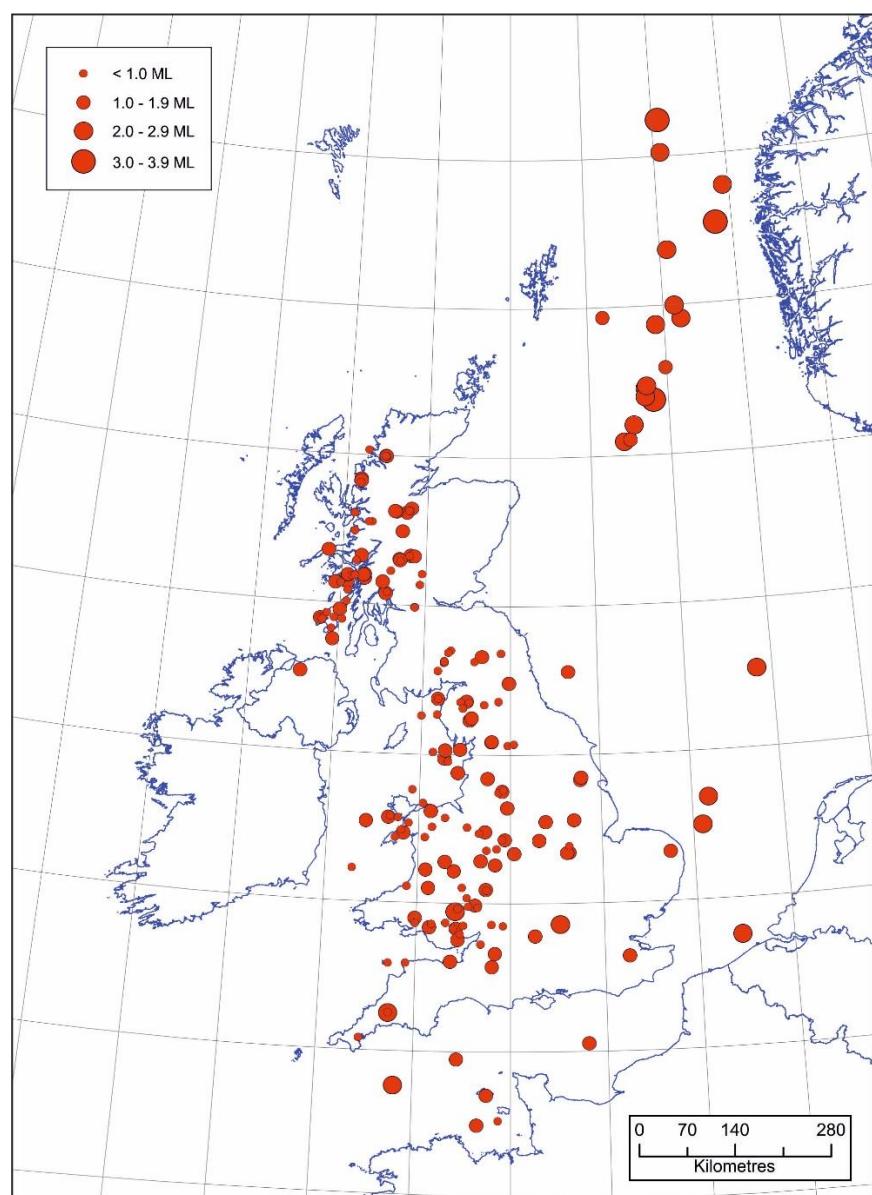


Bulletin of British Earthquakes 2016

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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°W to 6°E and 48°N to 64°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 Snook *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 Lleyn 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 Lleyn 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.

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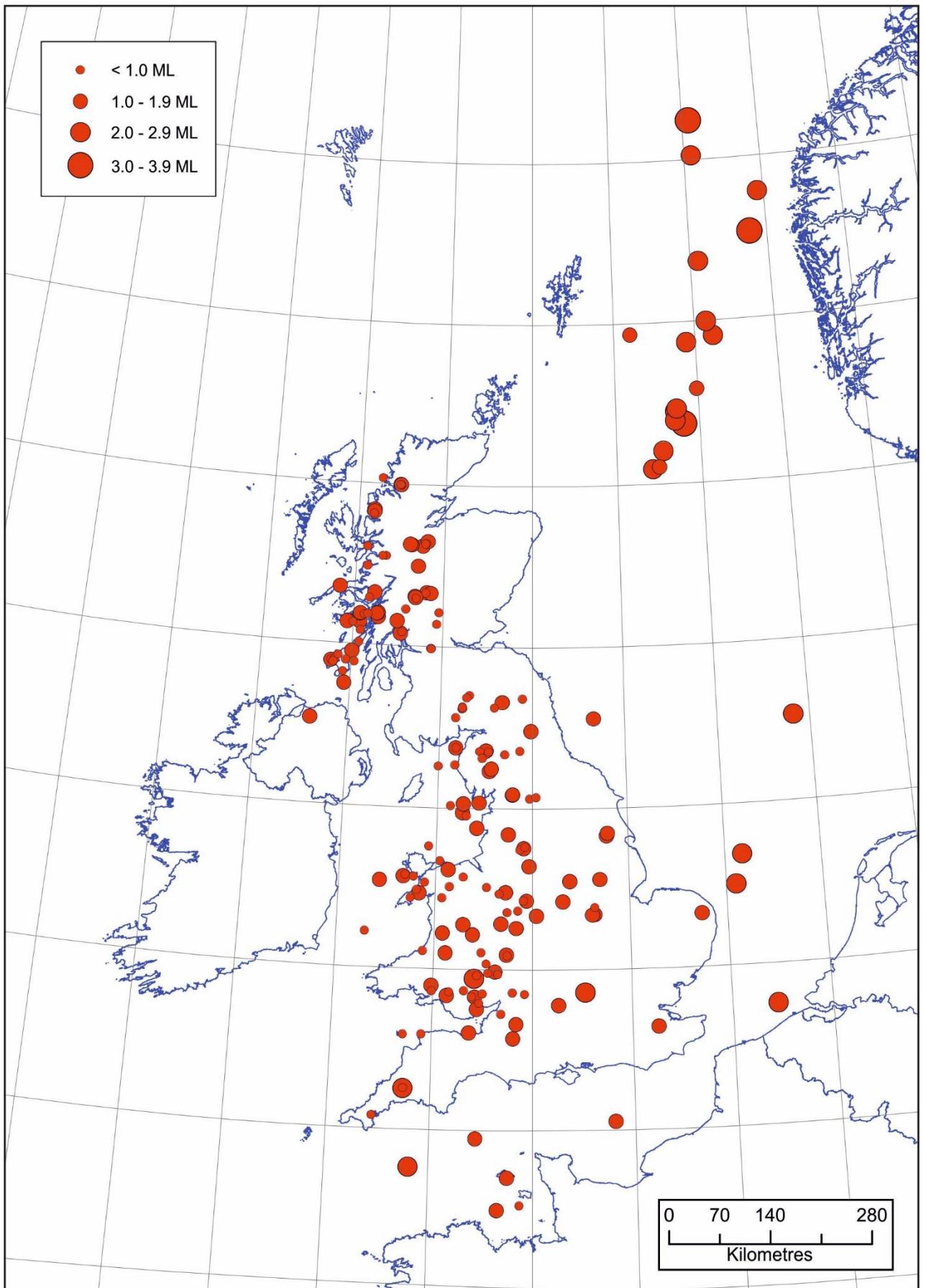


Figure 1. Epicentre map of earthquakes in 2016 as listed in Table 1.

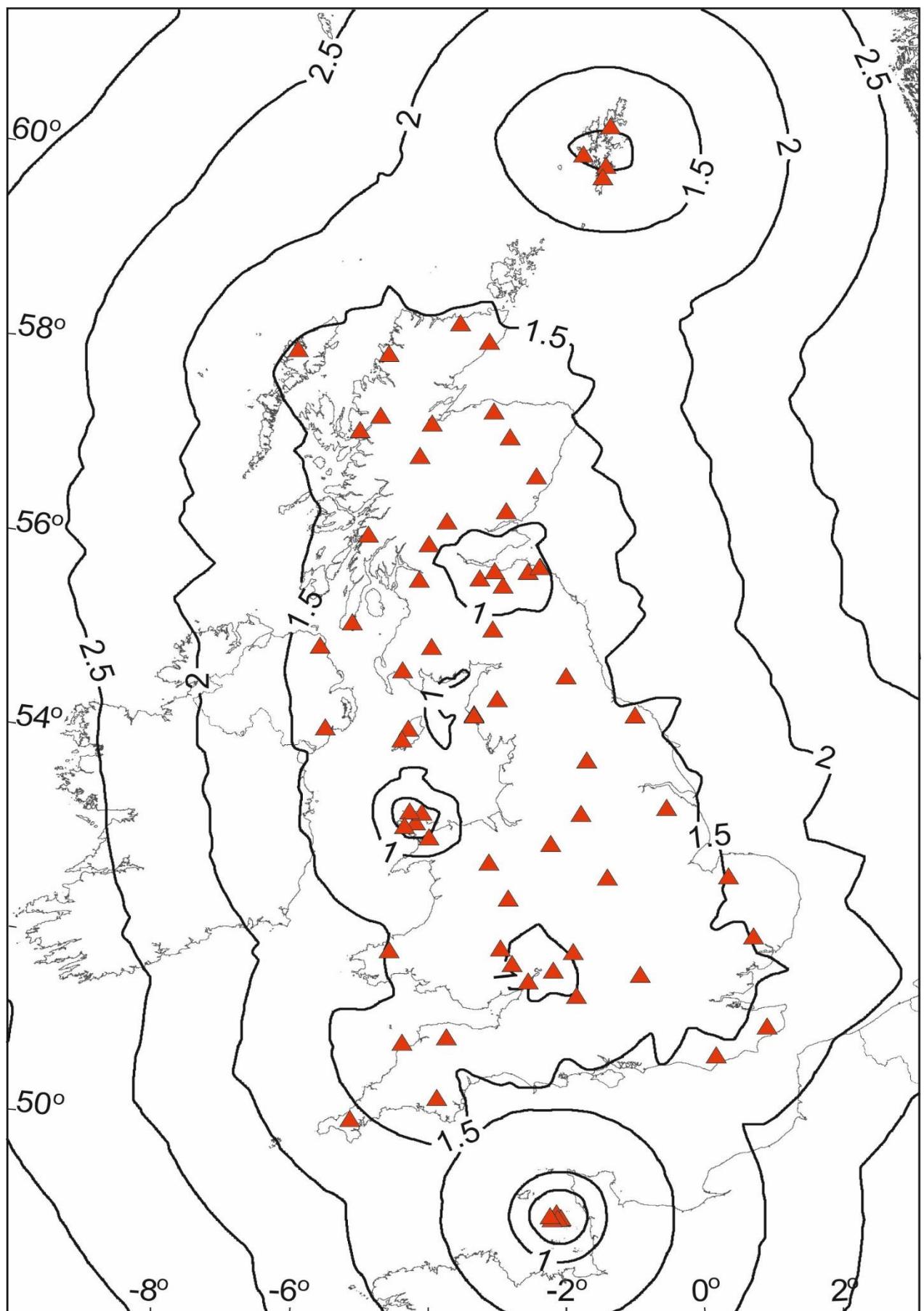


Figure 2. Seismograph stations operated by BGS during 2016. The contours show earthquake detection capability in terms of Richter local magnitude (ML) calculated for average background noise conditions (4nm) where the detection criterion is that the signal has to exceed 4nm at 10Hz at 4 stations.

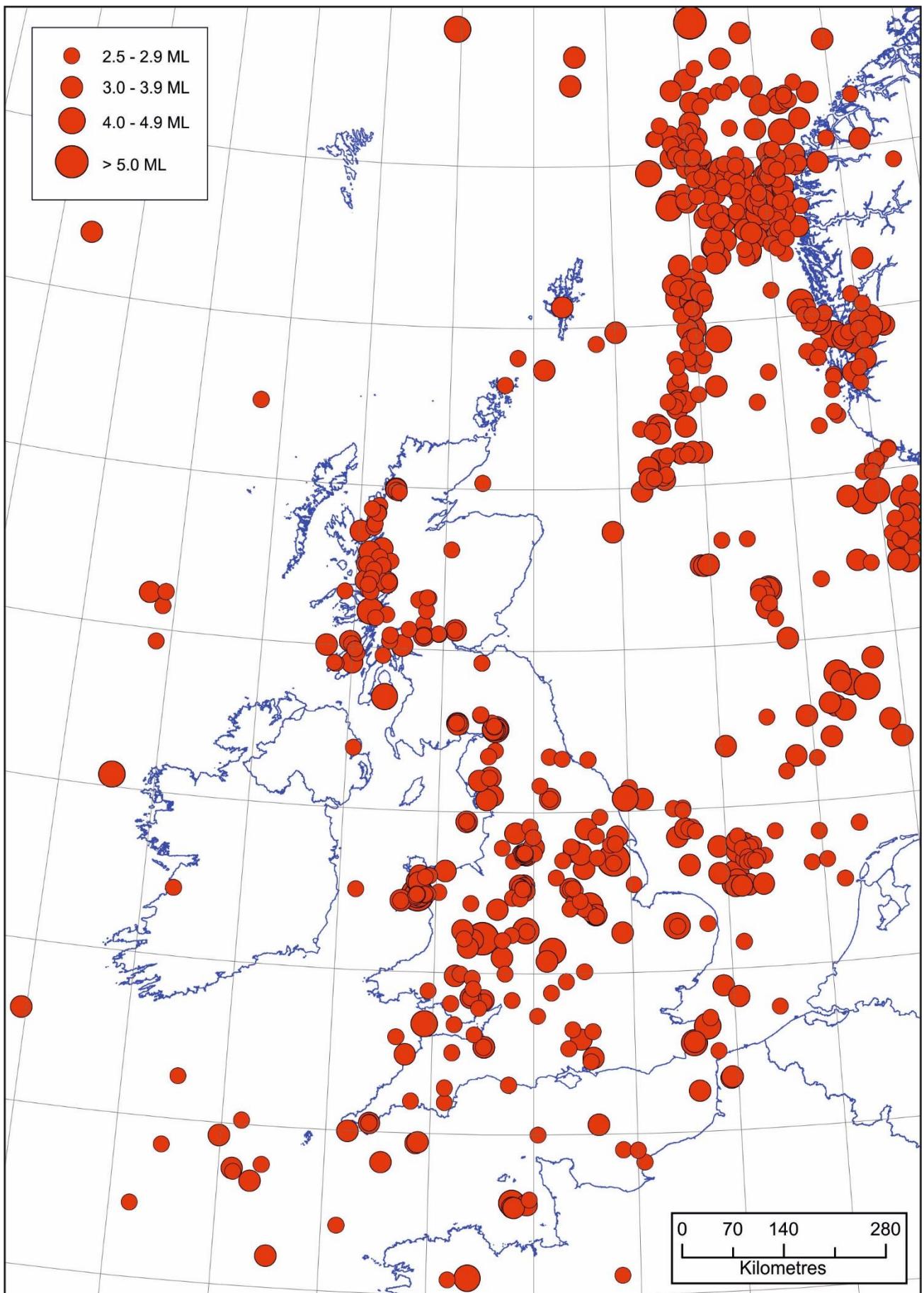


Figure 3. Epicentres of earthquakes with magnitudes of 2.5 ML and above, in the period 1979 to 2016.



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

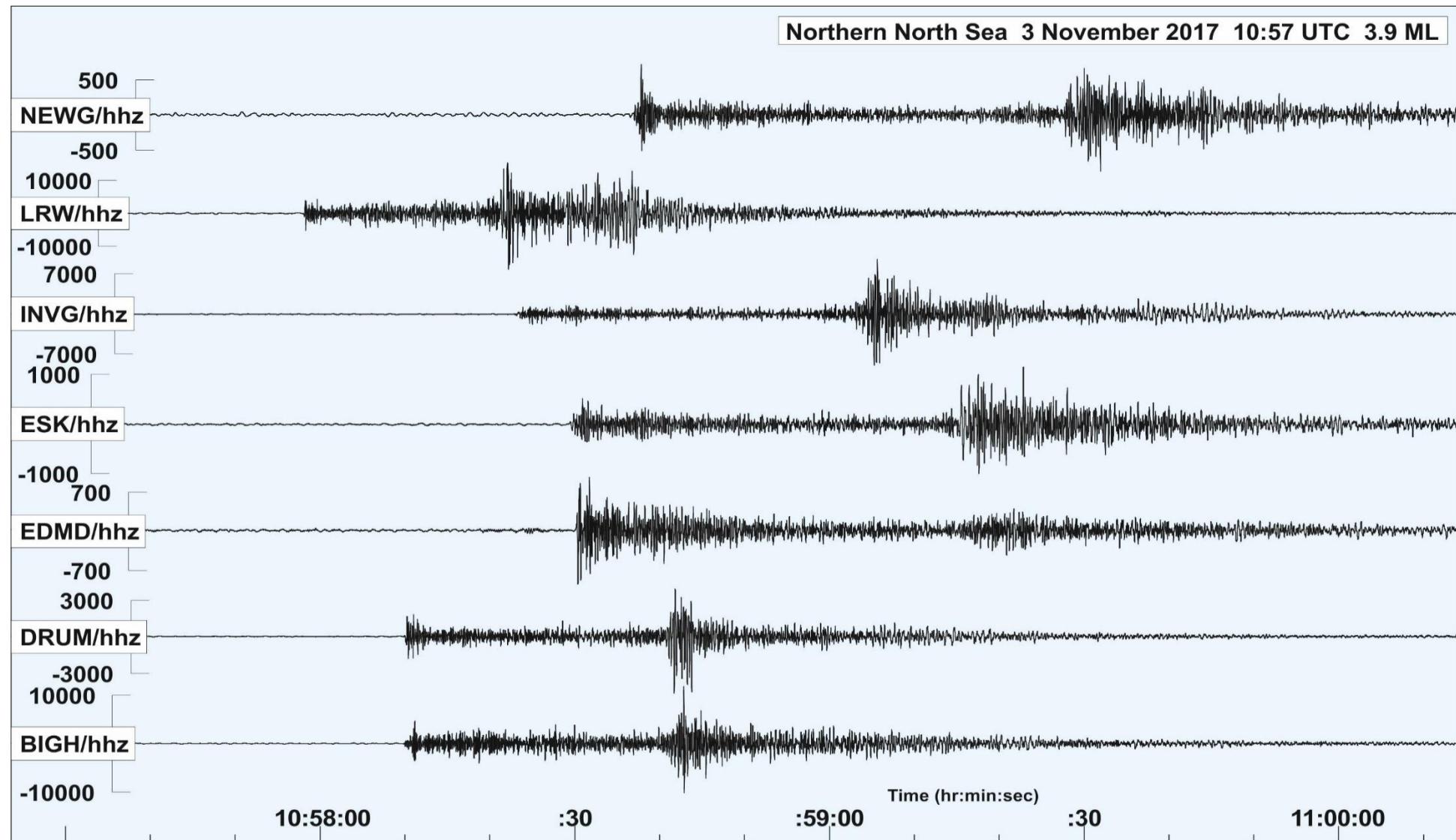


Figure 5. Seismograms of the ground displacement from the magnitude 3.9 ML Northern North Sea earthquake, 3 November 2016, recorded by BGS seismograph stations.

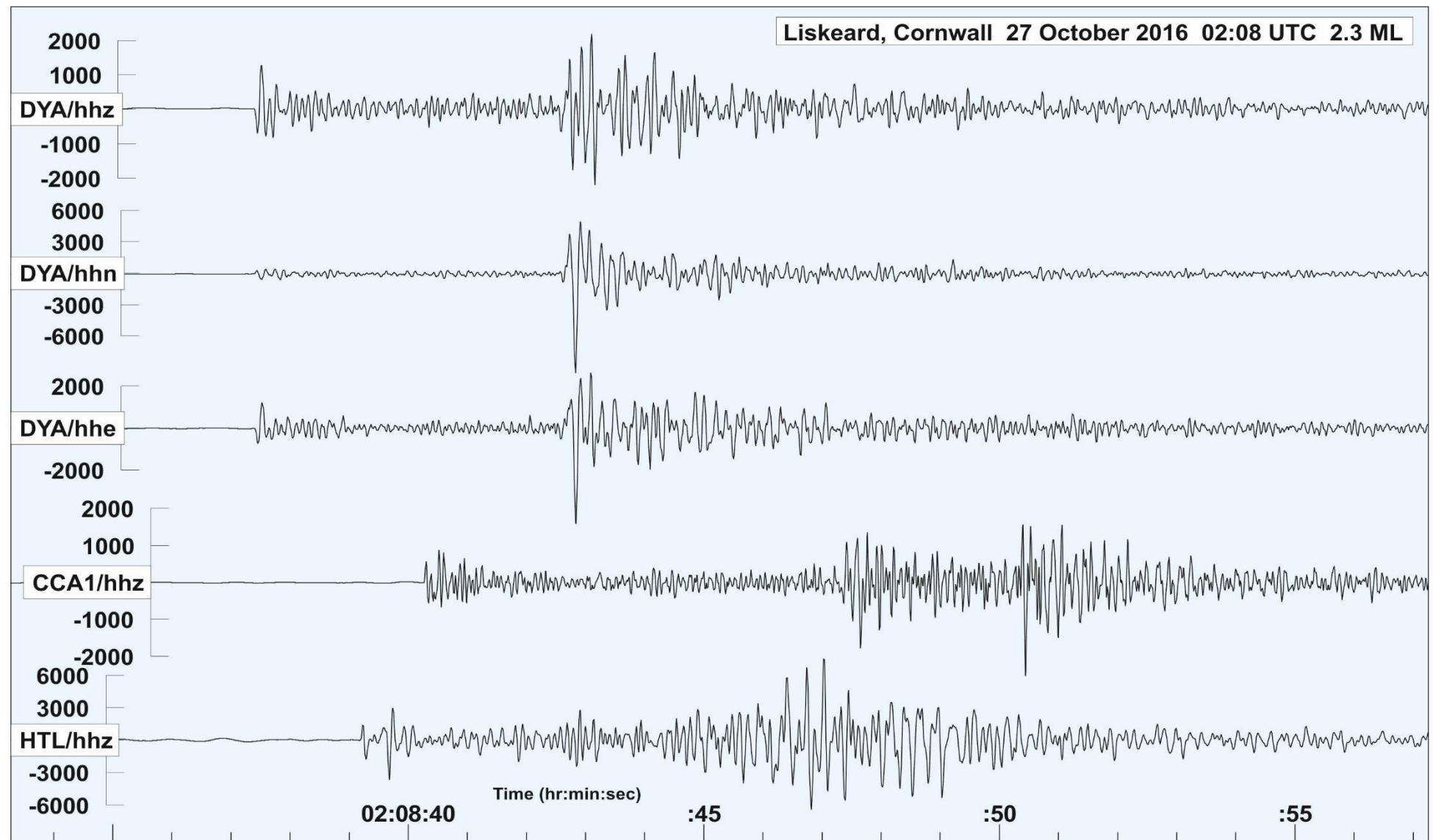


Figure 6. Seismograms of the ground displacement from the magnitude 2.3 ML Liskeard earthquake, 27 October 2016, recorded by BGS seismograph stations.

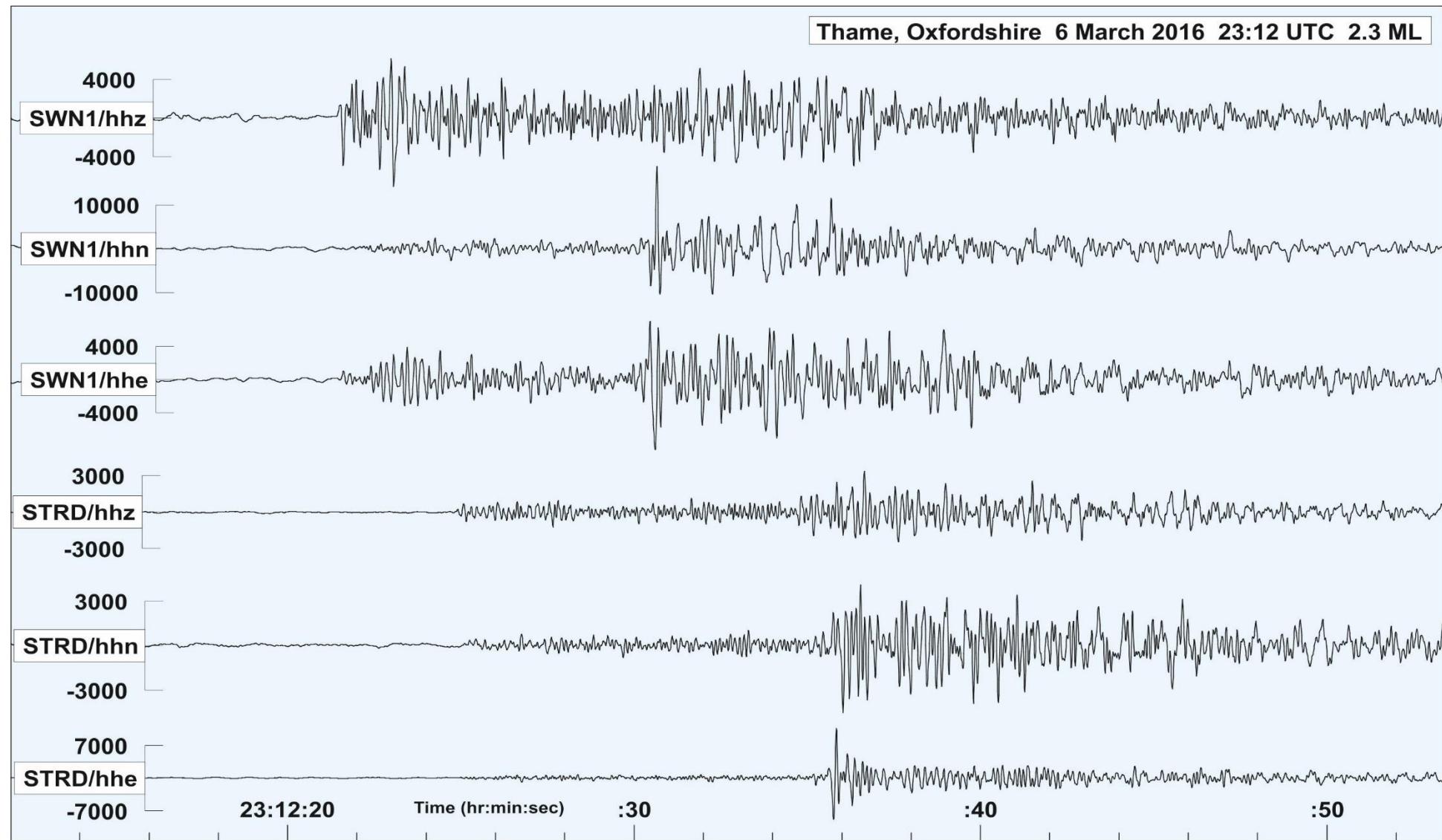


Figure 7. Seismograms of the ground displacement from the magnitude 2.3 ML Thame earthquake, 6 March 2016, recorded by BGS seismograph stations.

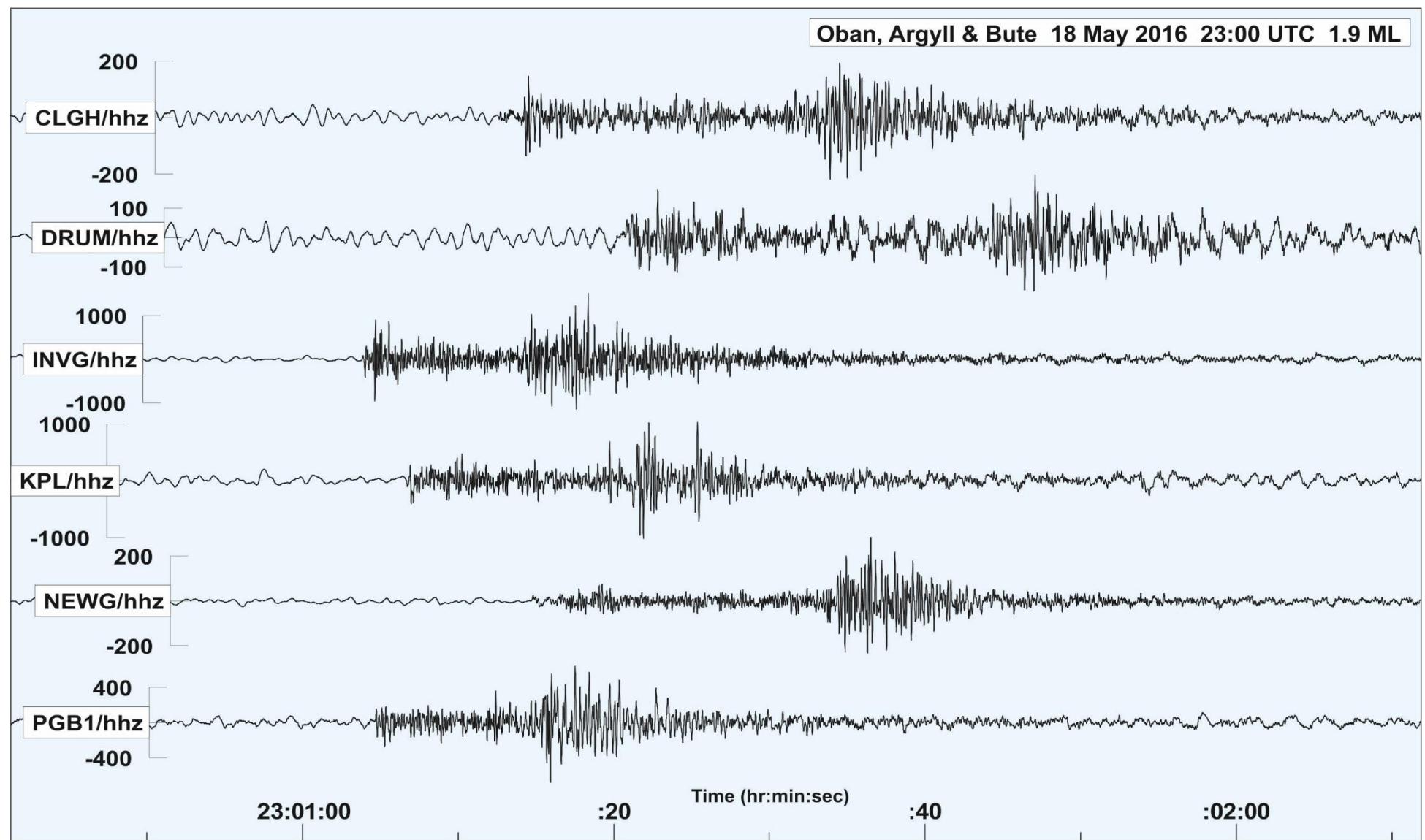


Figure 8. Seismograms of the ground displacement from the magnitude 1.9 ML Oban earthquake, 18 May 2016, recorded by BGS seismograph stations.

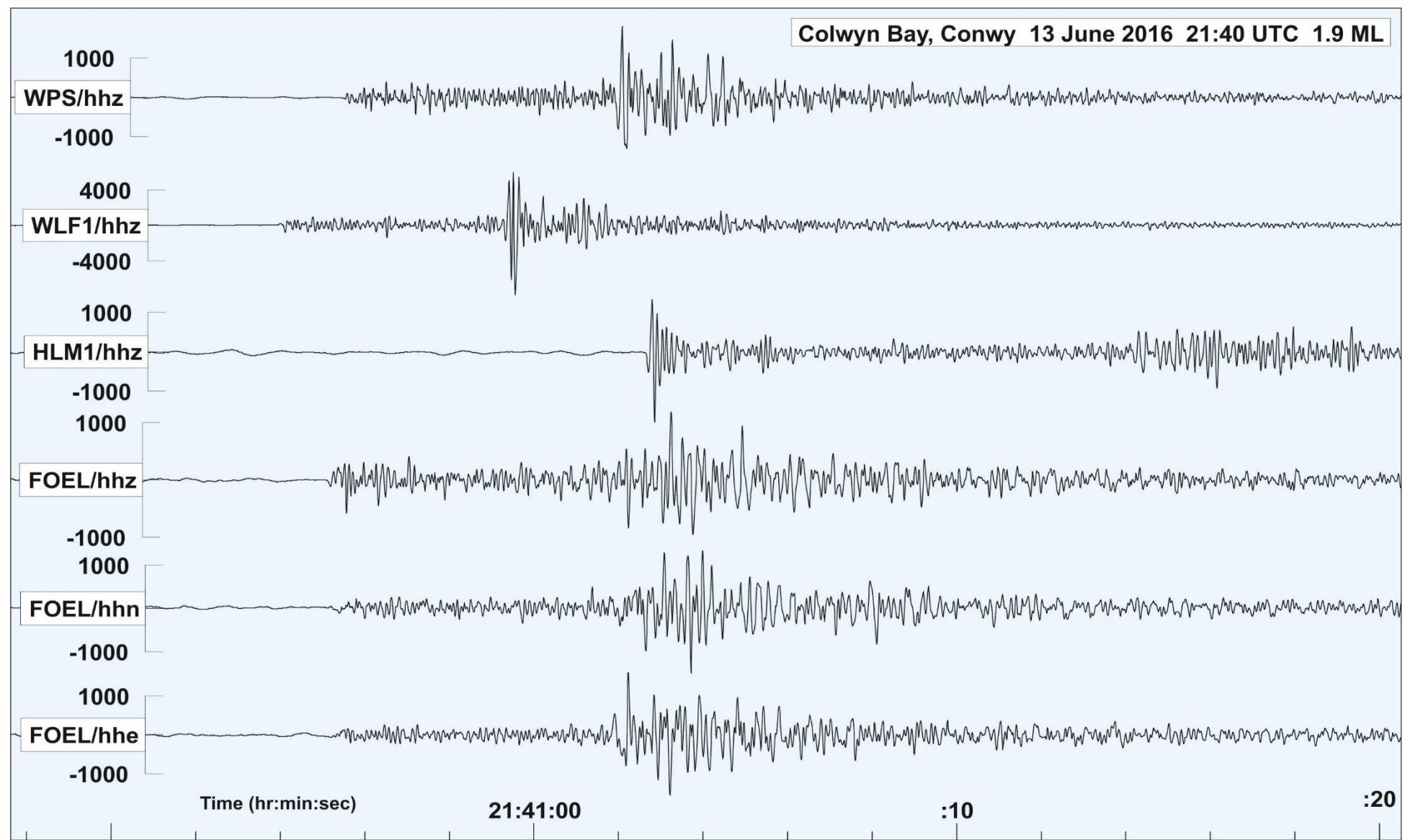


Figure 9. Seismograms of the ground displacement from the magnitude 1.9 ML Colwyn Bay earthquake, 13 June 2016, recorded by BGS seismograph stations.

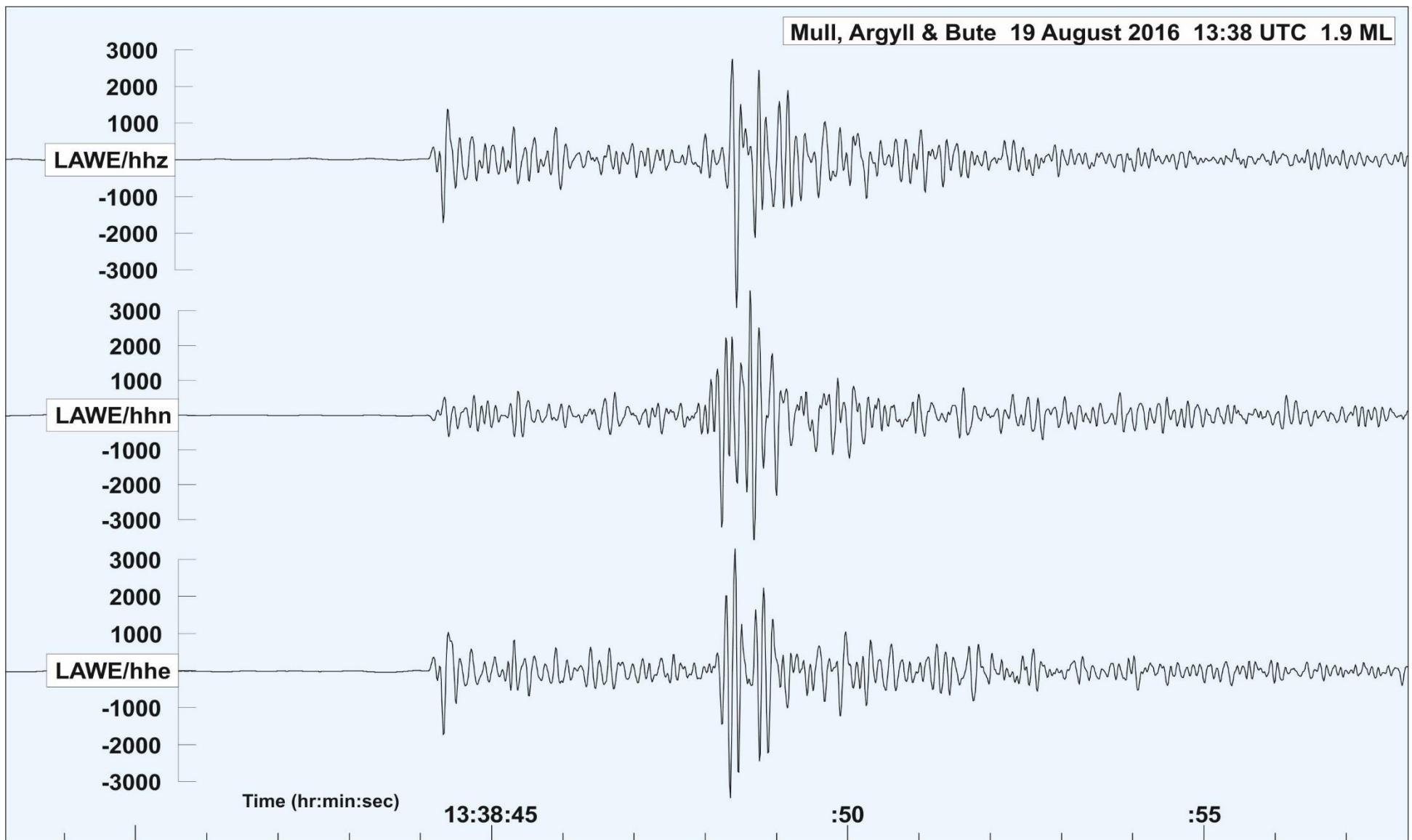


Figure 10. Seismograms of the ground displacement from the magnitude 1.9 ML Mull earthquake, 19 August 2016, recorded by BGS seismograph stations.

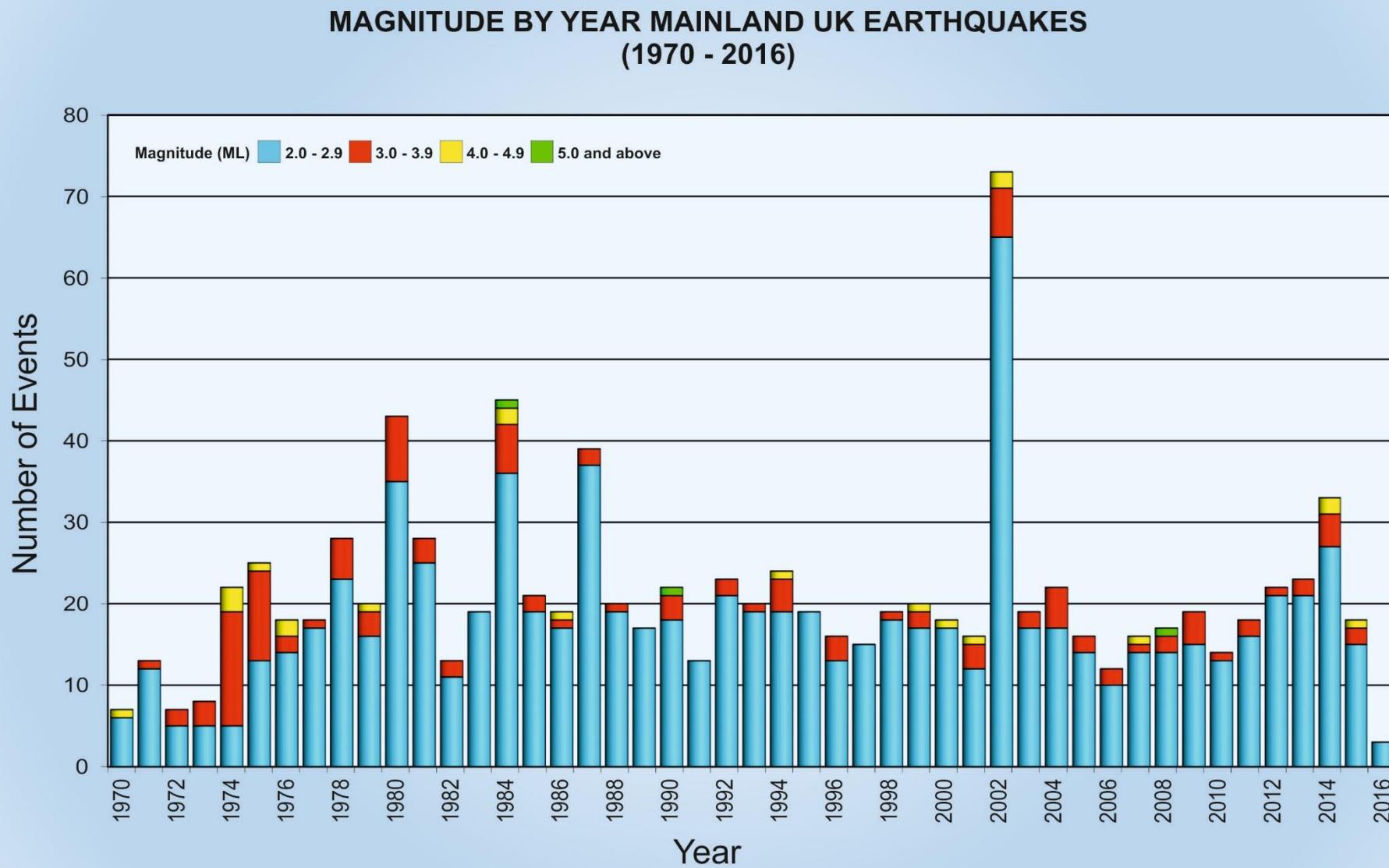


Figure 11. Histogram showing the number of events, magnitude 2.0 ML or greater, detected 1970-2016.

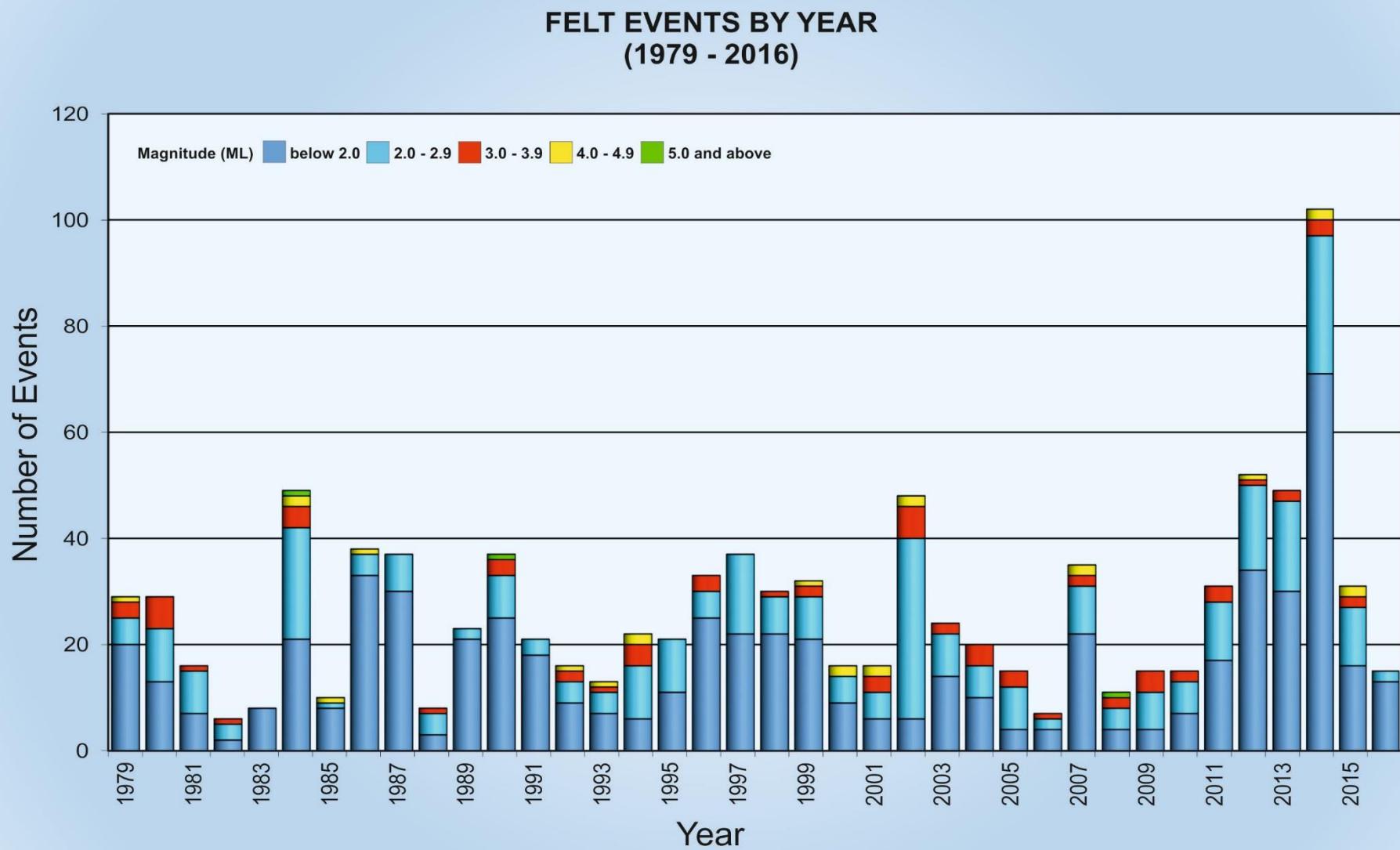


Figure 12. Histogram showing the number of felt events, 1979 -2016.

COALFIELD / NATURAL EVENTS FELT BY YEAR (1979 - 2016)

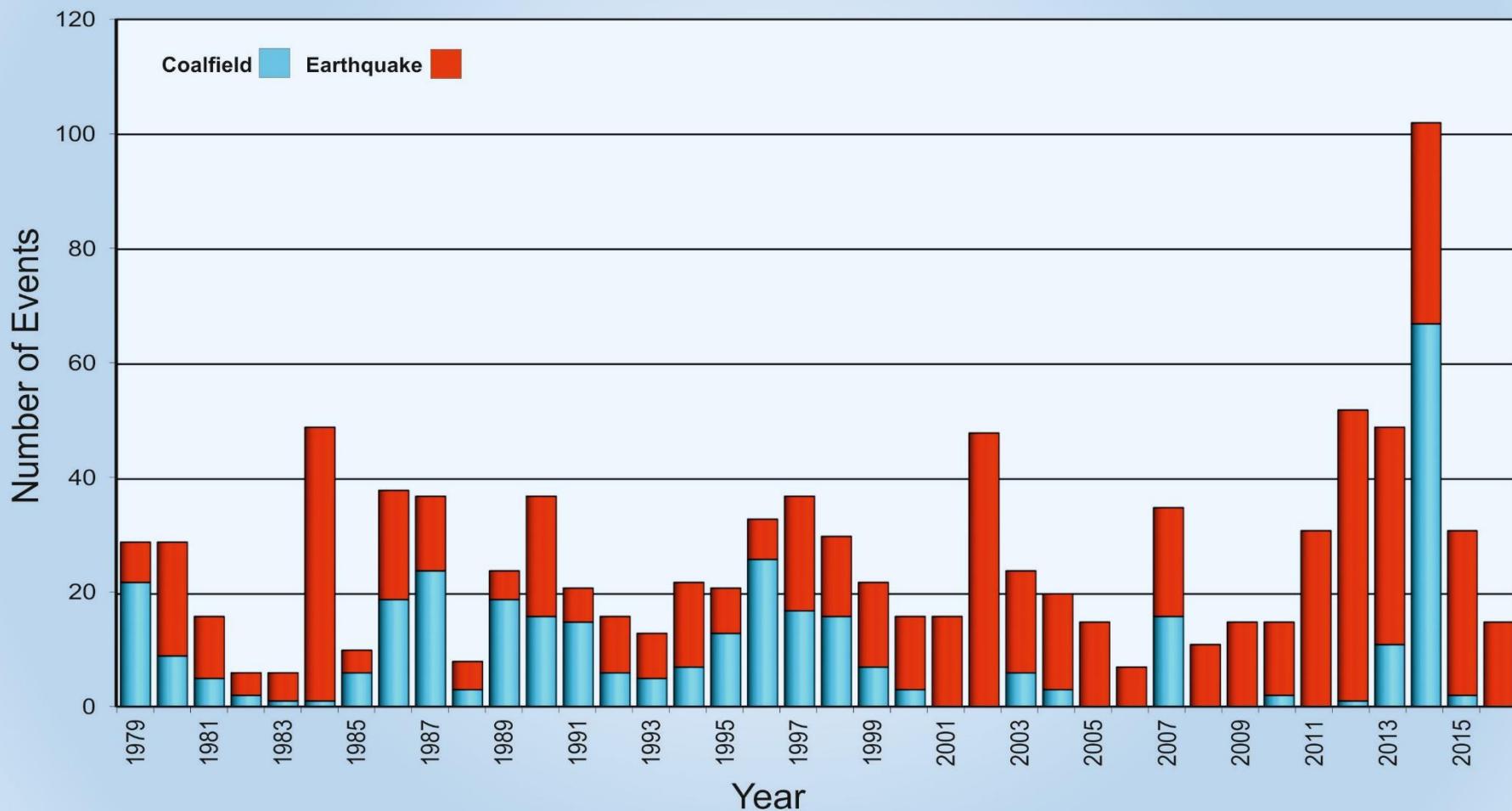


Figure 13. Histogram showing the split between the number of felt events in coalfield areas and those which are natural earthquakes, 1979 - 2016.

TABLE 1 : CATALOGUE OF EVENTS : 2016

Year	Mo	Dy	Hr	Mn	Secs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments	
2016	01	01	04	30	2.9	53.15	-3.43	304.4	362.1	9.6	0.8	DENBIGH, DENBIGHSHIRE		5	151	0.30	4.75	8.90		
2016	01	01	22	32	21.3	51.66	-3.16	319.6	196.8	7.9	1.2	NEWBRIDGE, CAERPHILLY		6	156	0.50	9.93	2.60		
2016	01	07	18	52	25.5	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	
2016	01	07	21	47	21.1	55.36	-2.23	385.7	607.1	7.7	0.9	BYRNESS, NORTHUMBERLAND		4	258	0.30	7.44	3.00		
2016	01	07	22	03	48.6	51.28	0.51	575.2	156.5	3.5	1.6	MAIDSTONE, KENT		7	89	0.40	3.28	3.90		
2016	01	08	18	46	58.4	52.22	-3.04	329.2	258.1	4.8	0.8	KINGTON, HEREFORDSHIRE		5	121	0.10	2.72	3.40		
2016	01	09	16	20	39.6	55.25	-2.82	347.9	595.5	8.0	0.6	NEWCASTLETON, BORDERS		5	204	0.20	4.38	5.60		
2016	01	10	14	34	20.2	58.00	-5.07	218.6	905.0	7.0	1.1	DRUMRUNIE, HIGHLAND		5	130	0.20	4.44	4.80		
2016	01	12	00	00	34.3	57.99	-5.06	219.1	904.5	7.7	1.1	DRUMRUNIE, HIGHLAND		6	130	0.10	1.89	4.40		
2016	01	14	07	24	45.2	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	
2016	01	15	14	44	41.4	57.99	-5.06	219.3	904.6	7.0	1.1	DRUMRUNIE, HIGHLAND		4	130	0.20	2.00	0.00		
2016	01	18	14	43	49.9	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	
2016	01	20	06	41	47.7	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	
2016	01	20	18	59	20.8	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	
2016	01	21	00	00	33.9	57.99	-5.06	219.0	904.7	7.9	0.7	DRUMRUNIE, HIGHLAND		3	156	0.10	2.02	5.20		
2016	01	21	18	51	05.5	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	
2016	01	23	00	46	32.7	52.85	-2.12	392.3	328.7	6.8	1.0	STAFFORD, STAFFORDSHIRE		7	104	0.20	2.47	5.40		
2016	01	25	17	08	30.7	55.41	-3.37	313.5	613.3	3.7	0.6	BODESBECK, D & G		5	146	0.20	8.13	5.00		
2016	01	27	23	28	48.5	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	
2016	01	31	06	02	39.6	51.59	-3.07	326.2	188.1	10.8	0.9	ROGERSTONE, NEWPORT		6	271	0.20	5.78	0.30		
2016	02	02	21	55	30.2	54.18	-2.42	372.4	475.7	4.7	1.1	INGLETON, N YORKSHIRE		6	116	0.20	2.91	4.90		
2016	02	03	05	28	24.8	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	
2016	02	03	20	34	19.6	57.99	-5.05	219.7	904.0	7.8	0.8	DRUMRUNIE, HIGHLAND		4	146	0.40	5.55	4.70		
2016	02	04	02	01	15.5	56.99	-4.59	242.6	791.8	11.4	1.1	MELGARVE, HIGHLAND		6	158	0.00	0.72	0.80		
2016	02	14	00	03	414.3	56.98	-5.74	172.6	793.7	7.5	0.5	MALLAIG, HIGHLAND		3	203	0.20	9.68	3.00		
2016	02	21	23	12	09.7	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	
2016	02	21	08	25	442.7	52.94	-4.33	243.3	341.1	14.3	1.0	LLEYN PENINSULA		10	140	0.10	1.34	1.20		
2016	02	21	06	10	00.2	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	
2016	02	21	14	12	00.0	53.66	-0.45	502.7	419.9	6.9	1.2	BARTON, NORTH LINCS		4	177	0.30	9.56	1.30		
2016	02	22	02	03	01.0	52.94	-2.68	354.5	338.7	11.5	0.2	WHITCHURCH, SHROPSHIRE		6	122	0.10	1.14	1.70		
2016	02	22	11	22	53.0	52.52	-2.33	377.7	291.4	4.4	1.5	CLAVERLEY, SHROPSHIRE		10	102	0.40	3.49	5.90		
2016	02	22	12	26	13.2	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	
2016	02	22	22	08	31.3	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	
2016	02	22	18	44	00.0							SONIC-NE SCOTLAND		1					FELT ANGUS	
2016	03	04	07	45	33.7	51.72	-2.40	372.5	201.9	13.7	0.7	BREADSTONE, GLOS		6	162	0.20	3.69	2.80		
2016	03	05	04	16	59.6	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	
2016	03	06	23	12	09.5	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...	
2016	03	07	05	40	33.9	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	
2016	03	07	20	11	54.8	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	
2016	03	11	20	30	33.5	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	
2016	03	13	01	52	29.7	55.13	-3.66	294.2	582.7	3.1	0.6	LOCHARBRIGGS, D & G		5	120	0.40	6.96	1.20		
2016	03	14	18	06	59.9	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

Year	Mo	Dy	Hr	Mn	Secs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments
2016	03	17	04	34	00.5	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	
2016	03	17	19	33	36.7	53.08	-4.22	251.2	355.9	8.5	0.2	Y FRON, GWYNEDD	4	318	0.00	1.80	3.80		
2016	03	18	08	30	54.7	52.19	-2.52	364.2	254.4	4.9	1.4	BROMYARD, HEREFORDSHIRE	6	130	0.10	2.25	3.40		
2016	03	20	20	37	02.5	53.03	-3.71	285.4	349.3	9.4	0.6	PENTREFOELAS, CONWY	8	158	0.20	5.66	5.40		
2016	03	21	22	04	51.8	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	
2016	03	21	23	15	21.6	51.66	-3.22	315.8	196.7	3.3	0.9	NEWBRIDGE, CAERPHILLY	9	121	0.30	2.64	5.50		
2016	03	24	00	07	04.1	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	
2016	03	25	16	04	04.0	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	
2016	03	25	16	22	04.2	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	
2016	03	27	07	13	57.1	52.88	-4.50	231.5	334.5	7.3	0.7	LLEYN PENINSULA	9	164	0.20	2.01	1.00		
2016	03	27	19	07	09.4	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	
2016	04	05	06	01	29.4	53.69	-0.43	503.7	422.9	6.5	1.5	BARTON, NORTH LINCS	14	169	0.30	3.48	2.30		
2016	04	05	18	43	59.1	56.28	-4.13	268.1	711.6	5.0	0.7	CALLANDER, STIRLING	7	109	0.30	3.77	5.60		
2016	04	10	21	11	38.9	55.79	-6.46	120.6	664.6	7.0	0.9	ISLAY, ARGYLL & BUTE	4	247	0.30	7.25	1.00		
2016	04	11	13	04	42.0	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	
2016	04	13	13	11	31.0	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	
2016	04	13	21	50	34.4	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	
2016	04	13	22	01	05.0	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	
2016	04	14	16	58	28.4	56.02	-5.85	160.3	688.0	8.1	0.9	JURA, ARGYLL & BUTE	6	218	0.30	6.86	6.00		
2016	04	15	18	26	17.0	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	
2016	04	18	20	49	37.0	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	
2016	04	20	16	39	34.9	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	
2016	04	21	01	22	29.8	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	
2016	04	22	09	30	10.5	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		
2016	04	25	01	25	29.6	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	
2016	04	26	14	49	22.2	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	
2016	04	30	17	22	25.5	55.78	-6.44	121.5	663.5	7.7	1.1	ISLAY, ARGYLL & BUTE	6	246	0.20	1.02	7.50		
2016	04	30	20	21	19.3	53.12	-0.61	493.2	358.8	7.2	1.3	LINCOLN, LINCOLNSHIRE	9	111	0.20	2.28	6.00	10KM SSW LINCOLN	
2016	05	02	20	51	00.0							SONIC-WEST YORKSHIRE	1					FELT YORKSHIRE	
2016	05	03	22	49	46.4	51.96	-2.90	338.2	229.5	8.7	0.8	PONTRILAS, HEREFORDSHIRE	8	61	0.30	3.14	2.90		
2016	05	08	11	37	47.4	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	
2016	05	09	08	18	53.1	55.98	-4.24	260.3	678.3	8.6	0.9	LENNOXTOWN, E DUNBARTON	6	166	0.20	3.16	8.80		
2016	05	09	11	25	07.7	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	
2016	05	11	02	52	03.1	52.89	-3.86	274.9	333.9	12.5	0.1	TRAWSFYNYDD, GWYNEDD	6	117	0.10	2.72	2.60		
2016	05	13	21	29	04.6	55.98	-4.25	259.8	678.1	7.7	0.4	LENNOXTOWN, E DUNBARTON	3	205	0.20	5.02	7.30		
2016	05	14	11	51	23.5	56.40	-5.45	187.3	728.7	2.8	1.3	OBAN, ARGYLL & BUTE	10	157	0.30	5.38	6.30		
2016	05	14	13	17	51.7	57.24	-4.49	249.6	819.8	3.3	1.2	FOYERS, HIGHLAND	8	100	0.40	4.17	7.80		
2016	05	15	17	31	07.2	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	
2016	05	15	18	16	41.1	55.80	-6.36	127.1	664.5	5.8	0.8	ISLAY, ARGYLL & BUTE	4	275	0.60	1.15	4.50		
2016	05	16	15	22	09.7	54.72	-2.98	336.6	536.9	2.9	1.3	MILLHOUSE, CUMBRIA	10	81	0.40	4.24	9.20		
2016	05	16	20	33	18.8	56.66	-4.39	253.5	754.9	2.7	0.8	FINNART, PERTH & KINROSS	5	94	0.50	6.63	2.40		
2016	05	17	08	15	52.4	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

Year	Mo	Dy	Hr	Mn	Secs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments
2016	05	17	15	56	26.2	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
2016	05	18	23	00	49.1	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...
2016	05	21	15	38	13.6	57.99	-5.06	219.2	904.0	5.2	0.6	DRUMRUNIE, HIGHLAND		4	145	0.10	2.30	2.80	
2016	05	24	03	05	59.4	53.49	-2.26	382.6	399.5	3.4	0.8	MANCHESTER, GTR MCH		6	120	0.20	2.66	2.70	
2016	05	24	08	08	19.6	51.73	-4.02	260.4	205.2	6.7	0.7	PONTARDDULAIIS, SWANSEA		6	121	0.20	1.56	4.30	
2016	05	30	04	10	20.9	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
2016	06	01	03	44	08.6	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
2016	06	01	17	59	40.1	54.07	-3.13	326.3	464.3	1.2	1.3	RAMPSIDE, CUMBRIA		8	141	0.30	3.05	2.60	
2016	06	03	18	14	52.4	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
2016	06	03	23	34	02.6	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
2016	06	04	13	22	07.6	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	
2016	06	05	03	55	47.6	55.97	-4.24	260.3	677.9	7.9	0.6	LENNOXTOWN, E DUNBARTON		8	125	0.20	2.47	8.40	
2016	06	05	07	23	37.1	56.66	-4.29	259.7	754.5	2.9	1.0	FINNART, PERTH & KINROSS		5	108	0.20	2.08	0.00	
2016	06	09	02	56	38.7	53.10	-1.23	451.5	356.1	2.5	1.0	MANSFIELD, NOTTS		10	172	0.40	8.27	9.20	C/F
2016	06	11	11	15	07.5	57.99	-5.06	219.0	904.4	6.8	0.6	DRUMRUNIE, HIGHLAND		4	144	0.20	2.58	2.70	
2016	06	13	16	55	13.0	53.29	-2.07	395.2	376.6	4.9	1.0	BOLLINGTON, CHESHIRE		5	122	0.20	2.13	3.80	
2016	06	13	21	40	46.4	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...
2016	06	15	21	43	12.6	57.11	-5.33	198.5	806.7	4.8	0.7	KINLOCH HOURN, HIGHLAND		5	189	0.30	8.25	5.70	
2016	06	16	02	33	17.7	57.10	-5.41	193.7	806.7	3.8	0.7	KINLOCH HOURN, HIGHLAND		5	192	0.20	6.33	4.10	
2016	06	21	07	51	16.8	56.36	-5.85	162.1	725.7	2.8	1.0	MULL, ARGYLL & BUTE		6	180	0.30	6.37	6.80	
2016	06	22	17	26	11.2	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
2016	06	23	18	58	21.6	51.56	-1.48	436.4	184.5	9.7	1.2	WANTAGE, OXFORDSHIRE		6	142	0.20	4.05	2.40	
2016	06	24	22	22	45.9	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
2016	06	26	19	16	18.9	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
2016	06	28	00	39	48.8	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
2016	06	28	01	56	28.6	57.28	-4.41	254.5	823.2	4.3	0.8	ERROGIE, HIGHLAND		6	134	0.50	8.15	7.50	
2016	06	29	20	58	04.9	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
2016	06	30	17	07	20.3	55.77	-6.39	124.5	661.5	7.3	0.7	ISLAY, ARGYLL & BUTE		4	185	0.30	4.66	8.90	
2016	07	01	01	40	00.0	52.67	-1.92	405.5	308.0	6.5	1.2	BURNTWOOD, STAFFORDSHIRE		8	110	0.30	4.31	7.30	
2016	07	02	21	32	10.9	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
2016	07	05	02	51	37.5	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
2016	07	05	04	29	34.0	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
2016	07	05	12	21	11.6	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
2016	07	06	08	13	01.0	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
2016	07	06	14	09	10.9	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
2016	07	08	02	16	45.1	56.58	-5.67	174.9	749.3	7.7	0.6	MORVERN, HIGHLAND		4	183	0.10	2.91	7.00	
2016	07	16	19	17	17.5	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
2016	07	22	00	38	20.4	51.93	-3.12	323.1	226.2	16.3	0.6	CRICKHOWELL, POWYS		6	168	0.20	2.36	2.10	
2016	07	24	19	39	42.9	51.19	-4.20	246.0	145.8	7.7	0.6	WOOLACOMBE, DEVON		4	191	0.20	8.93	5.60	
2016	07	24	23	53	34.2	57.27	-4.45	252.6	822.3	10.6	0.8	ERROGIE, HIGHLAND		5	132	0.30	2.53	6.60	
2016	07	25	03	08	05.0	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
2016	07	25	05	25	28.2	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

Year	Mo	Dy	Hr	Mn	Secs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments
2016	07	27	04	48	52.0	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	
2016	07	29	02	36	07.5	52.66	1.47	634.7	312.8	10.8	1.3	BLOFIELD, NORFOLK	4	261	0.30	7.28	5.80		
2016	08	01	18	22	31.6	54.71	-3.13	327.3	535.6	7.3	0.4	ULDALE, CUMBRIA	5	107	0.20	2.64	4.00		
2016	08	02	19	46	54.4	52.98	-4.38	240.2	345.4	21.1	0.5	LLEYN PENINSULA	7	144	0.30	5.55	4.50		
2016	08	15	04	25	56.8	52.85	-1.37	442.2	327.8	4.7	1.0	CASTLE DONINGTON, LEICS	6	167	0.10	1.49	2.20		
2016	08	15	10	14	05.8	52.96	-2.55	362.9	340.8	7.3	1.0	WILKESLEY, CHESHIRE	8	129	0.50	5.22	1.60		
2016	08	19	13	38	38.5	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...	
2016	08	20	14	08	16.0	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	
2016	08	23	05	21	10.4	54.70	-2.94	339.4	534.9	6.9	0.5	SKELTON, CUMBRIA	4	143	0.10	1.72	2.10		
2016	08	24	06	10	21.7	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	
2016	08	24	11	15	37.7	54.50	-2.87	343.5	511.7	5.4	1.4	HARTSOP, CUMBRIA	6	247	0.10	9.88	9.50		
2016	08	25	14	59	16.7	52.57	-2.64	356.4	297.1	7.5	1.7	HUGHLEY, SHROPSHIRE	7	154	0.40	5.85	1.20		
2016	08	26	01	41	49.3	52.74	-2.29	380.1	315.5	8.3	0.4	MORETON, STAFFORDSHIRE	5	130	0.20	2.33	6.60		
2016	08	26	01	49	14.2	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	
2016	08	28	20	15	21.8	53.68	-2.50	367.1	420.5	6.6	1.0	DARWEN, LANCASHIRE	7	123	0.20	2.66	4.70		
2016	08	28	22	58	50.9	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	
2016	08	31	19	38	00.9	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	
2016	09	02	22	05	55.0	56.65	-5.54	182.9	756.2	7.8	1.4	STRONTIAN, HIGHLAND	10	187	0.50	0.50	9.40		
2016	09	03	03	33	406.6	51.32	-2.32	377.4	158.3	3.8	1.2	BATH, BATH & NE SOMERSET	7	170	0.20	4.96	4.90		
2016	09	07	02	27	29.3	52.72	-2.51	365.5	313.3	8.4	0.3	WELLINGTON, SHROPSHIRE	5	155	0.30	3.12	6.50		
2016	09	09	12	06	21.9	55.80	-6.11	142.3	664.0	7.7	0.9	ISLAY, ARGYLL & BUTE	4	221	0.40	6.69	7.10		
2016	09	09	22	00	41.7	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	
2016	09	10	15	05	55.3	57.65	-5.64	182.6	868.5	3.7	1.2	SHIELDAIG, HIGHLAND	8	127	0.40	5.80	8.50		
2016	09	11	20	53	58.8	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	
2016	09	21	02	23	08.7	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	
2016	09	21	08	28	01.7	56.17	-4.90	219.8	701.0	8.1	0.9	LOCH GOIL, ARGYLL/BUTE	4	132	0.30	3.42	4.70		
2016	10	01	05	44	48.0	52.43	-3.22	317.0	282.2	7.7	1.3	ANCHOR, SHROPSHIRE	9	89	0.50	4.18	2.30		
2016	10	03	11	07	06.0	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	
2016	10	07	10	17	26.6	52.23	-4.22	248.1	261.2	8.1	0.6	ABERAERON, CEREDIGION	7	123	0.30	4.12	7.50		
2016	10	08	13	11	26.3	55.07	-6.82	92.7	585.6	7.0	1.0	RINGSEND, COLERAINE	5	177	0.70	9.27	1.50		
2016	10	09	12	48	26.1	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	
2016	10	09	17	27	10.2	57.30	-4.39	256.1	825.8	7.2	1.2	ERROGIE, HIGHLAND	9	73	0.40	3.94	4.50		
2016	10	09	18	56	41.0	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	
2016	10	10	13	57	10.5	58.07	-5.49	194.3	914.4	7.9	0.8	REIFF, HIGHLAND	4	146	0.30	3.67	1.00	OFFSHORE LOCATION	
2016	10	12	05	23	18.7	52.18	-2.51	365.3	253.5	4.1	0.4	BROMYARD, HEREFORDSHIRE	5	242	0.10	2.96	1.90		
2016	10	13	18	09	11.7	51.74	-3.37	305.4	205.4	11.6	0.7	MERTHYR TYDFIL, MERTHYR	7	109	0.10	1.35	3.60		
2016	10	15	00	09	01.7	51.15	-2.39	372.9	138.8	3.4	1.0	UPTON NOBLE, SOMERSET	7	158	0.20	3.85	2.70		
2016	10	15	11	41	15.7	56.31	-5.02	213.2	717.3	2.5	1.0	INVERARAY, ARGYLL & BUTE	8	85	0.30	3.50	3.80	9KM NNE INVERARAY	
2016	10	15	21	33	41.5	54.97	-2.03	398.1	563.6	5.5	1.9	HEXHAM, NORTHUMBERLAND	9	146	0.20	2.61	3.00		
2016	10	17	22	49	28.2	52.56	-3.42	303.9	296.6	14.7	1.0	CAERSWS, POWYS	11	81	0.30	3.44	5.40		
2016	10	21	17	31	37.4	51.45	-2.62	356.8	172.8	11.8	0.5	BRISTOL, CITY OF BRISTOL	6	250	0.20	4.22	3.00		
2016	10	25	20	53	49.4	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

Year	Mo	Dy	Hr	Mn	Secs	Lat	Lon	kmE	kmN	Dep	Mag	Locality	Int	No	Gap	RMS	ERH	ERZ	Comments
2016	10	27	02	08	29.5	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...
2016	10	27	04	56	54.9	50.52	-4.52	221.2	71.6	8.5	0.2	LISKEARD, CORNWALL		4	132	0.10	1.00	2.70	
2016	10	29	01	43	53.2	54.67	-2.59	362.0	531.1	4.8	0.3	CULGAITH, CUMBRIA		6	185	0.30	3.75	4.20	
2016	10	29	02	02	35.0	51.67	-3.72	281.2	198.7	9.0	1.0	NEATH, NEATH PORT TALBOT		8	103	0.20	1.84	3.00	
2016	10	29	19	20	49.7	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
2016	10	30	13	39	25.8	53.03	-2.94	337.0	348.3	5.1	0.5	MARCHWIEL, WREXHAM		8	173	0.30	4.56	5.70	
2016	11	02	03	51	45.2	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
2016	11	03	10	57	27.0	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
2016	11	03	14	19	42.7	57.26	-4.75	234.1	821.7	4.8	1.7	INVERMORISTON, HIGHLAND		9	80	0.40	4.70	7.90	
2016	11	05	17	31	32.8	54.12	-2.06	396.4	469.7	0.0	0.9	CONISTONE, N YORKSHIRE		3	185	0.30	5.39	1.00	
2016	11	05	18	28	23.7	55.24	-3.53	303.0	594.7	4.4	0.4	JOHNSTONEBRIDGE, D & G		5	220	0.10	2.42	7.50	
2016	11	07	02	02	56.1	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
2016	11	08	00	03	41.0	56.37	-5.75	168.6	726.1	11.9	0.8	MULL, ARGYLL & BUTE		6	174	0.30	6.46	4.70	
2016	11	08	00	18	26.6	55.24	-3.51	303.8	594.9	4.5	0.6	JOHNSTONEBRIDGE, D & G		9	121	0.30	4.48	4.00	
2016	11	08	09	42	10.8	55.26	-3.52	303.5	597.4	4.3	0.4	JOHNSTONEBRIDGE, D & G		4	182	0.20	4.36	3.40	
2016	11	08	19	24	47.5	55.26	-3.52	303.7	596.8	4.5	0.3	JOHNSTONEBRIDGE, D & G		6	179	0.20	4.88	9.30	
2016	11	09	16	12	53.5	54.14	-1.92	405.0	472.0	3.7	0.9	LOFTHOUSE, N YORKSHIRE		5	167	0.20	3.19	3.10	
2016	11	09	22	41	05.3	51.70	-2.16	389.2	200.1	9.9	0.8	CHALFORD, GLOS		4	263	0.20	5.66	2.90	
2016	11	11	13	20	33.3	57.26	-4.79	232.0	822.7	4.4	1.2	INVERMORISTON, HIGHLAND		7	84	0.30	4.08	6.90	
2016	11	11	13	35	42.9	51.70	-3.00	330.7	201.1	14.9	0.8	PONTYPOOL, TORFAEN		8	107	0.30	3.26	2.10	
2016	11	13	05	21	35.5	52.07	-2.93	336.5	242.2	11.6	0.4	MOCCAS, HEREFORDSHIRE		4	107	0.10	1.03	0.90	
2016	11	14	07	20	09.1	51.89	-3.17	319.5	221.7	4.9	2.1	CRICKHOWELL, POWYS		13	85	0.50	3.86	6.30	
2016	11	18	08	32	43.5	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
2016	12	03	09	05	10.1	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
2016	12	10	01	22	17.7	51.80	-4.03	260.0	212.8	11.8	1.9	SARON, CARMARTHENSHIRE		8	114	0.30	2.50	4.30	
2016	12	10	18	41	52.2	52.77	-0.72	486.4	320.0	2.7	0.8	WYMONDHAM, LEICS		4	167	0.40	4.81	2.90	
2016	12	13	02	06	07.4	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
2016	12	13	14	58	26.5	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
2016	12	18	15	16	36.4	54.63	-3.07	331.0	526.2	8.8	0.9	THRELKELD, CUMBRIA		6	137	0.20	2.94	2.60	
2016	12	21	17	10	02.0	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
2016	12	22	04	16	58.0	55.85	-6.29	131.9	670.4	10.4	0.8	ISLAY, ARGYLL & BUTE		5	238	0.20	7.45	4.70	
2016	12	23	01	56	48.9	56.38	-5.68	173.1	726.8	9.2	0.8	MULL, ARGYLL & BUTE		5	170	0.20	3.20	2.60	
2016	12	27	00	18	27.2	54.54	-3.65	293.2	517.5	4.3	0.6	WHITEHAVEN, CUMBERIA		5	162	0.20	2.76	3.10	3KM OFF WHITEHAVEN
2016	12	27	18	45	21.3	51.51	-3.11	322.7	179.4	13.0	0.9	RUMNEY, CARDIFF		9	140	0.20	2.79	3.80	
2016	12	28	12	30	56.7	53.15	-4.46	235.7	363.9	3.5	0.7	CAERNARFON BAY		6	187	0.20	4.72	4.00	
2016	12	29	06	12	40.7	53.53	-2.15	389.8	403.3	4.4	0.7	OLDHAM, GTR MANCHESTER		5	140	0.20	2.69	3.10	
2016	12	29	20	29	10.2	55.91	-6.00	150.2	675.9	7.5	1.0	JURA, ARGYLL & BUTE		5	198	0.40	7.12	7.80	
2016	12	30	21	57	48.3	51.72	-3.68	284.2	203.7	7.5	0.4	GLYNNEATH, NP TALBOT		6	101	0.20	2.77	8.10	
2016	12	31	07	46	14.7	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	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES
Lat: 53.147N	Lon: -3.430W	Depth: 9.6 km	EDMD HZ 61.0 EP 21:47 31.46 0.06
Grid Ref: 304.37 kmE 362.08 kmN		RMS: 0.30 secs	EDMD HE 61.0 ES 21:47 38.58 -0.34
Locality: DENBIGH, DENBIGHSHIRE			EDMD HN 61.0 IAML 21:47 41.23 4 0.32
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0			EDMD HE 61.0 IAML 21:47 41.49 4 0.19
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	ESK BZ 62.4 EP 21:47 31.65 -0.01		
LLW BZ 36.7 EP 04:30 39.71 0.22	ESK HN 62.4 ES 21:47 39.08 -0.29		
LLW BN 36.7 ES 04:30 44.43 0.14	KESW HZ 103.0 EP 21:47 38.43 0.54		
WLF1 HZ 66.5 EP 04:30 44.51 0.43	KESW HE 103.0 ES 21:47 50.25 0.10		
WLF1 HE 66.5 ES 04:30 51.70 -0.53	KESW HN 103.0 IAML 21:47 51.26 4 0.43		
WLF1 HN 66.5 IAML 04:30 52.25 8 0.29	KESW HE 103.0 IAML 21:47 51.73 4 0.50		
WLF1 HE 66.5 IAML 04:30 52.54 6 0.22	GAL1 HZ 168.0 EP 21:47 47.71 0.30		
HLM1 HZ 79.2 EP 04:30 46.12 0.00	GAL1 HE 168.0 IAML 21:48 08.54 2 0.35		
HLM1 BN 79.2 ES 04:30 55.41 -0.34	GAL1 HN 168.0 IAML 21:48 08.93 2 0.18		
HLM1 HN 79.2 IAML 04:30 55.90 2 0.06			
HLM1 HE 79.2 IAML 04:30 56.03 2 0.14			
LBWR HZ 117.0 EP 04:30 52.22 0.26	January 7 2016 Time: 22:03 48.6 UTC Magnitude: 1.6 ML		
LBWR HE 117.0 ES 04:31 05.71 -0.14	Lat: 51.280N Lon: 0.512W Depth: 3.5 km		
LBWR HE 117.0 IAML 04:31 07.24 4 0.22	Grid Ref: 575.17 kmE 156.48 kmN RMS: 0.40 secs		
LBWR BN 117.0 IAML 04:31 07.76 4 0.29	Locality: MAIDSTONE, KENT		
MCH1 HN 131.0 ES 04:31 09.26 0.00	Velocity model: Lownet Xnear: 100.0 Xfar: 300.0		
MCH1 HN 131.0 IAML 04:31 09.58 3 0.21	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES		
MCH1 HE 131.0 IAML 04:31 11.97 2 0.20	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 IAML 22:04 03.91 29 0.16		
	ELSH HE 45.9 IAML 22:04 04.26 26 0.10		
January 1 2016 Time: 22:32 21.3 UTC Magnitude: 1.2 ML			
Lat: 51.664N Lon: -3.162W Depth: 7.9 km			
Grid Ref: 319.64 kmE 196.83 kmN RMS: 0.50 secs			
Locality: NEWBRIDGE, CAERPHILLY			
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0			
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	ELMS HZ 96.3 EP 22:04 05.15 0.39		
MCH1 HZ 38.8 EP 22:32 27.65 -0.53	ELMS HE 96.3 ES 22:04 16.06 -0.48		
MCH1 BN 38.8 ES 22:32 32.92 -0.30	ELMS HN 96.3 IAML 22:04 18.21 24 0.13		
MCH1 HE 38.8 IAML 22:32 33.27 36 0.17	ELMS HE 96.3 IAML 22:04 20.12 21 0.20		
MCH1 HN 38.8 IAML 22:32 33.51 27 0.16	WOL BZ 121.0 EP 22:04 08.61 0.00		
HLM1 HE 97.0 ES 22:32 49.47 0.57	WOL BE 121.0 ES 22:04 22.55 -0.65		
RSBS HZ 114.0 EP 22:32 40.58 0.76	WOL BN 121.0 IAML 22:04 23.55 16 0.29		
RSBS HE 114.0 ES 22:32 52.84 -0.52	WOL BE 121.0 IAML 22:04 25.18 7 0.13		
RSBS HN 114.0 IAML 22:32 53.80 5 0.21	WACR HZ 161.0 EP 22:04 14.54 0.11		
RSBS HE 114.0 IAML 22:32 57.93 6 0.11	WACR HE 161.0 ES 22:04 34.01 0.75		
HTL HZ 119.0 EP 22:32 40.67 0.16	WACR HN 161.0 IAML 22:04 35.79 22 0.16		
DYA HZ 147.0 EP 22:32 44.61 -0.03	WACR HE 161.0 IAML 22:04 36.64 18 0.20		
DYA HE 147.0 ES 22:33 01.49 -0.21	SWN1 HE 163.0 ES 22:04 34.27 0.44		
DYA HN 147.0 IAML 22:33 03.22 5 0.21	SWN1 HE 163.0 IAML 22:04 35.44 24 0.28		
DYA HE 147.0 IAML 22:33 04.15 5 0.17	SWN1 HN 163.0 IAML 22:04 36.32 12 0.34		
CWF HZ 174.0 EP 22:32 49.02 0.63	CWF HZ 205.0 EP 22:04 20.26 0.10		
January 7 2016 Time: 18:52 25.5 UTC Magnitude: 1.8 ML			
Lat: 53.092N Lon: -5.153W Depth: 11.5 km			
Grid Ref: 188.90 kmE 359.66 kmN RMS: 0.20 secs			
Locality: IRISH SEA			
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0			
Comment: 40KM SW HOLYHEAD			
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	MCH1 HZ 24.4 IP 18:47 03.11 0.06		
YRC EZ 42.5 EP 18:52 33.23 0.29	MCH1 HN 24.4 ES 18:47 06.42 -0.04		
WLF1 HZ 55.1 EP 18:52 34.98 0.08	MCH1 HN 24.4 IAML 18:47 06.82 29 0.07		
WLF1 BN 55.1 ES 18:52 41.35 -0.43	MCH1 HE 24.4 IAML 18:47 06.82 38 0.05		
WLF1 HE 55.1 IAML 18:52 42.15 86 0.27	HLM1 HZ 35.3 EP 18:47 04.93 0.00		
WLF1 HN 55.1 IAML 18:52 42.35 146 0.08	HLM1 HE 35.3 ES 18:47 09.70 -0.01		
YLL EZ 66.0 EP 18:52 36.69 0.09	HLM1 HE 35.3 IAML 18:47 10.69 6 0.11		
WME EZ 66.1 EP 18:52 36.71 0.10	HLM1 HN 35.3 IAML 18:47 10.69 7 0.16		
LLW BZ 104.0 EP 18:52 42.40 -0.01	RSBS HZ 121.0 EP 18:47 18.00 -0.18		
LLW BE 104.0 ES 18:52 54.85 0.08	RSBS HE 121.0 ES 18:47 32.69 0.06		
WIM EZ 122.0 EP 18:52 45.00 -0.03	RSBS HN 121.0 IAML 18:47 34.37 2 0.13		
RSBS HZ 130.0 EP 18:52 46.08 -0.09	RSBS HE 121.0 IAML 18:47 34.51 2 0.09		
RSBS HN 130.0 ES 18:53 01.01 -0.27	CWF HZ 131.0 EP 18:47 19.76 0.01		
RSBS HE 130.0 IAML 18:53 03.73 14 0.14	WLF1 HZ 151.0 EP 18:47 22.61 0.09		
RSBS HN 130.0 IAML 18:53 04.03 12 0.12			
IWEX BZ 136.0 EP 18:52 46.69 -0.29			
IWEX BN 136.0 ES 18:53 02.81 0.13			
IWEX BN 136.0 IAML 18:53 04.01 18 0.20	January 8 2016 Time: 18:46 58.4 UTC Magnitude: 0.8 ML		
IWEX BE 136.0 IAML 18:53 04.60 12 0.20	Lat: 52.216N Lon: -3.037W Depth: 4.8 km		
IOMK HZ 136.0 EP 18:52 47.01 0.01	Grid Ref: 329.16 kmE 258.08 kmN RMS: 0.10 secs		
IOMK HN 136.0 ES 18:53 02.59 -0.12	Locality: KINGTON, HEREFORDSHIRE		
IOMK HN 136.0 IAML 18:53 03.86 17 0.14	Velocity model: Lownet Xnear: 50.0 Xfar: 150.0		
IOMK HE 136.0 IAML 18:53 05.38 29 0.08	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES		
HLM1 HZ 166.0 EP 18:52 51.56 0.29	MCH1 HZ 24.4 IP 18:47 03.11 0.06		
HLM1 HN 166.0 ES 18:53 10.68 0.58	MCH1 HN 24.4 ES 18:47 06.42 -0.04		
HLM1 HE 166.0 IAML 18:53 12.43 6 0.30	MCH1 HN 24.4 IAML 18:47 06.82 29 0.07		
HLM1 BN 166.0 IAML 18:53 12.46 8 0.12	MCH1 HE 24.4 IAML 18:47 06.82 38 0.05		
MCH1 HZ 190.0 EP 18:52 54.53 0.28	HLM1 HZ 35.3 EP 18:47 04.93 0.00		
MCH1 HN 190.0 ES 18:53 16.11 0.84	HLM1 HE 35.3 ES 18:47 09.70 -0.01		
MCH1 HE 190.0 IAML 18:53 17.30 14 0.40	RSBS HZ 121.0 EP 18:47 18.00 -0.18		
MCH1 BN 190.0 IAML 18:53 17.43 12 0.22	RSBS HE 121.0 ES 18:47 32.69 0.06		
January 7 2016 Time: 21:47 21.1 UTC Magnitude: 0.9 ML	RSBS HN 121.0 IAML 18:47 34.37 2 0.13		
Lat: 55.358N Lon: -2.225W Depth: 7.7 km	RSBS HE 121.0 IAML 18:47 34.51 2 0.09		
Grid Ref: 385.74 kmE 607.14 kmN RMS: 0.30 secs	CWF HZ 131.0 EP 18:47 19.76 0.01		
Locality: BYRNES, NORTHUMBERLAND	WLF1 HZ 151.0 EP 18:47 22.61 0.09		
Velocity model: Lownet Xnear: 100.0 Xfar: 150.0			
January 9 2016 Time: 16:20 39.6 UTC Magnitude: 0.6 ML			
Lat: 55.251N Lon: -2.819W Depth: 8.0 km			
Grid Ref: 347.94 kmE 595.51 kmN RMS: 0.20 secs			
Locality: NEWCASTLETON, BORDERS			
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0			
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	IOMK HZ 25.6 EP 16:20 44.61 0.17		
ESK HZ 25.6 EP 16:20 47.89 -0.10	IOMK HN 25.6 ES 16:20 48.25 4 0.18		
ESK HE 25.6 IAML 16:20 48.25 13 0.11	IOMK HE 25.6 IAML 16:20 48.25 13 0.11		
EDMD HZ 72.0 ES 16:21 00.16 -0.20	EDMD HN 72.0 IAML 16:21 02.83 6 0.13		
EDMD HE 72.0 IAML 16:21 03.00 13 0.19	EDMD HE 72.0 IAML 16:21 03.00 13 0.19		
KESW HZ 76.0 EP 16:20 52.54 0.28	KESW HZ 76.0 EP 16:20 52.54 0.28		
NEWG HZ 91.1 EP 16:20 54.63 0.05	NEWG HZ 91.1 EP 16:20 54.63 0.05		
NEWG HN 91.1 ES 16:21 05.30 -0.22	NEWG HN 91.1 ES 16:21 05.30 -0.22		
NEWG HE 91.1 IAML 16:21 06.95 1 0.52	NEWG HE 91.1 IAML 16:21 06.95 1 0.52		
NEWG HN 91.1 IAML 16:21 06.98 2 0.25	NEWG HN 91.1 IAML 16:21 06.98 2 0.25		
GAL1 HZ 128.0 EP 16:21 00.31 0.06	GAL1 HZ 128.0 EP 16:21 00.31 0.06		
GAL1 HE 128.0 ES 16:21 15.29 -0.04	GAL1 HE 128.0 ES 16:21 15.29 -0.04		
January 10 2016 Time: 14:34 20.2 UTC Magnitude: 1.1 ML			

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
LINV	HZ	18.3	EP		14:34	23.98		0.10		
LINV	HE	18.3	ES		14:34	26.47		-0.10		
LINV	HE	18.3	IAML		14:34	26.70	52	0.14		
LINV	HN	18.3	IAML		14:34	27.09	14	0.08		
KAC	EZ	57.1	EP		14:34	29.67		-0.30		
KPL	HZ	81.1	EP		14:34	33.90		0.25		
KPL	HE	81.1	ES		14:34	43.47		0.00		
KPL	HE	81.1	IAML		14:34	46.83	4	0.32		
KPL	HN	81.1	IAML		14:34	49.25	4	0.16		
BIGH	HZ	87.7	EP		14:34	34.80		0.11		
BIGH	HE	87.7	ES		14:34	45.20		-0.06		
BIGH	HN	87.7	IAML		14:34	48.14	23	0.19		
BIGH	HE	87.7	IAML		14:34	48.82	20	0.26		
MCD	EZ	117.0	EP		14:34	39.34		0.00		
January 18 2016 Time: 14:43 49.9 UTC Magnitude: 1.5 ML										
Lat: 56.278N Lon: -6.127W Depth: 8.3 km										
Grid Ref: 144.57 kmE 717.15 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	115.0	EP			14:44	08.60			0.04
PGB1	HE	115.0	ES			14:44	22.20			0.00
PGB1	HE	115.0	IAML			14:44	23.30	13	0.26	
PGB1	HN	115.0	IAML			14:44	25.57	8	0.39	
KPL	HZ	122.0	EP			14:44	09.49			-0.07
KPL	HN	122.0	ES			14:44	24.06			0.13
KPL	HN	122.0	IAML			14:44	26.86	13	0.20	
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		
January 18 2016 Time: 14:43 49.9 UTC Magnitude: 1.5 ML										
Lat: 56.278N Lon: -6.127W Depth: 8.3 km										
Grid Ref: 144.57 kmE 717.15 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	115.0	EP			14:44	08.60			0.04
PGB1	HE	115.0	ES			14:44	22.20			

TABLE 2 : PHASE DATA

January 21 2016	Time: 18:51 05.5 UTC	Magnitude: 1.9 ML	SBD	BZ	54.3	EP	23:28	58.04	0.13				
Lat: 59.168N	Lon: 1.974W	Depth: 12.2 km	SBD	BE	54.3	ES	23:29	05.12	-0.07				
Grid Ref: 627.09 kmE	1037.97 kmN	RMS: 0.20 secs	SBD	BE	54.3	IAML	23:29	05.47	6 0.11				
Locality: NORTHERN NORTH SEA			SBD	BN	54.3	IAML	23:29	05.75	4 0.11				
Velocity model: North Sea	Xnear: 400.0	Xfar: 600.0	HTL	HZ	103.0	EP	23:29	06.13	0.05				
Comment: 205KM SE LERWICK			HTL	HE	103.0	ES	23:29	19.62	-0.03				
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	HE	232.0	IAML	18:52	00.80	5	0.42						
FOO	HZ	319.0	EP	18:51	48.33		0.43						
FOO	HN	319.0	ES	18:52	18.71		-0.15						
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	HE	348.0	IAML	18:52	26.71	4	0.09						
DRUM	HZ	364.0	EP	18:51	53.71		0.24						
DRUM	HE	364.0	ES	18:52	28.40		-0.11						
DRUM	HE	364.0	IAML	18:52	29.05	4	0.13						
DRUM	HN	364.0	IAML	18:52	29.71	6	0.34						
EDMD	HZ	539.0	EP	18:52	14.81		-0.36						
January 23 2016	Time: 00:46 32.7 UTC	Magnitude: 1.0 ML	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
Lat: 52.855N	Lon: -2.115W	Depth: 6.8 km	MONM	HZ	33.5	EP	06:02	45.61					-0.07
Grid Ref: 392.26 kmE	328.65 kmN	RMS: 0.20 secs	MONM	HE	33.5	ES	06:02	50.37					0.24
Locality: STAFFORD,STAFFORDSHIRE			MONM	HN	33.5	IAML	06:02	50.48	12	0.12			
Velocity model: Lownet	Xnear: 100.0	Xfar: 200.0	MONM	HE	33.5	IAML	06:02	50.59	16	0.52			
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	IAML	00:46	49.46	3	0.22						
HLM1	HZ	63.9	EP	00:46	43.63		0.08						
HLM1	HN	63.9	ES	00:46	51.33		-0.13						
HLM1	HN	63.9	IAML	00:46	55.90	3	0.11						
HLM1	HE	63.9	IAML	00:46	56.27	2	0.30						
LBWR	HZ	66.2	EP	00:46	44.14		0.25						
LBWR	HN	66.2	ES	00:46	52.00		-0.04						
LBWR	HE	66.2	IAML	00:46	52.97	12	0.23						
LBWR	HN	66.2	IAML	00:46	53.29	9	0.34						
LLW	BN	104.0	ES	00:47	01.98		-0.25						
LLW	BN	104.0	IAML	00:47	03.09	4	0.07						
LLW	BE	104.0	IAML	00:47	03.19	2	0.40						
MCH1	HZ	113.0	EP	00:46	51.23		0.15						
MCH1	HN	113.0	ES	00:47	04.34		-0.15						
MCH1	HN	113.0	IAML	00:47	04.83	5	0.40						
MCH1	HE	113.0	IAML	00:47	07.62	4	0.16						
STRD	HN	120.0	ES	00:47	07.01		0.55						
STRD	HE	120.0	IAML	00:47	08.16	8	0.28						
STRD	HN	120.0	IAML	00:47	10.68	9	0.31						
HPK	HE	127.0	ES	00:47	08.33		0.11						
HPK	HE	127.0	IAML	00:47	10.16	16	0.42						
HPK	HN	127.0	IAML	00:47	10.82	16	0.14						
January 25 2016	Time: 17:08 30.7 UTC	Magnitude: 0.6 ML	February 2 2016	Time: 21:55 30.2 UTC	Magnitude: 1.1 ML								
Lat: 55.406N	Lon: -3.366W	Depth: 3.7 km	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
Grid Ref: 313.51 kmE	613.30 kmN	RMS: 0.20 secs	HPK	HE	57.6	ES	21:55	46.89					-0.27
Locality: BODESBECK,D & G			HPK	HE	57.6	IAML	21:55	47.09	14	0.24			
Velocity model: Lownet	Xnear: 100.0	Xfar: 200.0	HPK	HN	57.6	IAML	21:55	47.21	13	0.29			
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	IAML	17:08	35.78	35	0.10						
EBL	EZ	45.5	EP	17:08	38.97		0.01						
NEWG	HZ	63.6	EP	17:08	41.55		-0.22						
NEWG	HN	63.6	ES	17:08	49.54		-0.31						
NEWG	HN	63.6	IAML	17:08	50.35	2	0.27						
NEWG	HE	63.6	IAML	17:08	50.42	2	0.07						
KESW	HZ	92.5	EP	17:08	46.42		0.16						
GALL	HZ	105.0	EP	17:08	48.28		0.15						
GALL	HN	105.0	ES	17:09	01.18		0.32						
GALL	HE	105.0	IAML	17:09	02.13	3	0.47						
GALL	HN	105.0	IAML	17:09	03.83	3	0.52						
January 27 2016	Time: 23:28 48.5 UTC	Magnitude: 0.8 ML	February 3 2016	Time: 05:28 24.8 UTC	Magnitude: 1.0 ML								
Lat: 50.164N	Lon: -5.120W	Depth: 1.5 km	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
Grid Ref: 177.20 kmE	34.06 kmN	RMS: 0.10 secs	CLGH	HZ	47.6	EP	05:28	33.13					0.01
Locality: PENRYN,CORNWALL			CLGH	HN	47.6	ES	05:28	38.89					-0.30
Velocity model: Cornwall	Xnear: 200.0	Xfar: 500.0	CLGH	HE	47.6	IAML	05:28	39.46	11	0.35			
Comment: FELT RAME		Intensity: 2	CLGH	HN	47.6	IAML	05:28	40.50	6	0.15			
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES			
CCA1	HZ	8.1	IP	D	23:28	49.74	-0.18						
CCA1	HE	8.1	ES		23:28	51.14	0.10						
CCA1	HE	8.1	IAML		23:28	51.25	65	0.07					
CCA1	HN	8.1	IAML		23:28	51.26	41	0.08					
PGB1	HZ	109.0	EP					05:28	42.65				0.07
PGB1	HE	109.0	ES					05:28	55.14				-0.40
PGB1	HN	109.0	IAML					05:28	56.35	7	0.41		
PGB1	HN	109.0	IAML					05:28	57.38	9	0.52		
GAL1	HZ	115.0	EP					05:28	43.95				0.38
GAL1	HN	115.0	ES					05:28	57.34				0.09
GAL1	HE	115.0	IAML					05:28	59.50	4	0.27		
GAL1	HN	115.0	IAML					05:29	00.13	4	0.36		
NEWG	HZ	128.0	EP					05:28	45.90				0.37
NEWG	HE	128.0	ES					05:29	00.72				0.07
NEWG	HE	128.0	IAML					05:29	02.92	3	0.11		
NEWG	HN	128.0	IAML					05:29	03.10	3	0.26		

TABLE 2 : PHASE DATA

February 3 2016										Magnitude: 0.8 ML													
Lat:	57.989N	Time:	20:34	19.6	UTC	Depth:	7.8	km	RMS:	0.40	secs	Locality:	LLEYN	PENINSULA	STAT	CO	DIST	PHAS	WT P	HrMn			
KAC	EZ	56.5	EP	20:34	28.99	-0.27	YLL	EZ	24.4	EP	02:54	47.78								0.17			
KAC	EZ	56.5	ES	20:34	35.66	-0.63	YRC	EZ	37.8	EP	02:54	49.46								-0.10			
KPL	HZ	80.7	EP	20:34	33.39	0.41	WLF1	HZ	38.7	EP	02:54	49.63								-0.06			
KPL	HE	80.7	ES	20:34	43.31	0.58	WLF1	HE	38.7	ES	02:54	54.82								0.03			
KPL	HE	80.7	IAML	20:34	46.03	2 0.21	WLF1	HE	38.7	IAML	02:54	55.05	54	0.10									
KPL	HN	80.7	IAML	20:34	46.13	2 0.16	WLF1	HN	38.7	IAML	02:54	55.06	34	0.26									
BIGH	HZ	87.5	EP	20:34	34.15	0.12	LLW	BZ	46.1	EP	02:54	50.87								0.03			
BIGH	HN	87.5	ES	20:34	44.47	-0.08	LLW	BN	46.1	ES	02:54	56.79								0.02			
BIGH	HN	87.5	IAML	20:34	46.61	10 0.48	LLW	BN	46.1	IAML	02:54	57.45	5	0.20									
BIGH	HE	87.5	IAML	20:34	46.94	12 0.38	LLW	BE	46.1	IAML	02:54	57.54	5	0.15									
LEWI	HZ	109.0	EP	20:34	37.49	0.13	WME	EZ	50.4	EP	02:54	51.49								-0.00			
LEWI	HN	109.0	ES	20:34	50.07	-0.25	WPS	HZ	52.0	EP	02:54	51.66								-0.05			
LEWI	HN	109.0	IAML	20:34	50.38	1 0.10	WPS	HN	52.0	IAML	02:54	58.55	5	0.10						-0.03			
LEWI	HE	109.0	IAML	20:34	53.28	2 0.30	FOEL	HZ	76.4	EP	02:54	55.57	7	0.44						-0.12			
							FOEL	HE	76.4	ES	02:55	04.79											
							FOEL	HN	76.4	IAML	02:55	05.57											
							FOEL	HE	76.4		02:55	06.22	9	0.46									
February 4 2016										Magnitude: 1.1 ML										-0.01			
Lat:	56.991N	Time:	02:01	15.5	UTC	Depth:	11.4	km	RSBS	HZ	114.0	EP	02:55	00.96									
Grid Ref:	242.60 kmE	791.84 kmN				RMS:	0.00	secs	RSBS	HN	114.0	IAML	02:55	14.80	3	0.08							
Locality:	MELGARVE, HIGHLAND					RSBS	HE	114.0	IAML	02:55	15.94	10	0.05										
Velocity model:	Lownet	Xnear: 500.0	Xfar: 1000.0			WIM	EZ	136.0	EP	02:55	04.28										0.14		
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	IOMK	HE	147.0	ES	02:55	22.49						-0.05		
KAC	EZ	70.9	EP	02:01	27.46		IOMK	HE	147.0	IAML	02:55	23.78	4	0.23									
KPL	HZ	75.0	EP	02:01	28.03	0.02	IOMK	HN	147.0	IAML	02:55	24.19	5	0.49									
KPL	HN	75.0	ES	02:01	37.08	-0.08																	
KPL	HN	75.0	IAML	02:01	39.64	6 0.15	February 18 2016										Magnitude: 1.0 ML						
KPL	HE	75.0	IAML	02:01	39.67	11 0.18	Lat:	53.950N	Lon:	-3.467W	Depth:	8.2 km	Grid Ref:	303.74 kmE	451.45 kmN	RMS:	0.30	secs					
MCD	EE	104.0	ES	02:01	44.64	-0.02																	
MCD	EN	104.0	IAML	02:01	45.92	8 0.16	Locality: IRISH SEA										Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0						
MCD	EE	104.0	IAML	02:01	45.99	9 0.48	Comment:	30KM WEST FLEETWOOD															
DRUM	HZ	128.0	EP	02:01	35.86	0.07	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES							
DRUM	HE	128.0	ES	02:01	50.57	-0.05	WPS	HZ	91.6	EP	06:10	15.23								-0.39			
DRUM	HN	128.0	IAML	02:01	52.45	4 0.14	WPS	HN	91.6	ES	06:10	27.10								0.21			
DRUM	HE	128.0	IAML	02:01	52.71	3 0.11	WPS	HE	91.6	IAML	06:10	27.95	4	0.08									
EDI	HE	147.0	ES	02:01	55.18	-0.02	WPS	HN	91.6	IAML	06:10	28.01	5	0.18									
LEWI	HN	187.0	ES	02:02	04.21	0.02	LLW	BZ	123.0	EP	06:10	20.57								0.02			
							NEWG	HZ	139.0	EP	06:10	22.80								-0.12			
February 14 2016										Magnitude: 0.5 ML										0.10			
Lat:	56.979N	Time:	00:34	14.3	UTC	Depth:	7.5	km	NEWG	HN	139.0	ES	06:10	39.63									
Grid Ref:	172.64 kmE	793.74 kmN				RMS:	0.20	secs	NEWG	HN	139.0	IAML	06:10	40.07	1	0.38							
Locality:	MALLAIG, HIGHLAND						NEWG	HE	139.0	IAML	06:10	40.55	2	0.20									
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	ESK	HZ	153.0	EP	06:10	25.44					0.49			
KPL	HZ	40.5	EP	00:34	21.32	-0.06	ESK	HE	153.0	ES	06:10	42.73								-0.31			
KPL	HE	40.5	ES	00:34	26.38	-0.20	ESK	HN	153.0	IAML	06:10	43.36	3	0.30									
KPL	HN	40.5	IAML	00:34	26.61	2 0.13	ESK	HE	153.0		06:10	45.03	4	0.41									
KPL	HE	40.5	IAML	00:34	26.86	2 0.13																	
LAWE	HZ	82.7	EP	00:34	28.26	0.31	February 18 2016										Magnitude: 1.2 ML						
LAWE	HE	82.7	ES	00:34	37.71	-0.23	Lat:	53.665N	Lon:	-0.445W	Depth:	6.9 km	Grid Ref:	502.73 kmE	419.87 kmN	RMS:	0.30	secs					
LAWE	HN	82.7	IAML	00:34	38.11	3 0.16																	
LAWE	HE	82.7	IAML	00:34	38.29	5 0.22	Locality: BARTON,NORTH LINCS										Velocity model: Lownet Xnear: 100.0 Xfar: 200.0						
LINV	HZ	134.0	EP	00:34	35.71	-0.06	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES							
LINV	HE	134.0	ES	00:34	51.72	0.24	LMK	HE	24.5	EP	14:12	04.67								-0.26			
LINV	HE	134.0	IAML	00:34	52.62	2 0.15	LMK	HE	24.5	ES	14:12	08.80								0.31			
LINV	HN	134.0	IAML	00:34	52.74	1 0.33	GDLE	HZ	87.7	EP	14:12	14.22								-0.35			
							GDLE	HN	87.7	ES	14:12	25.58								0.41			
February 15 2016										Magnitude: 1.6 ML													
Lat:	49.898N	Time:	23:12	09.7	UTC	Depth:	5.0	km	GDLE	HE	87.7	IAML	14:12	26.76	12	0.34							
Grid Ref:	320.36 kmE	0.42 kmN				RMS:	0.30	secs	GDLE	HN	87.7	IAML	14:12	26.95	19	0.34							
Locality:	ENGLISH CHANNEL						LBWR	HZ	89.8	EP	14:12	14.62								-0.29			
Comment:	60KM NW GUERNSEY						LBWR	HN	89.8	ES	14:12	25.89								0.14			
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	LBWR	HE	89.8	IAML	14:12	26.37	11	0.12						
JVM	EZ	100.0	EP	23:12	25.96	-0.30	LBWR	HE	89.8	ES	14:12	26.65	11	0.20									
JLP	EZ	102.0	EP	23:12	26.36	-0.30	CWF	HE	118.0	ES	14:12	32.75								0.05			
JQE	EZ	110.0	EP	23:12	27.45	-0.31	CWF	HN	118.0	IAML	14:12	32.91	8	0.11									
JDC	EZ	110.0	EP	23:12	27.76	0.00	CWF	HE	118.0	IAML	14:12	33.26	5	0.13									
JDC	EN	110.0	ES	23:12	41.23	0.32	February 23 2016										Magnitude: 0.2 ML						
JDC	EN	110.0	IAML	23:12	42.65	69 0.16	STNC	HZ	35.7	EP	02:03	07.44								0.09			
JDC	EE	110.0	IAML	23:12	44.99	31 0.20	STNC	HE	35.7	ES	02:03	12.21								0.09			
SBD	BZ	135.0	EP	23:12	31.49	-0.12	FOEL	HZ	35.7	EP	02:03	07.61											

TABLE 2 : PHASE DATA

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SWN1	HE	64.1	ES	23:12	30.14	0.50	Locality: OAKHAM,RUTLAND	
SWN1	HE	64.1	IAML	23:12	30.71	139 0.18	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0	
SWN1	HN	64.1	IAML	23:12	30.78	221 0.23	Comment: FELT OAKHAM Intensity: 3	
STRD	HZ	85.0	EP	23:12	24.67	0.29	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	
STRD	HE	85.0	ES	23:12	35.07	-0.18	CWF HZ 40.1 EP 20:30 42.03 1.19	
STRD	HE	85.0	IAML	23:12	35.85	348 0.16	CWF HE 40.1 ES 20:30 44.93 -1.24	
STRD	HN	85.0	IAML	23:12	36.13	155 0.20	CWF HE 40.1 IAML 20:30 45.34 8 0.06	
OLDB	HZ	112.0	EP	23:12	28.92	0.41	CWF HN 40.1 IAML 20:30 45.34 14 0.08	
CWF	HZ	116.0	IP	D	23:12	28.73	-0.52	WACR HZ 91.3 EP 20:30 49.21 0.41
MONM	HZ	130.0	EP		23:12	31.39	0.09	WACR HE 91.3 ES 20:30 59.30 -0.64
MCH1	HZ	146.0	IP	D	23:12	33.58	-0.05	WACR HN 91.3 IAML 20:31 01.20 8 0.15
WACR	HZ	155.0	EP		23:12	34.58	-0.34	WACR HE 91.3 IAML 20:31 01.31 5 0.31
ELSH	HZ	157.0	EP		23:12	36.09	0.79	LBWR HZ 104.0 EP 20:30 50.80 -0.07
HLM1	HZ	160.0	EP		23:12	35.86	0.07	LBWR HE 104.0 ES 20:31 03.78 0.25
STNC	HZ	176.0	EP		23:12	38.18	0.26	MCH1 HZ 173.0 EP 20:31 01.76 0.81
LBWR	HZ	195.0	EP		23:12	40.21	-0.14	MCH1 HN 173.0 ES 20:31 21.81 0.86
FOEL	HZ	202.0	EP		23:12	41.61	0.33	MCH1 HN 173.0 IAML 20:31 22.28 3 0.22
RSBS	HZ	264.0	EP		23:12	48.50	-0.46	MCH1 HE 173.0 IAML 20:31 23.56 2 0.16
SBD	BZ	292.0	EP		23:12	51.95	-0.52	
March 7 2016							March 13 2016 Time: 01:52 29.7 UTC Magnitude: 0.6 ML	
Time: 05:40 33.9 UTC							Lat: 55.127N Lon: -3.659W Depth: 3.1 km	
Lat: 61.558N							Grid Ref: 294.23 kmE 582.67 kmN RMS: 0.40 secs	
Grid Ref: 709.98 kmE							Locality: LOCHARBRIGGS,D & G	
Locality: NORTHERN NORTH SEA							Velocity model: Lownet Xnear: 60.0 Xfar: 100.0	
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0							STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	
Comment: 310KM ENE LERWICK							ESK HZ 35.8 EP 01:52 36.30 0.07	
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES							ESK HE 35.8 ES 01:52 40.73 -0.31	
LRW HZ 315.0 EP				05:41	18.82	0.43	ESK HE 35.8 IAML 01:52 41.64 11 0.16	
LRW HE 315.0 ES				05:41	50.72	-0.18	ESK HE 35.8 IAML 01:52 41.71 6 0.17	
LRW HN 315.0 IAML				05:41	53.24	6 0.28	NEWG HZ 36.4 EP 01:52 36.73 0.41	
LRW HE 315.0 IAML				05:41	57.54	8 0.47	NEWG HN 36.4 ES 01:52 40.94 -0.25	
BIGH HZ 550.0 EP				05:41	47.59	-0.14	NEWG HE 36.4 IAML 01:52 41.17 14 0.22	
BIGH HE 550.0 ES				05:42	42.06	0.40	NEWG HE 36.4 IAML 01:52 41.28 11 0.20	
BIGH HE 550.0 IAML				05:42	42.27	15 0.22	KESW HZ 69.7 EP 01:52 41.70 0.03	
BIGH HN 550.0 IAML				05:42	43.58	14 0.50	KESW HE 69.7 IAML 01:52 52.40 2 0.22	
DRUM HE 630.0 ES				05:42	59.35	0.29	KESW HE 69.7 IAML 01:52 53.36 2 0.48	
DRUM HN 630.0 IAML				05:43	03.94	14 0.40	GAL1 HZ 73.3 EP 01:52 42.43 0.24	
DRUM HE 630.0 IAML				05:43	04.99	16 0.32	GAL1 HN 73.3 ES 01:52 50.82 -0.52	
LINV HZ 632.0 EP				05:41	57.40	-0.60	GAL1 HN 73.3 IAML 01:52 53.01 3 0.16	
LAWE HE 793.0 ES				05:43	32.54	-1.73	GAL1 HE 73.3 IAML 01:52 54.90 3 0.28	
EBL EZ 81.7 EP							EBL EZ 81.7 EP 01:52 44.48 0.93	
March 7 2016								
Time: 20:11 54.8 UTC								
Magnitude: 2.4 ML								
Lat: 58.411N							March 14 2016 Time: 18:06 59.9 UTC Magnitude: 1.0 ML	
Lon: 1.106W							Lat: 52.675N Lon: -0.764W Depth: 3.7 km	
Grid Ref: 581.43 kmE							Grid Ref: 483.56 kmE 309.34 kmN RMS: 0.30 secs	
Grid Ref: 951.11 kmN							Locality: OAKHAM,RUTLAND	
Locality: CENTRAL NORTH SEA							Velocity model: Lownet Xnear: 100.0 Xfar: 200.0	
Velocity model: North Sea Xnear: 400.0 Xfar: 600.0							Comment: FELT OAKHAM Intensity: 2	
Comment: 240KM NE ABERDEEN							STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES							CWF HZ 37.4 EP 18:07 06.61 -0.01	
LRW HZ 232.0 EP				20:12	28.50	-0.03	CWF HE 37.4 ES 18:07 11.21 -0.29	
LRW HE 232.0 ES				20:12	53.34	0.18	CWF HE 37.4 IAML 18:07 11.52 7 0.10	
LRW HE 232.0 IAML				20:13	02.01	7 0.22	CWF HE 37.4 IAML 18:07 11.59 13 0.10	
LRW HN 232.0 IAML				20:13	02.40	10 0.14	WACR HZ 94.3 EP 18:07 15.83 0.43	
DRUM HZ 272.0 EP				20:12	34.23	0.77	WACR HE 94.3 ES 18:07 26.26 -0.43	
DRUM HN 272.0 IAML				20:13	04.38	13 0.34	LBWR HZ 103.0 EP 18:07 17.27 0.40	
DRUM HE 272.0 IAML				20:13	05.12	21 0.48	LBWR HE 103.0 ES 18:07 29.12 -0.11	
MCD EZ 274.0 EP				20:12	34.20	0.47	LBWR HE 103.0 IAML 18:07 35.47 6 0.42	
BIGH HZ 293.0 EP				20:12	36.03	-0.06	LBWR HE 103.0 IAML 18:07 35.51 6 0.33	
BIGH HE 293.0 ES				20:13	05.82	-0.41	MCH1 HZ 170.0 EP 18:07 26.75 0.22	
BIGH HN 293.0 IAML				20:13	06.99	19 0.19	MCH1 HE 170.0 ES 18:07 46.06 0.12	
BIGH HE 293.0 IAML				20:13	07.18	15 0.22	MCH1 HE 170.0 IAML 18:07 51.12 2 0.18	
MDO EZ 341.0 EP				20:12	42.58	0.43	MCH1 HE 170.0 IAML 18:07 51.84 3 0.20	
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		
ED1 HZ 380.0 EP				20:12	46.80	-0.06		
ED1 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		
LAWE HZ 459.0 EP				20:12	56.05	-0.66		
LAWE HE 459.0 IAML				20:13	44.17	10 0.14		
LAWE 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 11 2016							March 17 2016 Time: 04:34 00.5 UTC Magnitude: 1.0 ML	
Time: 20:30 33.5 UTC							Lat: 53.149N Lon: -4.671W Depth: 9.2 km	
Lat: 52.685N							Grid Ref: 221.40 kmE 364.68 kmN RMS: 0.10 secs	
Lon: -0.721W							Locality: OFFSHORE ANGLESEY	
Grid Ref: 486.45 kmE							Velocity model: Lleyn Xnear: 80.0 Xfar: 200.0	
Grid Ref: 310.51 kmN							Comment: 15KM SSW HOLYHEAD	
RMS: 0.80 secs							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 HE 24.1 ES 04:34 08.06 0.23	
							WLF1 HE 24.1 IAML 04:34 08.40 26 0.19	
							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	
							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 HE 103.0 IAML 04:34 29.96 4 0.25	
							FOEL HE 103.0 IAML 04:34 30.40 6 0.29	
							WIM EZ 111.0 EP 04:34 19.01 0.26	
							March 17 2016 Time: 19:33 36.7 UTC Magnitude: 0.2 ML	
							Lat: 53.079N Lon: -4.222W Depth: 8.5 km	

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
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES		Locality: NEWBRIDGE, CAERPHILLY		
WLF1 HZ 26.2 IP D 19:33 41.40 0.01		Velocity model: Mid Wales Xnear: 80.0 Xfar: 200.0		
WLF1 HN 26.2 ES 19:33 44.53 -0.02		STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES		
WLF1 HE 26.2 IAML 19:33 45.01 5 0.10		MONM HZ 34.7 IP C 23:15 27.54 -0.13		
WLF1 HN 26.2 IAML 19:33 45.35 4 0.24		MONM HN 34.7 ES 23:15 32.26 0.20		
YRC EZ 30.4 EP 19:33 42.01 -0.06		MONM HE 34.7 IAML 23:15 32.93 32 0.18		
YRC EZ 30.4 ES 19:33 45.74 0.05		MONM HN 34.7 IAML 23:15 33.13 35 0.18		
WME EZ 35.8 EP 19:33 42.98 0.04		MCH1 HZ 40.2 IP C 23:15 28.58 -0.02		
WPS HZ 40.3 EP 19:33 43.67 0.01		MCH1 HE 40.2 ES 23:15 33.97 0.31		
WPS HN 40.3 ES 19:33 48.35 -0.02		MCH1 HE 40.2 IAML 23:15 34.14 20 0.30		
March 18 2016 Time: 08:30 54.7 UTC Magnitude: 1.4 ML		MCH1 HE 40.2 IAML 23:15 34.17 19 0.28		
Lat: 52.186N Lon: -2.524W Depth: 4.9 km		STRD HN 74.0 ES 23:15 43.11 -0.14		
Grid Ref: 364.18 kmE 254.37 kmN RMS: 0.10 secs		STRD HN 74.0 IAML 23:15 43.45 6 0.15		
Locality: BROMYARD, HEREFORDSHIRE		STRD HE 74.0 IAML 23:15 43.70 5 0.20		
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0		HLM1 HE 98.0 ES 23:15 49.51 -0.61		
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES		HLM1 HE 98.0 IAML 23:15 53.27 2 0.19		
HLM1 HZ 44.3 EP 08:31 02.57 -0.14		HLM1 HN 98.0 IAML 23:15 54.20 2 0.32		
HLM1 HE 44.3 ES 08:31 08.44 -0.08		RSBS HZ 110.0 EP 23:15 40.19 0.01		
HLM1 HE 44.3 IAML 08:31 08.74 25 0.22		RSBS HE 110.0 ES 23:15 53.52 -0.05		
HLM1 HN 44.3 IAML 08:31 09.09 22 0.15		RSBS HE 110.0 IAML 23:15 55.71 2 0.10		
STRD HZ 51.9 EP 08:31 03.79 -0.06		RSBS HN 110.0 IAML 23:15 59.66 2 0.18		
STRD HE 51.9 ES 08:31 10.52 0.02		HTL HZ 115.0 EP 23:15 41.37 0.36		
FOEL HZ 90.8 EP 08:31 10.11 0.19		HTL HE 115.0 ES 23:15 54.76 -0.25		
FOEL HE 90.8 ES 08:31 21.03 0.03		HTL HE 115.0 IAML 23:15 57.08 4 0.52		
FOEL HN 90.8 IAML 08:31 22.41 9 0.60		HTL HE 115.0 IAML 23:15 59.41 4 0.59		
FOEL HE 90.8 IAML 08:31 25.79 6 0.20		FOEL HZ 137.0 EP 23:15 44.73 0.50		
LBWR HZ 146.0 EP 08:31 18.39 0.19		FOEL HN 137.0 ES 23:16 00.73 0.19		
LBWR HE 146.0 ES 08:31 35.22 -0.10		FOEL HE 137.0 IAML 23:16 01.85 3 0.28		
LBWR HE 146.0 IAML 08:31 37.62 22 0.18		FOEL HN 137.0 IAML 23:16 02.93 2 0.36		
LBWR HN 146.0 IAML 08:31 37.67 16 0.46		DYA HZ 145.0 EP 23:15 45.21 -0.32		
RSBS HZ 154.0 EP 08:31 19.22 -0.22		DYA HN 145.0 ES 23:16 03.08 0.30		
RSBS HE 154.0 ES 08:31 37.67 0.19		DYA HN 145.0 IAML 23:16 04.00 2 0.18		
RSBS HE 154.0 IAML 08:31 38.38 8 0.28		DYA HE 145.0 IAML 23:16 04.56 3 0.56		
RSBS HN 154.0 IAML 08:31 38.46 13 0.30		CWF HN 177.0 ES 23:16 10.58 0.10		
WME EZ 180.0 EP 08:31 23.01 0.07		CWF HN 177.0 IAML 23:16 12.30 2 0.16		
WME HE 177.0 IAML 23:16 12.36 3 0.12		CWF HE 177.0 IAML 23:16 12.36 3 0.12		
March 20 2016 Time: 20:37 02.5 UTC Magnitude: 0.6 ML		March 24 2016 Time: 00:07 04.1 UTC Magnitude: 0.7 ML		
Lat: 53.028N Lon: -3.709W Depth: 9.4 km		Lat: 54.033N Lon: -3.726W Depth: 21.1 km		
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: PENTREFOELAS, CONWY		Locality: IRISH SEA		
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		Comment: 45KM WNW FLEETWOOD		
FOEL HZ 37.5 EP 20:37 09.16 0.07		STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES		
FOEL HN 37.5 ES 20:37 13.60 0.07		IOMK HZ 60.4 EP 00:07 14.54 0.09		
FOEL HE 37.5 IAML 20:37 14.78 8 0.48		IOMK HN 60.4 ES 00:07 21.85 -0.15		
FOEL HN 37.5 IAML 20:37 15.36 4 0.36		IOMK HE 60.4 IAML 00:07 22.29 4 0.16		
WLF1 HZ 54.5 EP 20:37 11.70 -0.11		IOMK HN 60.4 IAML 00:07 22.90 5 0.22		
WLF1 HE 54.5 ES 20:37 18.13 0.02		KESW HZ 73.9 EP 00:07 16.49 0.10		
WLF1 HE 54.5 IAML 20:37 18.42 2 0.07		KESW HE 73.9 ES 00:07 25.27 -0.09		
WLF1 HN 54.5 IAML 20:37 19.14 4 0.26		KESW HE 73.9 IAML 00:07 25.91 7 0.28		
WME EZ 57.1 EP 20:37 12.43 0.17		KESW HN 73.9 IAML 00:07 25.99 3 0.26		
YRC EZ 63.1 EP 20:37 12.82 -0.40		WPS HZ 86.9 EP 00:07 18.36 0.16		
WPS HZ 67.1 EP 20:37 13.84 -0.05		WPS HE 86.9 ES 00:07 28.66 0.17		
WPS HN 67.1 ES 20:37 21.85 0.25		WPS HE 86.9 IAML 00:07 28.78 1 0.12		
WPS HE 67.1 IAML 20:37 24.24 2 0.32		WPS HN 86.9 IAML 00:07 29.35 2 0.26		
WPS HN 67.1 IAML 20:37 33.71 4 0.88		WLF1 HZ 93.9 EP 00:07 19.03 -0.17		
HLM1 HZ 79.6 EP 20:37 15.78 -0.14		WLF1 HN 93.9 ES 00:07 30.03 -0.19		
HLM1 HE 79.6 ES 20:37 25.15 0.13		WLF1 HE 93.9 IAML 00:07 30.75 3 0.33		
MCH1 HZ 124.0 EP 20:37 22.52 -0.27		WLF1 HE 93.9 IAML 00:07 31.19 8 0.66		
MCH1 HE 124.0 IAML 20:37 36.35 -0.21		GAL1 HZ 113.0 EP 00:07 21.97 0.09		
MCH1 HE 124.0 IAML 20:37 36.84 1 0.25				
MCH1 HN 124.0 IAML 20:37 36.89 2 0.26				
RSBS HN 139.0 ES 20:37 40.99 0.70		March 25 2016 Time: 16:04 04.0 UTC Magnitude: 0.7 ML		
RSBS HE 139.0 IAML 20:37 41.93 2 0.10		Lat: 53.166N Lon: -4.631W Depth: 11.3 km		
RSBS HN 139.0 IAML 20:37 42.35 4 0.18		Grid Ref: 224.14 kmE 366.47 kmN RMS: 0.10 secs		
March 21 2016 Time: 22:04 51.8 UTC Magnitude: 0.4 ML		Locality: CAERNARFON BAY		
Lat: 53.350N Lon: -3.916W Depth: 5.6 km		Velocity model: Lownet Xnear: 100.0 Xfar: 200.0		
Grid Ref: 272.48 kmE 385.42 kmN RMS: 0.10 secs		Comment: 10KM SW RHOSNEIGR		
Locality: OFFSHORE ANGLESEY		STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES		
Velocity model: Lleyn Xnear: 80.0 Xfar: 200.0		YRC EZ 10.1 EP 16:04 06.72 -0.02		
Comment: 7KM ENE LLANDUDNO		WLF1 HZ 20.8 IP C 16:04 08.19 0.01		
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES		WLF1 HN 20.8 ES 16:04 11.41 0.17		
WME EZ 26.3 EP 22:04 56.46 0.04		WLF1 HE 20.8 IAML 16:04 11.74 6 0.12		
WLF1 HZ 32.7 EP 22:04 57.43 -0.03		WLF1 HN 20.8 IAML 16:04 11.84 11 0.07		
WLF1 HN 32.7 ES 22:05 01.35 0.07		WPS HZ 27.5 IP C 16:04 09.24 0.06		
WLF1 HN 32.7 IAML 22:05 01.49 9 0.12		WPS HE 27.5 ES 16:04 12.71 -0.25		
WLF1 HE 32.7 IAML 22:05 01.60 8 0.09		WPS HE 27.5 IAML 16:04 12.97 8 0.18		
WPS HZ 39.2 EP 22:04 58.55 0.03		WPS HN 27.5 IAML 16:04 13.62 5 0.18		
WPS HN 39.2 ES 22:05 03.05 -0.01		WME EZ 33.7 EP 16:04 10.22 0.09		
WPS HN 39.2 IAML 22:05 03.22 4 0.11		LLW BZ 73.8 EP 16:04 16.34 0.03		
WPS HE 39.2 IAML 22:05 03.23 3 0.08		LLW BN 73.8 ES 16:04 25.25 -0.06		
YRC EZ 45.3 EP 22:04 59.39 -0.14		LLW BN 73.8 IAML 16:04 25.60 2 0.26		
FOEL HZ 70.2 EP 22:05 03.69 0.02		LLW BE 73.8 IAML 16:04 26.45 2 0.27		
FOEL HE 101.0 ES 16:04 32.80 4 0.47		FOEL HE 101.0 ES 16:04 32.60 -0.05		
RSBS HN 165.0 ES 22:05 36.47 0.10		FOEL HE 101.0 IAML 16:04 32.80 4 0.47		

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				Lat: -6.004W		Depth:	7.7 km														
Grid Ref: 152.12 kmE				715.81 kmN		RMS:	0.30 secs														
Locality: MULL, ARGYLL & BUTE																					
Velocity model: Lownet				Xnear: 100.0		Xfar:	200.0														
Comment: OFFSHORE LOCATION																					
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES											
LAWE	HZ	37.5	EP			16:22	10.55			-0.37	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
LAWE	HN	37.5	ES			16:22	15.51			-0.28	LMK	HZ	27.1	IP	D	06:01	34.53				0.02
LAWE	HE	37.5	IAML			16:22	15.81	3	0.35		LMK	HN	27.1	ES		06:01	38.52				0.26
LAWE	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	D	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	D	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	C	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														
Lat: 52.881N				Lat: -4.505W		Depth:	7.3 km				GDLE	HZ	85.1	EP		06:01	43.20				-0.32
Grid Ref: 231.46 kmE				334.48 kmN		RMS:	0.20 secs				GDLE	HE	85.1	ES		06:01	53.43				-0.42
Locality: LLEYN PENINSULA											GDLE	HN	85.1	IAML		06:01	54.32	30	0.24		
Velocity model: Lleyrn				Xnear: 80.0		Xfar:	200.0				GDLE	HE	85.1	IAML		06:01	54.46	17	0.17		
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	LBWR	HZ	91.7	EP		06:01	44.08				-0.50
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										
WLF1	HE	46.0	IAML			07:14	10.59	28	0.12		Time: 18:43	59.1 UTC	Magnitude:	0.7 ML							
WLF1	HN	46.0	IAML			07:14	10.79	9	0.14		Lat: 56.279N	Lon: -4.131W	Depth:	5.0 km							
LLW	BZ	56.7	EP			07:14	06.62			-0.04	Grid Ref: 268.08 kmE	711.65 kmN	RMS:	0.30 secs							
LLW	BE	56.7	ES			07:14	13.15			-0.04	Locality: CALLANDER, STIRLING										
LLW	BN	56.7	IAML			07:14	13.32	3	0.21		Velocity model: Lownet	Xnear: 85.0	Xfar:	170.0							
LLW	BE	56.7	IAML			07:14	14.13	3	0.25		STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
WPS	HZ	57.8	EP			07:14	06.83			-0.01	INVG	HZ	17.4	IP	D	18:44	02.65				0.07
WPS	HE	57.8	ES			07:14	13.62			0.14	INVG	HN	17.4	ES		18:44	04.94				-0.19
WPS	HE	57.8	IAML			07:14	13.84	4	0.30		INVG	HN	17.4	IAML		18:44	05.33	7	0.17		
WPS	HN	57.8	IAML			07:14	13.95	3	0.22		PGB1	HZ	56.5	EP		18:44	05.38	13	0.13		
WME	EZ	58.9	EP			07:14	06.84			-0.19	PGB1	HE	56.5	ES		18:44	09.08				0.18
FOEL	HZ	87.8	EP			07:14	11.61			-0.21	PGB1	HE	56.5	IAML		18:44	16.38	3	0.25		0.00
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	LAWE	HZ	78.6	EP		18:44	12.56				0.25
RSBS	HE	105.0	ES			07:14	26.62				LAWE	HN	78.6	ES		18:44	21.76				-0.21
RSBS	HN	105.0	IAML			07:14	27.66	4	0.30		LAWE	HN	78.6	IAML		18:44	22.01	4	0.20		
RSBS	HE	105.0	IAML			07:14	28.36	4	0.20		LAWE	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		
										DRUM	HZ	123.0	EP		18:44	18.80				-0.45	
March 27 2016				Time: 19:07	09.4 UTC	Magnitude:	0.4 ML				DRUM	HN	123.0	ES		18:44	34.59				0.63
Lat: 54.520N				Lat: -4.005W		Depth:	6.9 km				DRUM	HN	123.0	IAML		18:44	35.48	3	0.25		
Grid Ref: 270.24 kmE				515.72 kmN		RMS:	0.20 secs				DRUM	HE	123.0	IAML		18:44	35.51	3	0.20		
Locality: IRISH SEA										NEWG	HZ	129.0	EP		18:44	20.24				0.05	
Velocity model: Lownet				Xnear: 100.0		Xfar:	200.0			NEWG	HN	129.0	ES		18:44	35.22				-0.38	
Comment: 27KM WSW WHITEHAVEN										NEWG	HN	129.0	IAML		18:44	36.41	1	0.19			
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	NEWG	HE	129.0	IAML		18:44	36.59	2	0.08		
IOMK	HZ	46.5	EP			19:07	17.41			-0.09	GAL1	HZ	161.0	EP		18:44	25.76				1.01
IOMK																					

TABLE 2 : PHASE DATA

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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
							AV06	HE	117.0	ES	20:02	52.53	0.40
April 26 2016				Time: 14:49	22.2 UTC	Magnitude: 1.4 ML	AU20	HN	131.0	ES	20:02	56.08	0.23
Lat: 56.347N				Lon: -5.442W		Depth: 3.8 km	HLM1	HN	167.0	ES	20:03	05.19	0.34
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													
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES			
LAWE	HZ	10.1	EP			14:49	24.38						
LAWE	HE	10.1	ES			14:49	26.03						
LAWE	HE	10.1	IAML			14:49	26.07	414	0.10				
LAWE	HN	10.1	IAML			14:49	26.08	530	0.10				
EAB	EZ	70.7	EP			14:49	34.35						
PGB1	HZ	84.4	EP			14:49	36.61						
PGB1	HN	84.4	ES			14:49	46.79						
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						
INVG	HN	86.8	ES			14:49	47.40						
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						
KPL	HE	111.0	ES			14:49	54.00						
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						
CLGH	HZ	147.0	EP			14:49	45.70						
CLGH	HE	147.0	ES			14:50	03.13						
NEWG	HE	157.0	ES			14:50	05.71						
NEWG	HE	157.0	IAML			14:50	05.82	4	0.44				
NEWG	HN	157.0	IAML			14:50	06.80	3	0.14				
April 30 2016				Time: 17:22	25.5 UTC	Magnitude: 1.1 ML	CWF	HN	139.0	EP	22:50	0.80	0.26
Lat: 55.784N				Lon: -6.442W		Depth: 7.7 km	CWF	HN	139.0	ES	22:50	25.51	0.81
Grid Ref: 121.55 kmE				663.45 kmN		RMS: 0.20 secs	CWF	HE	139.0	IAML	22:50	26.38	2 0.14
Locality: ISLAY, ARGYLL & BUTE							CWF	HE	139.0	IAML	22:50	26.89	1 0.13
Velocity model: Lownet	Xnear:	100.0	Xfar:	300.0			CWF	HN	139.0	IAML	22:50	28.59	0.20
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES			
CLGH	HZ	80.8	EP			17:22	39.30						
CLGH	HE	80.8	ES			17:22	48.26						
CLGH	HN	80.8	IAML			17:22	50.68	9	0.12				
CLGH	HE	80.8	IAML			17:22	50.78	12	0.14				
LAWE	HZ	83.9	EP			17:22	39.22						
LAWE	HE	83.9	ES			17:22	49.44						
LAWE	HE	83.9	IAML			17:22	52.94	12	0.22				
LAWE	HN	83.9	IAML			17:22	53.12	7	0.14				
PGB1	HE	123.0	ES			17:23	00.08						
PGB1	HN	123.0	IAML			17:23	01.15	7	0.46				
PGB1	HE	123.0	IAML			17:23	02.03	8	0.44				
GAL1	HE	150.0	ES			17:23	06.63						
GAL1	HE	150.0	IAML			17:23	09.59	2	0.20				
GAL1	HN	150.0	IAML			17:23	10.02	2	0.22				
NEWG	HE	158.0	EP			17:22	50.62						
NEWG	HN	158.0	ES			17:23	08.95						
NEWG	HN	158.0	IAML			17:23	11.82	2	0.10				
NEWG	HE	158.0	IAML			17:23	12.01	2	0.32				
INVG	HZ	166.0	EP			17:22	51.53						
INVG	HE	166.0	ES			17:23	10.29						
INVG	HE	166.0	IAML			17:23	14.68	2	0.24				
INVG	HN	166.0	IAML			17:23	16.02	2	0.17				
April 30 2016				Time: 20:02	19.3 UTC	Magnitude: 1.3 ML	WLF1	HZ	106.0	EP	11:38	04.34	0.01
Lat: 53.118N				Lon: -0.607W		Depth: 7.2 km	WLF1	HE	106.0	ES	11:38	16.66	-0.06
Grid Ref: 493.22 kmE				358.81 kmN		RMS: 0.20 secs	WLF1	HN	106.0	IAML	11:38	17.80	5 0.15
Locality: LINCOLN, LINCOLNSHIRE							GAL1	HZ	122.0	EP	11:38	06.54	-0.05
Velocity model: Lownet	Xnear:	100.0	Xfar:	200.0			EDMD	HE	130.0	EP	11:38	08.04	0.32
Comment: 10KM SSW LINCOLN							EDMD	HE	130.0	ES	11:38	22.24	-0.34
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES			
LMK	HZ	42.1	EP			20:02	26.85						
LMK	HE	42.1	ES			20:02	32.21						
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						
CWF	HE	63.2	ES			20:02	37.99						
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						
LBWR	HE	81.0	ES			20:02	42.32						
LBWR	HN	81.0	IAML			20:02	43.54	28	0.32				
LBWR	HE	81.0	IAML			20:02	43.93	25	0.12				
							May 9 2016						
							Time: 08:18	53.1 UTC					
							Lat: 55.977N	Lon: -4.239W					
							Grid Ref: 260.30 kmE	678.26 kmN					
							Locality: LENNOXTOWN, E DUNBARTON						

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, ARGYLL & 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			LAWE	HZ	16.2	IP		D	11:51	26.60			-0.09		
PGB1	HN	23.9	IAML			08:19	01.06	60	0.22			LAWE	HN	16.2	ES			11:51	28.71			-0.34		
EAB	EZ	24.3	IP		D	08:18	57.99			0.17		LAWE	HN	16.2	IAML			11:51	28.87	246	0.11			
EAB	EZ	24.3	ES			08:19	01.20			-0.04		LAWE	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	IAML			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			
LAWE	HZ	78.7	EP			08:19	06.61			0.39		INVG	HE	86.7	IAML			11:51	51.86	8	0.10			
LAWE	HN	78.7	ES			08:19	15.59			-0.17		PGB1	HZ	89.1	EP			11:51	39.02			0.55		
LAWE	HN	78.7	IAML			08:19	15.77	10	0.16			PGB1	HE	89.1	ES			11:51	49.54			0.11		
LAWE	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												CLGH HZ 153.0 EP 11:51 48.42 0.32												
Lat: 56.668N Lon: -4.376W Depth: 2.7 km Grid Ref: 254.41 kmE 755.42 kmN RMS: 0.40 secs												NEWG HZ 162.0 EP 11:51 49.51 0.07												
Locality: FINNART, PERTH & KINROSS Velocity model: Lownet Xnear: 100.0 Xfar: 200.0 Comment: FELT DALL Intensity: 2												NEWG HZ 162.0 ES 11:52 07.51 -0.90												
May 14 2016 Time: 13:17 51.7 UTC Magnitude: 1.2 ML												Lat: 57.244N Lon: -4.493W Depth: 3.3 km Grid Ref: 249.58 kmE 819.76 kmN RMS: 0.40 secs												
Locality: FOYERS, HIGHLAND Velocity model: Lownet Xnear: 100.0 Xfar: 200.0												May 14 2016 Time: 13:17 51.7 UTC Magnitude: 1.2 ML												
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES												STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES												
INVG	HZ	33.6	EP			11:25	13.86			-0.03		MDO	EZ	23.3	IP	D	13:17	56.05			-0.09			
INVG	HE	33.6	ES			11:25	17.80			-0.63		MDO	EZ	23.3	ES			13:17	59.13			-0.29		
INVG	HE	33.6	IAML			11:25	18.09	38	0.14			KAC	EZ	56.2	EP			13:18	01.39			-0.14		
INVG	HN	33.6	IAML			11:25	18.12	24	0.19			KPL	HZ	70.7	EP			13:18	03.82			0.07		
EAB	EZ	53.4	EP			11:25	17.50			0.33		KPL	HN	70.7	IAML			13:18	12.81	6	0.14			
LAWE	HZ	77.7	EP			11:25	20.89			-0.02		KPL	HE	70.7	IAML			13:18	15.35	4	0.50			
LAWE	HN	77.7	ES			11:25	30.60			0.02		MCD	EZ	83.5	EP			13:18	06.32			0.54		
LAWE	HN	77.7	IAML			11:25	34.03	21	0.09			MCD	EN	83.5	ES			13:18	16.14			0.05		
LAWE	HE	77.7	IAML			11:25	34.07	31	0.11			MCD	EE	83.5	IAML			13:18	19.53	13	0.35			
KAC	EZ	108.0	EP			11:25	25.73			0.08		INVG	HZ	95.0	EP			13:18	07.66			0.10		
KPL	HZ	108.0	EP			11:25	25.61			0.06		INVG	HE	95.0	ES			13:18	18.34			-0.83		
KPL	HN	108.0	ES			11:25	38.15			-0.45		INVG	HN	95.0	IAML			13:18	22.28	13	0.13			
KPL	HN	108.0	IAML			11:25	42.13	7	0.31			INVG	HE	95.0	IAML			13:18	22.45	23	0.30			
KPL	HE	108.0	IAML			11:25	40.13	6	0.43			INVG	HN	109.0	EP			13:18	09.72			0.03		
MCD	EZ	122.0	EP			11:25	28.11			0.22		INVG	HN	109.0	IAML			13:18	23.87	3	0.27			
EBL	EZ	129.0	EP			11:25	29.84			0.85		INVG	HE	109.0	IAML			13:18	24.39	4	0.13			
LINV	HZ	172.0	EP			11:25	35.51			0.48		INVG	HE	109.0	ES			13:18	11.66			0.55		
May 11 2016 Time: 02:52 03.1 UTC Magnitude: 0.1 ML												LAWE HZ 123.0 EP 13:18 11.85 0.00												
Lat: 52.888N Lon: -3.859W Depth: 12.5 km Grid Ref: 274.94 kmE 333.94 kmN RMS: 0.10 secs												LAWE HZ 123.0 ES 13:18 11.85 0.00												
Locality: TRAWSFYNYDD, GWYNEDD Velocity model: Lownet Xnear: 100.0 Xfar: 200.0												LAWE HZ 123.0 IAML 13:18 27.16 0.57												
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES												FOEL HE 44.3 IAML 13:18 28.77 8 0.14												
LLW	BZ	13.7	EP			02:52	06.65			0.18		FOEL	HE	44.3	EP			13:18	28.77	8	0.14			
LLW	BN	13.7	ES			02:52	08.80			-0.10		FOEL	HN	44.3	IAML			13:18	30.17	5	0.16			
LLW	BE	13.7	IAML			02:52	09.10	3	0.11			FOEL	HE	44.3	ES			13:18	37.85			0.54		
LLW	BN	13.7	IAML			02:52	09.10	5	0.10			FOEL	HN	44.3	EP			13:18	59.15			-0.12		
FOEL	HZ	44.3	EP			02:52	11.16			0.16		FOEL	HN	44.3	ES			13:18	10.97	8	0.42			
FOEL	HE	44.3	ES			02:52	16.59			-0.15		FOEL	HN	44.3	IAML			13:18	14.10	9	0.38			
WLF1	HZ	57.4	EP			02:52	12.98			0.05		WLF1	HN	57.4	EP			13:18	03.44			0.32		
WLF1	HN	57.4	ES			02:52	19.89			-0.19		WLF1	HE	57.4	IAML			13:18	05.90			0.33		
WLF1	HE	57.4	IAML			02:52	19.94	1	0.20			WLF1	HN	57.4	EP			13:18	10.84			-0.15		
WME	EZ	63.9	EP			02:52	14.12			0.16		WME	HN	57.4	IAML									

TABLE 2 : PHASE DATA

ESY	EZ	527.0	EP	17:32	17.21	-0.08	LINV	HE	172.0	ES	20:34	06.88	0.70
INVG	HZ	537.0	EP	17:32	18.44	-0.01	May 17 2016		Time: 08:15 52.4 UTC	Magnitude: 1.1 ML			
INVG	HE	537.0	IAML	17:33	12.12	4 0.24	Lat: 52.450N		Lon: -3.832W	Depth: 7.2 km			
INVG	HN	537.0	IAML	17:33	13.16	4 0.24	Grid Ref: 275.51 kmE 285.18 kmN			RMS: 0.20 secs			
KPL	HZ	546.0	EP	17:32	19.29	-0.21	Locality: PONTERWYD,CEREDIGION						
KPL	HN	546.0	IAML	17:33	14.54	3 0.56	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0						
KPL	HE	546.0	IAML	17:33	50.67	2 0.34	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES						
LEWI	HZ	567.0	EP	17:32	22.24	0.08	LLW BZ 45.8 EP 08:16 00.10			-0.34			
LEWI	HN	567.0	IAML	17:33	16.66	3 0.32	LLW BN 45.8 ES 08:16 05.91			-0.36			
LEWI	HE	567.0	IAML	17:33	44.45	3 0.84	LLW BE 45.8 IAML 08:16 06.68 15 0.14						
EAB	EZ	569.0	EP	17:32	23.49	1.09	LLW BN 45.8 IAML 08:16 06.71 11 0.22						
ESK	HZ	604.0	EP	17:32	26.48	-0.30	FOEL HZ 64.9 EP 08:16 03.51			0.05			
LAWE	HZ	609.0	EP	17:32	26.60	-0.78	FOEL HN 64.9 IAML 08:16 16.22 7 0.42						
LAWE	HN	609.0	IAML	17:33	26.54	6 0.32	FOEL HE 64.9 IAML 08:16 16.94 8 0.26						
LAWE	HE	609.0	IAML	17:33	26.68	7 0.40	HLM1 HZ 65.0 EP 08:16 03.79			0.31			
EDMD	HZ	615.0	EP	17:32	27.44	-0.66	HLM1 HN 65.0 ES 08:16 11.40			-0.13			
NEWG	HZ	658.0	EP	17:32	33.29	-0.22	HLM1 HE 65.0 IAML 08:16 11.99 22 0.12						
May 15 2016							HLM1 HN 65.0 IAML 08:16 12.00 30 0.14						
Lat: 55.797N							MCH1 HZ 76.0 EP 08:16 05.19			0.05			
Grid Ref: 127.09 kmE							MCH1 HN 76.0 ES 08:16 14.22			-0.19			
Locality: ISLAY,ARGYLL & BUTE							MCH1 HE 76.0 IAML 08:16 14.40 10 0.12						
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0							MCH1 HE 76.0 IAML 08:16 14.75 14 0.26						
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES							RSBS HZ 83.4 EP 08:16 05.93			-0.37			
LAWE	HZ	78.8	EP	18:16	53.87	-0.43	RSBS HN 83.4 ES 08:16 16.32			-0.09			
LAWE	HE	78.8	ES	18:17	04.22	0.27	RSBS HE 83.4 IAML 08:16 17.55 15 0.07						
LAWE	HN	78.8	IAML	18:17	07.55	5 0.10	RSBS HN 83.4 IAML 08:16 17.96 9 0.09						
LAWE	HE	78.8	IAML	18:17	07.55	6 0.23	MONM HZ 97.8 EP 08:16 08.82			0.32			
PGB1	HE	117.0	ES	18:17	14.30	0.00	MONM HE 97.8 IAML 08:16 24.62 4 0.26						
PGB1	HE	117.0	IAML	18:17	16.17	4 0.35	MONM HN 97.8 IAML 08:16 25.27 7 0.14						
PGB1	HN	117.0	IAML	18:17	16.23	3 0.29	WLF1 HZ 101.0 EP 08:16 09.27			0.32			
GALL	HZ	147.0	EP	18:17	05.73	1.11	WLF1 HN 101.0 ES 08:16 20.82			-0.18			
GALL	HN	147.0	ES	18:17	21.17	-0.62	WLF1 HE 101.0 IAML 08:16 22.40 7 0.25						
GALL	HN	147.0	IAML	18:17	24.22	1 0.23	WLF1 HE 101.0 IAML 08:16 22.52 9 0.14						
GALL	HE	147.0	IAML	18:17	24.31	2 0.34	YRC EZ 102.0 EP 08:16 09.44			0.28			
INVG	HZ	160.0	EP	18:17	07.22	0.71	WME EZ 110.0 EP 08:16 10.49			0.10			
INVG	HN	160.0	ES	18:17	24.55	-0.52	WPS HZ 115.0 EP 08:16 11.46			0.34			
INVG	HE	160.0	IAML	18:17	30.30	2 0.14	WPS HE 115.0 ES 08:16 24.77			0.02			
INVG	HN	160.0	IAML	18:17	30.52	1 0.18	WPS HN 115.0 IAML 08:16 25.88 3 0.14						
							WPS HE 115.0 IAML 08:16 27.30 4 0.30						
May 16 2016							May 17 2016						
Lat: 54.723N							May 17 2016						
Grid Ref: 336.56 kmE							Lat: 56.156N						
Locality: MILLHOUSE,CUMBRIA							Grid Ref: 217.80 kmE						
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0							Locality: LOCH GOIL,ARGYLL/BUTE						
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES							Velocity model: Lownet Xnear: 100.0 Xfar: 150.0						
KESW	HZ	16.8	IP	C	15:21	13.17	Comment: FELT LOCHGOILHEAD			Intensity: 2			
KESW	HE	16.8	ES		15:21	15.12							
KESW	HN	16.8	IAML		15:21	15.65	102 0.11						
KESW	HE	16.8	IAML		15:21	15.68	77 0.09						
EDMD	HZ	66.9	EP		15:21	21.32	0.05						
EDMD	HN	66.9	ES		15:21	29.22	-0.47						
EDMD	HN	66.9	IAML		15:21	30.11	35 0.13						
EDMD	HE	66.9	IAML		15:21	30.26	33 0.09						
ESK	HZ	67.5	EP		15:21	21.42	-0.01						
ESK	HN	67.5	ES		15:21	29.74	-0.21						
ESK	HE	67.5	IAML		15:21	33.21	20 0.14						
ESK	HN	67.5	IAML		15:21	33.31	15 0.09						
NEWG	HZ	91.1	EP		15:21	25.13	0.07						
NEWG	HN	91.1	ES		15:21	36.03	-0.20						
NEWG	HN	91.1	IAML		15:21	38.03	8 0.29						
NEWG	HE	91.1	IAML		15:21	38.15	12 0.12						
GAL1	HZ	112.0	EP		15:21	28.58	0.26						
IKOMK	HZ	115.0	EP		15:21	28.72	0.00						
EBL	EZ	117.0	EP		15:21	29.72	0.61						
HPK	HZ	123.0	EP		15:21	30.75	0.76						
LBWR	HZ	169.0	EP		15:21	37.05	0.38						
WME	EZ	171.0	EP		15:21	37.58	0.62						
May 16 2016							May 17 2016						
Lat: 56.663N							Lat: 56.156N						
Grid Ref: 253.47 kmE							Grid Ref: 217.80 kmE						
Locality: FINNART,PERTH & KINROSS							Locality: LOCH GOIL,ARGYLL/BUTE						
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0							Velocity model: Lownet Xnear: 100.0 Xfar: 150.0						
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES							STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES						
INVG	HZ	33.8	EP		20:33	25.04	0.04	CLGH HZ 141.0 EP 15:56 47.79			-0.84		
INVG	HE	33.8	ES		20:33	28.96	-0.60	CLGH HE 141.0 ES 15:57 03.85			-1.12		
INVG	HE	33.8	IAML		20:33	29.28	6 0.11	ESK HZ 143.0 EP 15:56 49.01			-0.01		
INVG	HN	33.8	IAML		20:33	29.53	5 0.07	ESY EZ 147.0 EP 15:56 50.25			0.69		
LAWE	HZ	76.6	EP		20:33	32.08	0.24	KAC EZ 151.0 EP 15:56 49.86			-0.26		
LAWE	HN	76.6	ES		20:33	41.67	0.28	DRUM HZ 173.0 EP 15:56 52.65			-0.38		
LAWE	HE	76.6	IAML		20:33	45.25	8 0.14	MCD EZ 189.0 EP 15:56 54.36			-0.75		
LAWE	HN	76.6	IAML		20:33	45.42	7 0.19	LINV HZ 222.0 EP 15:56 58.29			-0.92		
KPL	HZ	108.0	EP		20:33	36.98	0.38						
KPL	HN	108.0	ES		20:33	48.73	-0.90						
DRUM	HN	120.0	ES		20:33	53.53	0.57						
DRUM	HN	120.0	IAML		20:33	55.44	5 0.19						
DRUM	HE	120.0	IAML		20:33	56.02	2 0.10						
LINV	HZ	172.0	EP		20:33	47.01	0.84						
May 18 2016							May 18 2016						
Lat: 56.393N							Lat: 56.393N						
Grid Ref: 185.49 kmE							Grid Ref: 727.72 kmN						
Locality: OBAN,ARGYLL & BUTE							RMS: 0.30 secs						
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0													

TABLE 2 : PHASE DATA

Intensity: 2											
Comment: FELT MULL	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
LAWE HZ 28.5 IP C 17:26 16.44 -0.03	June 26 2016	Time: 19:16 18.9 UTC	Magnitude: 0.5 ML								
LAWE HN 28.5 ES 17:26 20.01 -0.34	Lat: 55.780N	Lon: -5.931W	Depth: 5.3 km								
LAWE HN 28.5 IAML 17:26 20.73 15 0.15	Grid Ref: 153.54 kmE 661.07 kmN	RMS: 0.30 secs									
LAWE HE 28.5 IAML 17:26 20.87 10 0.31	Locality: JURA, ARGYLL & BUTE										
EAB EZ 94.8 EP 17:26 27.31 0.22	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										
INVG HZ 113.0 EP 17:26 30.10 0.17	Comment: OFFSHORE LOCATION										
INVG HE 113.0 ES 17:26 43.90 0.26	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
INVG HE 113.0 IAML 17:26 46.22 7 0.24	LAWE HZ 62.9 EP 19:16 30.06 0.40										
INVG HN 113.0 IAML 17:26 46.29 10 0.24	LAWE HE 62.9 ES 19:16 37.23 -0.29										
KPL HZ 118.0 EP 17:26 30.25 -0.37	LAWE HN 62.9 IAML 19:16 37.57 2 0.17										
KPL HN 118.0 IAML 17:26 48.02 4 0.30	CLGH HZ 78.5 EP 19:16 31.82 -0.28										
KPL HE 118.0 IAML 17:26 49.50 9 0.50	CLGH HE 78.5 IAML 19:16 44.15 3 0.19										
CLGH HZ 135.0 EP 17:26 33.19 -0.09	CLGH HE 78.5 IAML 19:16 44.17 4 0.26										
CLGH HE 135.0 IAML 17:26 50.04 8 0.22	IDGL BN 127.0 ES 19:16 54.95 0.12										
CLGH HN 135.0 IAML 17:26 51.45 9 0.16	GAL1 HE 128.0 ES 19:16 54.96 0.03										
KAC EZ 139.0 EP 17:26 34.20 0.31	GAL1 HN 128.0 IAML 19:16 56.29 1 0.18										
June 23 2016 Time: 18:58 21.6 UTC Magnitude: 1.2 ML	GAL1 HE 128.0 IAML 19:16 56.54 2 0.29										
Lat: 51.558N Lon: -1.475W Depth: 9.7 km	NEWG HN 131.0 ES 19:16 55.78 0.18										
Grid Ref: 436.39 kmE 184.53 kmN RMS: 0.20 secs	NEWG HN 131.0 IAML 19:16 55.99 1 0.15										
Locality: WANTAGE, OXFORDSHIRE	NEWG HE 131.0 IAML 19:16 57.58 1 0.11										
Velocity model: Lownet Xnear: 75.0 Xfar: 150.0	June 28 2016 Time: 00:39 48.8 UTC Magnitude: 0.9 ML										
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	Lat: 52.450N Lon: -5.419W Depth: 7.3 km										
SWN1 HZ 23.1 IP C 18:58 26.38 -0.28	Grid Ref: 167.70 kmE 289.10 kmN RMS: 0.10 secs										
SWN1 HE 23.1 ES 18:58 30.46 0.09	Locality: ST GEORGE'S CHANNEL										
SWN1 HE 23.1 IAML 18:58 30.85 54 0.16	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										
SWN1 HN 23.1 IAML 18:58 30.94 29 0.22	Comment: 72KM ENE WEXFORD										
WOL BE 32.5 ES 18:58 32.62 0.10	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES										
STRD HZ 53.4 EP 18:58 30.72 -0.19	RSBS HZ 72.0 EP 00:40 00.93 0.04										
STRD HE 53.4 ES 18:58 37.87 0.14	RSBS HE 72.0 ES 00:40 09.60 -0.10										
STRD HN 53.4 IAML 18:58 37.95 20 0.34	RSBS HN 72.0 IAML 00:40 11.15 4 0.21										
STRD HE 53.4 IAML 18:58 38.02 54 0.16	RSBS HE 72.0 IAML 00:40 11.36 3 0.10										
MONM HZ 97.1 EP 18:58 37.30 0.15	IWEX BE 92.6 ES 00:40 15.19 -0.01										
MONM HE 97.1 ES 18:58 48.68 0.17	WLF1 HZ 116.0 EP 00:40 07.69 0.03										
MONM HE 97.1 IAML 18:58 49.77 5 0.14	WLF1 HE 116.0 ES 00:40 21.46 0.03										
MONM HN 97.1 IAML 18:58 51.40 4 0.36	WLF1 HN 116.0 IAML 00:40 22.50 3 0.15										
MCH1 HZ 116.0 EP 18:58 39.77 -0.09	WLF1 HE 116.0 IAML 00:40 22.53 5 0.26										
MCH1 HN 116.0 ES 18:58 53.02 -0.18	WPS HZ 123.0 EP 00:40 08.63 -0.04										
MCH1 HE 116.0 IAML 18:58 53.74 4 0.20	WPS HZ 123.0 ES 00:40 23.07 -0.09										
MCH1 HN 116.0 IAML 18:58 54.58 3 0.14	WPS HE 123.0 IAML 00:40 23.37 2 0.44										
CWF HZ 132.0 EP 18:58 42.57 0.45	WPS HN 123.0 IAML 00:40 29.94 2 0.72										
CWF HN 132.0 ES 18:58 57.23 0.12	FOEL HZ 158.0 EP 00:40 14.03 0.21										
CWF HN 132.0 IAML 18:58 57.45 3 0.11	FOEL HE 158.0 ES 00:40 32.05 -0.02										
CWF HE 132.0 IAML 18:58 58.44 7 0.20	FOEL HN 158.0 IAML 00:40 33.11 5 0.26										
June 24 2016 Time: 22:22 45.9 UTC Magnitude: 2.3 ML	MCH1 HZ 173.0 EP 00:40 16.25 0.44										
Lat: 59.746N Lon: 1.778W Depth: 10.0 km	MCH1 HE 173.0 ES 00:40 36.02 0.50										
Grid Ref: 612.24 kmE 1101.61 kmN RMS: 0.50 secs	MCH1 HN 173.0 IAML 00:40 37.76 2 0.15										
Locality: NORTHERN NORTH SEA	MCH1 HE 173.0 IAML 00:40 38.08 2 0.14										
Velocity model: North Sea Xnear: 400.0 Xfar: 600.0	June 28 2016 Time: 01:56 28.6 UTC Magnitude: 0.8 ML										
Comment: 170KM ESE LERWICK	Lat: 57.276N Lon: -4.413W Depth: 4.3 km										
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	Grid Ref: 254.53 kmE 823.15 kmN RMS: 0.50 secs										
LRW HZ 171.0 EP 22:23 12.07 0.46	Locality: ERROGIE, HIGHLAND										
LRW HE 171.0 ES 22:23 30.44 0.05	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										
LRW HN 171.0 IAML 22:23 34.23 32 0.36	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES										
LRW HE 171.0 IAML 22:23 35.48 22 0.49	KAC EZ 58.8 EP 01:56 38.69 -0.17										
BER HZ 210.0 EP 22:23 15.87 -0.66	KPL HZ 75.1 EP 01:56 41.51 0.16										
BER HE 210.0 ES 22:23 39.40 0.50	KPL HE 75.1 ES 01:56 50.02 -0.60										
BER HN 210.0 IAML 22:23 47.99 8 0.38	KPL HE 75.1 IAML 01:56 54.39 4 0.20										
BER HE 210.0 IAML 22:23 47.99 5 0.34	KPL HN 75.1 IAML 01:56 54.41 2 0.40										
FOO HZ 273.0 EP 22:23 24.12 -0.14	INVG HZ 97.1 EP 01:56 45.17 0.34										
FOO HE 273.0 ES 22:23 52.51 0.23	INVG HN 97.1 ES 01:56 56.36 -0.28										
FOO HE 273.0 IAML 22:23 54.99 3 0.14	INVG HN 97.1 IAML 01:56 59.74 5 0.14										
FOO HN 273.0 IAML 22:23 55.30 4 0.16	INVG HE 97.1 IAML 01:56 59.85 5 0.20										
BIGH HZ 354.0 EP 22:23 34.20 -0.19	LINV HN 108.0 ES 01:56 59.87 0.48										
BIGH HN 354.0 ES 22:24 09.70 -0.10	DRUM HZ 124.0 EP 01:56 48.35 -0.56										
BIGH HN 354.0 IAML 22:24 11.22 9 0.24	DRUM HE 124.0 IAML 01:57 05.89 3 0.27										
BIGH HE 354.0 IAML 22:24 13.32 6 0.18	DRUM HE 124.0 IAML 01:57 06.50 3 0.17										
MCD EE 378.0 ES 22:24 15.66 0.63	LAWE HN 128.0 ES 01:57 05.84 0.92										
DRUM HZ 402.0 EP 22:23 40.43 0.06	LAWE HE 128.0 IAML 01:57 07.44 2 0.24										
DRUM HE 402.0 ES 22:24 20.38 0.23	LAWE HN 128.0 IAML 01:57 08.50 1 0.10										
DRUM HE 402.0 IAML 22:24 22.52 9 0.54	June 29 2016 Time: 20:58 04.9 UTC Magnitude: 1.4 ML										
DRUM HN 402.0 IAML 22:24 24.93 17 0.38	Lat: 53.513N Lon: -2.175W Depth: 3.0 km										
LINV HZ 439.0 EP 22:23 44.03 -0.88	Grid Ref: 388.40 kmE 401.86 kmN RMS: 0.40 secs										
LINV HN 439.0 IAML 22:24 28.52 6 0.20	Locality: MIDDLETON,GTR MCH										
LINV HE 439.0 IAML 22:24 29.22 6 0.16	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0										
KAC EZ 481.0 EP 22:23 49.08 -1.06	Comment: FELT MIDDLETON Intensity: 2										
INVG HZ 504.0 EP 22:23 52.81 -0.22	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES										
INVG HN 504.0 IAML 22:24 44.69 4 0.22	LBWR HZ 32.4 IP D 20:58 10.48 -0.45										
INVG HE 504.0 IAML 22:24 46.31 2 0.40	LBWR HE 32.4 ES 20:58 15.08 -0.24										
LEWI HZ 528.0 EP 22:23 55.34 -0.69	LBWR HE 32.4 IAML 20:58 16.03 73 0.36										
LEWI HN 528.0 IAML 22:24 49.01 4 0.30	LBWR HE 32.4 IAML 20:58 16.08 150 0.41										
LEWI HE 528.0 IAML 22:24 49.22 4 0.44	FOEL HZ 97.5 EP 20:58 20.79 -0.48										
EDMD HZ 592.0 EP 22:24 02.63 -1.24	FOEL HE 97.5 ES 20:58 33.59 0.38										
EDMD HE 592.0 ES 22:24 59.49 -1.31	FOEL HE 97.5 IAML 20:58 37.90 16 0.40										
EDMD HE 592.0 IAML 22:25 02.48 5 0.18											
EDMD HN 592.0 IAML 22:25 04.39 4 0.22											

TABLE 2 : PHASE DATA

INVG HN 96.7 IAML 23:54 04.85 7 0.14	PGB1 HZ 128.0 EP 04:49 13.62 0.58
LINV HZ 108.0 EP 23:53 51.41 -0.35	GAL1 HZ 141.0 EP 04:49 15.00 0.05
LINV HN 108.0 ES 23:54 04.91 0.33	INVG HZ 151.0 EP 04:49 16.46 0.06
LINV HE 108.0 IAML 23:54 06.26 1 0.24	
LINV HN 108.0 IAML 23:54 07.55 2 0.70	July 29 2016 Time: 02:36 07.5 UTC Magnitude: 1.3 ML
DRUM HN 125.0 ES 23:54 08.72 -0.21	Lat: 52.662N Lon: 1.471W Depth: 10.8 km
DRUM HE 125.0 IAML 23:54 11.53 3 0.15	Grid Ref: 634.69 kmE 312.84 kmN RMS: 0.30 secs
DRUM HN 125.0 IAML 23:54 12.60 3 0.44	Locality: BLOFIELD,NORFOLK
	Velocity model: Folkestone Xnear: 500.0 Xfar: 1000.0
July 25 2016 Time: 03:08 05.0 UTC Magnitude: 0.6 ML	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES
Lat: 51.945N Lon: -2.698W Depth: 6.9 km	WACR HZ 57.4 EP 02:36 17.72 0.19
Grid Ref: 352.03 kmE 227.67 kmN RMS: 0.20 secs	WACR HN 57.4 ES 02:36 25.03 -0.10
Locality: ORCOP,HEREFORDSHIRE	WACR HZ 57.4 IAML 02:36 27.11 12 0.21
Velocity model: Mid Wales Xnear: 80.0 Xfar: 200.0	WACR HE 57.4 IAML 02:36 28.35 13 0.12
Comment: 5KM ENE ORCOP	ELMS HZ 71.3 EP 02:36 19.81 0.08
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	ELMS HE 71.3 ES 02:36 28.99 0.01
MONM HZ 13.9 IP C 03:08 07.63 -0.11	ELMS HN 71.3 IAML 02:36 31.67 15 0.06
MONM HN 13.9 ES 03:08 09.71 0.00	ELMS HE 71.3 IAML 02:36 31.72 20 0.22
MONM HN 13.9 IAML 03:08 09.94 15 0.16	LMK HZ 149.0 EP 02:36 32.32 0.21
MONM HE 13.9 IAML 03:08 09.98 7 0.15	LMK HN 149.0 IAML 02:36 56.11 15 0.42
MCH1 HZ 21.5 IP D 03:08 08.89 -0.06	LMK HE 149.0 IAML 02:36 57.10 12 0.36
MCH1 HE 21.5 ES 03:08 11.95 0.16	CWF HZ 188.0 EP 02:36 36.38 -0.58
MCH1 HE 21.5 IAML 03:08 12.08 27 0.18	CWF HN 188.0 ES 02:36 59.34 0.18
MCH1 HN 21.5 IAML 03:08 12.09 28 0.14	CWF HE 188.0 IAML 02:37 00.51 2 0.39
STRD HZ 41.4 EP 03:08 12.08 -0.13	CWF HE 188.0 IAML 02:37 00.85 2 0.17
STRD HN 41.4 IAML 03:08 17.42 9 0.54	
STRD HE 41.4 ES 03:08 17.53 0.13	August 1 2016 Time: 18:22 31.6 UTC Magnitude: 0.4 ML
STRD HE 41.4 IAML 03:08 17.82 7 0.16	Lat: 54.710N Lon: -3.128W Depth: 7.3 km
HLM1 HZ 65.0 EP 03:08 16.38 0.26	Grid Ref: 327.33 kmE 535.59 kmN RMS: 0.20 secs
HLM1 HN 65.0 ES 03:08 23.88 -0.25	Locality: ULDALE,CUMBRIA
HLM1 HN 65.0 IAML 03:08 24.10 2 0.16	Velocity model: Lownet Xnear: 150.0 Xfar: 300.0
HLM1 HE 65.0 IAML 03:08 24.14 3 0.16	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES
LLW BE 120.0 ES 03:08 39.37 0.12	KESW HZ 13.6 IP C 18:22 34.51 -0.10
RSBS HZ 141.0 EP 03:08 27.97 -0.05	KESW HN 13.6 ES 18:22 36.72 -0.07
RSBS HE 141.0 ES 03:08 44.42 -0.16	KESW HZ 13.6 IAML 18:22 36.81 11 0.20
RSBS HN 141.0 IAML 03:08 46.53 1 0.09	KESW HE 13.6 IAML 18:22 36.90 11 0.22
RSBS HE 141.0 IAML 03:08 47.18 2 0.07	ESK HZ 67.7 EP 18:22 43.13 0.10
	ESK HN 67.7 ES 18:22 51.14 -0.21
July 25 2016 Time: 05:25 28.2 UTC Magnitude: 1.0 ML	ESK HE 67.7 IAML 18:22 51.99 1 0.21
Lat: 56.381N Lon: -5.860W Depth: 11.4 km	ESK HE 67.7 IAML 18:22 53.69 2 0.10
Grid Ref: 161.73 kmE 727.65 kmN RMS: 0.10 secs	EDMD HZ 76.2 EP 18:22 44.51 0.21
Locality: MULL,ARGYLL & BUTE	EDMD HN 76.2 ES 18:22 53.44 -0.11
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0	NEWG HZ 84.0 EP 18:22 45.57 0.04
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	NEWG HN 84.0 ES 18:22 55.69 0.01
PGB1 HZ 107.0 EP 05:25 45.23 0.12	NEWG HE 84.0 IAML 18:22 57.45 1 0.23
KPL HZ 107.0 EP 05:25 45.12 -0.08	NEWG HE 84.0 IAML 18:22 57.64 1 0.14
KPL HN 107.0 IAML 05:26 01.09 3 0.14	GAL1 HZ 103.0 EP 18:22 48.87 0.34
KPL HE 107.0 IAML 05:26 01.28 4 0.16	GAL1 HN 103.0 ES 18:23 00.64 -0.22
PGB1 HN 107.0 ES 05:25 57.36 -0.13	
PGB1 HN 107.0 IAML 05:25 58.73 8 0.46	August 2 2016 Time: 19:46 54.4 UTC Magnitude: 0.5 ML
PGB1 HE 107.0 IAML 05:25 58.86 4 0.36	Lat: 52.982N Lon: -4.381W Depth: 21.1 km
INVG HZ 112.0 EP 05:25 46.16 0.22	Grid Ref: 240.17 kmE 345.43 kmN RMS: 0.30 secs
INVG HN 112.0 ES 05:25 58.84 -0.08	Locality: LLEYN PENINSULA
INVG HE 112.0 IAML 05:25 59.59 2 0.13	Velocity model: Lleyen Xnear: 80.0 Xfar: 200.0
INVG HN 112.0 IAML 05:26 02.68 3 0.14	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES
CLGH HZ 145.0 EP 05:25 50.18 -0.11	YRC EZ 32.6 EP 19:47 00.39 -0.33
CLGH HE 145.0 ES 05:26 06.50 0.05	WLF1 HZ 34.2 EP 19:47 00.66 -0.28
CLGH HN 145.0 IAML 05:26 08.52 6 0.14	WLF1 HE 34.2 ES 19:47 05.28 -0.10
CLGH HE 145.0 IAML 05:26 09.12 7 0.40	WLF1 HN 34.2 IAML 19:47 05.49 17 0.18
	WLF1 HE 34.2 IAML 19:47 05.50 34 0.14
July 27 2016 Time: 04:48 52.0 UTC Magnitude: 1.1 ML	WME EZ 46.4 EP 19:47 02.66 -0.03
Lat: 55.321N Lon: -2.651W Depth: 2.5 km	WPS HZ 47.2 EP 19:47 02.75 -0.04
Grid Ref: 358.69 kmE 603.19 kmN RMS: 0.30 secs	WPS HE 47.2 ES 19:47 09.11 0.63
Locality: SAUPTHREE,BORDERS	WPS HE 47.2 IAML 19:47 09.42 2 0.21
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0	WPS HN 47.2 IAML 19:47 09.43 2 0.21
Comment: 6KM NNE SAUPTHREE	LLW BZ 50.4 EP 19:47 03.22 -0.05
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	LLW BE 50.4 ES 19:47 09.81 0.52
ESK HZ 35.2 IP C 04:48 58.33 -0.14	LLW BE 50.4 IAML 19:47 10.17 1 0.22
ESK HE 35.2 ES 04:49 02.83 -0.37	LLW BN 50.4 IAML 19:47 10.37 1 0.14
ESK HN 35.2 IAML 04:49 03.10 40 0.07	FOEL HE 80.1 ES 19:47 16.42 -0.41
ESK HE 35.2 IAML 04:49 03.11 28 0.10	RSBS HZ 117.0 EP 19:47 13.33 -0.07
EBL EZ 56.0 IP D 04:49 01.77 -0.17	RSBS HE 117.0 ES 19:47 26.55 0.25
ESY EZ 66.4 EP 04:49 03.19 -0.34	RSBS HE 117.0 IAML 19:47 27.37 2 0.22
EDMD HZ 70.1 IP C 04:49 03.92 -0.12	RSBS HE 117.0 IAML 19:47 28.24 1 0.10
EDMD HE 70.1 ES 04:49 12.56 -0.28	
EDMD HN 70.1 IAML 04:49 14.89 16 0.09	August 15 2016 Time: 04:25 56.8 UTC Magnitude: 1.0 ML
EDMD HE 70.1 IAML 04:49 15.24 40 0.15	Lat: 52.846N Lon: -1.374W Depth: 4.7 km
EDI EZ 75.1 EP 04:49 05.08 0.25	Grid Ref: 442.16 kmE 327.83 kmN RMS: 0.10 secs
EDI HE 75.1 ES 04:49 14.49 0.27	Locality: CASTLE DONINGTON,LEICS
EDI HE 75.1 IAML 04:49 15.11 3 0.31	Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0
EDI HN 75.1 IAML 04:49 15.61 3 0.14	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES
KESW HZ 86.6 EP 04:49 06.70 0.04	CWF HZ 12.8 EP 04:25 59.42 -0.08
KESW HE 86.6 ES 04:49 17.99 0.62	CWF HE 12.8 ES 04:26 01.48 0.03
KESW HN 86.6 IAML 04:49 19.68 5 0.21	CWF HN 12.8 IAML 04:26 01.57 53 0.10
KESW HE 86.6 IAML 04:49 19.77 8 0.22	CWF HE 12.8 IAML 04:26 01.85 62 0.12
NEWG HZ 103.0 EP 04:49 09.21 0.03	LBWR HZ 66.1 EP 04:26 08.27 -0.06
NEWG HE 103.0 ES 04:49 21.25 -0.48	LBWR HE 66.1 IAML 04:26 17.68 8 0.21
NEWG HN 103.0 IAML 04:49 22.75 8 0.20	LBWR HN 66.1 IAML 04:26 17.95 7 0.15
NEWG HE 103.0 IAML 04:49 24.02 7 0.11	HLM1 HZ 108.0 EP 04:26 15.00 0.13

TABLE 2 : PHASE DATA

HLM1	HN	108.0	ES	04:26	27.92	-0.11	Grid Ref: 225.56 kmE 732.68 kmN	RMS: 0.40 secs
HLM1	HE	108.0	IAML	04:26	29.79	2 0.20	Locality: DALMALLY, ARGYLL & BUTE	
HLM1	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	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	
FOEL	HN	123.0	IAML	04:26	32.69	3 0.48	LAWE HZ 41.2 EP 14:08 23.41	-0.08
FOEL	HE	123.0	IAML	04:26	33.42	3 0.22	LAWE HN 41.2 ES 14:08 28.33	-0.62
HPK	HN	125.0	ES	04:26	32.45	0.02	LAWE HE 41.2 IAML 14:08 28.87	5 0.13
HPK	HN	125.0	IAML	04:26	33.95	7 0.40	LAWE HN 41.2 IAML 14:08 29.29	3 0.12
HPK	HE	125.0	IAML	04:26	34.50	9 0.26	EAB EZ 42.5 EP 14:08 24.08	0.35
MCH1	HE	145.0	ES	04:26	37.67	0.02	INVG HZ 48.6 EP 14:08 24.75	-0.02
MCH1	HN	145.0	IAML	04:26	38.71	3 0.14	INVG HN 48.6 ES 14:08 30.36	-0.81
MCH1	HE	145.0	IAML	04:26	41.06	3 0.05	INVG HN 48.6 IAML 14:08 30.62	4 0.20
							INVG HE 48.6 IAML 14:08 30.81	3 0.10
August 15 2016				Time: 10:14 05.8 UTC	Magnitude: 1.0 ML		PGB1 HE 74.8 ES 14:08 38.59	0.41
Lat: 52.963N				Lat: -2.553W	Depth: 7.3 km		KPL HE 111.0 ES 14:08 48.12	0.41
Grid Ref: 362.86 kmE				Grid Ref: 340.80 kmN	RMS: 0.50 secs		KPL HE 111.0 IAML 14:08 50.41	3 0.42
Locality: WILKESLEY, CHESHIRE							KPL HN 111.0 IAML 14:08 51.10	2 0.28
Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0							ESK HN 162.0 ES 14:09 01.44	0.34
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		
HLM1 HZ 54.2 EP				10:14	15.48	0.33		
HLM1 HN 54.2 ES				10:14	22.12	0.15		
HLM1 HE 54.2 IAML				10:14	22.90	10 0.19		
HLM1 HE 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		
CWF HZ 87.5 EP				10:14	20.05	-0.22		
CWF HE 87.5 ES				10:14	29.92	-0.91		
CWF HE 87.5 IAML				10:14	30.61	5 0.20		
CWF 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				Lat: -5.849W	Depth: 2.5 km			
Grid Ref: 162.44 kmE				Grid Ref: 728.27 kmN	RMS: 0.40 secs			
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								
LAWE HZ 31.2 IP	C	13:38	44.12		-0.21			
LAWE HN 31.2 ES		13:38	47.93		-0.62			
LAWE HE 31.2 IAML		13:38	48.42	184	0.14			
LAWE 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			
GALL HZ 184.0 EP		13:39	06.80		-0.64			
GALL HN 184.0 ES		13:39	27.04		-1.50			
GALL HN 184.0 IAML		13:39	31.65	8	0.19			
GALL 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 20 2016				Time: 14:08 16.0 UTC	Magnitude: 0.5 ML			
Lat: 56.454N				Lat: -4.831W	Depth: 2.5 km			
Grid Ref: 225.56 kmE				Grid Ref: 732.68 kmN				
Locality: DALMALLY, ARGYLL & BUTE				Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0				
Comment: 10KM NE DALMALLY				Comment: 7KM NW COMRIE				
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES				STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES				
INVG HZ 2.7 IP	D	06:10		INVG HZ 2.7 IP D 06:10 22.57				
INVG HN 2.7 ES		06:10		INVG HN 2.7 ES 06:10 23.16				
INVG HE 2.7 IAML		06:10		INVG HE 2.7 IAML 06:10 23.18	336	0.10		
INVG HE 2.7 IAML		06:10		INVG HE 2.7 IAML 06:10 23.23	485	0.10		
LAWE HZ 83.1 EP		06:10		LAWE HZ 83.1 EP 06:10 35.86				
LAWE HE 83.1 ES		06:10		LAWE HE 83.1 ES 06:10 46.07				
LAWE HE 83.1 IAML		06:10		LAWE HE 83.1 IAML 06:10 49.05	6	0.19		
LAWE HE 83.1 IAML		06:10		LAWE HE 83.1 IAML 06:10 49.26	9	0.12		
DRUM HZ 112.0 EP		06:10		DRUM HZ 112.0 EP 06:10 40.18				
DRUM HN 112.0 IAML		06:10		DRUM HN 112.0 IAML 06:10 57.29	3	0.32		
ESK HN 135.0 ES		06:11		ESK HN 135.0 ES 06:11 00.21				
KPL HZ 140.0 EP		06:10		KPL HZ 140.0 EP 06:10 45.06				
KPL HN 140.0 ES		06:11		KPL HN 140.0 ES 06:11 01.41				
KPL HE 140.0 IAML		06:11		KPL HE 140.0 IAML 06:11 03.33	2	0.48		
KPL HN 140.0 IAML		06:11		KPL HN 140.0 IAML 06:11 04.31	2	0.82		
NEWG HN 146.0 ES		06:11		NEWG HN 146.0 ES 06:11 03.15				
August 24 2016				Time: 11:15 37.7 UTC	Magnitude: 1.4 ML			
Lat: 54.497N				Lat: -2.872W	Depth: 5.4 km			
Grid Ref: 343.53 kmE				Grid Ref: 511.66 kmN	RMS: 0.10 secs			
Locality: HARTSOP, CUMBRIA				Velocity model: Borders Xnear: 50.0 Xfar: 100.0				
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES				STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES				
KESW HZ 18.2 IP	D	11:15		KESW HZ 18.2 IP D 11:15 41.32				
KESW HE 18.2 ES		11:15		KESW HE 18.2 ES 11:15 43.99				
KESW HN 18.2 IAML		11:15		KESW HN 18.2 IAML 11:15 44.16	74	0.24		
KESW HE 18.2 IAML		11:15		KESW HE 18.2 IAML 11:15 44.41	77	0.10		
EDMD HZ 69.5 EP		11:15		EDMD HZ 69.5 EP 11:15 49.79				
EDMD HE 69.5 ES		11:15		EDMD HE 69.5 ES 11:15 58.03				
EDMD HE 69.5 IAML		11:15		EDMD HE 69.5 IAML 11:15 58.97	23	0.12		
EDMD HE 69.5 IAML		11:16		EDMD HE 69.5 IAML 11:16 01.31	33	0.14		
ESK HZ 93.7 EP		11:16		ESK HZ 93.7 EP 11:16 54.10				
ESK HE 93.7 IAML		11:16		ESK HE 93.7 IAML 11:16 61.12	8	0.26		
ESK HN 93.7 IAML		11:16		ESK HN 93.7 IAML 11:16 08.15	10	0.32		
NEWG HZ 111.0 EP		11:16		NEWG HZ 111.0 EP 11:16 56.40				
NEWG HE 111.0 ES		11:16		NEWG HE 111.0 ES 11:16 09.56				
NEWG HE 111.0 IAML		11:16		NEWG HE 111.0 IAML 11:16 10.82	5	0.10		
NEWG HE 111.0 IAML		11:16		NEWG HE 111.0 IAML 11:16 10.88	5	0.18		

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						FOEL HE 99.7 IAML 20:15 51.79 5 0.37
Velocity model:	Lownet Xnear: 100.0 Xfar: 200.0						FOEL HN 99.7 IAML 20:15 52.30 3 0.20
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES							HLM1 HZ 132.0 EP 20:15 42.97 -0.23
HLM1	HZ	17.1	IP	C	14:59	20.49	HLM1 HN 132.0 IAML 20:15 59.90 3 0.18
HLM1	HN	17.1	ES		14:59	23.17	HLM1 HE 132.0 IAML 20:15 59.90 5 0.34
HLM1	HN	17.1	IAML		14:59	23.36	CWF HZ 132.0 EP 20:15 42.95 -0.16
HLM1	HE	17.1	IAML		14:59	23.38	CWF HN 132.0 ES 20:15 58.45 -0.18
FOEL	HZ	51.8	EP		14:59	25.20	CWF HE 132.0 IAML 20:15 58.80 2 0.14
FOEL	HN	51.8	ES		14:59	31.81	CWF HN 132.0 IAML 20:15 59.28 2 0.14
FOEL	HE	51.8	IAML		14:59	32.02	EDMD HE 133.0 ES 20:15 58.65 -0.22
FOEL	HN	51.8	IAML		14:59	32.49	EDMD HE 133.0 IAML 20:15 58.94 5 0.28
MCH1	HZ	68.1	EP		14:59	28.02	EDMD HN 133.0 IAML 20:15 59.63 3 0.07
MCH1	HN	68.1	ES		14:59	36.22	WLF1 HZ 133.0 EP 20:15 43.57 0.23
MCH1	HE	68.1	IAML		14:59	36.39	WLF1 HN 133.0 ES 20:15 59.13 0.10
MCH1	HN	68.1	IAML		14:59	36.55	
MONM	HZ	82.0	EP		14:59	30.39	August 28 2016 Time: 22:58 50.9 UTC Magnitude: 1.2 ML
MONM	HE	82.0	ES		14:59	40.18	Lat: 52.203N Lon: -3.761W Depth: 11.5 km
MONM	HE	82.0	IAML		14:59	40.57	Grid Ref: 279.67 kmE 257.59 kmN RMS: 0.30 secs
MONM	HN	82.0	IAML		14:59	40.65	Locality: TREGARON, CEREDIGION
LBWR	HZ	111.0	EP		14:59	35.14	Velocity model: Mid Wales Xnear: 80.0 Xfar: 200.0
LBWR	HE	111.0	IAML		14:59	50.26	Comment: 12KM ESE TREGARON
LBWR	HN	111.0	IAML		14:59	51.87	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES
WLF1	HZ	143.0	EP		14:59	40.17	MCH1 HZ 57.0 EP 22:59 0.63 -0.07
WLF1	HE	143.0	ES		14:59	56.61	MCH1 HN 57.0 IAML 22:59 07.52 -0.25
WLF1	HN	143.0	IAML		14:59	57.03	MCH1 HE 57.0 IAML 22:59 07.72 36 0.13
WLF1	HE	143.0	IAML		14:59	58.30	HLM1 HZ 69.5 EP 22:59 02.63 0.04
RSBS	HZ	159.0	EP		14:59	42.44	HLM1 HN 69.5 ES 22:59 10.89 -0.13
RSBS	HN	159.0	IAML		15:00	02.59	HLM1 HN 69.5 IAML 22:59 11.36 6 0.42
RSBS	HE	159.0	IAML		15:00	03.75	HLM1 HE 69.5 IAML 22:59 11.88 5 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	LLW BZ 72.2 EP 22:59 03.35 0.38	
Grid Ref:	380.08 kmE	315.45 kmN	RMS:	0.20 secs		LLW BZ 72.2 ES 22:59 11.83 0.15	
Locality:	MORETON, STAFFORDSHIRE					LLW BN 72.2 IAML 22:59 12.31 6 0.35	
Velocity model:	Lownet Xnear: 75.0 Xfar: 150.0					LLW BE 72.2 IAML 22:59 12.42 12 0.30	
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES						RSBS HZ 73.0 EP 22:59 03.14 0.04	
STNC	HZ	40.0	EP		01:41	56.44	RSBS HE 73.0 ES 22:59 11.76 -0.14
STNC	HN	40.0	ES		01:42	01.44	0.05
STNC	HE	40.0	IAML		01:42	01.68	0.13
STNC	HN	40.0	IAML		01:42	01.69	MONM HZ 77.1 EP 22:59 03.97 0.26
HLM1	HZ	46.4	EP		01:41	57.34	MONM HE 77.1 ES 22:59 13.20 0.25
HLM1	HE	46.4	ES		01:42	03.13	MONM HN 77.1 IAML 22:59 13.44 28 0.24
HLM1	HE	46.4	IAML		01:42	03.81	MONM HE 77.1 IAML 22:59 13.56 24 0.38
HLM1	HN	46.4	IAML		01:42	04.18	FOEL HZ 85.3 EP 22:59 04.40 -0.58
CWF	HE	66.7	EP		01:42	00.49	FOEL HE 85.3 IAML 22:59 17.07 7 0.50
CWF	HN	66.7	ES		01:42	08.56	FOEL HN 85.3 IAML 22:59 18.51 5 0.62
CWF	HN	66.7	IAML		01:42	08.65	CWF HZ 177.0 EP 22:59 17.91 -0.06
CWF	HN	66.7	IAML		01:42	09.01	CWF HE 177.0 ES 22:59 37.66 0.19
LBWR	HE	83.4	ES		01:42	13.54	CWF HE 177.0 IAML 22:59 38.11 4 0.26
MCH1	HN	95.1	EP		01:42	05.15	CWF HN 177.0 IAML 22:59 38.45 5 0.12
MCH1	HE	95.1	ES		01:42	16.71	DYA HN 197.0 ES 22:59 42.31 0.52
MCH1	HN	95.1	IAML		01:42	17.22	DYA HE 197.0 IAML 22:59 45.63 4 0.28
MCH1	HE	95.1	IAML		01:42	17.86	DYA HN 197.0 IAML 22:59 45.95 4 0.18
August 26 2016 Time: 01:49 14.2 UTC Magnitude: 0.3 ML							
Lat:	52.864N	Lon:	-2.180W	Depth:	7.7 km	August 31 2016 Time: 19:38 00.9 UTC Magnitude: 1.9 ML	
Grid Ref:	387.88 kmE	329.66 kmN	RMS:	0.10 secs		Lat: 50.115N Lon: -0.383W Depth: 7.7 km	
Locality:	STONE, STAFFORDSHIRE					Grid Ref: 515.60 kmE 25.20 kmN RMS: 0.00 secs	
Velocity model:	Lownet Xnear: 100.0 Xfar: 200.0					Locality: ENGLISH CHANNEL	
Comment: 4KM SW STONE						Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0	
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES						Comment: 80KM SSW BRIGHTON	
HMNX	HZ	98.0	EP			STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	
HMNX	HE	98.0	ES			HMNX HZ 98.0 EP 19:38 17.43 0.02	
HMNX	HN	98.0	IAML			HMNX HE 98.0 ES 19:38 29.49 -0.01	
HMNX	HE	98.0	IAML			HMNX HN 98.0 IAML 19:38 32.95 48 0.26	
JQE	EZ	157.0	EP			HMNX HE 98.0 IAML 19:38 32.98 44 0.34	
JQE	EZ	157.0	ES			JQE EZ 157.0 EP 19:38 26.28 0.02	
JSA	HZ	165.0	EP			JQE EZ 157.0 ES 19:38 44.80 -0.01	
JSA	HN	165.0	IAML			JSA HZ 165.0 EP 19:38 27.41 -0.03	
JSA	HE	165.0	ES			JSA HN 165.0 ES 19:38 46.88 0.02	
JSA	HN	165.0	IAML			JSA HE 165.0 IAML 19:38 47.18 12 0.28	
JSA	HE	165.0	IAML			JSA HE 165.0 IAML 19:38 47.18 12 0.30	
September 2 2016 Time: 22:05 55.0 UTC Magnitude: 1.4 ML							
Lat:	56.647N	Lon:	-5.541W	Depth:	7.8 km		
Grid Ref:	182.93 kmE	756.17 kmN	RMS:	0.50 secs			
Locality:	STRONTIAN, HIGHLAND						
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	
LAWE	HN	43.9	ES		22:06	07.64	-0.33
LAWE	HE	43.9	IAML		22:06	07.96	-0.69
Locality:	DARWEN, LANCASHIRE						

TABLE 2 : PHASE DATA

Comment: 50KM ENE SUNDERLAND	WLF1	HN	124.0	ES	05:45	21.70	-1.05
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	WLF1	HN	124.0	IAML	05:45	25.18	7 0.20
GDLE HZ 77.6 EP 20:54 11.74 0.00	WLF1	HE	124.0	IAML	05:45	25.20	16 0.54
GDLE HE 77.6 ES 20:54 21.08 -0.08	YRC	EZ	129.0	EP	05:45	09.55	0.75
GDLE HN 77.6 IAML 20:54 21.32 37 0.22	WME	HZ	130.0	EP	05:45	09.87	0.93
GDLE HE 77.6 IAML 20:54 21.55 23 0.14	WPS	HZ	138.0	EP	05:45	10.84	0.76
EDMD HZ 88.1 EP 20:54 13.15 -0.18	WPS	HE	138.0	ES	05:45	26.83	0.66
EDMD HE 88.1 ES 20:54 23.80 -0.12	WPS	HE	138.0	IAML	05:45	28.34	4 0.53
HPK HE 143.0 ES 20:54 38.58 0.66	WPS	HN	138.0	IAML	05:45	28.59	5 0.36
HPK HE 143.0 IAML 20:54 38.83 11 0.30	October 3 2016 Time: 11:07 06.0 UTC Magnitude: 1.6 ML						
HPK HN 143.0 IAML 20:54 39.89 5 0.31	Lat: 56.709N Lon: -6.340W Depth: 5.4 km						
ESK HN 162.0 ES 20:54 44.05 1.19	Grid Ref: 134.43 kmE 765.88 kmN RMS: 0.30 secs						
September 21 2016 Time: 02:23 08.7 UTC Magnitude: 0.9 ML	Locality: COLL,ARGYLL & BUTE Velocity model: Lownet Xnear: 100.0 Xfar: 175.0						
Lat: 56.175N Lon: -5.825W Depth: 3.8 km	Comment: OFFSHORE LOCATION						
Grid Ref: 162.61 kmE 704.62 kmN RMS: 0.20 secs	STAT	CO	DIST	PHAS	WT P	HrMn	SECS AMPL PERI RES
Locality: SCARBA,ARGYLL & BUTE	LAWE	HZ	76.6	IP	C	11:07	18.78 -0.07
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0	LAWE	HN	76.6	ES		11:07	27.97 -0.28
Comment: OFFSHORE LOCATION	LAWE	HE	76.6	IAML		11:07	28.33 22 0.13
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	LAWE	HN	76.6	IAML	D	11:07	28.50 27 0.21
LAWE HZ 28.1 IP C 02:23 13.97 0.06	KPL	HZ	81.6	IP		11:07	19.74 0.13
LAWE HE 28.1 ES 02:23 17.56 -0.18	KPL	HE	81.6	ES		11:07	29.40 -0.17
LAWE HN 28.1 IAML 02:23 17.95 24 0.12	KPL	HN	81.6	IAML		11:07	31.69 17 0.27
LAWE HE 28.1 IAML 02:23 18.07 21 0.24	KPL	HE	81.6	IAML		11:07	32.31 27 0.22
EAB EZ 92.4 EP 02:23 24.22 0.01	KAC	EZ	108.0	EP		11:07	23.70 -0.07
PGB1 HN 92.9 ES 02:23 36.00 0.32	EAB	EZ	136.0	IP	D	11:07	28.77 0.72
INVG HZ 114.0 EP 02:23 27.78 0.26	INVG	HZ	145.0	EP		11:07	29.79 0.58
INVG HN 114.0 ES 02:23 40.92 -0.37	INVG	HN	145.0	ES		11:07	46.88 0.69
INVG HN 114.0 IAML 02:23 43.07 3 0.26	INVG	HE	145.0	IAML		11:07	48.12 16 0.11
INVG HE 114.0 IAML 02:23 43.89 3 0.17	INVG	HE	145.0	IAML		11:07	48.64 11 0.11
CLGH HZ 123.0 EP 02:23 28.94 0.01	MDO	EZ	145.0	EP		11:07	29.58 0.29
CLGH HN 123.0 ES 02:23 43.42 -0.30	CLGH	HZ	182.0	EP		11:07	34.95 0.67
CLGH HE 123.0 IAML 02:23 44.82 3 0.57	October 7 2016 Time: 10:17 26.6 UTC Magnitude: 0.6 ML						
CLGH HN 123.0 IAML 02:23 45.15 5 0.22	Lat: 52.228N Lon: -4.224W Depth: 8.1 km						
KPL HZ 130.0 EP 02:23 29.97 -0.03	Grid Ref: 248.12 kmE 261.24 kmN RMS: 0.30 secs						
KPL HE 130.0 ES 02:23 45.56 -0.02	Locality: ABERAERON,CEREDIGION Velocity model: Lownet Xnear: 100.0 Xfar: 200.0						
KPL HE 130.0 IAML 02:23 47.58 2 0.23	STAT	CO	DIST	PHAS	WT P	HrMn	SECS AMPL PERI RES
KPL HN 130.0 IAML 02:23 48.67 1 0.21	RSBS	HZ	47.0	EP		10:17	34.55 -0.22
KAC EZ 151.0 EP 02:23 33.48 0.44	RSBS	HE	47.0	ES		10:17	40.92 0.18
NEWG HN 155.0 ES 02:23 51.55 -0.20	RSBS	HE	47.0	IAML		10:17	42.04 6 0.09
September 21 2016 Time: 08:28 01.7 UTC Magnitude: 0.9 ML	RSBS	HN	47.0	IAML		10:17	42.08 5 0.10
Lat: 56.168N Lon: -4.902W Depth: 8.1 km	LLW	BZ	78.9	EP		10:17	39.98 0.29
Grid Ref: 219.84 kmE 701.04 kmN RMS: 0.30 secs	LLW	BN	78.9	ES		10:17	49.00 -0.25
Locality: LOCH GOIL,ARGYLL/BUTE	LLW	BN	78.9	IAML		10:17	49.99 2 0.28
Velocity model: Lownet Xnear: 75.0 Xfar: 150.0	LLW	BE	78.9	IAML		10:17	50.19 2 0.20
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	MCH1	HE	87.8	ES		10:17	51.40 -0.26
LAWE HZ 32.5 IP C 08:28 07.81 0.20	MCH1	HN	87.8	IAML		10:17	51.72 3 0.18
LAWE HE 32.5 ES 08:28 11.64 -0.28	MCH1	HE	87.8	IAML		10:17	52.39 2 0.20
LAWE HN 32.5 IAML 08:28 11.85 16 0.24	HLM1	HZ	97.0	EP		10:17	42.90 0.35
LAWE HE 32.5 IAML 08:28 11.89 10 0.40	HLM1	HE	97.0	ES		10:17	54.55 0.34
PGB1 HZ 47.5 EP 08:28 10.06 0.12	HLM1	HE	97.0	IAML		10:17	55.49 2 0.30
PGB1 HE 47.5 ES 08:28 15.77 -0.18	HLM1	HN	97.0	IAML		10:17	57.22 2 0.11
INVG HZ 60.5 IP C 08:28 12.42 0.45	FOEL	HZ	101.0	EP		10:17	42.72 -0.49
INVG HE 60.5 ES 08:28 19.14 -0.33	WLF1	HE	119.0	ES		10:18	00.20 0.30
INVG HN 60.5 IAML 08:28 21.12 4 0.24	WPS	HE	132.0	ES		10:18	02.86 -0.31
INVG HE 60.5 IAML 08:28 21.18 3 0.13	October 8 2016 Time: 13:11 26.3 UTC Magnitude: 1.0 ML						
CLGH HZ 143.0 EP 08:28 24.83 0.38	Lat: 55.069N Lon: -6.815W Depth: 7.0 km						
CLGH HE 143.0 ES 08:28 41.84 0.78	Grid Ref: 92.67 kmE 585.55 kmN RMS: 0.70 secs						
CLGH HN 143.0 IAML 08:28 43.01 5 0.18	Locality: RINGSEND,COLERAINE Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0						
CLGH HE 143.0 IAML 08:28 43.63 4 0.27	STAT	CO	DIST	PHAS	WT P	HrMn	SECS AMPL PERI RES
October 1 2016 Time: 05:44 48.0 UTC Magnitude: 1.3 ML	IDGL	BZ	44.4	EP		13:11	34.06 -0.01
Lat: 52.431N Lon: -3.221W Depth: 7.7 km	IDGL	BN	44.4	ES		13:11	39.16 -0.59
Grid Ref: 316.99 kmE 282.19 kmN RMS: 0.50 secs	CLGH	HZ	45.0	IP	C	13:11	34.23 0.05
Locality: ANCHOR,SHROPSHIRE	CLGH	HN	45.0	ES		13:11	38.63 -1.32
Velocity model: Lownet Xnear: 100.0 Xfar: 150.0	CLGH	HE	45.0	IAML		13:11	39.85 19 0.14
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES	CLGH	HN	45.0	IAML		13:11	39.91 17 0.16
HLM1 HZ 25.1 IP C 05:44 53.17 0.32	ILTH	BZ	120.0	EP		13:11	46.29 0.53
HLM1 HE 25.1 ES 05:44 56.46 0.10	GAL1	HZ	137.0	EP		13:11	59.74 -0.25
HLM1 HE 25.1 IAML 05:44 56.63 78 0.11	GAL1	HE	137.0	EP		13:11	48.62 0.41
HLM1 HN 25.1 IAML 05:44 56.64 97 0.10	GAL1	HE	137.0	ES		13:12	04.11 -0.11
MCH1 HZ 50.6 IP D 05:44 56.74 -0.02	GAL1	HN	137.0	IAML		13:12	06.47 2 0.38
MCH1 HN 50.6 ES 05:45 02.80 -0.32	GAL1	HE	137.0	IAML		13:12	07.00 2 0.18
MCH1 HE 50.6 IAML 05:45 03.03 34 0.16	NEWG	HZ	165.0	EP		13:11	53.57 1.28
MCH1 HN 50.6 IAML 05:45 03.03 31 0.19	NEWG	HE	165.0	IAML		13:12	14.23 3 0.21
FOEL HZ 51.1 IP D 05:44 56.54 -0.34	NEWG	HZ	165.0	IAML		13:12	14.60 3 0.24
FOEL HE 51.1 ES 05:45 03.08 -0.26	October 9 2016 Time: 12:48 26.1 UTC Magnitude: 3.8 ML						
FOEL HE 51.1 IAML 05:45 03.57 21 0.16	Lat: 62.488N Lon: 2.178W Depth: 28.1 km						
FOEL HE 51.1 IAML 05:45 03.71 15 0.21	Grid Ref: 615.19 kmE 1407.92 kmN RMS: 0.70 secs						
MONNM HZ 71.7 IP D 05:45 00.17 0.15	Locality: NORTHERN NORTH SEA Velocity model: Lownet Xnear: 500.0 Xfar: 1000.0						
MONNM HE 71.7 ES 05:45 08.74 -0.04	Comment: 310KM NE LERWICK						
MONNM HE 71.7 IAML 05:45 09.01 10 0.62	STAT	CO	DIST	PHAS	WT P	HrMn	SECS AMPL PERI RES
MONNM HN 71.7 IAML 05:45 09.25 14 0.32	FOO	HZ	180.0	IP	D	12:48	52.97 0.73
RSBS HZ 117.0 IP C 05:45 07.60 0.54							
RSBS HN 117.0 ES 05:45 20.68 -0.27							
RSBS HN 117.0 IAML 05:45 23.51 6 0.48							
RSBS HE 117.0 IAML 05:45 24.50 6 0.20							
WLF1 HZ 124.0 EP 05:45 08.89 0.79							

TABLE 2 : PHASE DATA

FOO	HN	180.0	ES	12:49	11.19	-0.11	EDMD	HZ	138.0	EP	18:57	04.47	0.51								
FOO	HN	180.0	IAML	12:49	13.13	750 0.27	EDMD	HN	138.0	ES	18:57	21.05	0.36								
FOO	HE	180.0	IAML	12:49	13.14	575 0.21	EDMD	HE	138.0	IAML	18:57	21.79	2 0.26								
BER	HZ	289.0	EP	12:49	06.09	0.22	EDMD	HN	138.0	IAML	18:57	24.07	3 0.19								
BER	HN	289.0	ES	12:49	34.16	-0.71	NEWG	HN	145.0	ES	18:57	21.96	-0.46								
BER	HE	289.0	IAML	12:49	35.61	182 0.19	NEWG	HN	145.0	IAML	18:57	22.95	1 0.29								
BER	HN	289.0	IAML	12:49	39.46	131 0.30	NEWG	HE	145.0	IAML	18:57	24.38	1 0.56								
LRW	HZ	318.0	IP	D	12:49	10.67	1.16	ESK	HZ	157.0	EP	18:57	07.41	0.72							
LRW	HN	318.0	ES		12:49	42.43	1.26	ESK	HE	157.0	ES	18:57	25.40	-0.02							
LRW	HE	318.0	IAML		12:49	44.14	465 0.38	HLM1	HE	159.0	ES	18:57	26.33	0.44							
LRW	HN	318.0	IAML		12:49	47.64	557 0.31	HLM1	HE	159.0	IAML	18:57	27.10	1 0.20							
SOFL	HZ	477.0	EP		12:49	29.18	-0.17	HLM1	HN	159.0	IAML	18:57	27.27	1 0.32							
BIGH	HZ	556.0	EP		12:49	39.55	0.22	October 10 2016 Time: 13:57 10.5 UTC Magnitude: 0.8 ML													
BIGH	HE	556.0	ES		12:50	31.65	-1.11	Lat: 58.071N Lon: -5.489W Depth: 7.9 km													
BIGH	HE	556.0	IAML		12:50	34.21	170 0.40	Grid Ref: 194.25 kmE 914.39 kmN RMS: 0.30 secs													
BIGH	HN	556.0	IAML		12:50	34.95	132 0.46	Locality: REIFF, HIGHLAND													
MCD	EZ	624.0	EP		12:49	47.68	-0.18	Velocity model: Lownet Xnear: 100.0 Xfar: 200.0													
MDO	EZ	670.0	EP		12:49	52.82	-0.77	Comment: OFFSHORE LOCATION													
DRUM	HZ	674.0	EP		12:49	53.88	-0.17	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES				
KAC	EZ	694.0	EP		12:49	56.00	-0.57	KAC	EZ	64.7	EP		13:57	21.63	0.19						
LEWI	HZ	695.0	EP		12:49	55.93	-0.73	KAC	EZ	64.7	ES		13:57	29.07	-0.34						
KPL	HZ	721.0	EP		12:49	59.37	-0.49	LEWI	HN	81.8	EP		13:57	24.34	0.24						
INVG	HZ	761.0	EP		12:50	04.47	-0.47	LEWI	HN	81.8	ES		13:57	33.68	-0.32						
MUD	HZ	779.0	EP		12:50	06.67	-0.44	LEWI	HN	81.8	IAML		13:57	33.91	3 0.30						
ESY	EZ	781.0	EP		12:50	06.91	-0.54	LEWI	HE	81.8	IAML		13:57	37.10	2 0.15						
EDI	HZ	792.0	EP		12:50	09.25	0.43	KPL	HZ	82.1	EP		13:57	24.33	0.23						
EAB	EZ	793.0	EP		12:50	08.22	-0.69	KPL	HE	82.1	ES		13:57	34.01	0.01						
EBL	EZ	805.0	EP		12:50	10.13	-0.35	KPL	HN	82.1	IAML		13:57	37.13	5 0.16						
PGB1	HZ	835.0	EP		12:50	13.51	-0.63	KPL	HE	82.1	IAML		13:57	37.17	4 0.24						
ESK	HZ	856.0	EP		12:50	16.25	-0.59	KPL	HN	104.0	EP		13:57	27.82	0.33						
NEWG	HZ	900.0	EP		12:50	21.13	-1.11	KPL	HN	104.0	ES		13:57	39.52	-0.35						
October 9 2016 Time: 17:27 10.2 UTC Magnitude: 1.2 ML																					
Lat: 57.300N Lon: -4.389W Depth: 7.2 km																					
Grid Ref: 256.07 kmE 825.77 kmN RMS: 0.40 secs																					
Locality: ERROGIE, HIGHLAND																					
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0																					
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	October 12 2016 Time: 05:23 18.7 UTC Magnitude: 0.4 ML											
MDO	EZ	15.8	IP	D	17:27	13.44	-0.12	STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES				
MDO	EZ	15.8	ES		17:27	15.74	-0.27	MCH1	HZ	39.2	IP	C	05:23	25.95	0.07						
KAC	EZ	59.0	IP	C	17:27	20.47	0.21	MCH1	HN	39.2	ES		05:23	31.03	-0.07						
MCD	EN	75.1	ES		17:27	31.82	-0.11	MCH1	HN	39.2	IAML		05:23	31.15	6 0.12						
KPL	HZ	76.3	EP		17:27	23.16	0.26	MCH1	HE	39.2	IAML		05:23	31.16	6 0.38						
KPL	HN	76.3	ES		17:27	31.82	-0.35	MONM	HZ	42.8	EP		05:23	26.50	0.03						
KPL	HN	76.3	IAML		17:27	35.63	6 0.21	MONM	HN	42.8	ES		05:23	32.06	-0.06						
KPL	HE	76.3	IAML		17:27	35.95	16 0.12	MONM	HN	42.8	IAML		05:23	32.33	6 0.12						
INVG	HZ	99.4	EP		17:27	26.63	0.10	MONM	HE	42.8	IAML		05:23	32.40	8 0.04						
INVG	HN	99.4	ES		17:27	37.76	-0.69	HLM1	HE	45.7	ES		05:23	32.84	-0.14						
INVG	HE	99.4	IAML		17:27	40.95	9 0.17	HLM1	HN	45.7	IAML		05:23	33.11	2 0.21						
INVG	HN	99.4	IAML		17:27	41.08	8 0.11	HLM1	HE	45.7	IAML		05:23	33.11	2 0.21						
DRUM	HZ	123.0	EP		17:27	30.78	0.59	LLW	BE	108.0	ES		05:23	49.85	0.12						
DRUM	HN	123.0	ES		17:27	44.71	-0.07	RSBS	HZ	155.0	EP		05:23	43.82	0.17						
DRUM	HE	123.0	IAML		17:27	47.67	10 0.13	RSBS	HN	155.0	ES		05:24	02.08	0.24						
EAB	EZ	124.0	IP	C	17:27	31.22	0.91	RSBS	HE	155.0	ES		05:24	20.08							
LAWE	HZ	131.0	EP		17:27	31.17	-0.18	MCH1	HN	38.5	IAML		18:09	24.00	4 0.09						
LAWE	HE	131.0	ES		17:27	46.85	0.06	MCH1	HN	38.5	ES		18:09	24.25	4 0.19						
LAWE	HE	131.0	IAML		17:27	49.02	4 0.10	MONM	HZ	40.6	IP	C	18:09	18.97	-0.08						
LAWE	HN	131.0	IAML		17:27	51.54	4 0.12	MONM	HN	40.6	ES		18:09	24.49	0.15						
BIGH	HZ	136.0	EP		17:27	32.66	0.65	MONM	HE	40.6	IAML		18:09	24.56	9 0.12						
BIGH	HE	136.0	ES		17:27	47.76	-0.17	MONM	HN	40.6	IAML		18:09	24.65	9 0.26						
BIGH	HN	136.0	IAML		17:27	49.98	2 0.16	STRD	HZ	83.5	ES		18:09	35.32	-0.11						
BIGH	HE	136.0	IAML		17:27	50.14	3 0.21	STRD	HN	83.5	IAML		18:09	36.31	8 0.20						
October 9 2016 Time: 18:56 41.0 UTC Magnitude: 0.6 ML																					
Lat: 53.910N Lon: -3.389W Depth: 3.7 km																					
Grid Ref: 308.77 kmE 446.90 kmN RMS: 0.40 secs																					
Locality: IRISH SEA																					
Velocity model: Lownet Xnear: 150.0 Xfar: 300.0																					
Comment: 25KM NW BLACKPOOL																					
STAT	CO	DIST	PHAS	WT P	HrMn	SECS	AMPL	PERI	RES	October 13 2016 Time: 18:09 11.7 UTC Magnitude: 0.7 ML											
KESW	HZ	77.7	EP		18:56	54.29	-0.40	MCH1	HN	38.5	IAML		18:09	18.65	-0.10						

TABLE 2 : PHASE DATA

STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	HLM1	HN	36.7	ES		22:49	40.42		0.33	
STRD	HZ	71.7	EP			00:09	14.35			0.12	HLM1	HN	36.7	IAML		22:49	40.68	18	0.16	
STRD	HE	71.7	ES			00:09	23.69			0.30	HLM1	HE	36.7	IAML		22:49	41.60	9	0.20	
MONM	HZ	82.3	EP			00:09	15.72			-0.13	FOEL	HZ	39.7	IP	C	22:49	35.06		-0.49	
MONM	HE	82.3	ES			00:09	26.13			-0.08	FOEL	HN	39.7	ES		22:49	40.38		-0.47	
MONN	HN	82.3	IAML			00:09	26.39	3	0.25		FOEL	HN	39.7	IAML		22:49	40.60	18	0.24	
MONM	HE	82.3	IAML			00:09	26.48	4	0.32		FOEL	HE	39.7	IAML		22:49	40.78	14	0.18	
WOL	BZ	83.5	EP			00:09	15.89			-0.15	MCH1	HZ	68.6	EP		22:49	39.54		-0.25	
MCH1	HZ	104.0	EP			00:09	19.07			-0.11	MCH1	HN	68.6	ES		22:49	47.78		-0.36	
MCH1	HN	104.0	ES			00:09	31.55			-0.42	MCH1	HE	68.6	IAML		22:49	47.92	6	0.13	
MCH1	HE	104.0	IAML			00:09	32.59	4	0.22		MCH1	HE	68.6	IAML		22:49	48.10	2	0.11	
MCH1	HN	104.0	IAML			00:09	32.62	3	0.30		MONM	HZ	90.3	IP	D	22:49	43.11		0.08	
DYA	HZ	135.0	EP			00:09	23.98			0.01	MONM	HE	90.3	ES		22:49	53.82		0.11	
DYA	HE	135.0	ES			00:09	40.09			-0.16	MONM	HE	90.3	IAML		22:49	54.39	5	0.24	
HLM1	HZ	156.0	EP			00:09	27.25			0.13	MONM	HN	90.3	IAML		22:49	54.64	5	0.11	
HLM1	HE	156.0	ES			00:09	45.56			-0.13	WLF1	HZ	105.0	EP		22:49	45.29		0.10	
HLM1	HN	156.0	IAML			00:09	46.50	3	0.23		WLF1	HE	105.0	ES		22:49	57.36		-0.06	
HLM1	HE	156.0	IAML			00:09	47.07	2	0.20		WLF1	HN	105.0	IAML		22:49	58.02	10	0.32	
RSBS	HZ	186.0	EP			00:09	31.41			0.25	WLF1	HE	105.0	IAML		22:49	59.42	8	0.25	
RSBS	HN	186.0	ES			00:09	53.07			0.38	YRC	EZ	110.0	EP		22:49	45.99		0.07	
RSBS	HN	186.0	IAML			00:09	54.48	3	0.19		RSBS	HZ	113.0	EP		22:49	46.06		-0.38	
RSBS	HE	186.0	IAML			00:09	54.55	3	0.35		WPS	HN	119.0	EP		22:49	47.56		0.29	
											WPS	HN	119.0	ES		22:50	01.16		0.16	
October 15 2016				Time: 11:41 51.7 UTC				Magnitude: 1.0 ML				STRD	HZ	122.0	EP		22:49	48.37		0.53
Lat: 56.31LN				Lon: -5.020W				Depth: 2.5 km				STRD	HE	122.0	IAML		22:50	03.30	7	0.14
Grid Ref: 213.22 kME 717.26 kmN				RMS: 0.30 secs								STRD	HN	122.0	IAML		22:50	04.57	10	0.17
Locality: INVERARAY,ARGYL & BUTE												CWF	HZ	144.0	ES		22:50	07.09		-0.04
Velocity model: Lownet Xnear: 100.0 Xfar: 200.0												CWF	HN	144.0	IAML		22:50	07.73	3	0.16
Comment: 9KM NNE INVERARAY																				
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES										
LAWE	HZ	24.1	EP			11:41	56.25			-0.05										
LAWE	HN	24.1	ES			11:41	59.18			-0.47										
LAWE	HE	24.1	IAML			11:41	59.49	38	0.14											
LAWE	HN	24.1	IAML			11:41	59.50	40	0.10											
INVG	HZ	61.7	EP			11:42	02.66			0.14										
INVG	HN	61.7	ES			11:42	09.84			-0.57										
INVG	HE	61.7	IAML			11:42	13.34	10	0.18											
INVG	HN	61.7	IAML			11:42	13.40	17	0.22											
PGB1	HZ	64.9	EP			11:42	03.32			0.32										
PGB1	HN	64.9	IAML			11:42	13.33	8	0.30											
PGB1	HE	64.9	IAML			11:42	13.40	6	0.24											
KPL	HZ	121.0	EP			11:42	11.88			0.24										
KPL	HE	121.0	ES			11:42	26.31			0.13										
KAC	EZ	133.0	EP			11:42	13.99			0.38										
NEWG	HZ	142.0	EP			11:42	15.18			0.37										
CLGH	HZ	153.0	EP			11:42	16.73			0.31										
CLGH	HE	153.0	ES			11:42	34.75			0.30										
GAL1	HN	162.0	ES			11:42	36.38			-0.26										
October 15 2016				Time: 21:33 41.5 UTC				Magnitude: 1.9 ML				HLM1	HE	120.0	IAML		22:32	12.61	2	0.16
Lat: 54.967N				Lon: -2.029W				Depth: 5.5 km				HLM1	HN	120.0	IAML		22:32	13.08	1	0.12
Grid Ref: 398.14 kME 563.61 kmN				RMS: 0.20 secs								RSBS	HZ	157.0	ES		22:32	20.69		0.77
Locality: HEXHAM,NORTHUMBERLAND				Velocity model: Lownet Xnear: 100.0 Xfar: 200.0								RSBS	HE	157.0	IAML		22:32	21.79	2	0.12
												RSBS	HN	157.0	IAML		22:32	22.53	1	0.18
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES										
EDMD	HZ	15.7	IP	D	21:33	44.55			-0.12											
EDMD	HE	15.7	ES		21:33	46.92			-0.07											
EDMD	HE	15.7	IAML		21:33	47.21	686	0.10												
EDMD	HN	15.7	IAML		21:33	47.21	691	0.09												
KESW	HZ	81.0	IP	C	21:33	55.07			-0.01											
KESW	HE	81.0	ES		21:34	05.17			0.17											
KESW	HN	81.0	IAML		21:34	06.89	19	0.21												
KESW	HE	81.0	IAML		21:34	07.48	15	0.20												
ESK	HZ	84.5	EP		21:33	55.66			0.05											
ESK	HN	84.5	ES		21:34	05.62			-0.31											
ESK	HE	84.5	IAML		21:34	06.14	46	0.21												
ESK	HN	84.5	IAML		21:34	07.97	32	0.22												
GDL	HZ	99.0	EP		21:33	58.11			0.25											
GDL	HN	99.0	ES		21:34	09.56			-0.26											
GDL	HE	99.0	IAML		21:34	11.62	109	0.17												
GDL	HN	99.0	IAML		21:34	12.41	107	0.28												
EBL	EZ	110.0	EP		21:33	59.78			0.11											
ESY	EZ	112.0	IP	C	21:34	00.07			0.15											
HPK	HZ	115.0	EP		21:34	00.63			0.24											
NEWG	HZ	142.0	EP		21:34	03.91			-0.37											
PGB1	HZ	182.0	EP		21:34	11.00			1.21											
LMK	HZ	201.0	EP	4	21:34	09.25			-3.00											
October 17 2016				Time: 22:49 28.2 UTC				Magnitude: 1.0 ML				HLM1	HE	120.0	IAML		22:49	48.42		0.53
Lat: 52.558N				Lon: -3.418W				Depth: 14.7 km				STRD	HE	122.0	IAML					

TABLE 2 : PHASE DATA

November 11 2016	Time: 13:54 22.9 UTC	Magnitude: 0.8 ML	DYA	HE	170.0	IAML	07:20	56.10	59	0.24	
Lat: 51.704N	Lon: -3.003W	Depth: 14.9 km	DYA	HN	170.0	IAML	07:20	56.18	66	0.32	
Grid Ref: 330.70 kmE	201.11 kmN	RMS: 0.30 secs	WLF1	HZ	177.0	EP	07:20	37.61		0.80	
Locality: PONTYPOOL, TORFAEN			WLF1	HE	177.0	IAML	07:20	58.55	33	0.16	
Velocity model: Mid Wales	Xnear: 80.0 Xfar: 200.0		WLF1	HN	177.0	IAML	07:20	58.66	27	0.14	
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			WME	EZ	185.0	EP	07:20	38.29		0.48	
MONM HZ 20.4 IP C 13:54 27.21	-0.03		WPS	HZ	191.0	EP	07:20	38.43		-0.14	
MONM HE 20.4 ES	13:54 30.48	0.14	WPS	HN	191.0	ES	07:21	00.99		0.91	
MONM HN 20.4 IAML	13:54 30.73	40 0.16	WPS	HN	191.0	IAML	07:21	02.32	14	0.15	
MONM HE 20.4 IAML	13:54 30.80	19 0.13	WPS	HE	191.0	IAML	07:21	03.39	12	0.42	
OLDB HZ 31.7 EP	13:54 28.71	-0.16									
STRD HZ 58.6 EP	13:54 32.99	-0.03	November 18 2016	Time: 08:32 43.5 UTC	Magnitude: 0.6 ML						
HLM1 HE 91.0 ES	13:54 48.76	0.05	Lat: 51.182N	Lon: -4.571W	Depth: 10.6 km						
HLM1 HE 91.0 IAML	13:54 49.23	3 0.20	Grid Ref: 220.33 kmE	145.73 kmN	RMS: 0.00 secs						
HLM1 HE 91.0 IAML	13:54 49.50	4 0.16	Locality: BRISTOL CHANNEL								
RSBS HZ 123.0 EP	13:54 42.68	-0.06	Velocity model: Lownet	Xnear: 500.0 Xfar: 1000.0							
RSBS HN 123.0 ES	13:54 56.78	-0.23	Comment: 6KM EAST LUNDY								
RSBS HN 123.0 IAML	13:54 56.90	4 0.10	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES								
RSBS HE 123.0 IAML	13:54 57.88	3 0.16	HTL	HZ	21.7	EP	08:32	47.68		-0.05	
FOEL HN 133.0 ES	13:54 58.89	-0.58	HTL	HE	21.7	ES	08:32	50.88		0.03	
LLW BZ 135.0 EP	13:54 44.76	0.23	HTL	HN	21.7	IAML	08:32	51.05	20	0.14	
LLW BN 135.0 ES	13:55 00.53	0.44	HTL	HE	21.7	IAML	08:32	51.54	9	0.10	
LLW BN 135.0 IAML	13:55 01.09	1 0.10	SBD	BN	69.1	ES	08:33	03.53		0.01	
LLW BE 135.0 IAML	13:55 01.56	1 0.51	RSBS	HE	86.6	ES	08:33	08.25		0.01	
DYA HN 155.0 EP	13:54 47.73	0.34	DYA	HZ	94.5	EP	08:32	59.01		0.00	
DYA HZ 155.0 ES	13:55 05.66	0.66	DYA	HN	94.5	ES	08:33	10.37		0.01	
November 13 2016	Time: 05:21 35.5 UTC	Magnitude: 0.4 ML	DYA	HE	94.5	IAML	08:33	12.09	2	0.14	
Lat: 52.074N	Lon: -2.926W	Depth: 11.6 km	DYA	HN	94.5	IAML	08:33	12.28	2	0.09	
Grid Ref: 336.54 kmE	242.19 kmN	RMS: 0.10 secs	CCA1	HN	120.0	ES	08:33	16.99		0.00	
Locality: MOCCAS, HEREFORDSHIRE											
Velocity model: Lownet	Xnear: 500.0 Xfar: 1000.0		December 3 2016	Time: 09:50 10.1 UTC	Magnitude: 0.6 ML						
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			Lat: 53.525N	Lon: -4.157W	Depth: 18.8 km						
MONM HZ 27.4 EP	05:21 40.91	-0.09	Grid Ref: 257.03 kmE	405.34 kmN	RMS: 0.10 secs						
MONM HE 27.4 ES	05:21 45.13	0.09	Locality: OFFSHORE ANGLESEY								
MONM HN 27.4 IAML	05:21 45.24	6 0.18	Velocity model: Lownet	Xnear: 100.0 Xfar: 200.0							
MONM HE 27.4 IAML	05:21 45.41	6 0.23	Comment: 22KM NE AMLWCH								
HLM1 HZ 49.6 EP	05:21 44.20	-0.08	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES								
HLM1 HE 49.6 ES	05:21 50.78	0.07	WME	EZ	17.2	EP	09:50	14.38		-0.14	
HLM1 HE 49.6 IAML	05:21 51.04	2 0.08	WPS	HZ	26.6	EP	09:50	15.75		0.10	
HLM1 HE 49.6 IAML	05:21 51.92	2 0.18	WPS	HE	26.6	ES	09:50	19.53		-0.13	
RSBS HZ 126.0 EP	05:21 55.11	-0.08	WPS	HN	26.6	IAML	09:50	20.46	5	0.13	
RSBS HE 126.0 ES	05:22 09.67	0.08	WPS	HE	26.6	IAML	09:50	20.51	4	0.06	
CWF HZ 133.0 EP	05:21 56.14	-0.05	WLF1	HZ	30.7	EP	09:50	16.12		-0.09	
CWF HN 133.0 ES	05:22 11.38	0.05	WLF1	HE	30.7	ES	09:50	20.75		0.12	
CWF HE 133.0 IAML	05:22 12.25	1 0.11	WLF1	HN	30.7	IAML	09:50	21.30	10	0.16	
CWF HN 133.0 IAML	05:22 12.54	2 0.14	WLF1	HE	30.7	IAML	09:50	21.40	8	0.10	
November 14 2016	Time: 07:20 09.1 UTC	Magnitude: 2.1 ML	YRC	EZ	41.3	EP	09:50	17.82		0.11	
Lat: 51.888N	Lon: -3.170W	Depth: 4.9 km	LLW	BZ	82.1	EP	09:50	23.64		0.07	
Grid Ref: 319.49 kmE	221.74 kmN	RMS: 0.50 secs	LLW	BN	82.1	ES	09:50	33.26		-0.11	
Locality: CRICKHOWELL, POWYS			IOMK	HZ	86.2	EP	09:50	24.40		0.24	
Velocity model: Lownet	Xnear: 150.0 Xfar: 300.0		IOMK	HE	86.2	ES	09:50	34.20		-0.19	
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES			IOMK	HE	86.2	IAML	09:50	34.68	4	0.13	
MONM HZ 25.8 IP C 07:20 14.03	0.06		IOMK	HN	86.2	IAML	09:50	35.15	3	0.25	
MONM HN 25.8 ES	07:20 17.66	0.12	December 10 2016	Time: 01:22 17.7 UTC	Magnitude: 1.9 ML						
MONM HE 25.8 IAML	07:20 17.79	366 0.12	Lat: 51.796N	Lon: -4.030W	Depth: 11.8 km						
MONM HE 25.8 IAML	07:20 17.81	822 0.13	Grid Ref: 260.03 kmE	212.82 kmN	RMS: 0.30 secs						
STRD HZ 70.6 EP	07:20 20.71	-0.38	Locality: SARON, CARMARTHENSHIRE								
STRD HN 70.6 ES	07:20 29.23	-0.62	Velocity model: Lownet	Xnear: 100.0 Xfar: 200.0							
STRD HN 70.6 IAML	07:20 29.68	89 0.14	STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES								
STRD HE 70.6 IAML	07:20 30.09	92 0.08	RSBS	HZ	52.2	IP	01:22	27.01		0.23	
HLM1 HZ 72.9 EP	07:20 21.54	0.04	RSBS	HE	52.2	ES	01:22	33.17		-0.20	
HLM1 HE 72.9 ES	07:20 30.43	-0.13	RSBS	HE	52.2	IAML	01:22	33.91	101	0.28	
HLM1 HE 72.9 IAML	07:20 30.98	44 0.09	MONM	HZ	84.7	EP	01:22	31.64		-0.13	
HLM1 HE 72.9 IAML	07:20 32.58	36 0.13	MONM	HE	84.7	ES	01:22	41.91		-0.09	
SWN1 HZ 103.0 EP	07:20 26.51	0.32	MONM	HE	84.7	IAML	01:22	42.18	38	0.13	
SWN1 HE 103.0 ES	07:20 39.25	0.58	MONM	HN	84.7	IAML	01:22	42.26	66	0.14	
SWN1 HE 103.0 IAML	07:20 39.82	61 0.21	HTL	HZ	94.6	EP	01:22	33.61		0.32	
SWN1 HN 103.0 IAML	07:20 41.10	94 0.22	HTL	HE	94.6	ES	01:22	44.54		-0.10	
RSBS HZ 109.0 EP	07:20 27.09	0.09	HTL	HE	94.6	IAML	01:22	45.43	29	0.14	
RSBS HN 109.0 ES	07:20 39.67	-0.40	HTL	HN	94.6	IAML	01:22	45.46	36	0.44	
RSBS HN 109.0 IAML	07:20 42.92	41 0.10	OLDB	HZ	103.0	EP	01:22	34.61		0.02	
RSBS HE 109.0 IAML	07:20 43.11	46 0.08	OLDB	HE	103.0	ES	01:22	46.83		-0.05	
LLW BZ 112.0 IP	D 07:20 28.14	0.61	OLDB	HE	103.0	IAML	01:22	47.31	53	0.21	
LLW BN 112.0 IAML	07:20 28.33	30 0.30	OLDB	HN	103.0	IAML	01:22	47.52	172	0.32	
LLW BE 112.0 IAML	07:20 28.48	14 0.20	HLM1	HZ	112.0	IP	D	35.95		-0.03	
LLW BE 112.0 ES	07:20 41.39	0.39	HLM1	HE	112.0	ES	01:22	49.33		0.04	
FOEL HZ 112.0 IP	D 07:20 26.84	-0.64	HLM1	HE	112.0	IAML	01:22	51.52	16	0.11	
FOEL HE 112.0 ES	07:20 40.02	-0.89	HLM1	HN	112.0	IAML	01:22	51.66	18	0.21	
FOEL HE 112.0 IAML	07:20 40.19	32 0.18	STRD	HZ	129.0	EP	01:22	38.42		0.14	
FOEL HE 112.0 IAML	07:20 43.63	32 0.58	SBD	BZ	144.0	EP	01:22	39.76		-0.73	
HTL HZ 135.0 EP	07:20 30.93	-0.04	SWN1	HZ	157.0	EP	01:22	43.13		0.77	
HTL HE 135.0 ES	07:20 46.74	-0.21									
HTL HE 135.0 IAML	07:20 47.56	43 0.32	December 10 2016	Time: 18:41 52.2 UTC	Magnitude: 0.8 ML						
HTL HE 135.0 IAML	07:20 48.14	31 0.28	Lat: 52.770N	Lon: -0.719W	Depth: 2.7 km						
HTL HE 135.0 IAML	07:20 48.14	31 0.28	Grid Ref: 486.41 kmE	319.96 kmN	RMS: 0.40 secs						
CWF HN 158.0 IAML	07:20 52.06	75 0.28	Locality: WYMONDHAM, LEICS								
CWF HN 158.0 IAML	07:20 52.33	56 0.14	Velocity model: Lownet	Xnear: 100.0 Xfar: 200.0							
DYA HZ 170.0 EP	07:20 35.84	-0.19									

TABLE 2 : PHASE DATA

STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	Lat:	54.626N	Lon:	-3.069W	Depth:	8.8 km					
CWF	HZ	39.9	EP			18:41	59.46			0.01	Grid Ref:	330.99	kmE	526.19	kmN	RMS: 0.20 secs					
CWF	HE	39.9	ES			18:42	04.44			-0.32	Locality:	THREELKED, CUMBERIA									
CWF	HE	39.9	IAML			18:42	04.90	7	0.08		Velocity model:	Lownet	Xnear:	500.0	Xfar:	1000.0					
CWF	HN	39.9	IAML			18:42	04.90	9	0.14		STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
LMK	HZ	80.8	EP			18:42	06.35			0.43	KESW	HZ	4.8	IP	D	15:16		38.29			-0.09
LMK	HE	80.8	ES			18:42	15.67			-0.28	KESW	HN	4.8	ES		15:16		39.87			0.05
WACR	HZ	91.1	EP			18:42	07.89			0.39	KESW	HE	4.8	IAML		15:16		39.92	45	0.16	
WACR	HE	91.1	ES			18:42	18.25			-0.43	KESW	HN	4.8	IAML		15:16		39.98	36	0.09	
WACR	HN	91.1	IAML			18:42	19.70	5	0.22		EDMD	HZ	74.9	EP		15:16		48.73			-0.13
WACR	HE	91.1	IAML			18:42	19.88	4	0.23		EDMD	HN	74.9	IAML		15:16		59.91	12	0.34	
HLM1	HE	149.0	ES			18:42	34.73			0.76	EDMD	HE	74.9	IAML		15:17		0.11	13	0.12	
HLM1	HE	149.0	IAML			18:42	36.70	2	0.37		ESK	HZ	77.3	EP		15:16		49.43			0.13
HLM1	HN	149.0	IAML			18:42	36.79	1	0.32		ESK	HN	77.3	ES		15:16		58.60			-0.10
ESK	HE	77.3	IAML								ESK	HE	77.3	IAML		15:16		59.27	3	0.38	
ESK	HN	77.3	IAML								ESK	HN	77.3	IAML		15:17		00.73	2	0.19	
NEWG	HZ	92.4	EP								NEWG	HN	92.4	IAML		15:17		03.72	4	0.09	
NEWG	HE	92.4	IAML								NEWG	HE	92.4	IAML		15:17		03.73	4	0.17	
IOMK	HZ	105.0	EP								IOMK	HN	105.0	IAML		15:17		53.62			0.00
IOMK	HE	105.0	IAML								IOMK	HN	105.0	IAML		15:17		07.31	6	0.11	
GAL1	HZ	109.0	EP								GAL1	HE	109.0	ES		15:16		57.39	5	0.21	
GAL1	HE	109.0	ES								GAL1	HN	109.0	IAML		15:17		54.31			0.12
GAL1	HE	109.0	IAML								GAL1	HN	109.0	IAML		15:17		06.87			-0.29
EDMD	HZ	360.0	EP			02:06	51.77			0.10	December 21 2016	Time:	17:10	02.0	UTC	Magnitude:	1.8	ML			
EDMD	HE	360.0	ES			02:07	33.85			-0.06	Lat:	58.215N	Lon:	0.991W	Depth:	11.4	km				
EDMD	HE	360.0	IAML			02:07	35.45	7	0.12		Grid Ref:	575.68	kmE	929.00	kmN	RMS: 0.30 secs					
EDMD	HN	360.0	IAML			02:07	36.10	6	0.25		Locality:	CENTRAL NORTH SEA									
HPK	HZ	363.0	EP			02:06	58.34			0.64	Velocity model:	North Sea	Xnear:	400.0	Xfar:	600.0					
HPK	HE	363.0	ES			02:07	34.51			0.06	Comment:	320KM EAST SUNDERLAND									
ELMS	HZ	374.0	EP			02:06	58.32			-0.74	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
ELMS	HE	374.0	ES			02:07	37.22			0.42	LRW	HE	247.0	ES		17:11		02.74			0.07
ELMS	HN	374.0	IAML			02:07	37.93	7	0.28		DRUM	HZ	254.0	EP		17:10		38.10			0.26
ELMS	HE	374.0	IAML			02:07	39.18	9	0.37		DRUM	HN	254.0	ES		17:11		03.81			-0.23
CWF	HZ	415.0	EP			02:07	03.24			-1.00	DRUM	HE	254.0	IAML		17:11		15.17	6	0.38	
CWF	HE	415.0	IAML			02:07	46.06	2	0.22		DRUM	HN	254.0	IAML		17:11		17.74	7	0.35	
CWF	HE	415.0	IAML			02:07	48.52	2	0.13		INVG	HZ	363.0	EP		17:10		51.71			0.31
DRUM	HZ	435.0	EP			02:07	07.10			0.42	INVG	HE	363.0	ES		17:11		27.63			0.14
DRUM	HN	435.0	ES			02:07	49.60			-0.40	INVG	HE	363.0	IAML		17:11		29.28	1	0.10	
DRUM	HE	435.0	IAML			02:07	52.13	4	0.17		INVG	HN	363.0	IAML		17:11		30.41	2	0.13	
DRUM	HN	435.0	IAML			02:07	53.21	4	0.11		LINV	HZ	364.0	EP		17:10		51.08			-0.46
ESK	HZ	437.0	EP			02:07	06.84			-0.14	ESK	HE	412.0	ES		17:11		38.37			0.26
ESK	HE	437.0	ES			02:07	50.35			-0.17	ESK	HE	412.0	IAML		17:11		40.73	3	0.37	
ESK	HN	437.0	IAML			02:07	51.85	3	0.32		ESK	HN	412.0	IAML		17:11		41.83	3	0.16	
KESW	HZ	437.0	EP			02:07	06.59			-0.35	EDMD	HZ	418.0	EP		17:10		58.15			-0.12
EDI	HZ	443.0	EP			02:07	08.47			0.85	EDMD	HN	418.0	ES		17:11		39.10			-0.27
HLM1	HZ	514.0	EP			02:07	16.47			-0.10	December 22 2016	Time:	04:16	58.0	UTC	Magnitude:	0.8	ML			
December 13 2016	Time:	14:58	26.5	UTC							Lat:	55.852N	Lon:	-6.285W	Depth:	10.4	km				
Lat:	58.191N	Lon:	0.840W								Grid Ref:	131.85	kmE	670.39	kmN	RMS: 0.20 secs					
Grid Ref:	566.93	kmE	925.95	kmN							Locality:	ISLAY, ARGYLL & BUTE									
Locality:	CENTRAL NORTH SEA										Velocity model:	Lownet	Xnear:	150.0	Xfar:	300.0					
Velocity model:	North Sea	Xnear:	500.0	Xfar:	1000.0						STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
Comment:	210KM NE ABERDEEN										LAWE	HZ	71.5	EP		04:17		09.75			-0.20
STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES	LAWE	HE	71.5	ES		04:17		18.83			0.15
DRUM	HZ	245.0	EP			14:59	01.46			0.44	LAWE	HN	71.5	IAML		04:17		22.12	6	0.18	
DRUM	HE	245.0	IAML			14:59	41.43	20	0.52		LAWE	HE	71.5	IAML		04:17		22.22	10	0.16	
DRUM	HN	245.0	IAML			14:59	43.49	21	0.32		CLGH	HZ	86.4	EP		04:17		12.51			0.23
LRW	HZ	245.0	EP			14:59	01.30			0.21	CLGH	HN	86.4	ES		04:17		22.49			-0.22
LRW	HN	245.0	ES			14:59	26.19			-0.12	CLGH	HE	86.4	IAML		04:17		23.19	5	0.42	
LRW	HE	245.0	IAML			14:59	36.63	15	0.24		GAL1	HE	148.0	ES		04:17		38.53			0.08
LRW	HN	245.0	IAML			14:59	37.99	17	0.32		INVG	HZ	153.0	EP		04:17		22.21			0.09
MCD	EZ	252.0	EP			14:59	02.48			0.54	INVG	HE	153.0	ES		04:17		39.57			-0.17
BIGH	HZ	280.0	EP			14:59	05.36			-0.04	INVG	HN	153.0	IAML		04:17		42.12	1	0.41	
BIGH	HE	280.0	IAML			14:59	49.91	13	0.30		INVG	HE	153.0	IAML		04:17		43.38	2	0.34	
BIGH	HN	280.0	IAML			14:59	52.29	18	0.26		NEWG	HN	154.0	ES		04:17		39.78			0.03
ESY	EZ	329.0	EP			14:59	11.49			0.04	NEWG	HN	154.0	IAML		04:17		41.07	2	0.36	
LINV	HZ	355.0	EP			14:59	14.57			-0.15	NEWG	HE	154.0	IAML		04:17		42.43	3	0.57	
LINV	HE	355.0	IAML			14:59	50.72	7	0.80		December 23 2016	Time:	01:56	48.9	UTC	Magnitude:	0.8	ML			
LINV	HN	355.0	IAML			15:00	20.27	7	0.62		Lat:	56.379N	Lon:	-5.676W	Depth:	9.2	km				
ESK	HZ	404.0	EP			14:59	20.68			-0.18	Grid Ref:	173.07	kmE	726.80	kmN	RMS: 0.20 secs					
ESK	HE	404.0	IAML			15:00	05.37	8	0.14		Locality:	MULI, ARGYLL & BUTE									
ESK	HE	404.0	IAML			15:00	05.45	6	0.12		Velocity model:	Lownet	Xnear:	150.0	Xfar:	300.0					
EDMD	HZ	412.0	EP			14:59	21.63			-0.13	STAT	CO	DIST	PHAS	WT	P	HrMn	SECS	AMPL	PERI	RES
EDMD	HN	412.0	ES			15:00	02.18			0.12	LAWE	Hz	21.7	IP	C	01:56		53.06			-0.08
EDMD	HE	412.0	IAML			15:00	03.96	18	0.12		LAWE	HN	21.7	ES	01:56			56.12			-0.16
EDMD	HN	412.0	IAML			15:00	05.36	23	0.14		LAWE	HE	21.7	IAML	01:56			56.38	11	0.13	
LAWE	HZ	434.0	EP			14:59	23.78			-0.70	LAWE	HE	21.7	IAML	01:56			56.40	14	0.14	
LAWE	HE	434.0	IAML			15:00	10.57	9	0.26		INVG	HE	101.0	EP	01:57			56.12			0.22
LAWE	HN	434.0	IAML			15:00	10.62	12	0.28		INVG	HN	101.0	ES	01:57			17.61			0.13
NEWG	HZ	462.0	EP			14:59	27.99			-0.03	INVG	HE	101.0	IAML	01:57			18.92	3	0.09	
NEWG	HE	462.0	IAML			15:00	17.96	4	0.56		KPL	HZ	107.0	EP	01:57			19.22	2	0.14	
NEWG	HN	462.0	IAML			15:00	18.04	4	0.14		KPL	HE	107.0	ES	01:57			18.87			-0.02
December 18 2016	Time:	15:16	36.4	UTC							December 18 2016	Time:	15:16	36.4	UTC	Magnitude:	0.9	ML			

TABLE 2 : PHASE DATA

KPL	HE	107.0	IAML	01:57	20.92	4	0.22		Lat: 53.526N	Lon: -2.154W	Depth: 4.4 km
KPL	HN	107.0	IAML	01:57	21.19	3	0.54		Grid Ref: 389.79 kmE	403.30 kmN	RMS: 0.20 secs
CLGH	HZ	147.0	EP	01:57	12.27		0.20		Locality: OLDHAM,GTR MANCHESTER		
NEWG	HN	167.0	ES	01:57	33.65		-0.20		Velocity model: Lownet	Xnear: 100.0 Xfar: 200.0	
NEWG	HE	167.0	IAML	01:57	37.44	2	0.14		STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES		
NEWG	HN	167.0	IAML	01:57	37.46	2	0.17		LBWR HZ 31.7 EP	06:12 46.60	-0.10
December 27 2016 Time: 00:18 27.2 UTC Magnitude: 0.6 ML									LBWR HZ 31.7 IAML	06:12 51.89	6 0.12
Lat: 54.541N	Lon: -3.651W								LBWR HN 31.7 IAML	06:12 51.92	14 0.42
Grid Ref: 293.20 kmE	517.46 kmN								HPK HN 59.5 ES	06:12 58.80	-0.21
Locality: WHITEHAVEN,CUMBRIA									HPK HN 59.5 IAML	06:12 59.63	4 0.22
Velocity model: Lownet	Xnear: 100.0 Xfar: 200.0								HPK HE 59.5 IAML	06:13 03.76	4 0.21
Comment: 3KM OFF WHITEHAVEN									FOEL HE 99.5 ES	06:13 09.69	-0.11
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES									HLM1 HZ 122.0 EP	06:13 01.23	0.20
KESW HZ 35.7 EP	00:18	34.08							HLM1 HE 122.0 ES	06:13 15.90	0.00
KESW HN 35.7 ES	00:18	38.81							HLM1 HN 122.0 IAML	06:13 17.67	2 0.28
IOMK HZ 67.1 EP	00:18	39.32							HLM1 HE 122.0 IAML	06:13 18.64	2 0.33
NEWG HZ 74.2 EP	00:18	40.20							EDMD HN 146.0 ES	06:13 22.47	0.65
NEWG HN 74.2 ES	00:18	49.57									
NEWG HN 74.2 IAML	00:18	50.96	1	0.33							
NEWG HE 74.2 IAML	00:18	52.92	1	0.08							
GALL HZ 77.4 EP	00:18	40.38		-0.29							
ESK HZ 91.0 EP	00:18	42.82		0.01							
ESK HN 91.0 ES	00:18	54.41		0.23							
ESK HN 91.0 IAML	00:18	56.93	4	0.22							
ESK HE 91.0 IAML	00:18	57.05	6	0.22							
December 27 2016 Time: 18:45 21.3 UTC Magnitude: 0.9 ML											
Lat: 51.508N	Lon: -3.114W										
Grid Ref: 322.70 kmE	179.43 kmN										
Locality: RUMNEY,CARDIFF											
Velocity model: Lownet	Xnear: 500.0 Xfar: 1000.0										
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES											
MONM HZ 42.6 EP	18:45	28.86		0.03							
MONM HE 42.6 ES	18:45	34.52		0.17							
MONM HE 42.6 IAML	18:45	34.77	11	0.11							
MONM HN 42.6 IAML	18:45	34.86	13	0.22							
OLDB HZ 42.6 EP	18:45	28.69		-0.11							
OLDB HE 42.6 ES	18:45	34.48		0.19							
MCH1 HZ 55.0 EP	18:45	30.54		-0.21							
MCH1 HN 55.0 ES	18:45	37.49		-0.17							
MCH1 HN 55.0 IAML	18:45	37.59	11	0.14							
MCH1 HE 55.0 IAML	18:45	37.70	13	0.14							
STRD HZ 72.3 EP	18:45	33.35		-0.06							
LPW HZ 94.2 EP	18:45	37.14		0.36							
HTL HZ 111.0 EP	18:45	39.17		-0.08							
HTL HE 111.0 ES	18:45	52.47		0.11							
HLM1 HZ 114.0 EP	18:45	39.63		0.02							
HLM1 HE 114.0 ES	18:45	52.87		-0.11							
HLM1 HE 114.0 IAML	18:45	54.85	3	0.18							
HLM1 HE 114.0 IAML	18:45	55.32	4	0.28							
RSBS HZ 123.0 EP	18:45	41.22		0.28							
RSBS HE 123.0 ES	18:45	55.10		-0.19							
RSBS HE 123.0 IAML	18:45	56.52	3	0.12							
RSBS HN 123.0 IAML	18:45	56.69	2	0.15							
DYA HZ 132.0 EP	18:45	42.00		-0.28							
DYA HN 132.0 ES	18:45	57.65		0.05							
DYA HN 132.0 IAML	18:45	58.61	3	0.11							
DYA HE 132.0 IAML	18:45	58.65	2	0.23							
December 28 2016 Time: 12:30 56.7 UTC Magnitude: 0.7 ML											
Lat: 53.147N	Lon: -4.457W										
Grid Ref: 235.70 kmE	363.95 kmN										
Locality: CAERNARFON BAY											
Velocity model: Lleyn	Xnear: 100.0 Xfar: 200.0										
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES											
WPS HZ 28.4 EP	12:31	01.63		0.04							
WPS HE 28.4 ES	12:31	05.03		0.13							
WPS HE 28.4 IAML	12:31	05.10	5	0.10							
WPS HN 28.4 IAML	12:31	05.34	4	0.12							
LLW BZ 62.6 EP	12:31	07.19		-0.07							
LLW BE 62.6 ES	12:31	14.83		0.40							
LLW BE 62.6 IAML	12:31	14.99	4	0.15							
LLW BN 62.6 IAML	12:31	14.99	1	0.20							
FOEL HZ 89.1 EP	12:31	11.33		-0.33							
FOEL HE 89.1 ES	12:31	21.61		-0.20							
FOEL HE 89.1 IAML	12:31	22.05	3	0.15							
FOEL HN 89.1 IAML	12:31	22.67	7	0.46							
LWP HE 118.0 ES	12:31	29.61		-0.03							
IOMK HZ 124.0 EP	12:31	17.24		-0.05							
IOMK HE 124.0 ES	12:31	31.22		-0.06							
IOMK HE 124.0 IAML	12:31	32.74	8	0.22							
IOMK HE 124.0 IAML	12:31	33.13	7	0.14							
HLM1 HZ 127.0 EP	12:31	17.84		0.06							
HLM1 HN 127.0 ES	12:31	32.27		0.17							
HLM1 HN 127.0 IAML	12:31	33.74	1	0.27							
HLM1 HE 127.0 IAML	12:31	34.63	2	0.27							
December 29 2016 Time: 06:12 40.7 UTC Magnitude: 0.7 ML											
Lat: 54.719N	Lon: -2.266W										
Grid Ref: 382.87 kmE	536.04 kmN										
Locality: HARWOOD,COUNTY DURHAM											
Velocity model: Lownet	Xnear: 500.0 Xfar: 1000.0										
STAT CO DIST PHAS WT P HrMn SECS AMPL PERI RES											
EDMD HZ 23.2 IP	C	07:46	19.05								
EDMD HN 23.2 ES		07:46	22.18								
EDMD HN 23.2 IAML		07:46	22.34	57	0.09						
EDMD HE 23.2 IAML		07:46	22.35	91	0.12						
KESW HZ 56.0 EP		07:46	23.95								
KESW HE 56.0 IAML		07:46	31.12	3	0.23						
KESW HN 56.0 IAML		07:46	31.41	2	0.16						
ESK HZ 89.6 EP		07:46	30.15								
ESK HN 89.6 ES		07:46	41.14								
ESK HN 89.6 IAML		07:46	41.44	3	0.43						
ESK HE 89.6 IAML		07:46	43.26	2	0.22						
GDLE HZ 99.5 ES		07:46	44.03								
GDLE HN 99.5 IAML		07:46	45.10	5	0.10						
GDLE HE 99.5 IAML		07:46	45.81	14	0.24						
NEWG HZ 133.0 EP		07:46	37.14								
NEWG HE 133.0 ES		07:46	52.58								
NEWG HN 133.0 IAML		07:46	53.17	3	0.31						

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
GALL	HZ	158.0	EP	07:46	40.68		0.46
GALL	HN	158.0	ES	07:46	58.88		0.02
GALL	HE	158.0	IAML	07:46	59.76	1	0.26
GALL	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	EDMUND BYERS	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
HMNX	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
LAWE	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

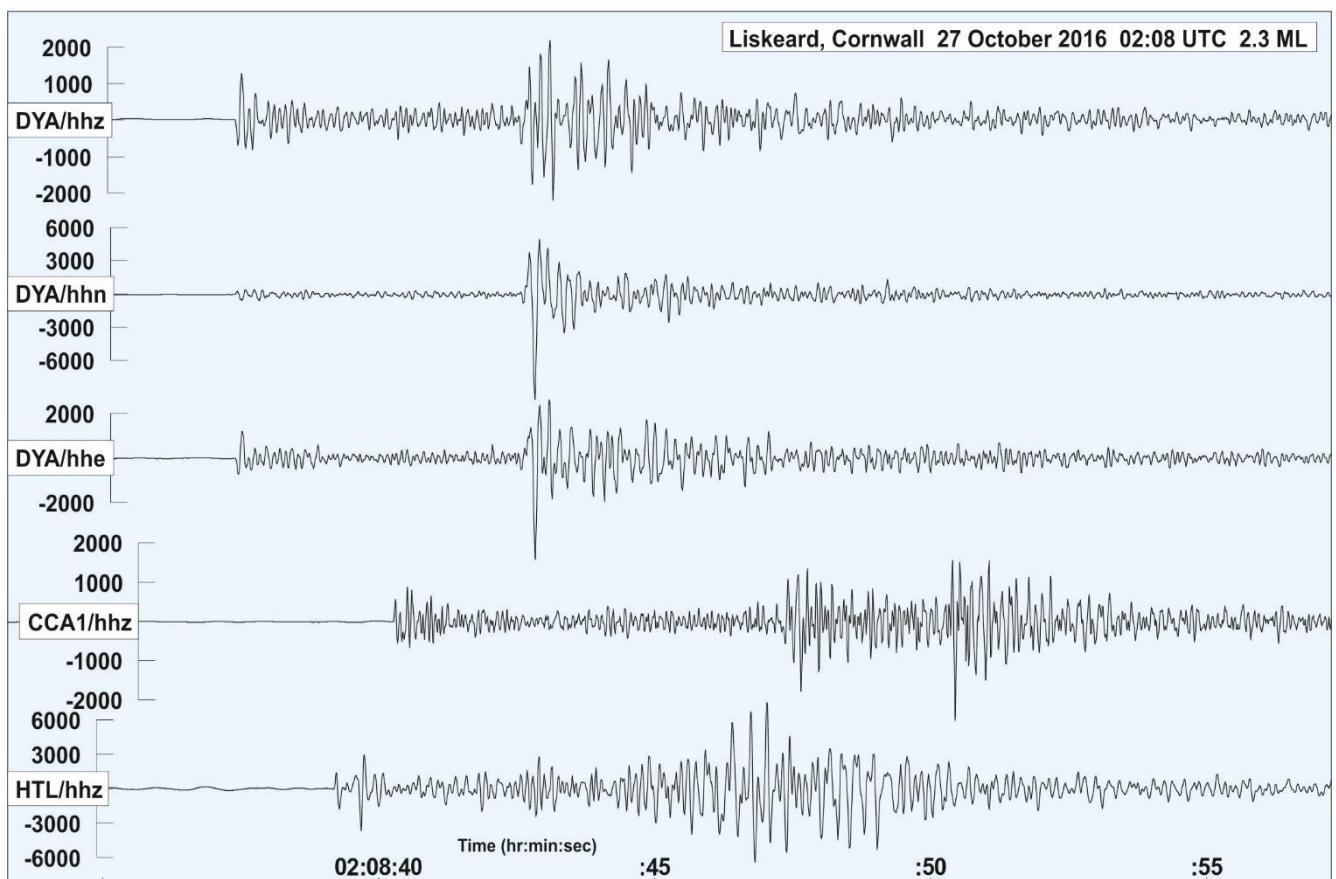
Most ordinary buildings collapse.

12 - Completely devastating

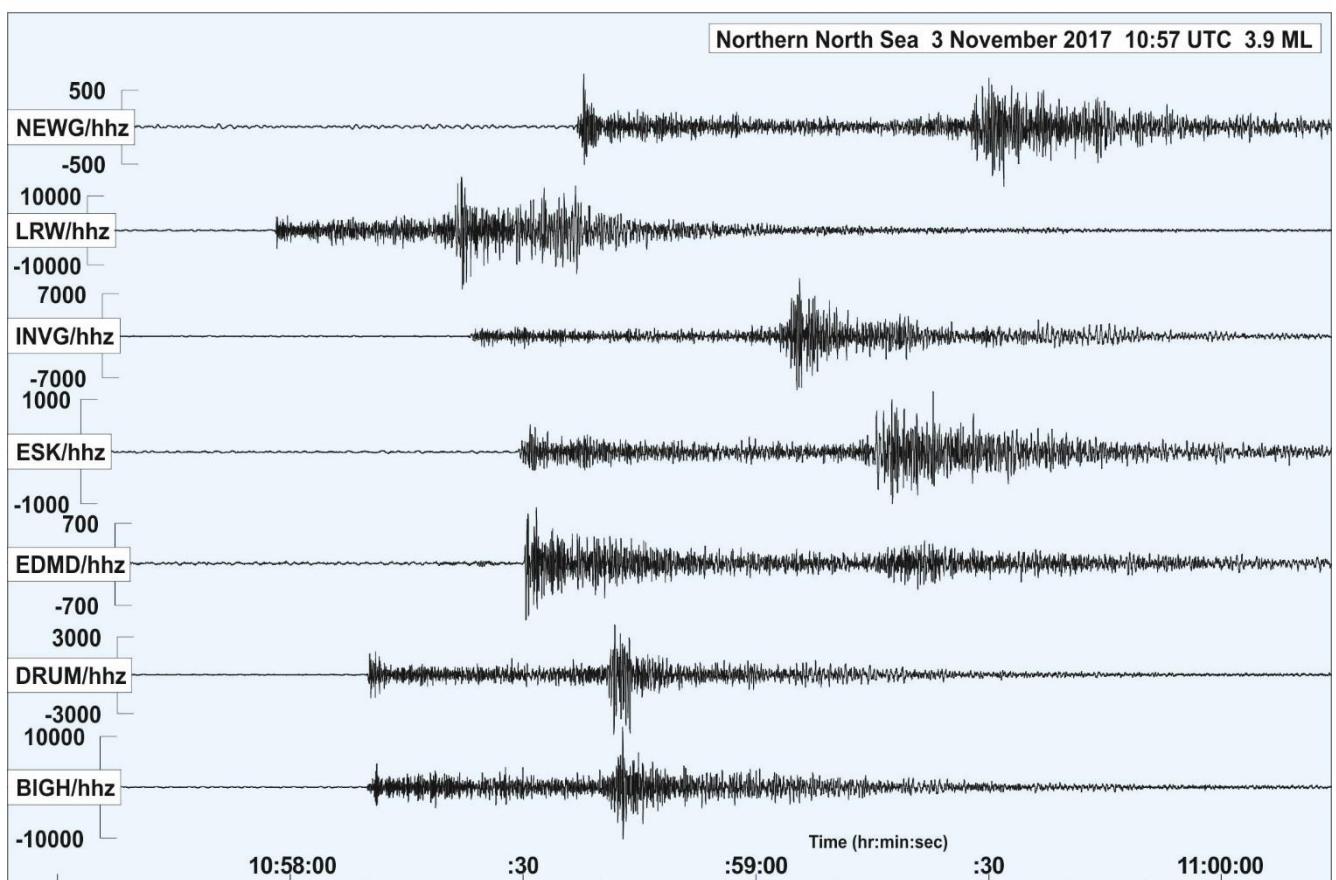
Practically all structures above and below ground are heavily damaged or destroyed.

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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 2017