



# Notice of transitional restrictions on Mobile Networks in the 800 MHz band for protection of DTT in channels 61 and 62

Notice

Publication date: 1 August 2013

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and 62

## Section 1

# Introduction

- 1.1 This Notice specifies the transitional requirements for ensuring the protection of DTT services broadcasting on channel 61 (790-798 MHz) and 62 (798 to 806 MHz) during 2013 from potential harmful interference from mobile services in the 800 MHz band. The protection requirements in this Notice must be met on an ongoing basis until DTT services are cleared from the 800 MHz band.
- 1.2 800 MHz licensees are required to comply with this Notice by paragraph 4 of the relevant Schedule to their licences.
- 1.3 In this Notice:
  - “800 MHz band” means the following range of frequencies: 791-862 MHz;
  - “800 MHz licensee” means a licensee under a licence authorising use for mobile services in the United Kingdom of frequencies in the 800 MHz band;
  - “DTT” means Digital Terrestrial Television
  - “Protected Service Area” has the meaning given to it in paragraph 2.2.

## Section 2

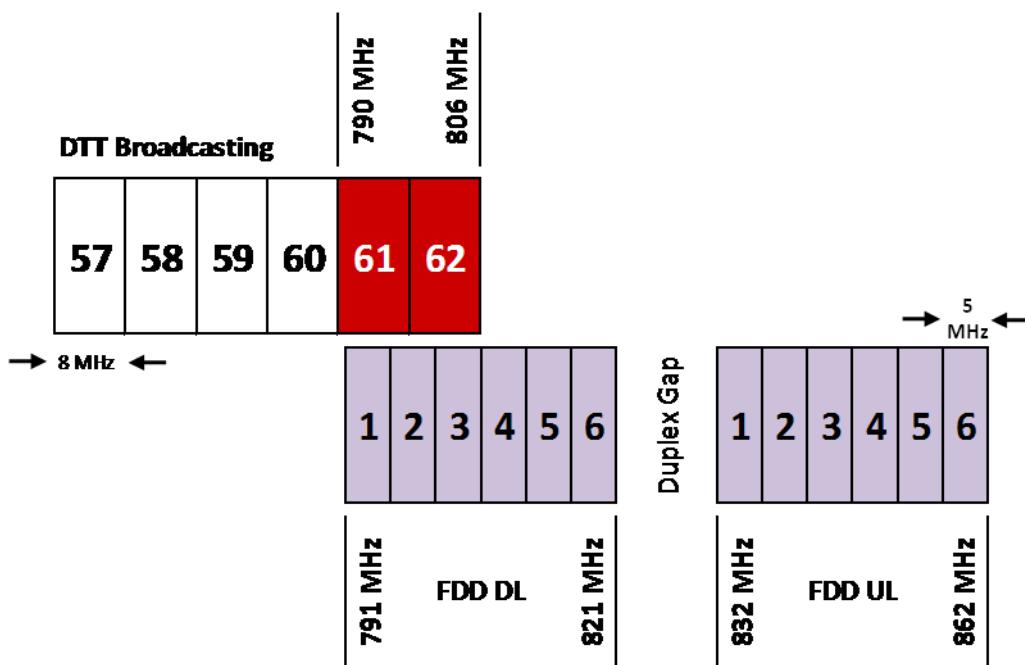
# DTT Service Areas to be Protected

- 2.1 The DTT transmitters to which this Notice applies are listed in Annex 1.
- 2.2 The protected service area for a particular DTT transmitter listed in Annex 1 is the polygon area formed by joining the relevant test points for that transmitter as listed in Annex 2. The test point data in Annex 2 is also available as a CSV file from the Ofcom website at <http://stakeholders.ofcom.org.uk/spectrum/spectrum-awards/>.
- 2.3 The proposed timetable for clearing each DTT transmitter from channel 61 and/or 62 is included in Annex 1 to this Notice. DTT clearance will take place on a transmitter by transmitter basis. A protected service area is cleared when its associated transmitter is cleared, and at that stage the transitional restrictions described in this Notice will no longer apply to that DTT transmitter and associated protected service area.
- 2.4 The timetable is subject to change and this Notice will be updated throughout 2013, with the inclusion of exact dates around four months ahead of each clearance event; and inclusion of the word "cleared" next to transmitters once they have been cleared. Amended versions of this Notice will be notified to the Licensees, and placed on Ofcom's website, at <http://stakeholders.ofcom.org.uk/spectrum/spectrum-awards/>. It is the 800 MHz licensees' responsibility to ensure that they refer to the correct version of this Notice.

## Section 3

# DTT Protection Requirements

- 3.1 800 MHz licensees must not site 800 MHz base stations within the protected service area of a DTT transmitter listed in Annex 1 while it is still operating on channel 61 or 62 and is therefore not marked as “cleared” in that annex.
- 3.2 While a DTT transmitter continues to broadcast on either channel 61 or 62, the 800 MHz licensees must not exceed the protection requirements at any relevant test point. The protection requirements are set out in Table 1 in terms of maximum permitted field strengths. Compliance with the maximum permitted field strengths may take account of any horizontal angular antenna discrimination of the DTT receive aerial in accordance with para 4.2 below.
- 3.3 Figure 1 shows the relationship between channels 61 and 62 and each 5 MHz block in the 800 MHz award. With regard to the FDD downlink spectrum (791 to 821 MHz), block 1 overlaps in frequency with DTT channel 61 (part or all of those two blocks share the same frequencies); block 2 overlaps with channel 61 and 62; whilst block 3 overlaps with channel 62.



**Figure 1. DTT channels 61 and 62 overlap with 800 MHz award blocks**

- 3.4 The maximum permitted cumulative co-channel and adjacent channel interferences are specified over 1 MHz bandwidths as indicated in Table 1 below.

**Table 1. Maximum cumulative field strength**

DTT reception at test point	Licensee's in-block signal measured over 1 MHz	Maximum cumulative field strength from the licensee's in-block signal measured at a test point <sup>1</sup>
Ch 61	Falls within ch 61 (790 - 798 MHz)	20 dB $\mu$ V/m/MHz
	Falls outside ch 61 (798 – 821 MHz)	65 dB $\mu$ V/m/MHz
Ch 62	Falls within ch 62 (798 – 806 MHz)	20 dB $\mu$ V/m/MHz
	Falls outside ch 62 (790 – 798 MHz, 806 – 821 MHz)	65 dB $\mu$ V/m/MHz
Ch 61 & 62 <sup>2</sup>	Falls within ch 61 or 62 (790 – 806 MHz)	20 dB $\mu$ V/m/MHz
	Falls outside ch 61 and 62 (806 – 821 MHz)	65 dB $\mu$ V/m/MHz

- 3.5 For example, an 800 MHz licensee whose block includes 1 MHz segments which fall within channel 61 must ensure that the cumulative field strength from all of that 800 MHz licensee's mobile base stations received at a test point where channel 61 is in use by DTT, and in a specific 1 MHz segment within channel 61, does not exceed 20 dB $\mu$ V/m.
- 3.6 The accumulation of interfering field strengths must be carried out using the Bonn Summation method<sup>3</sup>, where the power sum is obtained as follows:
- Sort the interferers in decreasing order of field strength received at a test point.
  - Starting with the highest interfering source, the power values equivalent to the received interfering field strengths are added, one after the other.
  - At each summation, the equivalent field strength (EFS) is compared to the previous one.
  - If the increase in EFS is greater than or equal to 0.5 dB, the summation process continues and the next interferer is taken into account.
  - If the increase in EFS is less than 0.5 dB, the summation process is stopped and 0.5 dB is added instead, giving the result of the power sum.
- 3.7 Table 2 shows one example of the Bonn Summation method for six transmitters with different field strengths. The result of the Bonn Summation can be found at the bottom row: 18.95 dB $\mu$ V/m/MHz.

<sup>2</sup> Applies to the Winter Hill DTT transmitter only

<sup>3</sup>The Bonn Summation method is used for accumulating interferers in the Maastricht Special Arrangement at <http://www.ero.dk/3E3D092C-60A7-4CD0-AADE-B48B36F374D3>

**Table 2 - Example Bonn Summation**

Transmitter Number	Field Strength at test point ( <i>TXFS</i> ) dB $\mu$ V/m/MHz	Power Factor $\mu$ V/m/MHz	Power Sum ( <i>PS</i> ) $\mu$ V/m/MHz	Equivalent Field Strength ( <i>EFS</i> ) dB $\mu$ V/m/MHz	Increase in EFS dB	Comment	Resulting Field Strength dB $\mu$ V/m/MHz
TX1	13.55	22.65	22.65	13.55	-	Start with highest field strength	13.55
TX2	12.73	18.75	41.40	16.17	2.62	>0.5dB EFS increase	16.17
TX3	11.88	15.42	56.82	17.54	1.37	>0.5dB EFS increase	17.54
TX4	11.21	13.21	70.03	18.45	0.91	>0.5dB EFS increase	18.45
TX5	8.31	6.78	76.81	18.85	0.40	<0.5dB EFS increase, stop and add 0.5dB	18.95
TX6	6.98	4.99	-	-	-	Ignore TX6 as power sum stopped at TX5	18.95

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Sort by decreasing order  
of field strength

$$10^{\frac{TXFS}{10}}$$

$$10 \log_{10} PS$$

<20  
dB $\mu$ V/m/MHz  
threshold

## Section 4

# Compliance with the DTT Protection Requirements

- 4.1 800 MHz licensees must maintain records of their calculations and assessments and make these available to Ofcom if required.
- 4.2 Compliance with the maximum permitted field strengths may take account of any horizontal angular discrimination of the DTT receive aerial. Any aerial discrimination must be obtained using Figure 1 of Recommendation ITU-R BT.419-3<sup>4</sup> as given for broadcasting Bands IV and V. Each test point receive aerial must be assumed to point directly at its DTT transmitter (whose coordinates are given in Annex 1). For example, if an interfering mobile base station is at a 70° angle relative to the direction of peak response (pointing direction) of the DTT receive aerial, then the DTT receive aerial provides 16dB discrimination. Thus the maximum permitted co-channel interfering field strength, if this is the only interferer falling within channel 61 or 62, would then be  $20 + 16 = 36 \text{ dB}\mu\text{V/m/MHz}$ . If antenna discrimination is adopted, then the Bonn Summation method must be applied taking into account the horizontal angular discrimination of the DTT receive antenna at the test point in relation to each interferer; i.e. the field strength at the receive antenna for each interferer is reduced in the calculation by the relevant receive aerial discrimination value.
- 4.3 In carrying out this assessment, the 800 MHz licensee must use the recommendation ITU-R P.1546-4 propagation model<sup>5</sup> with the parameters specified below.

Time percentage	1%
Location percentage	50%
DTT receive antenna height, $h_2$	10 m above ground level
Default base station antenna height, $h_a$ (if no real data is known)	50 m above ground level
Default base station antenna effective height, $h_{\text{eff}}$ (if no real data is known)	100 m
Use of terrain clearance angle correction?	No

- 4.4 Where base station antenna heights above ground ( $h_a$ ) are known, then they should be used. The default value given in the table above should be used only where no real data is known.
- 4.5 Base station antenna effective heights ( $h_{\text{eff}}$ ) can be estimated from general geographic information (such as terrain databases), or by using the ITU SRTM3

<sup>4</sup> <http://www.itu.int/rec/R-REC-BT.419-3-199006-I/en>

<sup>5</sup> <http://www.itu.int/rec/R-REC-P.1546-4-200910-I/en>

tool<sup>6</sup>. The default value given in the table above should be used only where no other data is available.

- 4.6 Compliance with the 20 dB $\mu$ V/m/MHz co-channel and 65 dB $\mu$ V/m/MHz adjacent channel thresholds should first be assessed on the basis of predictions. However, if actual interference is caused to DTT services by mobile networks despite the predictions, the relevant 800MHz licensee must take remedial action, which may include switching off the interfering mobile base stations until the affected DTT transmitter is cleared.

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<sup>6</sup> <http://www.itu.int/SRTM3/>

**Annex 1**

## DTT Transmitters using channel 61 or channel 62 in 2013

- 4.7 NGR X National Grid Reference Eastings  
4.8 NGR Y National Grid Reference Northings  
4.9 ERP kW Effective Radiated Power in kilowatts  
4.10 Site Ht m Site Height above ordnance datum in metres  
4.11 Ant Ht m Antenna Height above ground level in metres  
4.12 Pol Polarisation: H = Horizontal, V = Vertical.

Transmitter Name	NGR X	NGR Y	Channel	ERP kW	Site Ht m	Ant Ht m	Pol	Clearance Month
Burry Port	244930	201960	61	0.002	77	15.8	V	Cleared
Ebbw Vale	315990	208820	62	0.1	442	62.2	V	Cleared
Llangeinor	290530	188660	62	0.038	306	47.4	V	Cleared
Taffs Well	312370	184850	62	0.0104	149	37	V	Cleared
Ynysowen	308204	199282	62	0.016	342	24	V	Cleared
Tonypandy	298690	192490	62	0.002	224	34	V	Cleared
Fernhill	303072	199347	62	0.002	159	16	V	Cleared
Mynydd Bach	316851	192624	61	0.05	312	48	V	Cleared
Machen Upper	321120	189764	62	0.0072	151	28	V	Cleared
Brecon	305457	228755	61	0.2	223	48	V	Cleared
Ton Pentre	296040	195590	61	0.016	323	46.8	V	Cleared
Monmouth	352620	212770	62	0.046	194	23	V	Cleared
Abercynon	309375	195238	61	0.002	174	17	H	Cleared
Tynwydd	293152	199334	62	0.004	247	28	V	Cleared
Dowlais	307300	208850	61	0.0026	397	23	V	Cleared
Tonyrefail	300941	187464	62	0.004	165	28	V	Cleared
Gellifendigaid	307000	193500	62	0.0024	199	15.8	H	Cleared

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Transmitter Name	NGR X	NGR Y	Channel	ERP kW	Site Ht m	Ant Ht m	Pol	Clearance Month
South Maesteg	286000	189700	62	0.002	137	14	V	Cleared
Mendip	356437	148835	61	100	303	288	H	Cleared
Washford	305800	140990	62	0.0124	42	43.3	V	Cleared
Countisbury	274840	150080	62	0.042	302	15.6	H	Cleared
Hutton	336113	158867	62	0.04	73	37	V	Cleared
Portishead	345882	176417	62	0.0074	85	25	V	Cleared
Clearwell	357450	208460	62	0.002	207	34	V	Cleared
Woodcombe	295100	145800	62	0.01	79	16	V	Cleared
Kilve	314300	142500	62	0.003	101	17.4	H	Cleared
Halesowen	397100	282600	61	0.0025	150	15.4	V	Cleared
Keighley	406895	444380	61	2	305	51	V	Cleared
Winter Hill	366053	414463	61	100	439	287	H	Cleared
Winter Hill	366053	414463	62	100	439	287	H	Cleared
Selkirk	350060	629411	62	10	290	232.4	H	Cleared
Innerleithen	332550	636820	61	0.016	238	28	V	Cleared
Angus	339486	740784	61	10	312	234.6	H	Cleared
Grandtully	291700	752700	61	0.002	122	5.5	V	Cleared
Locearnhead	259495	722727	61	0.002	138	12	V	Cleared
								Cleared
Rosneath VP	225847	681196	61	2	105	111	V	Cleared
Rosneath HP	225847	681196	61	0.008	105	107	H	Cleared
Kinlochleven	217820	762980	62	0.0024	273	24	V	Cleared
Onich VP	201700	761800	61	0.0034	69	15	V	Cleared

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Transmitter Name	NGR X	NGR Y	Channel	ERP kW	Site Ht m	Ant Ht m	Pol	Clearance Month
Onich HP	201700	761800	61	0.0009	69	17	H	Cleared
Loch Feochan	186100	725600	61	0.0082	110	18	V	Cleared
Kilmelford	181650	710060	62	0.015	251	46.1	V	Cleared
Rumster Forest	319780	938540	62	10	217	237	H	Cleared
Tacolneston	613055	295727	62	100	64	199	H	Cleared
Salisbury	413646	128521	62	2	103	50	V	Cleared
Olivers Mount	504014	486916	61	1	151	42	V	Cleared
Carmel	257685	215339	61	10	255	156	H	Cleared
Pontardawe	273277	203785	61	0.025	156	48	V	Cleared
Huntshaw Cross	252760	122075	62	20	200	159	H	Cleared
Ilfracombe	250703	146495	61	0.056	203	48	V	Cleared
Oxford	456714	210540	62	50	135	160	H	Cleared
Waltham	480942	323331	61	50	141	301	H	Cleared
Belper	433714	346255	62	0.006	190	31.4	V	Cleared
Stanton Moor	424566	363726	62	0.4	302	50	V	Cleared
Liverton	281160	73441	62	0.0025	152	20	V	Cleared
Kingskerswell	287240	68243	62	0.002	61	30	V	Cleared
Beer	323025	89677	62	0.003	93	30	V	Cleared
Beaminster	349080	102493	62	0.0038	163	37	V	Cleared
Dawlish	295100	77280	62	0.02	103	36	V	Cleared
Pennsylvania	293469	94889	61	0.002	110	21	V	Cleared
Bincombe Hill	368740	84880	62	0.0064	160	10	V	Cleared

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Transmitter Name	NGR X	NGR Y	Channel	ERP kW	Site Ht m	Ant Ht m	Pol	Clearance Month
Preston	370700	83300	61	0.02	49	8	V	Cleared
Plympton	253080	55533	61	0.4	113	50	V	Cleared
Newton Ferrers	254507	47575	62	0.002	72	35	V	Cleared
Modbury	266050	51407	62	0.002	64	12	H	Cleared
Port Isaac	199890	80500	62	0.05	68	18	V	Cleared
North Hessary Tor	257810	74200	62	0.0025	508	70	V	Cleared
Southway	247820	59920	62	0.002	103	17	V	Cleared
St Austell	200800	53560	62	0.25	188	52	V	Cleared
Penryn	178710	33450	62	0.0044	73	34.3	V	Cleared
Truro	183580	44200	61	0.0044	58	29	V	Cleared
Helston	165140	27590	61	0.002	71	36.8	V	Cleared
Praa Sands	157200	28400	62	0.01	68	29.5	V	Cleared
Scalloway	439840	1139750	62	0.0058	72	27.7	V	Cleared
Swinster	444020	1172700	62	0.32	135	27.7	V	Cleared
Weisdale	437980	1151290	61	0.012	229	46	V	Cleared
Fodderty	251180	860660	61	0.024	186	37.8	V	Cleared
Inverness	266710	844780	62	0.0066	22	18	V	Cleared
Craigellachie	326251	844357	61	0.014	180	47	V	Cleared
Balblair Wood	259320	895270	62	0.0166	220	32.7	V	Cleared
Avoch	270200	855500	61	0.002	71	16.7	V	Cleared
Peterhead	411150	845280	62	0.1	42	50	V	Cleared
Gartley Moor	354630	832610	61	0.44	416	50	V	Cleared
Tullich	337900	798400	62	0.014	454	46.9	V	Cleared
Gourdon	382700	770900	62	0.002	20	8	V	Cleared

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Transmitter Name	NGR X	NGR Y	Channel	ERP kW	Site Ht m	Ant Ht m	Pol	Clearance Month
Scoval VP	118140	851440	62	0.032	243	47	V	Cleared
Scoval HP	118140	851440	62	0.132	243	15	H	Cleared

**Annex 2**

## DTT Service Areas - Test points for each DTT transmitter in Annex 1

#                  Test point number  
NGR X National Grid Reference Eastings  
NGR Y National Grid Reference Northings`

### Abercynon

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	309489	196920	10	310461	195167	19	309440	194184	28	307714	195217
2	309792	196892	11	310443	194989	20	309266	194198	29	307746	195516
3	310014	196621	12	310394	194823	21	309098	194246	30	308012	195734
4	310115	196275	13	310318	194669	22	308941	194327	31	308216	195931
5	310117	195941	14	310215	194526	23	308800	194429	32	308371	196128
6	310238	195816	15	310089	194406	24	308679	194554	33	308546	196303
7	310335	195670	16	309944	194309	25	308343	194571	34	308756	196444
8	310407	195513	17	309785	194234	26	307993	194678	35	308954	196640
9	310449	195334	18	309615	194192	27	307735	194916	36	309186	196903

### Angus

#	NGR X	NGR Y									
1	340344	794513	19	364755	740322	37	338989	700106	55	289441	741803
2	345050	794403	20	362203	738374	38	335051	696390	56	289329	745904
3	349737	793865	21	360118	736756	39	330141	691469	57	289256	750382
4	354360	792888	22	358357	735360	40	324378	687292	58	289377	754979
5	358888	791515	23	356956	734060	41	319611	688437	59	289934	759931
6	363036	789239	24	356236	732598	42	314983	690129	60	291768	764148
7	366517	785936	25	355515	731148	43	310898	692906	61	294323	767981
8	370270	783336	26	353848	730342	44	307144	696059	62	296483	772058
9	373745	780396	27	349661	731937	45	303989	699814	63	299305	775709
10	376986	777227	28	348444	731517	46	301463	703991	64	302466	779074
11	379902	773772	29	347325	731130	47	299443	708336	65	305935	782124
12	382543	770097	30	362410	707015	48	298064	712856	66	309972	784406
13	373178	759595	31	359817	704434	49	297211	717387	67	313967	786637
14	372451	755414	32	356718	702517	50	296085	721523	68	318033	788726
15	370537	751431	33	359234	684438	51	296054	725900	69	322285	790426
16	369312	748178	34	354040	683678	52	294610	729688	70	326546	792263
17	368758	745388	35	348869	683402	53	293500	733602	71	331001	793734
18	366918	742675	36	342466	701037	54	291261	737546	72	335652	794339

### Avoch

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	270316	856517	10	270927	855494	19	270257	854658	28	268539	855571
2	270490	856500	11	270834	855408	20	270049	854397	29	268576	855871
3	270657	856450	12	270771	855321	21	267129	847651	30	268664	856169
4	270813	856367	13	270715	855256	22	268445	852566	31	268922	856361
5	271014	856327	14	270661	855180	23	268711	853761	32	269221	856463
6	271160	856200	15	270605	855115	24	268542	854156	33	269557	856441
7	271276	856051	16	270544	855028	25	268424	854528	34	269802	856422
8	271320	855861	17	270473	854941	26	268368	854886	35	269946	856551
9	271073	855635	18	270383	854821	27	268342	855243	36	270141	856511

### Balblair Wood

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	259543	899284	10	260938	895235	19	259289	892039	28	256942	895376
2	260147	898784	11	261223	894902	20	258812	892524	29	256876	895824
3	260598	898244	12	261816	894313	21	258409	892839	30	257169	896192
4	260871	897633	13	262210	893542	22	257931	892945	31	257469	896494
5	260749	896779	14	262536	892472	23	257503	893183	32	257703	896819
6	260602	896227	15	262082	891875	24	257084	893487	33	257706	897466
7	260746	895999	16	261424	891496	25	256830	893931	34	257669	898548
8	260948	895792	17	260638	891501	26	256587	894386	35	258071	899380
9	260931	895502	18	259900	891750	27	256964	894952	36	258825	899398

### Beaminster

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	349182	103452	10	350192	102430	19	349146	99782	28	347137	102460
2	349360	103439	11	350175	102252	20	348617	99465	29	347544	102734
3	349531	103382	12	350128	102075	21	347900	99050	30	347813	102943
4	349692	103314	13	350058	101909	22	346887	98571	31	348163	103028
5	349836	103212	14	349948	101776	23	346376	99176	32	348391	103104
6	349960	103077	15	349907	101543	24	345902	99748	33	348525	103225
7	350059	102932	16	349875	101188	25	345779	100528	34	348670	103324
8	350139	102775	17	349716	100900	26	346075	101348	35	348832	103400
9	350178	102597	18	349502	100457	27	346557	101999	36	349005	103443

### Beer

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	323125	90615	10	324113	89599	19	323102	89069	28	320053	89660
2	323298	90601	11	323908	89458	20	322995	89015	29	320141	90181
3	323467	90543	12	323734	89371	21	322857	88950	30	320442	90633
4	323624	90474	13	323610	89318	22	322654	88853	31	321027	90857
5	323766	90372	14	323511	89263	23	322301	88681	32	321517	90983
6	323888	90248	15	323426	89231	24	321451	88271	33	322090	90864
7	323986	90102	16	323347	89188	25	319974	87870	34	322427	90836
8	324057	89945	17	323271	89156	26	317784	87771	35	322615	91034
9	324100	89777	18	323191	89112	27	320125	89136	36	322919	90796

### Belper

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	433794	348745	10	436697	346240	19	433822	344762	28	432696	346212
2	434255	348837	11	436634	345739	20	433612	345039	29	432715	346401
3	434765	348885	12	436333	345325	21	433434	345160	30	432678	346623
4	435222	348699	13	436129	344901	22	433257	345248	31	432531	346945
5	435638	348424	14	435756	344609	23	433099	345358	32	432522	347278
6	435964	348048	15	435350	344417	24	432964	345502	33	432642	347591
7	436271	347661	16	434866	344425	25	432844	345656	34	432753	348014
8	436476	347207	17	434439	344533	26	432753	345823	35	433048	348261
9	436617	346729	18	434117	344553	27	432714	346012	36	433358	348686

**Bincombe Hill**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	368841	85827	10	369838	84820	19	368825	83214	28	367832	84832
2	369014	85804	11	369821	84642	20	368506	83027	29	367848	84999
3	369183	85758	12	369775	84476	21	368123	82907	30	367894	85165
4	369341	85690	13	369700	84321	22	367795	83053	31	367969	85332
5	369484	85589	14	369599	84177	23	367496	83255	32	368070	85476
6	369607	85466	15	369475	84055	24	367242	83501	33	368195	85597
7	369706	85321	16	369331	83956	25	367240	83913	34	368338	85696
8	369779	85154	17	369172	83879	26	367395	84312	35	368497	85762
9	369823	84987	18	369048	83568	27	367569	84611	36	368666	85806

**Brecon**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	305654	234849	10	311057	228609	19	305463	224740	28	296820	228883
2	306818	235228	11	310834	227678	20	304791	224897	29	297805	230220
3	308063	235238	12	310123	226946	21	304076	224922	30	298720	231336
4	309661	235532	13	309424	226369	22	303475	225290	31	300078	231999
5	311757	235828	14	308858	225823	23	302696	225461	32	301002	232659
6	312681	234465	15	308108	225536	24	301690	225614	33	301667	233491
7	312688	232652	16	307412	225327	25	300531	225948	34	302662	233894
8	312234	231002	17	306826	224959	26	299543	226658	35	303308	235195
9	311071	229577	18	306154	224783	27	299213	227721	36	304627	234491

**Burry Port**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	245042	202917	10	247228	201849	19	244947	199826	28	244009	201947
2	245216	202890	11	247194	201460	20	244570	199793	29	244029	202114
3	245384	202840	12	246980	201133	21	244208	199904	30	244080	202290
4	245540	202768	13	246780	200827	22	244029	200333	31	244158	202444
5	245680	202664	14	246630	200476	23	244013	200801	32	244264	202585
6	245815	202549	15	246418	200137	24	244210	201285	33	244390	202704
7	246095	202495	16	246084	199925	25	244128	201443	34	244537	202799
8	246342	202354	17	245681	199893	26	244059	201601	35	244697	202861
9	246598	202146	18	245310	199859	27	244018	201769	36	244867	202900

**Carmel**

#	NGR X	NGR Y									
1	259010	259156	19	295689	214353	37	256947	186462	55	211883	216795
2	262805	258593	20	298742	210708	38	254489	187032	56	212084	220785
3	266512	257713	21	300857	206628	39	251558	185070	57	212678	224749
4	270362	257388	22	298175	203410	40	248548	184402	58	213450	228684
5	274195	256654	23	295817	200388	41	245596	184591	59	214575	232562
6	278352	256284	24	294163	197218	42	243527	186881	60	216080	236314
7	282190	254900	25	291978	194394	43	242980	191272	61	217617	240121
8	286250	253581	26	290746	190949	44	246386	199949	62	220511	243056
9	289754	251288	27	288877	187819	45	243963	199745	63	223386	245881
10	291254	246948	28	286349	185205	46	241697	200105	64	226689	248203
11	292143	242545	29	283604	182819	47	239801	201066	65	230165	250131
12	292387	238145	30	280996	180176	48	238009	202293	66	233332	252351
13	291939	233804	31	270055	192507	49	237592	204321	67	236700	254231
14	293578	230842	32	267781	192065	50	237163	206416	68	239776	256836
15	294901	227721	33	265624	191565	51	211089	200034	69	243170	259132
16	292071	223531	34	263518	191010	52	211673	204566	70	247406	258743
17	288657	219912	35	261498	189830	53	214149	209073	71	251367	258612
18	292489	217447	36	259498	185789	54	213164	212861	72	255175	259044

**Clearwell**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	357552	209411	10	358547	208402	19	357525	206275	28	355380	208429
2	357726	209398	11	358529	208235	20	357152	206311	29	355450	208806
3	357894	209353	12	358483	208069	21	356785	206392	30	355527	209162
4	358052	209273	13	358408	207902	22	356451	206562	31	355712	209494
5	358194	209172	14	358306	207770	23	356138	206776	32	356099	209646
6	358317	209049	15	358227	207592	24	355876	207045	33	356496	209676
7	358416	208903	16	358255	207158	25	355658	207347	34	356845	209651
8	358489	208747	17	358092	206871	26	355509	207694	35	357182	209436
9	358533	208580	18	357850	206583	27	355430	208061	36	357378	209401

**Countisbury**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	274930	150247	10	295273	169393	19	276407	149988	28	277273	147575
2	274949	150235	11	297337	167915	20	278685	149611	29	277082	147335
3	280649	178360	12	299777	166554	21	280095	148988	30	276809	147197
4	283430	178862	13	275226	150195	22	278750	148909	31	276555	147047
5	285599	177211	14	275280	150183	23	278193	148755	32	276288	146920
6	287547	175410	15	275350	150170	24	278068	148469	33	276011	146816
7	289413	173722	16	275447	150156	25	277875	148229	34	275719	146756
8	290911	171676	17	275595	150130	26	277686	147999	35	275426	146719
9	292548	169995	18	275850	150091	27	277479	147782	36	275137	146670

### Craigellachie

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	326362	845579	10	330034	844301	19	326296	841917	28	325265	844386
2	326629	845842	11	329659	843717	20	325902	842125	29	325285	844574
3	327018	846124	12	329353	843210	21	325660	842608	30	325337	844752
4	327614	846481	13	328925	842817	22	325555	843066	31	325419	844917
5	328342	846657	14	327874	843036	23	325542	843456	32	325529	845071
6	328851	846392	15	327229	843270	24	325517	843702	33	325664	845202
7	329505	846114	16	327257	842713	25	325399	843849	34	325819	845311
8	330171	845679	17	327255	841710	26	325323	844017	35	325990	845386
9	330341	844997	18	326750	841775	27	325278	844196	36	326174	845416

### Dawlish

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	295280	81889	10	296548	77192	19	295132	74461	28	290877	77307
2	296079	81739	11	296435	76971	20	292828	65275	29	291196	78012
3	296863	81546	12	296333	76784	21	293533	72958	30	291393	78686
4	298421	82561	13	296235	76586	22	292937	73516	31	291705	79325
5	297133	79438	14	296134	76399	23	292256	73874	32	292191	79838
6	301566	82356	15	296024	76179	24	291807	74506	33	292748	80238
7	303105	81582	16	295896	75937	25	291462	75181	34	293180	80852
8	296852	77786	17	295733	75617	26	291148	75844	35	293775	81341
9	296682	77456	18	295505	75177	27	290900	76561	36	294476	81771

### Dowlais

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	307406	209807	10	308391	208788	19	307333	205814	28	304759	208855
2	307580	209782	11	308373	208610	20	306852	206068	29	304500	209372
3	307749	209734	12	308324	208444	21	306502	206508	30	304618	209870
4	307905	209664	13	308415	208187	22	306197	206837	31	305008	210230
5	308047	209562	14	308584	207761	23	305972	207186	32	305526	210420
6	308168	209437	15	308673	207225	24	305810	207534	33	306012	210500
7	308266	209291	16	308580	206659	25	305602	207816	34	306582	210256
8	308337	209134	17	308303	206153	26	305186	208046	35	306996	209948
9	308379	208955	18	307852	205872	27	304979	208428	36	307232	209788

### Ebbw Vale

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	316255	219341	10	326651	208610	19	315830	193884	28	311756	208850
2	318395	220708	11	324714	207115	20	313874	197411	29	312381	209495
3	320230	219588	12	325735	205098	21	312988	200730	30	312547	210127
4	323873	221745	13	327199	202140	22	312262	202433	31	312419	210963
5	326085	220288	14	325762	200403	23	312088	204194	32	312390	211965
6	328289	218665	15	324265	198712	24	312390	205791	33	312629	213018
7	331252	217200	16	323909	194713	25	312647	206876	34	312654	214931
8	327168	212607	17	320340	196470	26	312350	207493	35	313630	215848
9	326616	210457	18	318606	192949	27	311762	208093	36	314432	219094

### Fernhill

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	303188	200886	10	304759	199265	19	303138	198295	28	302155	199315
2	303466	200859	11	304730	198988	20	302964	198309	29	302173	199482
3	303785	200919	12	304579	198746	21	302797	198357	30	302222	199659
4	304059	200781	13	304301	198607	22	302640	198438	31	302299	199813
5	304304	200609	14	304044	198522	23	302498	198541	32	302272	200069
6	304515	200382	15	303787	198516	24	302377	198666	33	302320	200336
7	304685	200135	16	303642	198419	25	302280	198812	34	302421	200623
8	304674	199812	17	303482	198344	26	302209	198969	35	302638	200808
9	304740	199544	18	303313	198303	27	302166	199137	36	302910	200869

### Fodderty

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	251305	861827	10	256094	860506	19	251165	858021	28	248955	860767
2	251504	861809	11	256842	859488	20	250663	857895	29	249396	861073
3	251696	861746	12	256366	858614	21	249960	857475	30	249847	861257
4	251927	861738	13	255806	857831	22	249181	857370	31	250201	861344
5	252286	861814	14	253950	858254	23	248240	857339	32	250406	861448
6	252764	861841	15	253024	858422	24	247677	857895	33	250554	861588
7	253326	861765	16	252494	858352	25	247355	858620	34	250723	861693
8	253957	861552	17	252077	858155	26	247710	859532	35	250908	861775
9	254850	861175	18	251630	858027	27	248222	860259	36	251104	861824

### Gartley Moor

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	355007	858176	10	376481	832445	19	354620	823322	28	345223	832745
2	359165	856240	11	378606	828214	20	352653	821630	29	347298	834020
3	362746	853900	12	379675	823321	21	349648	819172	30	344949	836311
4	364546	849186	13	375990	820113	22	344407	815254	31	347012	837197
5	363471	842805	14	371260	818496	23	340051	815582	32	344744	841191
6	365033	841077	15	366931	817794	24	339745	820385	33	343271	846577
7	363652	837649	16	362219	819337	25	343358	826257	34	342976	853485
8	369793	837944	17	358168	822850	26	343104	828565	35	346298	856557
9	371942	835490	18	357191	817694	27	343058	830726	36	350312	859322

### Gellifendigaid

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	307106	194449	10	308091	193430	19	307055	191669	28	306085	193467
2	307280	194435	11	308072	193263	20	306742	191686	29	306104	193644
3	307448	194387	12	308233	193016	21	306449	191791	30	306152	193810
4	307605	194306	13	308345	192702	22	306164	191919	31	306229	193965
5	307747	194204	14	308356	192357	23	305920	192113	32	306332	194107
6	307868	194079	15	308203	192082	24	305781	192404	33	306458	194227
7	307966	193933	16	307959	191886	25	305804	192749	34	306603	194325
8	308037	193776	17	307672	191758	26	305927	193058	35	306763	194400
9	308079	193608	18	307365	191696	27	306097	193300	36	306932	194441

### Gourdon

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	382800	772000	10	383201	770907	19	382794	770408	28	381032	770917
2	382991	771988	11	383149	770841	20	382680	770264	29	381220	771194
3	383175	771932	12	383108	770796	21	382457	769987	30	381445	771405
4	383347	771853	13	383070	770752	22	381736	769088	31	381633	771582
5	383503	771741	14	383035	770708	23	378402	765731	32	381961	771614
6	383637	771607	15	383000	770663	24	380395	768916	33	382096	771747
7	383566	771351	16	382962	770619	25	380419	769550	34	382298	771779
8	383373	771118	17	382919	770563	26	380608	770128	35	382426	771935
9	383270	770996	18	382866	770497	27	380568	770529	36	382610	771990

### Grandtully

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	291812	753712	10	292790	752685	19	291760	751709	28	290783	752737
2	291986	753686	11	292770	752507	20	291586	751725	29	290803	752903
3	292153	753637	12	292720	752342	21	291419	751774	30	290853	753069
4	292310	753566	13	292642	752188	22	291263	751856	31	290930	753234
5	292451	753462	14	292538	752046	23	291122	751960	32	291035	753376
6	292571	753337	15	292411	751926	24	291001	752085	33	291162	753495
7	292668	753189	16	292265	751830	25	290905	752233	34	291307	753592
8	292737	753021	17	292105	751756	26	290835	752390	35	291468	753655
9	292778	752852	18	291935	751716	27	290794	752558	36	291637	753695

### Halesowen

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	397198	284243	10	398201	282563	19	397197	281562	28	395507	282565
2	397477	284131	11	398185	282385	20	397023	281573	29	395430	282876
3	397677	283876	12	398140	282218	21	396854	281618	30	395485	283187
4	397813	283620	13	398066	282062	22	396582	281496	31	395644	283454
5	397843	283330	14	397965	281918	23	396297	281496	32	395815	283721
6	397966	283208	15	397841	281795	24	395970	281541	33	396031	283954
7	398066	283063	16	397699	281695	25	395730	281719	34	396355	284021
8	398140	282908	17	397540	281618	26	395610	281986	35	396621	284143
9	398185	282730	18	397371	281573	27	395549	282275	36	396905	284221

### Helston

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	165309	29689	10	166655	27469	19	165169	26510	28	164211	27577
2	165683	29639	11	166950	27144	20	164996	26551	29	164234	27743
3	165951	29304	12	167100	26748	21	164829	26603	30	164286	27907
4	166042	28821	13	167041	26361	22	164674	26687	31	164367	28071
5	166135	28528	14	166812	26070	23	164536	26794	32	164408	28269
6	166364	28406	15	166464	25896	24	164417	26921	33	164442	28535
7	166500	28200	16	166032	25959	25	164324	27070	34	164447	29003
8	166514	27932	17	165651	26143	26	164256	27229	35	164635	29362
9	166471	27689	18	165379	26267	27	164218	27398	36	164943	29571

### Huntshaw Cross

#	NGR X	NGR Y									
1	253584	148041	19	299604	120892	37	251481	74024	55	222734	122811
2	255890	148054	20	298733	116893	38	247327	74633	56	222872	125422
3	258242	148055	21	297882	112972	39	243345	75963	57	237755	125045
4	260740	148265	22	296045	109327	40	239462	77327	58	239067	126039
5	263445	148570	23	293546	106085	41	235900	79407	59	240026	127000
6	266386	148860	24	291400	102881	42	232412	81398	60	240913	127896
7	269670	149198	25	289251	99789	43	229144	83685	61	213551	146023
8	273569	149779	26	287108	96731	44	226053	86135	62	242511	129572
9	277469	149651	27	284710	93880	45	223208	88835	63	243264	130406
10	281503	149056	28	282165	91156	46	220157	91310	64	244011	131218
11	286283	148502	29	279388	88661	47	217365	94111	65	244789	132074
12	292175	147986	30	276571	86157	48	216534	98282	66	244870	133985
13	293493	144065	31	273653	83645	49	220464	104656	67	244287	137676
14	295980	140776	32	270732	80780	50	220519	108172	68	244983	140014
15	298189	137228	33	267323	78573	51	220311	111329	69	245895	142724
16	298561	133049	34	263716	76440	52	220557	114460	70	247353	144884
17	298549	128922	35	259843	74628	53	221131	117457	71	249137	146946
18	299436	124956	36	255677	74141	54	222190	120158	72	251324	147483

### Hutton

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	336219	160262	10	340975	158748	19	336183	157370	28	333150	158844
2	336514	160458	11	340535	157996	20	335946	157462	29	333335	159353
3	336923	160709	12	340234	157288	21	335719	157543	30	333851	159702
4	337574	161113	13	339854	156647	22	335460	157569	31	334303	159930
5	338201	161127	14	339171	156266	23	335038	157463	32	334843	159979
6	339258	161304	15	338331	156210	24	334509	157425	33	335281	159929
7	339960	160917	16	337526	156453	25	333980	157565	34	335534	159992
8	340651	160364	17	336880	156872	26	333652	157925	35	335751	160090
9	341557	159686	18	336469	157178	27	333115	158311	36	335983	160142

### Iffracombe

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	250809	147364	10	259395	146198	19	250522	137480	28	248450	146510
2	250983	147404	11	257968	144958	20	249025	137946	29	248763	146857
3	251189	147454	12	257310	143852	21	247996	139445	30	249360	147006
4	251454	147524	13	256841	142719	22	247720	141490	31	249721	147096
5	251836	147613	14	256374	141475	23	248132	143470	32	249975	147155
6	252480	147772	15	255912	139974	24	248407	144564	33	250174	147205
7	253785	148047	16	254669	139252	25	248038	144964	34	250344	147244
8	255661	148049	17	253802	137352	26	247721	145430	35	250500	147284
9	259556	147730	18	252169	136998	27	248143	146052	36	250651	147325

### Innerleithen

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	332657	637909	10	335811	636770	19	332593	633713	28	331541	636835
2	332849	637894	11	335594	636250	20	332112	634077	29	331560	637024
3	333033	637847	12	335257	635821	21	331816	634660	30	331703	637178
4	333174	637711	13	335344	635208	22	331732	635296	31	331697	637378
5	333460	637763	14	335252	634563	23	331822	635873	32	331809	637532
6	333913	637845	15	334628	634383	24	331835	636163	33	331946	637664
7	334519	637858	16	334004	634371	25	331680	636287	34	332105	637772
8	335287	637735	17	333558	634177	26	331601	636456	35	332281	637859
9	335748	637317	18	333140	633716	27	331554	636646	36	332466	637900

### Inverness

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	266865	846969	10	267797	844766	19	266722	842618	28	264330	844880
2	267216	846802	11	267776	844589	20	266316	842531	29	264381	845302
3	267558	846701	12	267799	844399	21	265876	842512	30	264506	845710
4	267752	846339	13	267831	844152	22	265492	842703	31	264700	846094
5	267866	845990	14	267826	843874	23	265148	842970	32	264958	846442
6	267885	845655	15	267770	843553	24	264855	843281	33	265272	846732
7	267872	845377	16	267647	843200	25	264620	843634	34	265632	846965
8	267823	845133	17	267394	842964	26	264451	844030	35	266026	847130
9	267787	844934	18	267084	842773	27	264353	844445	36	266466	847094

### Keighley

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	406970	456925	10	417280	444379	19	407013	428031	28	385695	444370
2	408549	453267	11	419661	442163	20	404785	431789	29	385639	448130
3	409319	450776	12	424189	438168	21	401308	428716	30	385385	452214
4	410175	449888	13	424925	434100	22	399172	430807	31	384883	457100
5	411182	449356	14	424166	430057	23	398710	434490	32	389680	458834
6	412916	449338	15	423764	424503	24	398817	437505	33	394351	459360
7	414142	448496	16	418898	423858	25	398603	439519	34	400034	456341
8	414926	447264	17	413903	425498	26	396031	440377	35	402373	456954
9	417311	446204	18	409987	427535	27	389778	441332	36	404323	459314

### Kilmelford

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	182021	715857	10	184998	709896	19	181641	708439	28	180391	710131
2	183101	716047	11	184544	709417	20	181353	708442	29	180520	710336
3	183715	714756	12	184043	709086	21	181075	708535	30	180635	710520
4	184290	714013	13	183714	708779	22	180758	708573	31	177308	712923
5	184787	713353	14	183221	708670	23	180341	708584	32	174750	716537
6	185024	712549	15	182785	708659	24	179850	708654	33	176537	716922
7	185034	711757	16	182476	708597	25	179718	709040	34	177396	718517
8	185148	711115	17	182214	708476	26	180025	709548	35	179830	716215
9	185250	710497	18	181925	708447	27	180234	709883	36	180982	716044

### Kilve

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	314414	143962	10	315932	142424	19	314372	141449	28	313209	142470
2	314717	144135	11	315695	142195	20	314198	141463	29	313082	142705
3	315005	144053	12	315497	142020	21	314030	141510	30	313144	142927
4	315409	144146	13	315249	141935	22	313873	141591	31	313296	143102
5	315683	143930	14	315146	141792	23	313731	141693	32	313382	143323
6	315922	143693	15	315020	141672	24	313610	141818	33	313435	143623
7	316095	143389	16	314876	141574	25	313512	141964	34	313654	143764
8	316151	143055	17	314716	141499	26	313440	142121	35	313895	143871
9	315997	142701	18	314546	141457	27	313399	142289	36	314151	143944

### Kingskerswell

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	287348	69183	10	288528	68157	19	287300	66981	28	285365	68225
2	287522	69157	11	288886	67871	20	287122	67152	29	285312	68582
3	287689	69109	12	289005	67535	21	286963	67245	30	285412	68924
4	287846	69039	13	288969	67191	22	286806	67326	31	285570	69244
5	287987	68936	14	288891	66814	23	286665	67429	32	285852	69471
6	288108	68811	15	288640	66552	24	286544	67554	33	286268	69495
7	288205	68664	16	288324	66370	25	286415	67679	34	286666	69376
8	288276	68507	17	287909	66479	26	286015	67732	35	286992	69157
9	288318	68339	18	287565	66642	27	285657	67929	36	287173	69164

### Kinlochleven

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	217942	763990	10	218901	762946	19	217855	761988	28	216896	763033
2	218116	763972	11	219151	762712	20	217681	762007	29	216919	763210
3	218282	763909	12	219447	762354	21	217514	762058	30	216971	763375
4	218438	763835	13	219622	761889	22	217359	762143	31	217052	763528
5	218577	763729	14	219405	761609	23	217220	762250	32	217159	763668
6	218695	763601	15	219143	761375	24	217102	762377	33	217287	763785
7	218789	763452	16	218842	761176	25	217008	762526	34	217435	763879
8	218856	763293	17	218513	761045	26	216942	762685	35	217596	763939
9	218894	763124	18	218105	761431	27	216904	762854	36	217767	763987

### Liverton

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	281290	75346	10	282248	73355	19	281223	72377	28	280242	73400
2	281629	75305	11	282229	73189	20	281049	72403	29	280262	73578
3	281920	75109	12	282180	73023	21	280882	72451	30	280311	73744
4	282094	74771	13	282102	72858	22	280724	72522	31	280388	73898
5	282178	74436	14	281999	72727	23	280583	72625	32	280492	74040
6	282146	74103	15	281872	72596	24	280463	72761	33	280515	74295
7	282125	73858	16	281727	72499	25	280366	72897	34	280558	74628
8	282196	73701	17	281567	72436	26	280296	73065	35	280724	74925
9	282237	73533	18	281397	72395	27	280254	73233	36	280981	75097

### Llangeinor

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	290714	193131	10	292510	188575	19	290442	180564	28	289171	188647
2	291518	193135	11	293088	188129	20	289534	183176	29	288984	188940
3	292213	192709	12	294056	187285	21	289146	184842	30	288726	189347
4	292835	192262	13	295368	185745	22	289219	186321	31	288450	189920
5	292956	191280	14	296422	183543	23	289354	187174	32	288090	190818
6	292600	190197	15	298102	179325	24	289426	187662	33	287891	192002
7	292539	189665	16	296022	178789	25	289357	187920	34	288283	192850
8	292854	189369	17	294521	177151	26	289041	188082	35	288995	193368
9	292794	188947	18	292251	178033	27	288980	188362	36	289864	193483

### Loch Feochan

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	186230	726683	10	187979	725514	19	186027	722668	28	183745	725727
2	186415	726651	11	188167	725147	20	185518	722738	29	183921	726120
3	186593	726598	12	188177	724757	21	185029	722897	30	184191	726441
4	186753	726501	13	188086	724371	22	184533	723067	31	184546	726657
5	186899	726382	14	188058	723859	23	185054	724401	32	185021	726677
6	187087	726294	15	187726	723564	24	184480	724330	33	185282	726787
7	187332	726193	16	187347	723326	25	183594	724285	34	185582	726760
8	187588	726035	17	186932	723158	26	183553	724801	35	185843	726680
9	187742	725804	18	186541	722687	27	183533	725281	36	186043	726659

### Lochearnhead

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	259626	724321	10	260576	722697	19	259540	721728	28	258248	722774
2	259903	724289	11	260555	722519	20	259366	721745	29	258111	723035
3	260171	724214	12	260504	722354	21	259199	721795	30	258086	723325
4	260419	724083	13	260425	722200	22	259043	721878	31	258212	723566
5	260571	723833	14	260320	722059	23	258903	721983	32	258380	723794
6	260617	723542	15	260192	721941	24	258784	722110	33	258584	723988
7	260618	723286	16	260046	721845	25	258688	722258	34	258818	724136
8	260526	723032	17	259885	721773	26	258619	722416	35	259075	724250
9	260567	722864	18	259715	721734	27	258400	722557	36	259347	724308

### Machen Upper

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	321225	190716	10	322212	189700	19	321165	186835	28	320207	189731
2	321399	190691	11	322194	189522	20	320690	187020	29	320224	189898
3	321567	190644	12	322147	189356	21	320360	187493	30	320272	190075
4	321724	190575	13	322512	188939	22	320115	187886	31	320349	190229
5	321866	190473	14	322696	188424	23	320150	188497	32	320452	190372
6	321988	190348	15	322733	187845	24	320374	189039	33	320577	190493
7	322086	190202	16	322451	187482	25	320333	189228	34	320722	190591
8	322157	190045	17	322169	186953	26	320262	189385	35	320881	190655
9	322200	189867	18	321666	186872	27	320219	189553	36	321051	190697

### Mendip

#	NGR X	NGR Y									
1	357149	222094	19	426528	148187	37	355979	84374	55	271670	149493
2	363521	221432	20	425366	142187	38	350649	87557	56	329519	151185
3	369883	220778	21	422628	136580	39	345661	90020	57	329703	153551
4	375984	218865	22	420362	131133	40	340768	91853	58	329891	155951
5	381651	215916	23	416623	126382	41	335612	92781	59	284310	175694
6	387416	213507	24	416355	120332	42	328522	90115	60	290800	180034
7	392947	210604	25	414523	114721	43	320561	87895	61	296576	183973
8	398134	207152	26	412954	108668	44	311735	86301	62	300376	188714
9	402987	203271	27	409865	103357	45	306154	90158	63	304528	193051
10	407505	198793	28	406626	97970	46	301218	94554	64	308373	197863
11	411649	194119	29	402798	93029	47	296740	99602	65	312282	202488
12	415228	189045	30	398026	88758	48	292704	105001	66	316996	206280
13	417830	183404	31	392858	84904	49	289135	110738	67	321796	210096
14	420476	177853	32	387567	80989	50	286050	116723	68	327413	212537
15	422562	172123	33	380679	80821	51	283518	122976	69	332837	215510
16	424092	166225	34	373765	82308	52	281748	129480	70	338660	217648
17	425085	160235	35	368973	74717	53	280552	136083	71	344683	219269
18	426072	154257	36	361975	79845	54	278328	142621	72	350835	220684

### Modbury

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	266159	52335	10	267136	51309	19	266109	50345	28	264532	51375
2	266333	52320	11	267117	51143	20	265935	50360	29	264564	51653
3	266501	52271	12	267067	50977	21	265767	50409	30	264643	51929
4	266657	52189	13	266990	50823	22	265611	50491	31	264767	52170
5	266798	52085	14	266886	50681	23	265401	50508	32	264933	52400
6	266919	51960	15	266759	50562	24	265085	50504	33	265135	52595
7	267014	51813	16	266613	50466	25	264827	50633	34	265420	52643
8	267085	51655	17	266453	50392	26	264615	50828	35	265712	52591
9	267126	51487	18	266283	50352	27	264550	51108	36	265968	52440

### Monmouth

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	352739	215427	10	353949	212713	19	352694	210711	28	346535	212786
2	353101	214801	11	353955	212490	20	352213	210049	29	346279	213924
3	353212	214054	12	353887	212291	21	351499	209488	30	347441	214701
4	353352	213808	13	353797	212091	22	350690	209307	31	348207	215383
5	353519	213662	14	353675	211903	23	349713	209228	32	348289	216505
6	353688	213527	15	353501	211772	24	348001	208856	33	349107	217098
7	353804	213337	16	353324	211651	25	346840	209424	34	350614	216437
8	353899	213147	17	353134	211530	26	346490	210540	35	351301	216709
9	353939	212924	18	352948	211321	27	346581	211707	36	352112	216323

### Mynydd Bach

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	317039	198648	10	320879	192512	19	316885	189295	28	309194	192709
2	318160	198874	11	320148	191957	20	316164	188573	29	309779	193956
3	319422	199043	12	319373	191646	21	315056	187668	30	309362	195476
4	319957	197600	13	319004	191341	22	313317	186552	31	309813	196836
5	321151	197414	14	318872	190898	23	312881	187905	32	311450	197330
6	321566	196317	15	318800	190287	24	310695	187520	33	312862	197584
7	321451	195073	16	318185	190342	25	310689	189111	34	313946	197943
8	321778	194245	17	317733	190282	26	310357	190308	35	314728	198953
9	321594	193313	18	317348	190022	27	309196	191352	36	315960	198699

### Newton Ferrers

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	254642	49668	10	256749	47453	19	254556	46533	28	253132	47552
2	255017	49625	11	256678	47087	20	254373	46494	29	252960	47846
3	255379	49515	12	256067	46926	21	254178	46488	30	253046	48121
4	255717	49350	13	255694	46825	22	253964	46505	31	253170	48374
5	256021	49130	14	255430	46765	23	253917	46762	32	253176	48752
6	256281	48856	15	255221	46704	24	253797	46888	33	253406	48990
7	256467	48528	16	255043	46665	25	253700	47035	34	253614	49296
8	256649	48201	17	254880	46624	26	253547	47162	35	253893	49578
9	256727	47831	18	254721	46573	27	253336	47323	36	254264	49645

### North Hessary Tor

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	257920	75147	10	260683	74072	19	257866	73146	28	256890	74174
2	258094	75121	11	260772	73558	20	257692	73162	29	256910	74340
3	258261	75071	12	260624	73072	21	257525	73211	30	256960	74506
4	258418	74989	13	260421	72599	22	257368	73293	31	257038	74671
5	258558	74885	14	259927	72345	23	257228	73397	32	257142	74801
6	258678	74760	15	259379	72271	24	257108	73523	33	257269	74920
7	259169	74836	16	258875	72329	25	257011	73670	34	257415	75017
8	259722	74754	17	258384	72676	26	256942	73828	35	257576	75090
9	260232	74485	18	258041	73153	27	256901	73996	36	257745	75130

### Olivers Mount

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	504074	488850	10	504939	486911	19	504339	477168	28	495575	486706
2	504333	488266	11	505008	486756	20	502705	477688	29	495906	488149
3	504479	487946	12	505095	486558	21	501125	478065	30	492825	490724
4	504578	487726	13	505216	486294	22	499165	477867	31	493728	492579
5	504653	487550	14	510799	481538	23	496730	477704	32	494924	494250
6	504716	487406	15	513556	476184	24	494428	478413	33	494083	498296
7	504772	487285	16	508937	478989	25	491793	479428	34	497831	497217
8	504825	487164	17	507441	478386	26	491534	482016	35	498449	501404
9	504880	487043	18	505878	478105	27	494176	484919	36	503433	490294

**Onich HP**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	201852	763406	10	203215	763118	19	204446	761678	28	203093	760370
2	202008	763510	11	203323	762980	20	204833	761393	29	202851	760404
3	202156	763492	12	203419	762841	21	205047	761071	30	202649	760436
4	202309	763473	13	203719	762805	22	205017	760782	31	202475	760455
5	202452	763422	14	203935	762694	23	204981	760472	32	202322	760485
6	202590	763348	15	204374	762618	24	204529	760370	33	202184	760502
7	202735	763297	16	204387	762372	25	204106	760312	34	202058	760519
8	202906	763267	17	204427	762147	26	203776	760271	35	201939	760536
9	203029	763161	18	204446	761912	27	203394	760323	36	201827	760553

**Onich VP**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	201718	760569	10	200603	760745	19	196815	762041	28	199946	763820
2	201611	760585	11	200412	760776	20	196854	762474	29	200172	763909
3	201505	760601	12	200186	760809	21	197500	762778	30	201282	762585
4	201397	760618	13	200162	760977	22	198815	762759	31	201334	762661
5	201286	760634	14	194945	759022	23	200973	762143	32	201391	762747
6	201170	760651	15	194727	759623	24	199218	763152	33	201455	762834
7	201047	760679	16	195702	760490	25	199324	763381	34	201529	762942
8	200914	760696	17	195898	761060	26	199384	763657	35	201615	763071
9	200767	760714	18	195855	761575	27	199545	763861	36	201721	763222

**Oxford**

#	NGR X	NGR Y									
1	456231	262003	19	507978	211078	37	457388	159416	55	404416	209900
2	460738	261923	20	508067	206607	38	452932	159691	56	405168	214417
3	465227	261446	21	507767	202128	39	448596	160760	57	405904	218855
4	469676	260650	22	507017	197929	40	444053	160786	58	406901	223483
5	474168	259814	23	506274	193407	41	439617	161706	59	408262	227734
6	478433	258189	24	504078	189379	42	435491	163566	60	410045	231819
7	482513	256141	25	501928	185385	43	431586	165821	61	412176	235728
8	486364	253714	26	499344	181674	44	427913	168413	62	414534	239493
9	489676	250580	27	496458	178214	45	424801	171667	63	417214	243039
10	492702	247242	28	493561	174789	46	421609	174710	64	420195	246331
11	495069	243404	29	490330	171661	47	418702	178013	65	423454	249360
12	497474	239757	30	486764	168918	48	415349	181005	66	426968	252092
13	499465	235891	31	482946	166563	49	412647	184590	67	430741	254449
14	501505	232104	32	478948	164553	50	410423	188500	68	434675	256533
15	503205	228145	33	474801	162900	51	408601	192611	69	438778	258265
16	504932	224175	34	470425	162026	52	407143	196869	70	442985	259757
17	506240	220008	35	466113	161145	53	406066	200982	71	447329	260831
18	507132	215455	36	461830	159857	54	405239	205408	72	451744	261643

### Pennsylvania

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	293580	96440	10	294549	94807	19	293513	93182	28	291665	94866
2	293824	96223	11	294531	94629	20	293232	93232	29	291700	95188
3	294032	96074	12	294482	94463	21	292917	93205	30	291797	95497
4	294148	95816	13	294405	94309	22	292594	93256	31	291958	95783
5	294229	95603	14	294302	94167	23	292319	93429	32	292129	96058
6	294328	95457	15	294190	94024	24	292080	93645	33	292385	96264
7	294425	95310	16	294109	93804	25	291897	93916	34	292648	96447
8	294496	95142	17	293958	93617	26	291765	94219	35	292984	96474
9	294538	94974	18	293764	93432	27	291686	94532	36	293279	96546

### Penryn

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	178922	36679	10	180577	33314	19	178681	30898	28	177764	33431
2	179408	36224	11	181069	32893	20	178369	31501	29	177618	33648
3	179752	35731	12	181211	32397	21	178297	32206	30	177100	34082
4	179820	35016	13	181052	31958	22	178247	32542	31	176780	34652
5	179649	34332	14	180881	31475	23	178108	32648	32	176668	35314
6	179579	34001	15	180683	30927	24	177990	32775	33	176909	35816
7	179674	33852	16	180428	30258	25	177879	32914	34	177185	36439
8	179741	33694	17	180072	29349	26	177811	33084	35	177739	36672
9	179966	33551	18	179161	30578	27	177772	33252	36	178323	36826

### Peterhead

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	411228	852809	10	414105	845303	19	411269	837969	28	407609	845286
2	412061	849950	11	414321	844769	20	410101	838690	29	407673	845921
3	412514	848782	12	414156	844246	21	409199	839623	30	407984	846478
4	412845	848060	13	413989	843722	22	408511	840534	31	408306	846979
5	413100	847504	14	413809	843153	23	408095	841524	32	408261	847781
6	413316	847026	15	413600	842507	24	408161	842693	33	408409	848661
7	413511	846604	16	413340	841682	25	408330	843606	34	408656	849752
8	413699	846192	17	412983	840568	26	408080	844140	35	409191	850889
9	413893	845770	18	412327	839286	27	407856	844696	36	410086	851782

### Plympton

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	253393	63767	10	257862	55344	19	252968	48491	28	239826	55860
2	254444	61702	11	257075	54676	20	251665	48182	29	239657	58247
3	255324	60921	12	256664	54086	21	250659	49156	30	242047	59866
4	256012	60090	13	256165	53632	22	249794	49993	31	242385	62093
5	256546	59274	14	255974	52981	23	249118	50914	32	244008	63580
6	257463	58871	15	255540	52481	24	248491	51766	33	246412	63966
7	258102	58142	16	255149	51802	25	247871	52618	34	248610	63869
8	258216	57148	17	254701	50857	26	247219	53505	35	250417	63695
9	257939	56177	18	254031	49607	27	237556	53192	36	251916	63875

### Pontardawe

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	273450	207521	10	275435	203688	19	273224	198535	28	268307	203869
2	274088	207349	11	275254	203347	20	272333	198702	29	268623	204695
3	274562	206803	12	275292	202979	21	271205	198275	30	268949	205466
4	274892	206238	13	275546	202394	22	270400	198919	31	269235	206249
5	275047	205645	14	275564	201793	23	269379	199245	32	269806	206857
6	274982	205023	15	275459	201106	24	268956	200236	33	270404	207431
7	275056	204654	16	275241	200277	25	268274	200977	34	271237	207621
8	275327	204391	17	274604	200025	26	268056	201962	35	272002	207758
9	275724	204092	18	274116	198702	27	268038	202941	36	272756	207694

### Port Isaac

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	199971	80532	10	203336	80315	19	199898	78642	28	199353	80466
2	199987	80531	11	203160	79754	20	199587	78687	29	199689	80498
3	200006	80542	12	202992	79215	21	199245	78678	30	199792	80516
4	200028	80541	13	202562	78819	22	198816	78617	31	199844	80514
5	200058	80540	14	202009	78595	23	198327	78635	32	199877	80524
6	200103	80549	15	201464	78516	24	197832	78788	33	199902	80523
7	200183	80557	16	200976	78534	25	197246	79011	34	199921	80523
8	200394	80583	17	200552	78628	26	196844	79439	35	199939	80533
9	203387	80915	18	200208	78686	27	197861	80156	36	199955	80532

### Portishead

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	345977	176755	10	346409	176783	19	348778	176336	28	347943	174354
2	346011	176754	11	346503	176794	20	348802	176080	29	347760	174189
3	346047	176754	12	346625	176803	21	348728	175848	30	347564	174046
4	346084	176765	13	346792	176824	22	348716	175603	31	347355	173915
5	346124	176764	14	347037	176844	23	348617	175370	32	347136	173806
6	346168	176764	15	347444	176884	24	348518	175149	33	346908	173708
7	346216	176774	16	348271	176953	25	348397	174928	34	346672	173644
8	346271	176774	17	348760	176826	26	348263	174729	35	346434	173580
9	346334	176784	18	348762	176581	27	348111	174530	36	346189	173549

### Praa Sands

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	157339	29801	10	161341	28150	19	157264	28144	28	156692	28360
2	157593	29767	11	161431	27411	20	157232	28157	29	156049	28612
3	157837	29689	12	162144	26321	21	157202	28170	30	155881	28920
4	157969	29427	13	158040	27853	22	157172	28182	31	156066	29113
5	158416	29574	14	157638	28005	23	157139	28195	32	156162	29353
6	159029	29679	15	157485	28056	24	157102	28208	33	156402	29476
7	159760	29624	16	157400	28094	25	157055	28221	34	156578	29668
8	160461	29336	17	157343	28119	26	156991	28246	35	156823	29768
9	160785	28798	18	157300	28132	27	156890	28284	36	157083	29790

**Preston**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	370806	85248	10	371797	83241	19	370784	81301	28	368445	83260
2	371095	84891	11	371782	83063	20	370392	81036	29	368483	83661
3	371252	84479	12	371736	82897	21	368086	75946	30	368591	84060
4	371301	84111	13	371660	82742	22	366782	76399	31	368766	84426
5	371444	84010	14	371559	82598	23	366982	78766	32	369003	84758
6	371566	83876	15	371435	82476	24	366959	80067	33	369294	85046
7	371666	83742	16	371291	82377	25	367467	81354	34	369631	85277
8	371739	83575	17	371133	82300	26	367963	82229	35	370039	85353
9	371784	83408	18	370963	82256	27	368211	82806	36	370441	85306

**Rosneath HP**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	226119	686136	10	231890	680948	19	225871	679995	28	223451	681286
2	227010	686178	11	226148	681143	20	225573	679606	29	222450	681951
3	227947	686118	12	226169	681086	21	225339	679783	30	221437	683030
4	228614	685445	13	226156	681042	22	225126	679936	31	221914	683723
5	229768	685411	14	226141	680987	23	224944	680122	32	222290	684488
6	231311	685350	15	226124	680921	24	224860	680371	33	223022	684937
7	232093	684428	16	226102	680844	25	224867	680638	34	223614	685570
8	232831	683396	17	226069	680723	26	224835	680851	35	225601	682179
9	233273	682187	18	226012	680513	27	224774	681031	36	225004	687953

**Rosneath VP**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	226216	688539	10	246946	680387	19	225508	671018	28	208102	681943
2	227497	688410	11	248285	676374	20	223361	669489	29	216468	683261
3	228873	688377	12	249656	671536	21	219372	665274	30	216976	684866
4	230133	687836	13	250365	665830	22	210132	656308	31	221370	684069
5	232321	688207	14	244405	664436	23	205425	658768	32	221284	685398
6	238772	691113	15	239733	663370	24	202904	663496	33	221291	687170
7	244662	691041	16	234695	664517	25	202314	668896	34	222714	687289
8	247152	687999	17	230107	668093	26	202204	673705	35	222635	691472
9	245745	683905	18	227373	670441	27	203246	678194	36	224527	691483

### Rumster Forest

#	NGR X	NGR Y									
1	320542	971577	19	330988	938257	37	318366	864407	55	277652	939654
2	323831	975064	20	330368	937344	38	311789	863832	56	277120	943414
3	326942	974225	21	329540	936579	39	304745	862065	57	276933	947263
4	330346	974541	22	328389	936021	40	317328	929677	58	277699	951005
5	335301	978297	23	327439	935559	41	315327	926690	59	278838	954647
6	336760	972828	24	326629	935162	42	311127	920657	60	279925	958368
7	339537	970924	25	325922	934830	43	307014	917232	61	281111	962164
8	334900	958971	26	325293	934519	44	301960	914056	62	282808	965790
9	334748	955454	27	324697	934263	45	290667	905328	63	288973	965643
10	335826	953777	28	324129	934040	46	288065	908208	64	293931	965572
11	336861	952157	29	323601	933839	47	285743	911282	65	297308	966540
12	337005	949894	30	323114	933659	48	283518	914399	66	299612	968696
13	336304	947477	31	360394	865335	49	281615	917719	67	302468	970050
14	335561	945374	32	352430	865165	50	280013	921187	68	305501	970933
15	334354	943400	33	345372	864063	51	278721	924769	69	309156	969788
16	333367	941780	34	338920	861438	52	278213	928540	70	312176	969585
17	332479	940425	35	331857	861662	53	278095	932309	71	314975	969823
18	331683	939270	36	324882	864035	54	277688	935965	72	317703	970611

### Salisbury

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	413702	142521	10	430337	128535	19	413761	120313	28	406684	128450
2	416068	141849	11	429337	125793	20	412632	122112	29	404401	130094
3	418046	140366	12	427844	123405	21	411717	122877	30	403139	132295
4	421289	141590	13	427932	120359	22	411018	123743	31	405374	133264
5	422649	139127	14	425960	118313	23	410320	124386	32	404474	136188
6	421750	135209	15	422997	117532	24	409436	124852	33	405551	138157
7	424411	134664	16	420220	117343	25	408853	125640	34	407989	138339
8	424860	132554	17	418138	116512	26	407613	126228	35	409614	139676
9	428057	131046	18	415584	118194	27	407523	127362	36	411097	143193

### Scalloway

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	439936	1140323	10	440074	1139802	19	439975	1136771	28	438939	1139789
2	439993	1140101	11	440081	1139768	20	439012	1134177	29	438952	1139957
3	440018	1140013	12	440088	1139746	21	438984	1137072	30	438996	1140124
4	440033	1139957	13	440098	1139713	22	439014	1138153	31	439068	1140292
5	440043	1139924	14	440112	1139657	23	438841	1138452	32	439166	1140427
6	440050	1139890	15	440134	1139568	24	439093	1139067	33	439289	1140562
7	440057	1139868	16	440182	1139391	25	439078	1139290	34	439364	1140774
8	440063	1139846	17	440386	1138613	26	439003	1139445	35	439444	1141120
9	440069	1139824	18	440431	1137188	27	438956	1139611	36	439607	1141579

**Scoval HP**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	118312	852965	10	119722	851348	19	118104	849964	28	116148	851596
2	118574	852925	11	119681	851094	20	117840	849982	29	115739	852072
3	118823	852840	12	119598	850843	21	117585	850055	30	115916	852473
4	119049	852702	13	119461	850618	22	117365	850205	31	116118	852861
5	119267	852553	14	119303	850406	23	117156	850365	32	116619	852994
6	119449	852361	15	119099	850230	24	116971	850556	33	117306	852700
7	119617	852149	16	118880	850089	25	116858	850799	34	117545	852806
8	119651	851867	17	118627	850006	26	116745	851041	35	117789	852912
9	119709	851617	18	118369	849934	27	116696	851301	36	118049	852961

**Scoval VP**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	118518	855933	10	125051	850985	19	117839	846139	28	115698	851628
2	119049	854824	11	125605	849629	20	117025	846710	29	116039	851995
3	122937	862074	12	125472	848242	21	116103	846729	30	116516	852208
4	124766	861167	13	125881	846305	22	115280	847111	31	117072	852225
5	126679	860222	14	124686	845224	23	115414	848554	32	117210	852416
6	126886	857763	15	121886	846420	24	115500	849486	33	117272	852747
7	124239	854401	16	120139	847511	25	115562	850163	34	117274	853361
8	123549	852996	17	119453	847134	26	115614	850718	35	117449	854097
9	124787	852153	18	118690	846907	27	115657	851184	36	117860	854739

**Selkirk**

#	NGR X	NGR Y									
1	350654	673252	19	400518	628830	37	349646	584868	55	308853	630069
2	354558	673821	20	399857	624779	38	345808	585581	56	310816	633469
3	358686	674681	21	398424	620606	39	342092	586641	57	313166	636505
4	362584	673688	22	398467	616166	40	338452	587748	58	315061	639362
5	366373	672377	23	398075	611647	41	335194	589820	59	317867	641668
6	370230	671158	24	395618	607854	42	331876	591461	60	315246	646272
7	373968	669564	25	393187	604174	43	328730	593380	61	314089	650892
8	378106	668373	26	390582	600662	44	326172	596105	62	314405	655150
9	381711	666186	27	387417	597643	45	324403	599552	63	315264	659452
10	384679	663213	28	384850	594123	46	321967	601998	64	319079	661238
11	387365	659999	29	381723	591097	47	319760	604643	65	322530	663123
12	388616	655800	30	377573	589458	48	315460	605881	66	326908	663415
13	390010	651946	31	373738	587621	49	311328	607787	67	331232	663032
14	392747	648846	32	369976	585742	50	309738	611337	68	332508	668355
15	395857	645659	33	366070	584212	51	308470	614993	69	334747	673219
16	398799	642085	34	361878	583689	52	308085	618875	70	339115	672487
17	401398	637822	35	357721	583549	53	308789	622801	71	343193	671596
18	401136	633271	36	353641	583656	54	308658	626455	72	346850	672763

### South Maesteg

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	286119	191118	10	287089	189628	19	286063	188649	28	285083	189673
2	286411	191278	11	287070	189461	20	285889	188675	29	285102	189850
3	286688	191194	12	287020	189284	21	285722	188724	30	285151	190016
4	286947	191066	13	286943	189130	22	285565	188794	31	285229	190170
5	287107	190818	14	286840	188988	23	285424	188897	32	285332	190312
6	287159	190516	15	286713	188868	24	285303	189022	33	285458	190432
7	287079	190195	16	286568	188771	25	285206	189169	34	285604	190529
8	287036	189974	17	286408	188708	26	285135	189327	35	285722	190726
9	287078	189806	18	286238	188668	27	285094	189506	36	285878	191012

### Southway

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	247944	61306	10	248904	59832	19	247873	58860	28	246837	59892
2	248159	61111	11	248884	59655	20	247699	58877	29	246554	60134
3	248344	60972	12	248834	59489	21	247532	58926	30	246459	60437
4	248531	60878	13	248756	59336	22	247376	59008	31	246402	60784
5	248651	60696	14	248652	59194	23	247235	59113	32	246577	61034
6	248786	60559	15	248524	59075	24	247115	59238	33	246826	61216
7	248819	60358	16	248378	58979	25	247019	59386	34	247073	61387
8	248854	60179	17	248217	58906	26	246950	59544	35	247351	61513
9	248895	60011	18	248048	58867	27	246909	59712	36	247661	61493

### St Austell

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	201221	62616	10	219047	52847	19	200443	41961	28	195052	53723
2	203202	64267	11	214909	50497	20	198246	41309	29	195285	54705
3	204757	63007	12	206087	51381	21	196664	43184	30	196168	55416
4	206208	61963	13	205492	50601	22	196475	46520	31	196874	56013
5	209081	62537	14	204916	49832	23	196225	48378	32	197386	56650
6	211198	61503	15	204322	49052	24	196419	50052	33	197818	57424
7	213689	60257	16	203672	48197	25	196218	51050	34	198268	58431
8	217153	58745	17	203021	46830	26	195888	51898	35	198934	59519
9	217778	55851	18	202287	43261	27	195939	52820	36	199856	60886

### Stanton Moor

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	424558	383632	10	440657	363794	19	424700	355887	28	418925	363659
2	427269	378907	11	441547	360843	20	423621	357628	29	418172	364802
3	429985	378523	12	440833	357944	21	422856	358670	30	416743	366521
4	432381	377193	13	442089	353805	22	422004	359045	31	417746	367626
5	433540	374364	14	438301	352405	23	421384	359754	32	417274	369816
6	435306	372708	15	437534	348561	24	420399	360083	33	414844	375248
7	438340	371685	16	431023	352831	25	420309	361151	34	417331	376213
8	438387	368771	17	428899	352262	26	419755	361883	35	419370	377968
9	439667	366434	18	426265	354872	27	419551	362772	36	421895	378880

### Swinster

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	444081	1176159	10	445720	1172771	19	444175	1168452	28	441092	1172715
2	446036	1184404	11	445526	1172523	20	443472	1168789	29	438823	1173615
3	445048	1175380	12	445367	1172309	21	443119	1169887	30	434961	1175959
4	445343	1174916	13	449609	1169680	22	442658	1170149	31	434585	1178105
5	450216	1180182	14	448376	1169274	23	441579	1169647	32	433982	1181051
6	445804	1174186	15	448771	1167352	24	441664	1170639	33	434245	1184228
7	446010	1173866	16	447677	1166770	25	441902	1171432	34	434409	1189097
8	446217	1173534	17	446109	1167496	26	441960	1171934	35	436869	1191917
9	445977	1173097	18	445162	1167261	27	441818	1172311	36	443456	1176251

### Tacolneston

#	NGR X	NGR Y									
1	611112	342820	19	654966	297439	37	615466	242771	55	559761	293362
2	615228	342445	20	655417	293784	38	610831	242695	56	559991	298001
3	619282	341881	21	654461	290189	39	606200	243036	57	560610	302586
4	623216	340791	22	653979	286586	40	601675	244065	58	562003	306996
5	626912	339080	23	653204	283024	41	597409	245921	59	563313	311605
6	630308	336890	24	652163	279492	42	593118	247490	60	564803	315897
7	633409	334420	25	651093	276094	43	588980	249435	61	566667	320035
8	636516	332208	26	649516	272659	44	584984	251679	62	568515	324252
9	639598	330041	27	648181	268947	45	581239	254313	63	571105	328051
10	642605	327761	28	647768	264111	46	577333	256833	64	573858	331757
11	645689	325476	29	647693	258167	47	573952	260020	65	576999	335178
12	648247	322630	30	645887	253218	48	570853	263508	66	580489	338269
13	650161	319306	31	641763	250954	49	568124	267289	67	584287	340985
14	651543	315542	32	637740	248610	50	565730	271294	68	588349	343303
15	652760	311971	33	633529	246638	51	563683	275245	69	593020	344245
16	653551	308312	34	629163	245043	52	562054	279611	70	597765	344426
17	653903	304618	35	624676	243835	53	560849	284113	71	602159	345232
18	654065	300981	36	620091	243096	54	560071	288719	72	606802	343937

### Taffs Wells

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	312500	187211	10	313461	184780	19	312405	181684	28	309749	184845
2	312829	186705	11	313443	184614	20	311747	181150	29	309932	185287
3	313031	186290	12	313395	184448	21	311147	181394	30	309929	185776
4	313085	185844	13	313318	184282	22	310558	181649	31	309787	186402
5	313154	185598	14	313370	184014	23	310388	182431	32	309756	187148
6	313245	185440	15	313460	183568	24	310343	183099	33	310258	187517
7	313336	185283	16	313399	183113	25	310218	183569	34	310763	187853
8	313407	185126	17	313244	182526	26	309860	183909	35	311444	187741
9	313449	184959	18	312884	182120	27	309763	184378	36	312034	187475

### Ton Pentre

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	296170	197644	10	298836	195487	19	296098	194163	28	291058	195649
2	296482	197337	11	298986	194983	20	295859	194190	29	291242	196513
3	296781	197231	12	298855	194485	21	295512	193964	30	291670	197271
4	296837	196718	13	298653	194022	22	295203	194026	31	291782	198170
5	297012	196547	14	298210	193730	23	294746	193968	32	292548	198665
6	297270	196464	15	297536	193800	24	294021	193850	33	293359	198971
7	297610	196357	16	297063	193843	25	293364	194031	34	294288	198873
8	297953	196161	17	296672	193951	26	292780	194410	35	295104	198534
9	298328	195886	18	296350	194113	27	292013	194905	36	295703	198265

### Tonypandy

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	298797	193441	10	299780	192420	19	298757	191439	28	297140	192473
2	298971	193426	11	299761	192253	20	298583	191465	29	296939	192799
3	299139	193378	12	299713	192087	21	298415	191512	30	296898	193167
4	299296	193297	13	299636	191922	22	298258	191582	31	296922	193567
5	299437	193194	14	299532	191779	23	298117	191685	32	297259	193761
6	299558	193069	15	299406	191659	24	297996	191810	33	297602	193899
7	299656	192923	16	299261	191562	25	297899	191957	34	297987	193868
8	299727	192766	17	299102	191499	26	297759	192093	35	298316	193795
9	299768	192598	18	298932	191458	27	297367	192223	36	298612	193500

### Tonyrefail

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	301049	188512	10	302072	187391	19	300991	185532	28	300025	187431
2	301240	188486	11	302451	187139	20	300764	186081	29	300044	187608
3	301424	188438	12	302592	186813	21	300666	186484	30	300092	187774
4	301546	188269	13	302787	186353	22	300509	186553	31	300168	187929
5	301687	188166	14	302678	185977	23	300368	186656	32	300272	188071
6	301808	188041	15	302558	185524	24	300246	186781	33	300397	188191
7	301905	187895	16	302224	185252	25	300149	186928	34	300543	188288
8	301976	187737	17	301821	185104	26	300078	187085	35	300703	188363
9	302018	187570	18	301387	185123	27	300037	187264	36	300857	188494

### Truro

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	183708	45434	10	184658	44104	19	183615	43144	28	181564	44230
2	183869	45116	11	184635	43926	20	183441	43162	29	181456	44624
3	184036	45064	12	184584	43761	21	183274	43214	30	181310	45098
4	184192	44980	13	184503	43609	22	183119	43298	31	181512	45491
5	184330	44874	14	184397	43468	23	182980	43404	32	181781	45847
6	184449	44747	15	184268	43351	24	182861	43531	33	182202	46019
7	184544	44609	16	184121	43257	25	182505	43534	34	182684	45988
8	184611	44440	17	183960	43186	26	182226	43691	35	183092	45904
9	184649	44271	18	183789	43148	27	181817	43897	36	183442	45712

### Tullich

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	338007	799469	10	340418	798375	19	337955	795962	28	335175	798454
2	338189	799444	11	340790	797880	20	337460	795647	29	335888	798811
3	338368	799396	12	340623	797415	21	336907	795577	30	336463	798991
4	338528	799305	13	340416	796962	22	335990	795068	31	336865	799085
5	338677	799203	14	339735	796905	23	335161	795148	32	337134	799148
6	338869	799122	15	339074	797081	24	334505	795581	33	337315	799245
7	339228	799105	16	338768	797019	25	333894	796137	34	337470	799343
8	339622	798977	17	338596	796676	26	334121	797079	35	337640	799418
9	340099	798747	18	338354	796157	27	334768	797893	36	337821	799471

### Tynewyd

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	293280	201331	10	294240	199264	19	293216	198284	28	291672	199318
2	293580	201013	11	294220	199086	20	293042	198299	29	291502	199622
3	293725	200543	12	294172	198920	21	292839	198259	30	291322	200027
4	293756	200142	13	294094	198766	22	292625	198274	31	291397	200392
5	293897	200039	14	293991	198624	23	292412	198345	32	291364	200916
6	294018	199914	15	293865	198504	24	292185	198439	33	291678	201221
7	294115	199767	16	293720	198407	25	292054	198631	34	292038	201458
8	294186	199610	17	293560	198332	26	291864	198813	35	292435	201638
9	294228	199442	18	293390	198291	27	291804	199059	36	292883	201562

### Waltham

#	NGR X	NGR Y									
1	480053	382561	19	537962	324245	37	481975	267502	55	425133	322360
2	485242	382518	20	537830	319287	38	477058	267089	56	424065	327316
3	490414	382023	21	537264	314374	39	472154	267605	57	423552	332431
4	495441	380742	22	536304	309505	40	467249	268314	58	424367	337441
5	500297	378983	23	534930	304737	41	462416	269508	59	425268	342507
6	504744	376352	24	533066	300133	42	457705	271175	60	426791	347466
7	508853	373339	25	530776	295998	43	453165	273304	61	428737	352283
8	513084	370722	26	528138	291777	44	448790	275784	62	431363	357027
9	517034	367711	27	525147	287804	45	444344	278301	63	434409	361242
10	520663	364329	28	522038	283909	46	440410	281560	64	437947	365063
11	523970	360662	29	518554	280318	47	436415	284866	65	441802	368555
12	527173	356906	30	514729	277078	48	432984	288768	66	445892	371763
13	529998	352841	31	510627	274180	49	429948	292720	67	450249	374599
14	532333	348230	32	506194	271813	50	427499	297300	68	454880	376975
15	534267	343653	33	501578	269847	51	425485	302061	69	459712	378903
16	535860	338945	34	496747	268526	52	424915	307286	70	464673	380436
17	534966	333699	35	491843	267642	53	424869	312447	71	469752	381498
18	537695	329201	36	486918	267108	54	424524	317407	72	474879	382254

### **Washford**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	305906	141942	10	308691	140891	19	305866	139707	28	302744	141000
2	306080	141917	11	307481	140623	20	305528	139101	29	303322	141434
3	306248	141869	12	306824	140579	21	304949	138500	30	304003	141666
4	306405	141799	13	306748	140425	22	304266	138257	31	304744	141630
5	306547	141697	14	306644	140282	23	303726	138467	32	305132	141600
6	306668	141572	15	306519	140162	24	303144	138723	33	305258	141720
7	306766	141426	16	306374	140065	25	302765	139220	34	305403	141818
8	307441	141469	17	306214	139990	26	302551	139802	35	305562	141882
9	308855	141411	18	306044	139948	27	302482	140404	36	305732	141923

### **Weisdale**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	438034	1155919	10	443305	1151400	19	438086	1150896	28	435652	1151317
2	438841	1155916	11	443325	1150475	20	438004	1150873	29	435157	1151825
3	439748	1156060	12	442467	1149797	21	437908	1150850	30	435065	1152403
4	440440	1155510	13	441885	1149200	22	437787	1150815	31	434980	1153082
5	441081	1154983	14	441068	1148890	23	437618	1150769	32	434999	1153873
6	441700	1154433	15	440355	1148693	24	437342	1150699	33	435517	1154323
7	442210	1153782	16	439534	1148884	25	436766	1150560	34	435778	1155228
8	442729	1153086	17	438236	1150931	26	436316	1150678	35	436306	1156057
9	443183	1152289	18	438162	1150908	27	435998	1150953	36	437172	1156188

### **Winter Hill**

#	NGR X	NGR Y									
1	366688	489530	19	443075	413881	37	365557	332675	55	330840	414461
2	373237	489098	20	443020	407172	38	358414	333010	56	332814	417348
3	379714	488108	21	442362	400457	39	351325	333988	57	334223	420043
4	385996	486304	22	441635	393675	40	344343	335577	58	335436	422630
5	391848	483408	23	439738	387105	41	337532	337808	59	336279	425256
6	397661	480709	24	437957	380393	42	330927	340601	60	331161	430736
7	403174	477504	25	435050	374074	43	324600	344001	61	330413	435076
8	407619	472803	26	431935	367767	44	318624	347982	62	330726	439266
9	411470	467760	27	427778	362089	45	313022	352175	63	331076	443924
10	416137	463857	28	422313	357566	46	307848	357101	64	333038	447645
11	420439	459234	29	416938	353128	47	303152	362457	65	318550	471725
12	425045	454962	30	411342	349263	48	298278	367744	66	320284	481021
13	429322	450202	31	405397	345637	49	294383	373782	67	325761	485581
14	432289	444625	32	399338	342186	50	282845	376412	68	333752	485192
15	434739	438790	33	392971	339310	51	276760	382709	69	340205	487251
16	437250	432891	34	386510	336420	52	328150	404320	70	346889	488304
17	439791	426848	35	379647	334720	53	327577	407701	71	353378	489869
18	442046	420503	36	372690	333086	54	328826	411209	72	360047	490273

**Woodcombe**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	295229	147833	10	297784	145702	19	295166	144753	28	294184	145775
2	295591	147793	11	297743	145246	20	294992	144768	29	294203	145941
3	295940	147685	12	297613	144815	21	294825	144816	30	294251	146107
4	296267	147534	13	297310	144465	22	294668	144897	31	294328	146261
5	296561	147317	14	296839	144308	23	294527	145000	32	294432	146404
6	297090	147273	15	296340	144318	24	294406	145125	33	294493	146614
7	297227	146870	16	295790	144651	25	294308	145271	34	294498	146992
8	297545	146552	17	295510	144802	26	294238	145429	35	294662	147278
9	297649	146127	18	295341	144761	27	294196	145596	36	294908	147540

**Ynysowen**

#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y	#	NGR X	NGR Y
1	308343	202214	10	309291	199215	19	308270	198232	28	306212	199271
2	308797	201838	11	309272	199038	20	308096	198247	29	305992	199676
3	309135	201432	12	309224	198872	21	307928	198294	30	305789	200192
4	309288	200895	13	309148	198717	22	307771	198375	31	305723	200771
5	309259	200350	14	309045	198574	23	307629	198478	32	305894	201313
6	309229	199995	15	308919	198454	24	307508	198602	33	306167	201853
7	309166	199718	16	308774	198357	25	307411	198749	34	306505	202448
8	309237	199561	17	308614	198282	26	307140	198843	35	307138	202570
9	309279	199393	18	308445	198240	27	306724	198984	36	307788	202402