

SHEETLINES

N^{os} 11 to 14



CCS

THE CHARLES CLOSE SOCIETY
for the Study of Ordnance Survey Maps

SHEETLINES numbers 11 to 14

Sheetlines 1 to 6 were first issued in 1984 and 1985 under the editorship of Richard Dean. For this reissue the original pagination has been retained so as to facilitate bibliographic citation, and continuous pagination has been added at the top outside corners of each page in order to facilitate easy finding using the contents lists below, though the original pagination is also given in brackets, so that (12,2) indicates *Sheetlines* 12, page 3, e.g. Except for a few corrections of misprints the text has been left unaltered, notwithstanding that some of the material has been replaced by more recent research, some of the queries have been answered, and all the meetings have long since taken place. The unevenness of the appearance is due to variations in the original artwork. The references at some points in the text to ephemera being given away or to other enclosures are not applicable to this collected reissue of *Sheetlines*.

Sheetlines no.11 (December 1984)

Preliminary note	1
Richard Oliver: The Ordnance Survey of Ireland: some recent experiences	(11,2) 1
Tim Nicholson: Lies, damned lies and imprints: some tourist and district map anomalies 1919-40	(11,9) 8
Peter Chasseaud: Artillery Training Maps of the U.K. 1914-18 Part II: The 1:20,000 Series (GS GS 2748)	(11,12) 10
Guy Messenger: Early One inch District Maps in black outline with roads coloured	(11,15) 18
Notes and Queries	(11,17) 19
Puzzle Corner	(11,19) 20

Sheetlines no.12 (April 1985)

Tim Nicholson: Tourist and One inch District Maps first issued 1913-1938: an introduction	(12,2) 22
Richard Oliver: New light on the New Series	(12,7) 27
Review: 1985 Ordnance Survey Motoring Atlas of Great Britain	(12,12) 33
Notes and Queries	(12,13) 34
Puzzle Corner	(12,15) 36

Sheetlines no.13 (August 1985)

Tim Nicholson: OS map marketing ephemera before 1918	(13,1) 37
Michael Broome: One inch Seventh Series maps: a preliminary listing of cover designs	(13,7) 43
Richard Oliver: British-produced 1:63,360 mapping in Ireland, 1922-1985	(13,11) 47
Notes on the CCS visit to the RCHM Archaeology Branch, Southampton, 15 June 1985	(13,19) 55
Notes and Queries (including road atlases; Lake District tourist map; repairs to maps)	(13,21) 57
Puzzle corner	(13,24) 60

(Continued inside back cover)

(Continued from inside front cover)

Sheetlines no.14 (December 1985)

John Cruickshank: The Four Mile map before the First World War	(14,2) 62
Tim Nicholson: Ordnance Survey maps on Place's waterproof paper: some notes	(14,10) 70
Puzzle Corner	(14,13) 73
Report on the Manchester meeting, 28 September 1985:	
Alan Godfrey: The Ordnance Survey large-scale plans: a vanishing heritage	(14,14) 74
John Manterfield: The Old Series one-inch maps	(14,15) 75
Chris Board: The Modern 'Town Maps' of the Ordnance Survey	(14,15) 75
Report on the Edinburgh meeting, 9 November 1985	(14,16) 76
Notes and Queries (including OSNI 1-inch 3rd Series; Grid-lines and the Kilworth map; OS leaflets; Repairs to maps; 1:50,000 integral covers)	(14,16) 76

Copyright of signed or pseudonymous contributions belongs to the respective authors; copyright of unsigned matter belongs to the Charles Close Society.

Copyright (c) Charles Close Society and authors 1984, 1985

Published by the Charles Close Society for the Study of Ordnance Survey Maps, c/o British Library, Map Library, Great Russell St, London, WC1, 1991

S H E E T L I N E S

Number 11

A u g u s t 1 9 8 4

Preliminary note

Sheetlines no. 11 was originally published in December 1984, and was typed with one-and-a-half spacing on an electric typewriter. The original typescript has proved unsuitable for further reproduction, and this issue has been retyped on a personal computer, using single spacing. Because of this, the page layout differs from that originally adopted, and in order to assimilate this with the original pagination, the original page numbers have been added at the appropriate points. *All citations of page numbers should follow the original pagination.*

A number of minor corrections have been made to the original text, a postscript has been added to Peter Chasseaud's article, and a few ephemeral announcements have been omitted. I am grateful to Peter Chasseaud and Tim Nicholson for assistance with the proof-checking; any residual misprints and mis-spellings remain my responsibility. The reconstitution work has been carried out using the facilities of the Department of Geography, University of Exeter.

Richard Oliver
June 1991

- 2 -

The Ordnance Survey of Ireland: some recent experiences

by Richard Oliver

I have recently paid two visits to Ireland, in April and September 1984, for mixed reasons of study and pleasure. This seems as good an opportunity as any both to give information about the Ordnance Survey of Ireland (OSI) establishment at Phoenix Park, Dublin, to supplement Mike Miller's note in *Sheetlines* no.5, and to give some personal opinions and feelings about OSI's smaller-scale maps, which are not necessarily shared by anyone in Ireland or in the Charles Close Society.

The main purpose of my first visit to Ireland was to explore the thorny question of how the Ordnance Survey determined the survey dates given in the footnotes to its nineteenth century maps. This is a large subject, to be dealt with properly on some future occasion, but it might be of interest to mention some of the documents which I worked on. These are stored in 'the fireproof', the store created by Colby in which to keep the field documents and other manuscript records of the original Townland Survey, and where many of them survive, in a generally good state of preservation. My first reaction, prior to arriving in Dublin, was to wonder why these documents were not in some avowedly 'public' archive. The main reason is that the name books - largely the work of John O'Donovan - and the Six-inch (1:10,560) manuscript 'fair' plans, from which the published maps were engraved, are in daily use, both for orthography on the new large-scale mapping, and for the Irish Place Names Commission, which latter is charged with finding an authentic Irish version of every place name.

Though my intentions were historical, nonetheless I was able to have a look at OSI's present-day work. There can be no doubt that, though in terms of quantity it is a smaller organisation, in terms of quality OSI has little to fear from comparison with the Ordnance Survey of Great Britain (OSGB). It is most unfortunate that the OSI maps best known in Great Britain - the Half-inch (1:126,720) and the remaining coloured One-inch (1:63,360) sheets - are by no means representative of the best that OSI can do, and is doing.

In the course of a short tour of Phoenix Park, the first office which I was taken to was in many ways the most remarkable. It contained a stereoplotter (the thing you use to turn air photos into maps) connected up to digitising equipment. I was told that this was ahead of anything then achieved by OSGB. Apart from work for the basic scales of 1:2500 and 1:1000 (Colby's Five-foot (1:1056) casts a longer shadow than James' 1:500) OSI does a good deal of 'contract' (i.e. repayment) work, both for private firms and for local authorities. On this occasion the stereoplotter was working on a set of photos in connexion with a road improvement scheme.

- 3 -

The processes of scribing detail and photo-typesetting of names are the same as those used by OSGB, and everyone else. (One or two people spoke wistfully of Whatman's paper, nonetheless!) OSI seems to employ very few women on 'men's' jobs; there were a couple on scribing work, but the only others that I saw were typists and the like. Much more conspicuous at Phoenix Park is the military element: at present there are about 50 soldiers on mapping work. I gathered that this is larger than usual, because of a government 'freeze' on civil service recruitment. The military were particularly well represented in the typing room, where both lettering and ornament are added to the large scale plans. The gentleman in charge told me that mechanically-produced hachures for embankments, etc, had been tried in the past, but that they had been found unsatisfactory, and so hand-drawing had been reverted to. Aesthetically, the results are undeniably superior to those we are accustomed to on OSGB larger-scale plans. Like so much else in Ireland (for example the railway trains), the style of these 1:1000 and 1:2500 plans is very obviously in a 'British' design tradition, yet the result is distinctly different from anything produced by OSGB.

The photographic room contains a large German camera, which cost £70,000 seven years ago, which is mainly used for rectifying 1:2500 county series plans prior to their being recast on Irish National Grid sheetlines and revised in the field. (The originals of these county sheets are ordinary printed copies on paper, and thus subject to distortion.) [The procedure is in fact similar to that used by OSGB for its 'overhauled' 1:2500.]

OSI is very much concerned with digitising its large scales, and it appears that a good deal of this is done as the field revision comes in. I was told that a certain skill was needed, in order to identify buildings, fields, streams, boundaries, etc., each of which is digitised separately. A further problem is the paper distortion of the original changing during a digitising session. One draftsman said that the job was very tedious: half an hour at a time was as much as one could stand!

No work was going on when I visited the printing room, though there were several piles of partly-printed Half-inch sheets. Although the Half-inch and One-inch district sheets are still printed in about eight colours, OSI is well versed in four-colour process printing, and its results are fully equal to OSGB's, with the added advantage that OSI eschews the 'punk' colours now

favoured by OSGB. One of the more accessible examples of such work is the new all-Ireland 1:250,000.

It will be gathered, correctly, that OSI's main effort is directed towards the large scales. I asked how things stood with the long-projected 1:50,000

- 4 -

(now complete for Northern Ireland), and was told that this was always 'next year', and that all planning energies go into the large scales. For reasons given below, I have doubts as to whether a 1:50,000 need be a particularly high priority for OSI. The only 1:50,000 sheet produced so far is The Wicklow Way, described below.

The smaller-scale OSI maps currently available can be summarised as follows:

1:575,000: a one-sheet map of all Ireland [not gridded]. A useful 'route-planning' map and one much favoured by tourists, even cyclists, though it by no means shows all unnumbered roads.

1:250,000: all Ireland covered in four sheets, recently redrawn. It is distinctly more modern-looking than OSGB's 1:250,000 Sixth Series. Railway information is more satisfactory than on the Half-inch (see below). My main criticism is that it exhibits the common fault of drawing the minor roads too broadly, thereby creating an illusion of over-generalisation and coarseness.

1:126,720, (Half-inch): the Irish topographical map. All sheets are in print except sheet 5, which is the only one not to cover some part of the Irish Republic. I have left detailed consideration of these maps till last.

1:63,360 (one-inch):

(1) Black Outline Edition. Of the original 205 sheets, 179 remain in print: 1-6, 9-12, 15-17, 22-25, 30-32, 39-44, 46, 51-58 and 62-205. As far as I can make out, sheets 1-31, 57, 58, 70, 71/72, 125 and 127-205 are of the Third Edition, revised in 1908-14 and the remainder are of the *de facto* second edition, revised in 1898-1901. These maps do not seem to have been revised further since 1914. Their main advantage over the Half-inch is that they offer more space for annotation. As explained below, there seems to me to be much less need for a One-inch or 1:50,000 in Ireland than there is in Great Britain, and this map is probably of little more than academic interest. Until about twenty years ago these maps were printed direct from copper, but now they are printed photo-lithographically: I was told at Phoenix Park that negatives were obtained by rubbing soot into the work on the coppers and photographing the results. The printing quality of the sheets which I have seen is very variable: this may reflect copper-plate wear rather than any inherent fault in the subsequent processes. It would be interesting to hear from anyone who has used these sheets in the field recently.

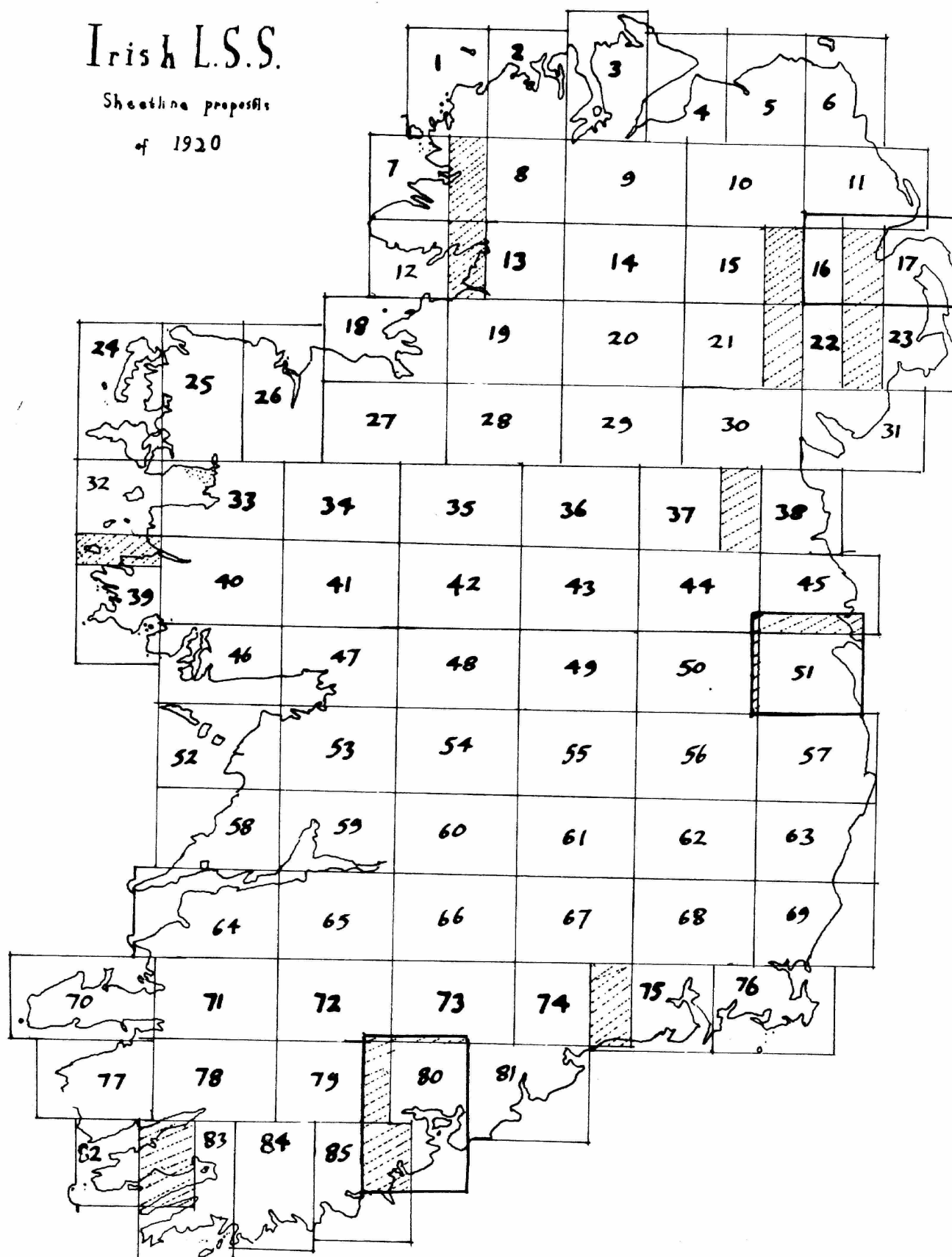
The One-inch 'fully-coloured', originally published in 1902-6, was reprinted as need arose until the 1950s, but has long been out of print. It seems to me to be wholly useless as a road map, and inferior in quality to the Black

- 5 -

Outline as a walking map. [With a couple of exceptions, it is hachured but not contoured.] Between 1906 and 1922 it was policy to replace this map with

Irish L.S.S.

Sheetline proposals
of 1920



an Irish One-inch Large Sheet Series (LSS), in about 85 sheets (see index diagram), but only three such sheets were published, all in 1918, in a modified 'Killarney' style: 16/17 Belfast (later republished in 1937 as Ordnance Survey of Northern Ireland (OSNI) Popular Edition sheet 7), 51 Dublin and 80 Cork.

(2) Of more practical interest are the four District sheets, the derivation of each of which is given below. All are layered, with contours at 50 and 100 ft OD and thence at 100 ft VI to 1000 ft OD and thence at 250 ft VI. The colour-scheme is similar to that of the Half-inch, but with the addition of green for woods. In the early 1960s the sheetlines were adjusted to coincide with the 1 km lines of the Irish grid.

Dublin: nearly co-extensive with the fully coloured special sheet of 1904 and with LSS 51. Of the four District sheets, this has been most subject to redrawing and relettering, and as far as I can judge appears to be in a satisfactory state of revision.

Wicklow: co-extensive with an outline-and-coloured-roads district sheet published in 1903, republished in full colour in 1948. [It is not co-extensive with proposed LSS sheet 57.] This overlaps with the Dublin sheet, and the Bray area on my 1977 printing of the Wicklow sheet is in a much less forward state of revision than it is on the 1978 printing of the Dublin sheet.

Cork: co-extensive with a landscape-shaped outline-and-roads-coloured district sheet of 1902, rather than with the portrait-shaped LSS 80. The suburbs of Cork have been revised and redrawn and my impression is that this sheet is in a satisfactory state of revision.

Killarney: successor by area and title, though not by style, to the famous 1913 map. There has been a good deal of discreet renewal of lettering, but the revision has been patchy: no suburbs in Killarney, and no footpaths in the woods by Torc Cascade.

1:50,000: alias The Wicklow Way. There is very little use of colour: this map is black outline with a green land-tint, and with the path itself in deep red. Woods are in plain green, without tree symbols, and contours are in grey. For pedestrians decidedly, though I would stick with the One-inch District map myself.

1:25,000: the only sheet produced so far by OSI is one of the Glen of Imaal artillery ranges. Colours are similar to the Half-inch and One-inch District maps, but there are 10 metre VI contours in brown instead of layers. The result is admirable, and would be worth extending in certain areas, notably around Killarney and Wicklow.

- 7 -

Though it is strictly outside the definition of small-scale maps, it is worth mentioning that there is a very fine 1:20,000 street-map of Dublin, available in both sheet and atlas formats, with a gazetteer. In one respect only does this fail to be greatly superior to the OSGB *ABC London*, and that is that the gazetteer gives the grid reference, but not the atlas page number. [There is also a 1:15,000 map of Cork, and maps at similar scales of Limerick, Athlone and a number of other towns.]

The Half-inch is the Irish topographical map. It was first published between 1911 and 1918, after the Half-inch of Great Britain had been completed, and was able to benefit from a decade's experience of the scale and

its users, (see *Sheetlines* no.9). It was based on the latest available revision for the component One-inch sheets (i.e. a mix of the 1898-1901 and 1908-14 revisions) and was laid out so that each Half-inch sheet grouped nine standard small or four projected large One-inch sheets. It was engraved on (though never directly printed from) copper, enabling fine linework (see for example Wexford on sheet 23, which is so clear as almost to be a substitute for a street map), and more elegant lettering. It was originally published in both layered and hill-shaded versions, but the latter [still being printed in the late 1940s] has long been out of print. The layer system is essentially that introduced by Sir Charles Close for the OSGB Half-inch, but a notable difference is that contours are at 100 ft VI throughout, whereas the old OSGB Half-inch and the OSI One-inch series all use 250 ft VI above 1000 feet OD. The change from green to brown is at 200 ft OD.

The Half-inch as printed at present is a modification of the original, but not drastically so. No general revision date is given, but only those applicable to roads and railways. It is safe to say that in some areas there has been no revision at all since initial publication: but those are areas of little change. On the other hand, there has been extensive revision around Dublin and Cork, and a considerable quantity of small alterations elsewhere, e.g. additions and deletions of rural schools and of antiquities, and of youth hostels. There has been comparatively little urbanisation in Ireland since 1914, and so the lack of revision on the edges of towns is nowhere near as troublesome as it would be in Britain. There are some strange errors and omissions: sheet 23 omits the ferry at Passage East, which saves a detour inland of some 30 miles, and on sheet 25 the youth hostel at Kinsale is shown 600 metres NW of its true position. (Never believe anyone who says that you can't give a 100 km grid reference on a Half-inch map!) Nearly all principal placenames appear with equal prominence in both Irish and English, which has involved replacing engraved work with phototypeset Times Roman.

As regards road revision, the maps are in an excellent state. All those yellow roads really are tarred: apparently Ireland has the highest mileage of public roads per head of population of any European country. The Irish road numbering system is in process of change, and on the Half-inch the classific-

- 8 -

ations used at present are: National primary and secondary (solid and pecked dark green), Trunk and Link (solid and pecked red), '3rd class' (yellow), tracks and footpaths. OSI is more generous with colour-filling rural dead-end roads than is OSGB, which is a great help when you are navigating by counting crossroads, as must any solitary cyclist or motorist. A Half-inch with good road-altitude information is the best map for cycle-touring: the OSI Half-inch falls short of this in one respect, as there are no spot-heights along roads, which is a nuisance in undulating country.

Railway revision is more problematic. I suspect that it applies to routes, rather than to specific information to aid potential travellers. Thus there is no red infilling of stations (as there is on the new 1:250,000), and of the 19-odd stations between Dublin and Cork which appear on my copies of the Half-inch only about eleven are open for passenger traffic. One improvement would be to introduce red infill for passenger stations (easily checked by reference to a current railway timetable) and the annotation 'Goods Line' where appropriate.

Though it is an excellent cycling map, in Ireland the Half-inch serves also as a walking map. In sharp contrast to much of Britain, Ireland has very few rural footpaths and tracks, and it is partly for this reason that I believe

that OSI would do much better to concentrate its resources, for the present anyway, on replacing the Half-inch with a 1:100,000 on similar sheetlines, rather than to complete the 1:50,000 for the whole of Ireland. I did two walks with the Half-inch, near Wexford and near Dingle, and found it quite serviceable, partly precisely because of the lack of footpaths, etc.

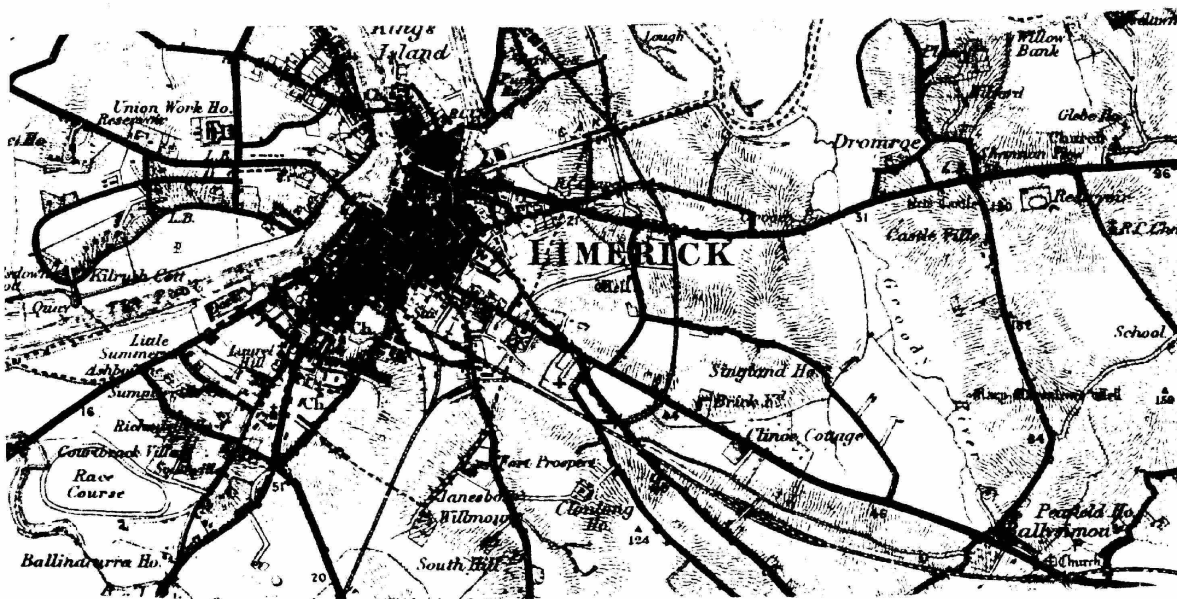
The printing quality of the OSI Half-inch is somewhat variable, both in quality and in the actual colours used. Whereas thirty or forty years ago the quality was at best poor, today it varies from just about satisfactory (sheet 14, 1978, where the brown layers above 80 ft are a fearful mess) to superb, (sheet 16, also 1978: the black plate on this sheet has evidently received special attention), and on average better than the OSNI One-inch Third Series, (where the black plates were often very rough). The choice of tints for the layer plates may depend on the area covered by the map: the 1978 sheet 16 is mellow and soft, the 1981 sheet 20 (which includes Ireland's highest mountains), vigorous and dramatic, and much 'browner'.

Taking all in all, I consider the present OSI Half-inch as equal to the OSGB Half-inch Second Series, but not so good as the OSNI Half-inch Second Series, which is not perfect, but which scores not least for its greater number of spot-heights, and woodland depiction.

- 9 -

(OSI's Half-inch does not colour its woods; OSGB omits tree symbols.)

A few final words about the availability and presentation of OSI small-scale maps. Stanfords' in London carry nearly all of them except for the Black Outline One-inch, which can only be obtained direct from Phoenix Park. Unlike OSGB, which uses either hinged or integral covers and a normal Bender fold, OSI gums its covers direct to the back of the maps, which necessitates using the cumbersome and awkward semi-Bender fold, which is bad enough on the Half-inch and nearly intolerable on the new 1:250,000 or the 1:15,000 street plan of Cork. On the other hand, the paper on which the maps are printed seems harder wearing and more resistant to wetting than that favoured by OSGB. Were OSI to adopt the cross-Bender fold, as used by OSGB on some of its Tourist maps, and by Bartholemews in the last years of their Half-inch, then it would have a marked edge over OSGB.



Extract from 1:63,360 Ireland sheet 143, (in colour), revised 1899, published 1901, railways revised to August 1913, reprint 4.20; by courtesy of the Department of Geography, University of Exeter.

**Lies, damned lies and imprints:¹
some tourist and district map anomalies 1919-40**

by Tim Nicholson

As records of the printing history of Tourist and District Maps, the imprints at their bottom corners can be incomplete, inconsistent, misleading, or just plain odd. Some anomalies are easy to explain: others seem impenetrable. In the first category are revision dates or even first publication dates² known to be earlier than the actual publication date of the map. These appear on (for instance) early states of the Tourist Maps for Land's End and Invergordon and Loch Ness, and on the District Maps of Weston Super Mare and Leeds. The imprint on Land's End says 1919; the actual date was 1921. Invergordon's revision dates are given as 1926-7 for a map that says that it was published in 1933. The Weston Super Mare map's imprint has a publication date of 1918-19: in fact it was 1929. Finally, Leeds bears a first publication date of 1925 when actually it was published in 1930. Clearly, these imprint details refer to the history of the 'parent' Popular Edition map, or maps.³ The 'give-away' is frequently the date on the magnetic deviation diagram, which will be nearer (or the same as) the true publication date.

Two different printing dates for the same map can appear on different states of that map. Thus the Isle of Wight Tourist Map, where we have a choice of 1919 and 1921. Here, '1919' refers to the parent Popular Edition sheet 142, and '1921' to the date of the Tourist Map. Oddly, the 1919 date appears on a reprint, after the Tourist Map was established; not on its first state, where it might be thought more likely.

- 10 -

Another easily explained anomaly is the first printing date as given on the map that is a year earlier than the first known publication date. So long as the delay is not more than a year, one may guess at the reason: a map may be printed late one year, but not published until early the next. Later maps, such as Invergordon and Loch Ness, dropped the 'first printed' convention, with results that could be confusing: it was actually published in 1934, not 1933 as it says. The earlier maps, with their 'first printed' form of words, have in this a built-in explanation of discrepancies.

A last 'transparent' anomaly is the imprint that appears to ignore first publication dates and subsequent revision dates, in favour of a later publication date. One says 'appears' advisedly, because in these cases a glance at the map provides the explanation: major style changes have justified the implication that this is a new product. The Lake District Tourist Map was first printed (and published) in 1920, with relief in the form of hachuring, hillshading and layering. Reissued in 1925 in a totally different style, with layering only, it bore only a 1925 publication date.⁴

This brings us to the other category of anomalies, those with no apparent explanation, for in the case of some disappearing dates, there is no obvious answer to the mystery. The Aldershot (North) District Map published in 1919 bore that date only; there was no reference to its virtually identical predecessor of 1914. One can only guess at the reason, which may be that the 1914 map was experimental, with no mention on it of the Popular Edition, a concept that was not then in existence. The Dartmoor Tourist Map that says that it was 'published 1928' differs in no significant way from the same map published in 1922, carrying the same revision dates of 1912-13: yet there is no mention of the 1922 date. The first printing of the 1923 Middle Thames

Tourist Map bears its correct original publication date of 1923 in the imprint: in many later printings, the earliest date in the imprint is 1926. This gives rise to a curious state of affairs, in which a map that says it is first printed or published in 1926 carries a magnetic deviation date of 1923.

Sometimes, it is merely an intermediate printing that is omitted from an imprint. For instance, the 1930 reprint of the Exmoor Tourist Map lists a 1926 reprint, but not that of 1927; while the 1932 reprint of the Sidmouth, Budleigh Salterton and Exmouth District Map ignores a 1928 reprint.

Another kind of 'mystery' anomaly gives us too many dates, rather than too few. Different states of the 'Second Edition' of the Trossachs and Loch Lomond Tourist Map offer different dates for its first publication, 1929 and 1930 (the official publication date). The original state has the 1930 date:

- 11 -

the other appears in a reprint. The reason for the discrepancy is a mystery.⁵

A final, minor anomaly that is hard to explain is the delay of more than a year between a first printing date on a map and its actual publication date, in cases where there is no question of the first reference being to a 'parent' Popular Edition map. It is understandable if printing took place late one year and publication early the next: but how does one explain a two-year delay, as suggested in the imprint of the Rothesay and Firth of Clyde Tourist Map, 'printed 1920', but published in 1922? Many early Tourist Maps, of which this is one,, were based not on the Popular Edition but on Third Edition (or even earlier) material, published before the First World War.

Perhaps there is a single solution to all these apparently mysterious anomalies: human error. But if the answers are more interesting and unlikely than this, the writer hopes that readers will tell *Sheetlines* what they are; or at least hazard some guesses. And the examples quoted are only some of many, encountered in a limited study of the Tourist and District Maps of only one period. Surely such cases occur in other OS series, and at other times?

Notes

¹ With apologies to Benjamin Disraeli.

² On the earlier maps it was usual to give a printing date instead. This was generally, but not invariably, the publication date also.

³ As ascertained in Supplements to the Catalogue, Publication Reports, Annual Reports, etc. The Lands End Tourist Map, and also that of the Isle of Wight (q.v.) were in fact Popular Edition sheets 146 and 142 respectively, with Tourist Map information added. The Norfolk Broads Tourist Map of 1936 was the 1932 Norfolk Broads District Map, with Tourist Map information added.

⁴ But this did not always happen. When, in 1936, the Snowdon Tourist Map was offered with hachuring and hillshading instead of layering, the publication date of the layered map - 1925 - was retained. Incidentally, when in the latter year layering had replaced the hachured, hillshaded and layered style of the original Tourist Map of 1920, the publication date had changed to 1925. Consistency was not an OS virtue.

⁵ The legend 'Second Edition', which appears on the cover, not the sheet, seems to be peculiar to this map. It presumably refers to the fact that from 1930 (or 1929) the Trossachs and Loch Lomond Tourist Map was based on the Scottish Popular Edition, with layering, rather than (as hitherto) on the Third Edition, with hachuring and hillshading as well.

- 12 -

Artillery Training Maps of the U.K. 1914-18
Part II: The 1:20,000 Series (GSGS 2748)

by Peter Chasseaud

As promised in Part 1 (see *Sheetlines* no.10), this second part of the article consists of a listing of the 1:20,000 sheets in the British Library Map Library (Maps 150 d.14, 2 vols), together with comments. The intention is to build this into a much more complete listing of the various sheets, editions and states. One of the more common differences between sheets with the same name, apart from O.S. print date, will probably turn out to be the variations in the printing of the 'system of squaring', here shortened into 'grid'. As the method of reproducing this for the maps of the Western Front changed, so too did the method used on the Artillery Training Maps for home consumption. The basic forms used, with the abbreviation used in my listing in brackets, are as follows:

- (R) Red grid lines, letters and numbers. Used from 1914 until mid-1915.
- (R/B) Red letters and numbers, but black lines. Mid to late 1915.
- (G/B) Grey letters and numbers, but black lines. Late 1915 to mid 1916.
- (B) Black letters, numbers and grid lines. Mid 1916 - end 1918.
- (G) Grey letters, numbers and grid lines - on a grey base-map.

Contours are in brown, interpolated, at 5-metre vertical interval unless otherwise stated.

Dimensions are standard 80 x 50 cm unless otherwise stated. Maps are paper flat unless otherwise stated; (linen) means linen-backed. Occasionally they were designated GSGS 2742 by mistake. Where this occurred it is noted. Likewise, sheets were occasionally designated GSGS 2748a, the 'a' suffix being originally used for Western Front maps to denote the red 'squaring' plate. These sheets again are noted.

Information in brackets is not part of the sheet name unless it follows directly on.

(Title) means that the sheet name and title 'Artillery Training Map' is printed on the reverse.

Also included in the listing are sheets mentioned in the GSGS Catalogues, including manuscript additions to the catalogue, which are denoted MS. These GSGS entries do not include dates or other details unless stated.

- 13 -

Name	O.S. Date	Grid	First Printed Before	Notes
Aberlady	Feb 18	B		
Aldbrough (E.Coast)	1916	G/B	In prep. Feb 16	
Aldershot (all black)	Dec 17	B	10 Aug 15	
Aldershot	Dec 17	B		
Alton (MS)			After 1 May 18	
Amport (Andover)	Oct 17	B		
Ardingly (Sussex)	Mar 17	B		
Ashford (Kent - GSGS 2742)	1915	B	10 Aug 15	
Athlone (GSGS 2742)	Jan 17	B	10 Aug 15	
Athlone N.			1 May 18	
Athlone S.			1 May 18	
Aylesbury	1915	R	10 Aug 15	
Ballincollog	1916	R/B	10 Aug 15	
Basingstoke	1915	R	10 Aug 15	
Báth	Mar 18	B		
Beaulieu	1916	B		
Bedford	1915	R	10 Aug 15	
Bedford No.2 (south)	1915	R/B		
Berkhampstead	1916	G/B	10 Aug 15	
Beverley	1916	B		
Billericay	1915	G/B		
Bishop's Stortford	1915	R	10 Aug 15	
Blyth	1916	G/B	In prep Feb 16	
Bognor (MS - no contours)			After 1 May 18	
Bordon	Jul 18	B	10 Aug 15	
Braintree	1915	R/B		
Bramham Moor (Tadcaster)	1916	B		
Brighton (west - GSGS 2742)	1914	R		
Broughton (Salisbury Plain)	Oct 17	B		
Broughty Ferry (Firth of Tay)	Jan 18	B		
Bury St. Edmunds	1915		10 Aug 15	
Caher (Ireland)	1915	R	10 Aug 15	
Calshot (Solent)	Jan 17	B		
Cambridge (south)	1915	R	10 Aug 15	
Cannock Chase	Dec 17	B	10 Aug 15	
Canterbury	1915	R	10 Aug 15	
Castle Bromwich	Jan 18	B	1 Jan 17	
Chelmsford	Jan 18	B	10 Aug 15	
Chiddingfold (Haslemere)	1915	R	10 Aug 15	
Chitterne	1916	G	Also 1916	*
* Grey base with brown contours. Trenches overprinted in red and blue. On linen. Typed names.				
Chitterne (North)	Nov 17	B		*
* Typed names. Instrumental contours within hatched area. Shows datum points, Trig. Points (picket and iron socket, as on Western Front). Trenches overprinted in red and blue. Observation posts also shown.				
Chitterne (GSGS 3344) Composite	1916			
Christchurch	1915	R	10 Aug 15	
Clipstone (Mansfield)	1915	R	10 Aug 15	
Colchester (north)	1916	G/B	10 Aug 15	
Coton (Cambridge)	Sep 17	B		
Cowes	1916	G/B	10 Aug 15	

Name	O.S. Date	Grid	First Printed Before	Notes
Craigton	Oct 17	B		
Crowborough (Sussex)	Jan 18	B	10 Aug 15	
Crowborough (MS - with Lambert grid)	1916	B	After 1 May 18	
Croydon	1916	B		
Deal	Jun 17	B	10 Aug 15	
Deepcut (Woking - all black)	Mar 18	B	10 Aug 15	
Deepcut ditto	Mar 18	B		
Deepcut (MS - with Lambert grid)			After 1 May 18	
Devonport (MS - with French squaring)	Oct 17	B	10 Aug 15	
Doncaster	Oct 17	B	10 Aug 15	
Dorking	May 17	B	10 Aug 15	
Dover	1916	B		
Downham Market	May 18	B	Feb 16	
Dublin North (O.S. Dublin)	Aug 17	B		
Dublin South (O.S. Dublin)	Sep 17	B		
Dundalk	1915	R	10 Aug 15	
Dunfermline	Nov 17	B	10 Aug 15	
East Grinstead	1915	R	10 Aug 15	
Eden Mouth (St Andrews)	Feb 18	B		
Edinburgh	1915	R	10 Aug 15	
Edinburgh	Nov 17	B	10 Aug 15	
Edinburgh (MS - with Lambert grid)			After 1 May 18	
Ell Barrow	May 18	B		*
* 100 x 50 cm. Completely redrawn in Western Front (GSGS) style. Water in blue. Instrumental contours within hatched area.				
Ell Barrow (Chapperton Down)				
	? Provn		1 May 18	
Ellisfield (MS)			After 1 May 18	
Elstree (contours and grid only)	Jan 18	B	1 Jan 17	
Exeter	Apr 18	B	10 Aug 15	
Falmer (Brighton - Lewes)	1915	R	10 Aug 15	
Farnham (MS)			After 1 May 18	
Feltwell (Little Ouse R. - all black)	Jul 18	B		
Fermoy	Mar 17	B	10 Aug 15	
Filton (north Bristol)	1916	B		
Fovant	1915	R/B		
Framlingham (GSGS 2748a)	1915	R/B		
Freshwater	Jan 18	B		
Gerrard's Cross	1916	G/B		
Glasgow	May 17	B	10 Aug 15	
Glen Imaal (Glen of Imaal)	1915	R	10 Aug 15	
Glen Imaal (MS - with Lambert grid)			After 1 May 18	
Gosport	1916	B		
Grantham (linen)	Dec 17	B	10 Aug 15	
Grantham (MS - with French grid)			After 1 May 18	
Great Grimsby	Mar 18	B	12 Jun 16	
Guildford (MS)			After 1 May 18	

Name	O.S. Date	Grid	First Printed Before	Notes
Haddington	Jun 18	B		
Hadford (MS - with Lambert grid)			After 1 May 18	
Hampstead Heath	Jul 18	B		
Hampstead Heath (MS - contours and grid only)			After 1 May 18	
Harlaxton (linen and title)	1916	B		
Harlaxton (MS - with Lambert grid)			After 1 May 18	
Harling Road (all black)	Jul 18	B		
Harrogate	1916	B		
Hastings	Dec 17	B	Feb 16	
Heytesbury (Salisbury Plain)	1916	B	10 Aug 15	
High Wycombe	Nov 17	B	10 Aug 15	
Hilsea	May 17	B	10 Aug 15	
Horsham	Jun 18	B	Feb 16	
Hounslow	Apr 18	B	1 Jan 17	
Hucknall Torkard (all black)	Jun 18	B		
Hull	1915	R	10 Aug 15	
Inchkeith (Firth of Forth)	Jan 18	B		
Ipswich	1915	G/B	10 Aug 15	
The Isle of Sheppey	May 17	B	10 Aug 15	
Jarrow (GSGS 2748a)	1915	R/B		
Kettering	1915	R	10 Aug 15	
Kildare	Feb 17	B	10 Aug 15	
Kilkenny	1915	R	10 Aug 15	
Kilmarnock	Mar 18	B		
Kilmarnock (MS with Lambert grid)			After 1 May 18	
Kirkcaldy	Feb 18	B		
Larbert (Falkirk)	1915	R	10 Aug 15	
Leamington	1915	R	10 Aug 15	
Leeds (north)	Jan 18	B	10 Aug 15	
Leeds 2 (City and south)	1916	G/B	In prep Feb 16	
Leigh (Essex)	Nov 17	B	12 Jun 16	
Leighton Buzzard	1915	R	10 Aug 15	
Lewes	May 18	B	10 Aug 15	
Lilbourne (Rugby)	1916	B		
Liss	1915	G/B	10 Aug 15	
Little Walsingham	1916	R/B	Feb 16	
London Colney	1916	B		
Longparish (Salisbury Plain)	Oct 17	B		
Luton	1916	G/B	10 Aug 15	
Lydd (linen)	Apr 18	B	10 Aug 15	
Maldon (GSGS 2748a)	1915	R/B		
Marlborough	1916			
Middleham	Sep 18	B		*
* Overprinted in red: 'Quadrillage Kilometrique Systeme Lambert' with Lambert grid north and instructions as to use.				
Monkton Deverill	1915	R/B		
Montrose	1916	B		
Musselburgh	Jun 17	B	10 Aug 15	

Name	O.S. Date	Grid	First Printed Before	Notes
Narborough (Swaffham)	1916	B		
Newark	Nov 17	B	10 Aug 15	
Newcastle	1915	R	10 Aug 15	
Newmarket	Jan 18	B		
Newstead Abbey	Oct 17	B		
Newton Ferrers	Apr 17	B		
Noak Hill	Aug 17	B		
Noak Hill (MS - with French grid)			After 1 May 18	
Northampton	1915	R	10 Aug 15	
North Bradley (linen)	Oct 17	B		
Norwich (GSGS 2742)	1915	G/B	10 Aug 15	
Okehampton	1915	R	10 Aug 15	
Oswestry	Mar 18	B	10 Aug 15	
Oxford	Dec 17	B	Feb 16	
Parkhurst (linen)	Mar 18	B		
Pembrey (all black)	Nov 17	B	10 Aug 15	
Ponteland (Stamfordham)	1916	G/B	In prep Feb 16	
Prees Heath (Salop)	Jul 17	B	10 Aug 15	
Preston (Lancashire)	Sep 17	B	10 Aug 15	
Preston Candover (Salisbury Plain)	Oct 17	B		
Queenstown Fortress (2" to 1 mile)			10 Aug 15	
Redesdale	1915	R	10 Aug 15	
Reepham	1916	R/B	Feb 16	
Rendcomb (Salisbury Plain)	Nov 17	B	1 Jan 17	
Richmond (Yorks)	Nov 17	B	10 Aug 15	
Ripon	May 17	B	10 Aug 15	
Ropley (Salisbury Plain)	Oct 17	B		
Ropley (all black)	Oct 17	B		
St Albans	1916	G/B	10 Aug 15	
St Asaph	Jan 18	B		
Salisbury				
Salisbury Plain (59 cm deep)	Jan 18	B	10 Aug 15	
Salisbury Plain No. 2	Jun 17	B		*
* Not in British Library Map Library.				
Salisbury Plain No. 2	Jan 18	B		
- 14 -				
Saxmundham	1915			
Scampton (Saxilby)	1916	B		
Sedgeford (The Wash)	Nov 17	B	1 Jan 17	
Sevenoaks	1915	B	10 Aug 15	
Sheffield	Nov 17	B	10 Aug 15	
Shenstone (Lichfield)	Mar 18	B		
Shoeburyness (59 cm deep)	Nov 17	B	10 Aug 15	
Shorncliffe (GSGS 2742)	Aug 17	B	10 Aug 15	
Sittingbourne	1915	R	10 Aug 15	
Stirling	1915	R	10 Aug 15	
Stonehenge	Jan 18	B	10 Aug 15	
Stonehenge (MS - with Lambert grid)			After 1 May 18	

Name	O.S. Date	Grid	First Printed Before	Notes
Stowlangtoft (Thurston)	Dec 16	B		
Swanage	Oct 17	B	10 Aug 15	
Swanage (MS - with Lambert grid)			After 1 May 18	
Ternhill (Market Drayton)	1916	B		
Thetford	1915	R	10 Aug 15	
Tidworth (Salisbury Plain)	Jan 18	B	10 Aug 15	
Tilshead (ditto)	Dec 17	B	10 Aug 15 (also July 17)	
Trawsfynydd	1915	R	10 Aug 15	
Trowbridge	Feb 17	B		
Twyford (Eastleigh)	Jan 18	B	End 15	
Tynemouth	May 18	B	10 Aug 15	
Uxbridge	Oct 17	B	Feb 16	
Uxbridge (contours & grid only)	Mar 18	B		
Waddington (Lincs)	Aug 17	B	1 Jan 17	
Weedon	May 17	B	10 Aug 15	
Westbury	Jul 17	B		
West Meon (all black)	Jan 18	B		
West Parley (Christchurch)	May 17	B		
Whitchurch (Bristol)	Jan 18	B		
Wickham Market	1915	R	10 Aug 15	
Winchester	Dec 17	B	10 Aug 15	
Windsor	1915	R	10 Aug 15	
Winlaton (Tyne)	1916	B		
Witley (Godalming)	Oct 17	B	10 Aug 15	
Witney (Oxford - all black)	July 18	B		
Woking (59 cm deep)	Apr 17	B	10 Aug 15	
Woodbury Camp (MS - contours and Lambert grid only)			After 1 May 18	
Woodbury Common (River Exe)	Jan 17	B	1 Jan 17	
Woodditton (Dullingham)	Apr 18	B	After 1 May 18	
Woolwich	1916	B		*
* 59cm deep. Red and blue front lines overprinted running from north to south.				
Woolwich	1916	B	10 Aug 15	
Wye	1916	B		
Wyton (Huntingdon)	Dec 17	B	1 Jan 17	
Yatesbury (Salisbury Plain)	Apr 18	B	1 Jan 17	
York (north)	May 17	B	10 Aug 15	
Yoxford (East Suffolk)	Jun 17	B		

Index Maps: The Index for this series was GSGS 3077A for Great Britain and GSGS 3077B for Ireland.

Postscript and further notes (first published July 1991, and thus not included in the original issue of *Sheetlines* 11.)

Postscript

In 1919 it was decided to redraw those sheets which were to be used for post-war training purposes, and this was done on the War Office Cassini grid. The Cassini was, of course, the projection used for the map of England and Wales at that time. These new sheets were numbered, confusingly, with Roman

numerals and letters; thus adjacent sheets would be, for example, XXVII,V and XXVII,W. A more awkward system of sheet numbering would be difficult to contrive. Apart from this, however, the new sheets were beautifully drawn and clear to read. A good example, part of Sheet XII,H, with grid on the British System, is given in the War Office *Manual of Map Reading...* (London, HMSO, 1929). This was a system of referencing based on the Cassini kilometre grid, the War Office's equivalent of the Lambert grid adopted in France. The British System was based on co-ordinates within lettered 10-kilometre squares. Because this was useless for small scales it was replaced in the 1920s by the Modified British System, with lettered 100-kilometre squares, though the two systems co-existed for a while. In 1931 it was decided that artillery maps should be of the slightly smaller scale of 1:25,000, almost certainly to bring the U.K. into line with current Continental practice. The other standard scales adopted were 1:50,000 for administrative and tactical use, and 1:250,000 for strategic and general use. These scales were not, however, used for training maps of the U.K. It was crucial, though, that the artillery should train on maps of the scale they would use in war, and this included the making-up of artillery boards and measuring range graphically, so the 1:20,000 series (still GSGS 2748) was replaced by a new 1:25,000 series (GSGS 3906). (Peter Clark has given some information on these two series: see the report on the Sheffield meeting in *Sheetlines* 7.)

Note on the purpose and use of Artillery Training Maps

I have not yet identified any documentation covering this point, but it appears probable that the maps were intended not only for the training of field, horse and garrison artillery units, but also for the use of other units of all arms which would work in co-operation with the artillery, or which would use the system of referencing, initially developed purely for artillery purposes, for general tactical and administrative instructions. During 1915 it became standard practice in France to give square references in orders, and although at first an attempt was made to restrict the issue of squared maps, demand for them became so great that GHQ recognised that they would have to be made a standard issue. The production of unsquared 1:40,000 sheets was then suspended. An item in General Routine Orders (GHQ 23rd April 1915) is particularly interesting in its limited appreciation of the utility of the squared map:

'Attention is called to Routine Order No.646, dated the 18th February 1915. It appears that orders containing references to squared maps are frequently given to various units not in the fighting line. It must be understood that squared maps are not issued to these units and that references to squares are, therefore, unintelligible to them. Squared large-scale maps are only issued to Staffs, Cavalry or Infantry in trenches, Artillery (including Ammunition Columns), and Engineers.'

Further notes (supplementing Part I in Sheetlines 10)

(a) The One-inch Aldershot District (South) sheet was indeed overprinted with red 1-inch squares like the North sheet. This made each small, lettered square one mile across, whereas in France the equivalent distance was 500 yards. It seems that these squared Aldershot sheets were printed in December 1914. A copy I have of the South sheet seems to have had the base map laid to register on the stone bearing the squaring system by hand; there are needle holes in the corners to facilitate registration with needles into shallow holes in appropriate places on the litho stone. My sheet also carries a lithographed insert glued onto the north-west corner of the map face, describing the 'System of Co-ordinates on a Squared Map', i.e. the rectangular co-ordinates suggested in 1914 by Brig. Fanshawe for use within a 500 yard square on the British maps of France and Belgium. Has anyone seen any other One-inch sheets overprinted with a similar squaring system?

(b) Roger Hellyer has very kindly lent me a copy of the Kilworth (Ireland) Manoeuvre Map, 1913. This One-inch coloured Third Edition sheet is overprinted with 1-inch squares in green, designated by marginal letters and numbers. This sheet also incorporates a more advanced system of referencing than previous manoeuvre maps, and the instructions are worth quoting in full:

SQUARED MAPS - The Kilworth training map for 1913 has been issued squared, and when it is necessary to locate a place on the map, the square in which it is situated should be stated. When, however, greater accuracy is required each square should be mentally sub-divided into nine imaginary squares thus:

ONE	TWO	THREE
FOUR	FIVE	SIX
SEVEN	EIGHT	NINE

and in addition to the square on the map the imaginary square should be added, viz:- A.1.Five (for a place in the centre of the square).

'It is considered that a ruled square can be mentally sub-divided by anyone into nine divisions without difficulty.'

Thus a location could be given within a 587-yard square. No provision was made for 'pinpointing', so a more accurate location would depend on a verbal description such as 'farm in B.7.Three'. As we have seen, it was only after the outbreak of war in 1914 that rectangular co-ordinates were introduced within squares for this purpose. British practice thus lagged considerably behind that of the continentals in this respect.

(c) The reason why some of the sheets were at least partially resurveyed, with trig. points, instrumental contours, etc., is simple. Artillery tactics and methods of enemy battery location had advanced rapidly since 1914, and the map of England was no longer sufficiently accurate for artillery training purposes. While the planimetry was good, relief data was inadequate. Fixing the position of own and enemy guns required extremely accurate triangulation. Safe and effective artillery fire, for creeping barrages etc., required an accurate contoured map with a relatively small vertical interval; experience in France had shown that 5 metres V.I. was adequate, but disasters could occur when the map was faulty. Advances in sound-ranging since late 1915, particularly the invention of the Tucker microphone in June 1916, necessitated the greatest accuracy in the fixing of microphone positions along a base perhaps 8000 yards long. Accurate flash-spotting needed properly fixed survey posts. The whole business of fixing gun, target, microphones and observation posts to the survey grid, and obtaining accurate contours, implied that new survey work had to be undertaken.

In November 1916 Lieut. Tucker took a nucleus of trained men from the original sound-ranging section ('W' Section) in Flanders to the newly formed

Overseas Artillery School on Salisbury Plain. They formed an Experimental Sound-Ranging Section at Lark Hill, but because of mistakes made in the surveying of the microphone bases had trouble with determining the accuracy of this form of location. This underlined the vital necessity of the most accurate survey. Flash-spotting was also practised at the School, and techniques developed for ranging on the air-burst, as well as the ground-burst of a shell. The use of bearing pickets to fix batteries and give line had begun in 1916, and the practice gradually spread to the whole Army. Batteries at home had to be familiar with them, hence their inclusion on certain training maps.

- 15 -

Early One inch OS District Maps in black outline with roads coloured

by Guy Messenger

During a recent visit to the map collection of the National Library of Scotland (two days in fact before the CCS Edinburgh meeting) I found time to have a look at their holding of early One-inch district maps of England and Wales. I was delighted to find that owing to the devoted labours of Peter Milne (an assistant in the Map Room) they had all been boxed together and that a rapid survey was possible.

I have seen no single OS Catalogue of the years during which sheets were being published in this style, containing a complete list of their titles, and it is still possible that there are one or two titles yet to be discovered. In fact I found in the NLS seven titles of which I had not previously heard. Also I realised for the first time that the series was issued in two different formats, the second superseding the first in 1900. All sheets were originally based on the first national revision of the New Series, except possibly that of WINCHESTER, which appears to have been issued for the first time in 1904 after the second national revision as a Third Edition sheet. Seventeen of the other sheets were subjected to the second national revision and reappeared in Third Edition guise. Reprints of some second edition sheets were produced after the War, and the last known reprint of a Third Edition sheet was dated 1931 (TORQUAY). Some sheets in the series were superseded by Third Edition fully coloured District Sheets derived from the Large Sheet Series, but when this happened the new sheets usually covered a somewhat different area. Two sheets in the series (LAKE DISTRICT and LAKE DISTRICT, WEST) had lakes and sea coloured blue.

The OS Catalogue of 1901 describes the series as being printed on tough lightweight paper and sold at a lower price than standard sheets. In fact the sheets issued for the first time in 1898 (the first) and 1899 do not conform to this description, and are printed on the same rather thicker paper as was used for the coloured small sheets of those years. Many but perhaps not all of these were subsequently reissued on the thinner paper, some without minor corrections and reprint date, others with both. The first series was priced at 1/6, the second at 1/3 to begin with, and later at 1/-. The price went up again to 1/6 in 1904.

A full list of titles has apparently never been printed, so one is appended here:

- 16 -

First series, 1898-1899, 1/6, Thick paper, 13 titles:

Bradford; Brighton and Worthing; Derby; Gloucester and Cheltenham; Huddersfield; Isle of Wight; Leeds; Liverpool; London; Nottingham; Plymouth; Wareham; Weymouth.

Second series, 1900-1904, Thin paper:

(a) 1900-1901, 1/3, (19 or) 20 titles:

Banbury; Bath; Birmingham; Bournemouth*; Bristol; Buxton; Chatham; Clovelly; Leicester; Manchester; North Devon; Rugby; Salisbury; Sheffield and the Peak; Swansea; Torquay; Tunbridge Wells; Warrington; Warwick and Leamington; Wolverhampton.

* Bournemouth was reissued with the printed price shown as 9d. flat, 1/- folded in cover, and I have not seen it in its original form at 1/3.

(b) 1902-1903, 1/-, 10 titles

Bolton and Wigan; Bridlington; Cardiff; Cotswold Hunt*; Llandudno; Middlesbrough; The New Forest; Newcastle upon Tyne; Scarborough; Southport.

* Cotswold Hunt covered a smaller area than Gloucester and Cheltenham, and was overprinted with the Hunt boundary in green, and with circles two inches apart centred on Cheltenham.

(c) 1903-1904, 1/6, 6 titles:

Cambridge; Carlisle; Chelmsford; Darlington; Llandovery; Oxford.

(d) With lakes/sea in blue, 1/6, 2 titles:

Lake District (1900); Lake District, West (1902)

Third Edition, 1904-09, 1/6 (paper), 2/- (cloth), 17 titles:

(a) Second edition sheets revised:

Bath; Birmingham; Bournemouth; Bristol; Cambridge; Chatham; Gloucester and Cheltenham; Lake District; Leicester; New Forest; North Devon; Sheffield and the Peak; Swansea; Tunbridge Wells; Torquay; Wolverhampton.

(b) New publication, 1 title: Winchester.

Covers

The first series sheets were originally issued in the 95 mm x 183 mm 'book type' covers with OS sticky labels. The more compact 105 mm x 156 mm folding red covers printed in black were introduced in 1900 for the second series and for reissues and reprints of the first; examples of the style of cover in which the front and back parts were fixed to the edges of the sheet by flexible hinges are also known. This style of printed red cover (95 mm x 183 mm) began to appear about 1903, and it was superseded in 1906 by an otherwise identical white cover in both book type and hinged forms. Later covers of later reprints followed a similar sequence of changes as those of other One-inch series, except that no examples are known in Ellis Martin Third Edition covers.

Conclusion

A good deal of work has still to be done in measuring the dimensions of individual sheets, describing their characteristics, comparing their reprint states, etc., and it is very unlikely that we yet have a full record of their dated reprints. In my opinion this series must be regarded as derived directly from the Small Sheet Series (engraved version), and should be considered in relation to

- 17 -

that Series. I do not therefore intend to do more than make a passing reference to it when I come to write up my findings on the Large Sheet Series.

Notes and Queries

More that got away, (see *Sheetlines*, December 1983). By courtesy of Campbell Kennedy, Tim Nicholson draws attention to two more map cover designs (both by Arthur Palmer) that exist as artwork, but never seem to have been

used on a map 'as is'. That of the New Forest [Hellyer's no.35, illustrated on p.126 of John Paddy Browne, *Map Cover Art*, Southampton, Ordnance Survey, 1991] emphasises trees more than moorland, which may have been a reason for the rejection of this essay, if rejected it was. The design actually used for the Bristol District Map has been found bearing a Tourist Map heading, which suggests that such was contemplated at one time.

Leaflet listing, (see Sheetlines, December 1983): further addition:

Number	Short title	Code
42/34	Important Notice Relating to Aviation Maps	OSO 5000 3-34

- 18 -

O.S. entertains

The 4000 or so visitors who have been to Southampton in the last year have included Prince Charles on 24 May and our member Colonel Richard Arden-Close, the son of Colonel Sir Charles Close (Director General 1911-1922) on 25 October. Walter Smith, CB, OBE, the present Director General, was host on both occasions. On Prince Charles' two-hour tour of the Maybush headquarters he was shown work carried out in the Duchy of Cornwall on various scales, including digital mapping and various pre-publication states of the Dartmoor Tourist Map, and was presented with a leather-bound copy of the OS Atlas of Great Britain. The OS have kindly given the Society photographs of both visits for our records.

Waterproof mounting:

Tim Nicholson enquires if OS agents or retailers did their own map mounting? A Popular Edition sheet 51 of Oswestry was sold by Philip, Son and Nephew of Liverpool mounted in sections, with each section of the map sprayed to waterproof it before mounting. The back and front covers are also waterproofed, on both sides. Neither map nor covers bears any reference to the waterproofing, by the OS or anyone else; and the high-gloss effect is quite unlike that of Place's waterproofing. The general appearance of the map suggests that it was a local option offered by Philip, Son and Nephew, dissecting, spraying and mounting their own maps. (The covers are of standard Popular design.)

Shell shock

Readers of the *Sunday Times Magazine* on 4 November 1984 were treated to a large fold-out advertisement by Shell under the heading 'Ramblers' Guide to our new Pipeline', which extolled the absence of environmental damage caused by their St Fergus to Mossmorran project. The attractive main illustration featured on open Ordnance Survey map as part of their hypothetical walker's kit: the owner no doubt long departed, as the sheet used (Scottish Popular sheet 58, Arbroath and Montrose) was part of a series not printed for nearly fifty years - or perhaps the air in East Scotland encourages longevity in the maps and their users...

- 19

Puzzle corner

Why would the inhabitants of Ross have cursed Colby but thanked James? Answer in next issue. The railway station referred to in *Sheetlines* no. 10 is Shottle in Derbyshire, which can be found in 2-inch square S11 on the Peak District One-inch Tourist Map published in 1924 and last reprinted in 1940. Due to the size and portrait shape this was the only sheet sufficiently deep to reach the letter S on the squaring system then in use.

MERRY CHRISTMAS AND A HAPPY NEW YEAR