	353	BBSMR
LEWI	LEWIS	58.1446	-6.8696	113.57	927.65	69	BBR
LINV	LOCH INVER	58.1470	-5.1970	211.94	922.03	57	BBR
LMK	MARKET RASEN	53.4573	-0.3274	511.15	396.92	133	BBSMR
LRW	LERWICK	60.1360	-1.1779	445.66	1139.27	98	BBSMR

TABLE 3

GEOGRAPHIC COORDINATES OF SEISMOGRAPH STATIONS, 2016

Code	Name	Lat	Lon	E (km)	N (km)	Ht (m)	Comp
MCD	COLEBURN DISTIL	57.5828	-3.2541	325.02	855.42	293	3SMR
MCH1	MICHAELCHURCH	51.9974	-2.9983	331.47	233.74	219	BBSMR
MDO	DOCHFOUR	57.4409	-4.3633	258.17	841.39	415	1R
MLA1	LATHERON	58.3055	-3.3627	320.15	935.98	188	1R
MME1	MEIKLE CAIRN	57.3149	-2.9647	341.90	825.32	475	1R
MONM	MONMOUTH	51.8396	-2.8054	344.61	215.98	145	BBR
MVH1	ACHVAICH	57.9250	-4.1825	270.75	894.90	185	1R
NEWG	NEW GALLOWAY	55.1173	-4.2299	257.88	582.59	151	BBR
OLDB	OLDBURY	51.6609	-2.5514	361.95	195.94	6	BBSMR
PGB1	GLENIFFERBRAES	55.8115	-4.4837	244.38	660.37	199	BBR
RSBS	ROSEBUSH	51.9530	-4.7448	211.48	231.84	278	BBR
SAN1	SANDWICK	60.0179	-1.2392	442.41	1126.08	150	1R
SKP1	KOPHILL	51.7218	-0.8096	482.22	203.29	212	1R
SOFL	SORNFELLI	62.0689	-6.9658			721	BBR
SPK	SELLA PARK	54.4183	-3.4913	303.24	503.58	50	SM
SSW	STOW-ON-WOLD	51.9667	-1.8499	410.31	229.86	291	1R
STNC	STOKE	53.0913	-2.2062	354.95	386.19	234	BBR
STRD	STROUD	51.7763	-2.1643	388.77	208.64	200	BBR
SWN1	SWINDON	51.5137	-1.8007	413.83	179.49	192	BBSMR
TOA	TORNESS A	55.9692	-2.4037	374.80	675.20	5	SM
TOB	TORNESS B	55.9673	-2.4085	374.50	674.99	5	SM
THP	THORPE	54.4183	-3.4913	303.24	503.58	50	SM
WACR	WEST ACRE	52.7247	0.6267	577.48	317.35	66	BBSMR
WAL1	WALLS	60.2564	-1.6173	421.18	1152.46	167	1R
WIM	ISLE OF MAN	54.1475	-4.6738	225.39	475.73	386	1R
WLF1	LLYNFAES	53.2894	-4.3966	240.27	379.65	58	BBSMR
WME	MYNDD EILIAN	53.3969	-4.3032	246.88	391.40	129	1R
WPM1	PENMAENMAWR	53.2581	-3.9048	272.95	375.18	353	1R
WPS	CAMAES, ANGLESEY	53.4004	-4.4986	233.98	392.19	16	BBSMR
YEL1	YELL	60.5509	-1.0830	450.29	1185.55	203	1R
YLL	LLANBERIS	53.1402	-4.1704	254.84	362.57	159	1R
YRC	RHOSCOLYN	53.2508	-4.5753	228.21	375.77	22	1R

Component Codes:

- 1 Single vertical seismometer
- 3 Orthogonal set of 3 seismometers
- SM Strong motion seismometers
- BB Broadband Instruments
- R Station coordinates registered with the International Seismological Centre (ISC), England and the National Earthquake Information Centre (NEIC), USA

TABLE 4**Depth / crustal velocity models used in earthquake locations**

Structural area	Depth to top of layer (km)	P-wave velocity (km/sec)	Vp/Vs
North Sea	0.00	6.20	1.73
	12.00	6.50	
	23.00	7.10	
	31.00	8.05	
Lownet and general UK	0.00	4.00	1.73
	2.52	5.90	
	7.55	6.45	
	18.87	7.00	
	34.15	8.00	
Borders	0.00	4.10	1.71
	3.00	5.60	
	4.10	6.15	
	17.00	6.60	
	30.00	8.00	
North Wales (Lleyn)	0.00	5.40	1.68
	2.00	6.05	
	13.00	6.50	
	25.00	6.80	
	34.00	8.00	
Mid Wales	0.00	5.40	1.72
	3.80	6.05	
	15.50	6.65	
	34.30	8.00	
Cornwall	0.00	5.50	1.77
	0.30	5.76	
	15.00	6.90	
	30.00	8.00	

Appendix 1 Key to Catalogue Encoding

YearMoDy	Year, month and day of event.
HrMn Secs	Time of occurrence of event in hours, mins and secs, (UTC).
Lat	Latitude of the event, positive latitude indicates North.
Lon	Longitude of the event, positive longitude indicates East.
kmE	UK National Grid Reference in kilometres east of grid origin.
kmN	UK National Grid Reference in kilometres north of grid origin.
Dep	Depth of the hypocentre in kilometres.
Mag	Richter local magnitude of the event.
Locality	A geographical indication of the epicentral area, usually the nearest town followed by the region. A key to the abbreviations used in the locality column are given below.
Int	Maximum EMS intensity. 2, 3, 4, 5 etc. describes the maximum EMS intensity produced by the event.
Comments	Additional comments about the event e.g.: C/F, see below under comments abbreviations.

The following abbreviations are extracted from the output of the location program HYPOCENTER (Leinart and Havskov, 1995)

No	Total number of P and S readings used in the event location.
Gap	Largest azimuthal separation in degrees between stations.
RMS	Root Mean Square of the travel time residuals in seconds.
ERH	Standard error of the epicentre in kilometres. When this column is blank, the error is large and indeterminate.
ERZ	Standard error of the focal depth in kilometres. When this column is blank, the error is large and indeterminate.

Locality and Comments abbreviations

C/F	Coalfield Type
Sonic	Sonic event
D & G	Dumfries and Galloway
Lincs	Lincolnshire
Glos	Gloucestershire
Yorks	Yorkshire
Gtr Mch	Greater Manchester
Notts	Nottinghamshire
Leics	Leicestershire
NP Talbot	Neath Port Talbot
...	and felt elsewhere

Appendix 2 Key to Phase Data Encoding

Time	Time of occurrence of event in hours, mins and secs, (UTC).
Lat	Latitude of the event, N indicates North.
Lon	Longitude of the event, W indicates West, E indicates East.
Depth	Depth of the hypocentre in kilometres.
Grid Ref	UK National Grid Reference in kilometres east (kmE) and kilometres north (kmN) of grid origin.
RMS	Root Mean Square of the travel time residuals in seconds.
Velocity Model	Velocity model used in location.
Magnitude	Richter local magnitude of the event.
Locality	A geographical indication of the epicentral area, usually the nearest town followed by the region.
Intensity	Maximum EMS intensity. 2, 3, 4, 5 etc. describes the maximum EMS intensity produced by the event.
Comments	Additional comments about the event e.g.: C/F see list of comments and abbreviations in Appendix 1.
STAT	Station name
CO	Z=vertical N=north south E=east west
DIST	Distance from earthquake to station (km)
PHAS	Phase identifier; the first letter characterizes onset E=emergent I=impulsive, the second indicates the phase e.g. P, S, PG, PN, IAML
WT	Weighting factor to arrival. 0 or blank=full weighting to 4=zero weighting (ignore). 9=use P S interval only for this line.
P	Polarity C=Compression/up D=Dilatation/down
HrMn	Hour, Minute of event
SECS	Seconds of event
AMPL	Amplitude centre to peak in nanometres (nm)
PERI	Period in seconds
RES	Station residual

Appendix 3 The European Macroseismic Scale (EMS 98)

1 - **Not felt**

Not felt, even under the most favourable circumstances.

2 - **Scarcely felt**

Vibration is felt only by individual people at rest in houses, especially on upper floors of buildings.

3 - **Weak**

The vibration is weak and is felt indoors by a few people. People at rest feel a swaying or light trembling.

4 - **Largely observed**

The earthquake is felt indoors by many people, outdoors by very few. A few people are awakened. The level of vibration is not frightening. Windows, doors and dishes rattle. Hanging objects swing.

5 - **Strong**

The earthquake is felt indoors by most, outdoors by few. Many sleeping people awake. A few run outdoors. Buildings tremble throughout. Hanging objects swing considerably. China and glasses clatter together. The vibration is strong. Top heavy objects topple over. Doors and windows swing open or shut.

6 - **Slightly damaging**

Felt by most indoors and by many outdoors. Many people in buildings are frightened and run outdoors. Small objects fall. Slight damage to many ordinary buildings e.g.; fine cracks in plaster and small pieces of plaster fall.

7 - **Damaging**

Most people are frightened and run outdoors. Furniture is shifted and objects fall from shelves in large numbers. Many ordinary buildings suffer moderate damage: small cracks in walls; partial collapse of chimneys.

8 - **Heavily damaging**

Furniture may be overturned. Many ordinary buildings suffer damage: chimneys fall; large cracks appear in walls and a few buildings may partially collapse.

9 - **Destructive**

Monuments and columns fall or are twisted. Many ordinary buildings partially collapse and a few collapse completely.

10 - **Very destructive**

Many ordinary buildings collapse.

11 - **Devastating**

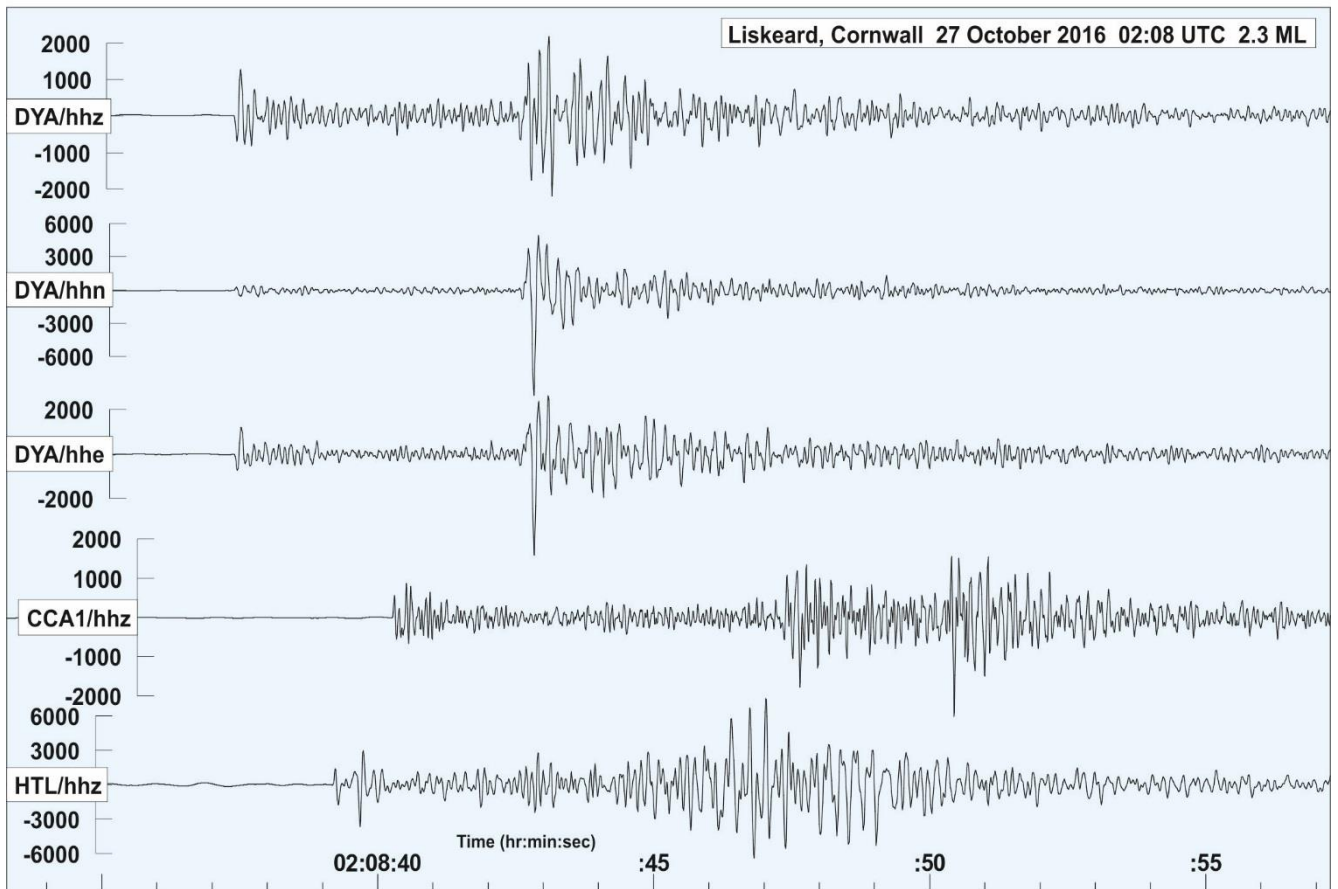
Most ordinary buildings collapse.

12 - **Completely devastating**

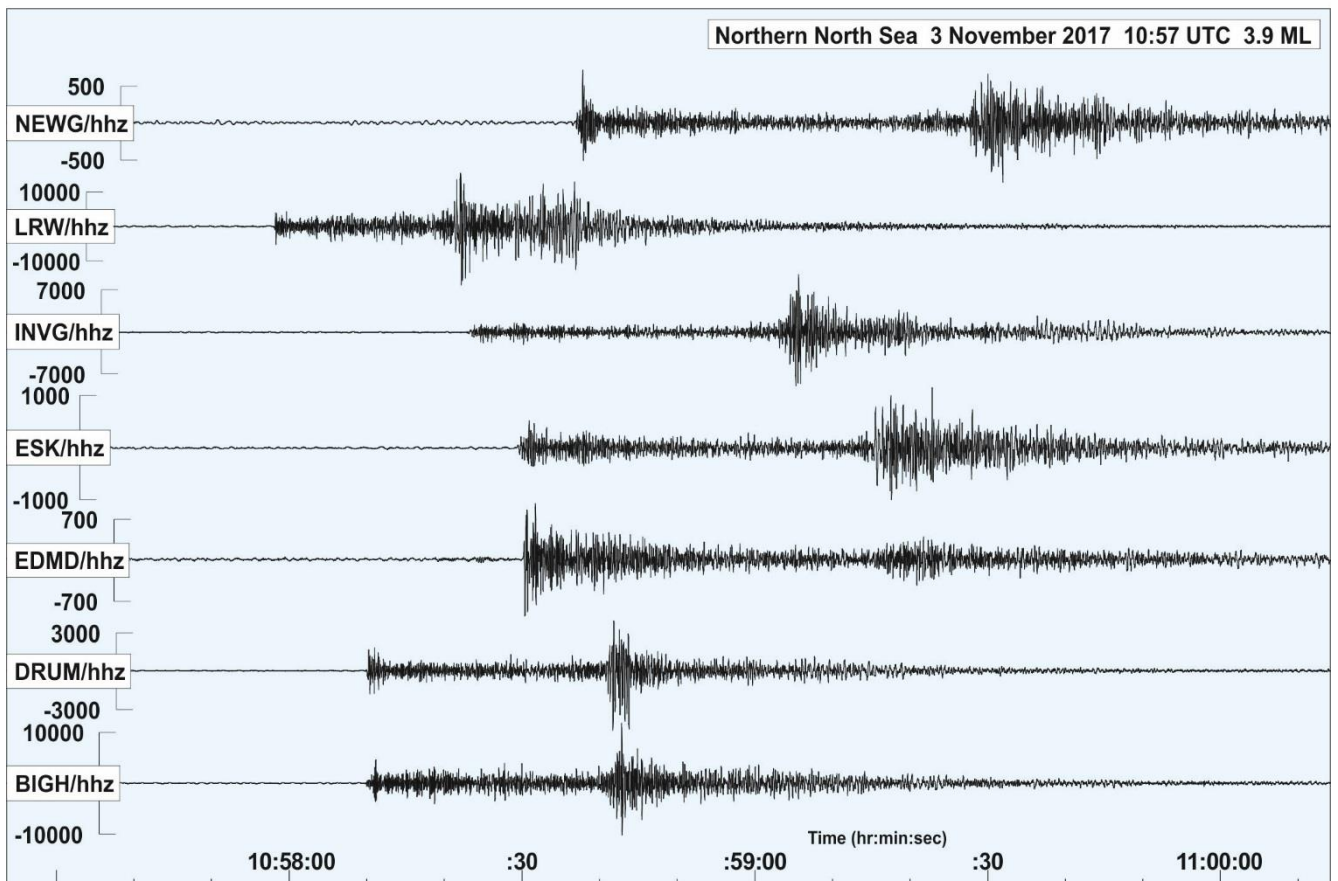
Practically all structures above and below ground are heavily damaged or destroyed.

-----****-----

A complete description of the EMS-98 scale is given in: Grünthal, G., (Ed) 1998. European Macroseismic scale 1998. Cahiers du Centre European de Geodynamique et de Seismologie. Vol 15.



Seismograms of the ground displacement from the magnitude 2.3 ML Liskeard earthquake on 27 October 2016



Seismograms of the ground displacement from the magnitude 3.9 ML Northern North Sea earthquake on 3 November 2016