



Sheetlines

The journal of
THE CHARLES CLOSE SOCIETY
for the Study of Ordnance Survey Maps

This edition of *Sheetlines* was published in 1996 and the articles may have been superseded by later research.

Please check the index at
<http://www.charlesclosesociety.org/sheetlinesindex>
for the most up-to-date references

*This article is provided for personal, non-commercial use only.
Please contact the Society regarding any other use of this work.*

Published by
THE CHARLES CLOSE SOCIETY
for the Study of Ordnance Survey Maps
www.CharlesCloseSociety.org

The Charles Close Society was founded in 1980 to bring together all those with an interest in the maps and history of the Ordnance Survey of Great Britain and its counterparts in the island of Ireland. The Society takes its name from Colonel Sir Charles Arden-Close, OS Director General from 1911 to 1922, and initiator of many of the maps now sought after by collectors.

The Society publishes a wide range of books and booklets on historic OS map series and its journal, *Sheetlines*, is recognised internationally for its specialist articles on Ordnance Survey-related topics.



SHEETLINES

Number 46

August 1996

Editorial	1
The Hodson Award	2
Marginalia	2
Ordnance Survey Topics	5
Reports of Meetings	13
The First Ordnance Survey Map? Eugene Burden	17
Unique Numbers applied to the 1:253,440 Fourth Edition (National Grid) Roger Hellyer	20
Variations on an Ordnance Survey cover design Roger Hellyer	22
Depiction of airfields on New Popular and Seventh Series One-inch Maps John Nicholls	24
Some previously unrecorded one-inch maps of Ireland Roger Hellyer	27
Some further notes on Military Mapping in Ireland Roger Hellyer	29
Mirrors of History 4 —Civil War on the Streets Tim Nicholson	33
Some unrecorded one-inch maps with hachures Roger Hellyer	36
New maps and reviews	38
The Landmark Information Group (2)	44
The evolution of the National Grid	45
.....and Scotland in Roman Times	46
A map in my collection	48
Letters	49
Work in Progress	52

Meetings

Visit to Ordnance Survey, Southampton Monday, 23rd September, 1996

The Charles Close Society has arranged a visit to the Ordnance Survey at Southampton as shown above from 1100 to 1530. The programme will include Field Survey, Superplan, Image Mapping system used for 1:50,000 mapping, the Print Floor and a visit to the Map Record Library. With the exception of the last, the visit is largely a repeat of those of 1994.

Lunch will be available in the OS restaurant.

Members wishing to attend should advise the Honorary Secretary as soon as possible to indicate their intention. Priority will be given to members who have not attended previously.



Shap Meeting Saturday, 19th October, 1996

The Society's Autumn Meeting will again be held at the Shap Wells Hotel, Shap, on Saturday, 19th October, commencing at 1045. (Coffee will be served from 1000.)

The topic will be the official mapping of other European countries contemporary with the Ordnance Survey

Morning *German mapping* and *Swiss Relief Sheets* by Dave Watt

Afternoon *Two hundred and fifty years of French mapping* by Chris Board
Belguim Mapping by Peter Lawrence

Members attending are invited to bring their own examples of foreign mapping for display.

As has become the custom, members are invited 'to make a weekend of it': Friday evening will include a 'table top' map competition, and on Sunday there will be a walk/visit to a local place of interest (weather not guaranteed!)

Sheetlines

Published by THE CHARLES CLOSE SOCIETY
for the Study of Ordnance Survey Maps

Sheetlines 46

August, 1996

Editorial

In the pursuance of our own particular interest in the study of Ordnance Survey maps, computers undoubtedly contribute to the enjoyment. This particular publication is being compiled through a word processing package (which sometimes seems to extend the time to produce it rather than expedite it); the index issued with it has been manipulated into a presentable form without continuous retyping; and maps illustrating previous articles have been 'renovated' to give better reproduction.

At the Annual General Meeting in May, the question of the use of the Internet was raised, and rightly so, for we must always consider how the latest technology can be used for our benefit. One third of the members present have access to the Internet, and the subject has been noted as one which will need to be considered by your committee. During the compilation of the latest *Sheetlines* Index, the idea that a continually updated Index could be available on the Internet was raised, giving the facility, not only for our own members, but for a wide range of other people to find out what information is available to them through the Charles Close Society.

However, I have a feeling of disquiet in becoming over reliant on information technology, fuelled by three things. The first is a letter from a former chairman of a librarians' group in the United States, in which she describes a salutary experience of Internet 'conversations' causing a steady shrinkage of the association's newsletter; secondly, the furore which has been raging over the Future History of our Landscape, but hopefully now settled; and thirdly, a much more homely incident — on holiday in August I 'discovered' my first copy of the *Survey Gazetteer of the British Isles* by G. Bartholomew, published in 1904, "...based on the 696 maps of the Ordnance Survey and the 96 volumes of the 1901 Census." Would I have recognised the find if it had been published, say, on CD-ROM — how would I have seen what it contained? (Needless to say, I bought it!)

There is, then, a dichotomy. Since so much of this Society's interest is about what is *on paper*, it could be argued that our future research and findings should be committed *to paper*. But because computers have increased in power, decreasing phenomenally in physical size with undoubtedly more exciting peripherals to come, we ought to capitalise on the benefits. Perhaps, therefore, the real need is the establishment of a set of voluntary guidelines to ensure that transient, yet important, Internet inspired research and information is gathered and presented in a 'traditional' manner. Let us not forget the salutary lesson quoted above.

The next issue of *Sheetlines* will be devoted to non-Ordnance Survey, but related, material, e.g. a full report of the Shap presentations on European mapping and an article on Ordnance Survey Rivals in Britain and Ireland since 1868. Articles and snippets from other members will be welcome.

The Hodson Award

As members will be aware, Yolande Hodson, the Society's retiring Chairman, has very generously endowed an Award to be bestowed for outstanding services to the aims of the Charles Close Society. Our benefactor does not expect it be given frequently, or regularly, and not necessarily to a member of the Society.

Exercising her privilege to make the first award, and after careful consideration of the contributions made by four members of the Society, with great difficulty (and personal disappointment at only being able to select one) Yolande has made the award to Brian Adams.

In making the presentation of a cheque of fifty pounds to Brian, she told members at the AGM that the award was in recognition of Brian's work on the mathematical aspects of

the cartography of the Ordnance Survey which have appeared in *Sheetlines*, in Roger Hellyer's monograph on the Ten-mile map, and his first rate presentation "From Eighteen Minutes West to Longitude Zero — episodes from the lives of a cartographer and a meridian" to the AGM in 1994. Not only is Brian's material highly original in content, it is absolutely fundamental to a proper understanding of the maps of the Ordnance Survey. Most importantly, the information has been conveyed in such an enjoyably readable style that most of us have been able to understand concepts which formerly we thought to be beyond our comprehension.

The Society offers its congratulations to Brian on being the first recipient of the Hodson Award.

Marginalia

£500 left to Charles Close Society

It is a pleasure to inform members that Colonel Richard Arden-Close left a bequest of £500 to the society in his will. The Committee will consider the most appropriate way in which the bequest can be used to

Library Association Reference Award

It is also a pleasant duty to report that the Library Association's McColvin Award for an outstanding reference work has been awarded to Charles Close Society members

Honorary degree and international acclaim for Professor Rhind

In recognition of his "contributions to the national mapping agency and the development and promotion of Geographical Information Systems", Professor David Rhind, Director General and Chief Executive of Ordnance Survey, received an Honorary Doctor of Science degree from Loughborough University on Monday, 15th July, 1996.

further the aims of the society, but, of course, would welcome ideas from the members. Any such suggestions should be addressed to the Honorary Secretary, whose address is given on the rear cover.

Roger Kain and Richard Oliver for their publication *The Tithe Maps of England and Wales*. Congratulations to both Roger and Richard.

The award coincided with the publication of the results of an international survey, carried out by the US publication *GIS World*, in which Professor Rhind is named as one of the top three people in the world leading the development of computerised mapping and data systems.

The international panel of judges said of the Director General "There's no doubt that

his influence on the progress of GIS in the United Kingdom has been definitive, and without his influence GIS would never have made the progress it has. As the Director of Ordnance Survey...he continues to be heard in debates over the future of geographic information around the world. He should be recognised for his long-term involvement as a leading academic and author, as well as his vision in being prepared to head the

Ordnance Survey immediately after being trenchant in his criticism of it, and establishing a new, imaginative body.”

The Charles Close Society offers its congratulations to David Rhind on his award of the Honorary Doctor of Science degree and the international recognition accorded to him in respect of the leadership he has given in the development of the Geographical Information Systems

‘Magnetic Variation and the dating of Maps’

I regret that a serious omission occurred in the first paragraph of Richard Porter’s article, *Sheetlines* 45, p28. In spite of careful proof reading by Richard, at which stage the article was complete, at some point in the final assembly process the editor garbled part of it.

The first paragraph should read “There seems to be an implicit belief that the *date given on maps for the Magnetic Variation is of significance for dating the production or*

publication of the map itself. This presumably lies behind the inclusion of column 7 in Roger Hellyer’s list of the Quarter Inch Fifth Series, for example, which list well illustrates the non-contemporaneity of these dates.”

The word *dais* came from the running together of ‘da’ (from ‘date’) and ‘is’ on either side of the omitted words.

My apologies to Richard.

‘Taking to the Water: some examples of OS mapping of the coast’

Richard Oliver has also pointed out that a funny thing happened on the way somewhere to footnote 32 on page 25 of the last *Sheetlines*. It should read: ‘One-inch New Popular Edition Sheet 150 claims to be fully revised in 1930, but having regard to the revision information in various OS annual reports and the *availability of the finished mapping by 1941, a date of 1938–9 seems to me most likely.*’ Footnotes 33 to 35 seem to

have thought that, even if they were in no way to blame, nonetheless they ought to establish an alibi, so they took a hint from footnote 26, did a runner (or runners), and renumbered themselves as footnotes 1 to 3 two pages further on!

Enclosed with this copy of *Sheetlines* are corrected reprints for both errors which members might wish to stick over the originals.

Map Cleaning & Repair Workshop

David Parsons has indicated that he is prepared to arrange another *Map Cleaning & Repair workshop*, similar to that held last September. A Saturday in early Spring next year is being considered — although exact dates will depend on the availability of the workshop leader, Graham Moss. However, before making any firm bookings, David

would like to establish the level of interest. The cost would be held at £20 for the day to include all ‘tuition’ and materials used on the day, lunch and refreshments.

Interested members should contact :
David Parsons, 1 Kent Drive, Congleton, Cheshire, CW12 1SD, tel: 01260 271596, fax: 01260 270 875; e mail : parsons@cs.man.ac.uk.

The Map Collector: Back Issue Offer

Map Collector Publications have sent details of a special offer on back issues of *The Map Collector*. Of the 74 issues, 11 are out of print (numbers 1, 6, 9, 12, 13, 17, 18, 19, 21, 22 and 32); individual issues are available at £10 each, but a set of the 63 issues is available at £500, a saving of 20%. Additionally, eight dark bottle green binders (gold blocked 'TMC') to hold the collection would cost £50. All prices are inclusive of postage and packing.

Indexes listing the contents of each magazine are available from the company. Some of the articles which might be of particular interest to members of the Charles Close Society are:

Issue 35, June 1986, John Paddy Browne, *Ellis Martin and the Rise of Map Cover Art*

Issue 41, Winter 1987, J.B. Harley, *The map as biography: thoughts on Ordnance Survey Map, Six-inch sheet Devonshire CIX SE Newton Abbot.*

British Library Map Catalogue on CD-ROM

Members will be pleased to learn that the 19 volumes of the British Library's catalogues of printed and manuscript maps, together with the automated file of post-1974 accessions, are to be published on CD-ROM this winter, 1996. Such a publication will mean that it will be possible to have common access to the 300,000 records for the first time, allowing "...new and exciting research enquiries to be made into maps dating from Mediæval times to the present day." Entries will be able to be retrieved through a combination of different fields, including geographical area (with a sub-division cap-

Issue 54, Spring 1991, This issue was dedicated to the OS 200th Anniversary and includes articles by Tim Nicholson, *Ordnance Survey Ephemera to 1939*; Yolande Hodson, *A little light relief: a personal view of collecting OS maps*; Richard Oliver, *More than a thumbnail: the large scale plans of the Ordnance Survey.*

Issue 59, Summer 1992, Tim Nicholson, *Ordnance Survey ephemera 1945-1991.*

Members wishing to take advantage of this offer should write to *Map Collector Publications*, 48, High Street, Tring, HP23 5BH, clearly giving their address and requirements, and enclosing a cheque (in £ sterling, drawn on a UK bank, or Eurocheque, or \$US at a current exchange rate, if from overseas), or quoting Credit Card details, i.e. card company, number, expiry date. Telephone number is; (0)1442 824977; fax (0)1442 827712.

ability), period, theme, cartographer/publisher, title, country or place of publication, physical form, range of scales.

The *British Library Map Catalogue on CD-ROM* is a joint publication by the British Map Library and Primary Source Media. It is priced at £1,495 plus VAT and delivery, but there is a **special offer** price of £1270 (plus VAT and delivery) for orders placed before 31st October, 1996.

For sales information, contact Helen Agutter at Primary Source Media, PO Box 45, Reading, RG1 8HF, telephone 0118 957 7204, Fax 0118 939 4334.

Ordnance Survey topics

The consultation exercise on the 'National Interest in Mapping'

Reference was made in *Sheetlines* 44 (p.9) to OS Information Papers 6/1995 and 12/1995, which raised the possibility of a 'National Interest Mapping Contract' between OS and Central Government 'for services and activities undertaken in the national interest'. A 'representative sample' of users was consulted to define what this 'National Interest' might be. It was hoped then that the exercise would be complete and an agreement reached by the Spring of 1996.

OS Information Paper 1/1996 summarises the results of the consultation exercise, which are reported in more detail in a document, *Results of the consultation exercise on the 'National Interest in Mapping'*, obtainable from Ordnance Survey.¹ A working party of representatives from OS, the Department of the Environment and the Treasury is carrying the process forward, with a view to implementing an agreed National Interest Mapping Service Agreement (NIMSA)² on 1 April 1997. Meanwhile OS is producing cost estimates for service levels to meet national interest requirements, under five headings: currency and completeness; accuracy; data content and classification; data structure; control frameworks.

¹ Write to: Consultative Committee Liaison, Ordnance Survey, Romsey Road, Southampton, SO16 4GU. It is also available on the World Wide Web: address <http://www.ordsvy.gov.uk/> What follows is partly copied from and partly paraphrased or summarised from the original, which is Crown copyright; regular readers of *Sheetlines* will probably be able to distinguish the copied material by some of the vocabulary.

² Students of the acronym might like to consider whether Nimsa is female in gender (ending as it does with an 'a') and whether she/he/it could be a replacement for Susi, who presumably met her/his/its ends at the hands of Superplan.

The last time that such a study of the national interest in mapping was carried out was in 1978-9, as part of the operations of the OS Review ('Serpell') Committee. At that time digital mapping was in its infancy, 'maps' and 'geographic information' meant paper and ink, and the sums received by OS in revenue were less than half in real terms what they are now. The experience of the 1920s and 1930s, when OS mapping overall had got seriously out-of-date, and of the substantial cost subsequently to rectify that, was one reason why the Review Committee accepted that continual maintenance and improvement of mapping was the most cost-effective approach. At that time, the 'overhaul' of the rural 1:2500 was not quite complete, and a system of continuous revision based on units of change was in operation: since 1992 a new system of revision has come into use, which depends on revising types of change (e.g. buildings and roads) rather than geographical areas.³ Since 1979, although OS monitors its sales of maps and data and has an extensive consultation system, it has not studied the current and possible future interest in the national mapping of Britain, although it is known the availability of digital mapping has brought about applications unthought-of for paper mapping, and many organisations use the OS data as the framework or template on which their own data is collected: for example, the census, land registration, and utility plant recording. The consultation exercise was carried out through 168 interviews with various individuals or groups, most of them existing OS customers, including government departments, local authorities, utilities, software vendors, educationalists and the

³ See *Sheetlines* 44 (December 1995), pp 7-8.

legal deposit libraries; the interviews were preceded by a detailed written questionnaire.

The 'national interest' can be summarised as having three components:

(1) The public interest arising from mapping areas which would not otherwise be mapped if the judgement was made solely in terms of revenue generated by sales of that mapping alone. This is particularly crucial in regard to contingencies where there is usually no time to create new mapping;⁴ the information must be available 'off the shelf'.

(2) The benefits of having national consistency of content, currency, style and manner of mapping which is dictated by needs other than those of the local market. There are two different categories of these: where the information is needed for defence purposes, and where there are sizeable external economic benefits, such as everyone using the same topographic framework and hence all other data 'fitting together' correctly.

(3) The unavoidable necessity for the creation or maintenance of the underpinning infrastructure of the mapping (notably the geodetic framework) which is widely used by other bodies and by the public and where charging is either inappropriate (such as for the use of the National Grid).

The extent of the national interest was defined in two ways: by summing the requirements of individual respondents, and by asking them to use their experience and knowledge to look beyond their own particular needs. 'This largely neglects those who might make use of the data provided if the prices of OS products were lower (and OS has some evidence of such price

sensitivity). In interpreting the results, due account was taken of the tendencies towards both under- and over-statement of the national interest which can rise from lack of understanding of the underpinning infrastructure of mapping and of possible self-interest.' Consideration of the national interest was limited to the principle of the contents, currency and quality of the National Topographic Database (NTD), and its specification and maintenance; the practice of the availability of portions of this database as digital data or 'hard copy' was not considered.

The study indicates that:

(1) OS data is used for a very wide range of applications: on average for 14 applications in each respondent's organisation. Nearly 90% of these organisations use it daily. The most common applications were land-related planning of various kinds, land ownership and management, and property boundary matters.

(2) Features needed by one set of customers are often less valuable to some others but all elements currently mapped by Ordnance Survey are needed by more than half the respondents.

(3) 99% and 100% respectively of all those expressing an opinion agreed that national coverage in the NTD and national consistency in the mapping are essential.

(4) 93% agreed that duplication of topographic databases was wasteful and not in the national interest. 'The most frequent doubts on the need for this were expressed by the utilities but local authorities were unanimous in their views on its desirability. Interestingly, the commercial sector involved in supplying GIS software was also unanimous that duplication should be avoided.' Use of one such 'national framework' to link different geographical data together was seen by 99% as being in the national interest.

⁴ Appendix B lists 'Some known examples from between 1987 and 1990 where OS mapping has been used in major emergencies': there are 15 listed, involving some 630 deaths. It finishes with '1990 - March. Riots. Hundreds rioted in central London over the poll tax. Many injured.'

(5) The overall NTD specification for content and data classification now being implemented across the country was seen as adequate by 72%, as too low by 26% and unnecessarily high by 1%.

(6) The prospect of not continuing to maintain and enhance the NTD to this specification would have a damaging effect on more than 90% of customers with national infrastructure and strategic uses, 'including nearly 80% who claim that they would be unable to pay more than current charges'.

(7) The most severe criticism of the present specification was in regard to the currency or up-to-date state of the NTD. Some 59% believed this adequate but 38% thought it too infrequent even though the process of upgrading it was begun after ministerial agreement in 1992. The utilities were particularly critical of present policy, and thought that the present aim of recording all 'category 1' change within six months to be the absolute limit which could be tolerated. Some government departments and local authorities wanted more frequent rural revision than the five-year cycle now being implemented.

(8) The organisation of the proposed OS data specification was seen as adequate by 67% and inadequate by 32%. The greatest dissatisfaction was in central government and the utilities. This seems to be a recent development and indicates the need to continue to enhance the NTD: 27% thought that the OS's schedule to execute that enhancement too extended to meet rapidly developing needs. 'The detailed responses make it clear that, for some users at least, simple 'background' mapping (e.g. in raster map form) is only the first step towards a database which will be used for more than making maps as pictures.'

(9) The variable quality of some mapping in rural areas, originally produced in 1945–80 from County Series mapping [i.e. the

'overhauled' 1:2500] caused some concern to 15% of respondents. A number of bodies strongly argued for the restoration of field numbers and area measurements.

(10) Whilst there was no specific question, nonetheless a number of respondents mentioned the historic map aspect of the NTD and noted the new OS remit to preserve such an historical record. If there was no sound commercial basis for this it would inevitably form part of any national service agreement.

(11) Respondents raised two other issues. (i) The need for additional height information; information on the third dimension in OS mapping is shown in far less detail than for the other two, with almost no height information on the largest scale mapping, whilst the contours on the 1:10,000 are insufficient for flood control studies and other purposes. (ii) There is a need for the OS and the Hydrographic Office to provide a consistent and coherent record of the coastal zone, rather than the two completely unrelated data sets presently sold.

Written responses were received from three organisations. The Association for Geographical Information argued for a more sophisticated data structure, improved height resolution, creation of coherent mapping of the coastal zone, and a pricing formula for NTD information 'which enables wider use of the substantial investment by the taxpayer'. Military Survey urged OS to adopt the GPS datum [WGS 84] used by the military worldwide rather than that used for the National Grid [OSGB 36], and that the NTD should include aeronautical information. The Royal Institution of Chartered Surveyors pointed out the significance of detailed mapping for implementing several government policies, particularly those relating to rural areas, and observed that 'Maintenance of parts of the database to lesser standards of scale, accuracy or revision frequency devalues the whole.'

The study substantially confirmed the findings of the OS Review Committee in 1979, although the actual products now used differ greatly. The ‘national interest’ is a concept hard to define, but the study provides strong evidence that country-wide, consistent and up-to-date detailed mapping of all of Britain, including the commercially-unviable areas and the geodetic work, is widely held to be crucial to the activities of much of government, commerce and education. However, it is clear that there is a much greater need now than in 1979 for up-to-date information and that user expectations are much higher; there is greatly increased concern with the quality of the information, the form of its availability and its price. Whilst a majority believe that the NTD specification is adequate for the national interest in most respects, a sizeable minority do not. The main improvements sought are:

(1) A further improvement in map currency.

(2) Faster progress towards an enhanced data structure, which enable such

developments as restoring field measurements and numbers.

(3) An improvement in the geometric quality of some rural mapping.

(4) Tangible demonstration of the commitment to producing historical data.

(5) Greater consistency between OS and Hydrographic data, and better height information.

The respondents’ detailed arguments are being studied, particularly those which refer to the consequences of *not* implementing the proposed NTD specification, and those which argue for its further enhancement.

The report notes that whilst national mapping is essentially a long-term operation, needs change over time: for example, there is an interest in ‘pre-build survey’ which was certainly not the case five years ago. Similarly, an increasing number of users seek a more sophisticated data structure; this is something else which has changed recently. This suggests that there may be a need for another review of this type in, say, five years’ time.

Richard Oliver

Digital map data for education

OS Information Paper 3/1996 announces a recent research exercise to establish the needs of higher education for digital map data for teaching and educational research: it showed them to be strong and growing, for a wide range of OS data. This will form the basis for discussions between OS and the Joint Information Systems Committee on a service level agreement covering the supply of certain digital products to higher education establishments. OS has also been active in

promoting the use of digital data in primary and secondary schools: digital map data helps the Information Technology stipulation in the National Curriculum for geography. Local authority-funded schools can access digital data held by their parent authority for teaching purposes. OS is also collaborating with software companies to develop ‘educationally relevant and suitably priced’ mapping software to display and manipulate OS data.

Improvements to 1:50,000 Landranger mapping

In July 1995 OS published 1:50,000 *Landranger* Sheet 124, *Dolgellau*, to an experimental specification in order to test a number of ideas on the public: a review of the map by David Watt appeared in *Sheetlines*

44, pp 52-5. Further developments are described in OS Information Paper 2/1996. ‘There was a large response from customers and from a wide range of interested organisations and individuals, which was

both very pleasing and highly constructive.’ It has been decided to make the following changes to the *Landranger* specification, though the exact method of depiction and mode of introduction has in some cases yet to be finalised.

‘Other routes with public access’: response to showing these was ‘overwhelmingly positive’, though there was also some criticism, particularly of the symbol used (magenta open diamonds). These routes are to be shown on all sheets covering England and Wales, though using a different symbol, and with a ‘more helpful’ description in the legend. ‘The necessary information is being collected with the help and co-operation of the local highway authorities. The situation in Scotland is different and will be studied separately.’

Forest Enterprise access land: this was ‘welcomed without exception’, and as part of a more general review of access land this information will be shown, using information supplied by Forest Enterprise. [The showing of Forestry Commission land was discontinued from about 1988 onwards.]

Agency performance targets

OS Information Paper 4/1996 announces the OS performance targets for 1996-7:

(1) To recover at least 83% of costs.

(2) To ensure that by 31 March 1997 96% of ‘existing major detail’ is surveyed and available to customers in the National Topographic Database at any one time; the target will increase to 99% by the year 2000.

(3) To dispatch in response to orders 95% of all Land-Line digital map units within six working days, and 90% of small-scale maps within five working days.

The OS’s new corporate identity

OS stationery, map covers, calendars and other material has started to appear with a new version of the OS logo, in a mixture of

Welsh legend: in future a Welsh legend will be included on all sheets falling wholly or partly in Wales: the exact form of it will be subject to further consultation.

Cycle routes: reflecting the increase in ‘purpose-built cycle routes, promoted on-road routes, and off-road cycle trails’, ‘selected cycle routes’ will be shown in future.

Hill shading: ‘Due to indefinite user reaction⁵ and the problem of map clutter created by implementing this enhancement [*sic*] across the entire *Landranger* series, the decision has been taken *not* to show hill shading.’

‘Other additional features’ [not specified] which were investigated will not be included on *Landranger* mapping but will be considered for inclusion on 1:25,000 mapping.

⁵ [Perhaps this refers to the variety of suggestions sent in by members of the Charles Close Society?]

(4) To increase by 5% the annual revenue earned per member of staff employed.

‘These targets, some of which are being incrementally increased, are closely associated with our key Corporate Aims and demonstrate our continuing commitment to customers and improved value for money for all stakeholders.’⁶

⁶ That’s right: ‘stakeholders’. Of course, it might be an elaborate subversive pun: ‘corpse-related aims’? Is OS at, er, a cross-roads?

(synthetic) purple and red. There is provision for it to appear in black on Superplans and in similar places. Incidentally, the National Grid

reference to OS has been removed (in fact it went in 1991–2) in order to reduce clutter: it seems that it was elbowed out by the *The OS trading fund cometh*

It may be recalled that, back in 1973, a proposal was made that the OS should move to trading fund status. Then and again in the early 1980s the idea failed, but in the Framework Review of OS's status conducted in 1994 not over a recommendation was made that OS should move to trading fund status on 1 April 1996. Opponents of the idea will no doubt experience modified rapture on

Rural revision programme

In March 1995 OS announced the four categories into which it now divides changes to the landscape. Category 3 is 'agricultural buildings, field boundaries, water detail and forestry', to be surveyed on a five-year cycle in rural (1:2500) areas and on a ten-year cycle in other (1:10,000) areas. It is to be undertaken mostly by air survey methods, without full ground checking, with the aim of revising the features of most significance for users. OS Information Paper 4/1996 announces that this is under way, and that by 31 March 1996, the end of the first year of the programme, more than 12,000 units had been revised and returned to the database. Output is expected to increase in 1996-7, with more than one fifth of the total programme added to the databank during the year, including blocks carried forward from 1995-6 plus some originally scheduled for 1996-7. The blocks are based on 10 km squares of the National Grid, though almost all blocks cover two or more 10 km squares.

The order of priority of the blocks (which has been subject to some alteration) is indicated by a set of diagrams obtainable *gratis* from OS, 'Five year rural revision programme', covering 1995-9. There are five sheets of these, four covering England (two at 1:1,000,000, two at about 1:900,000) and one

Minicom number, so SU 387148 has been replaced by 01703 792045.

learning from OS Information Paper 4/1996 that delays outside OS's control have deferred the move by a year. 'Trading Fund status is likely to give Ordnance Survey some additional financial flexibility which will enable us to manage our finances more like a private sector organisation. With it will also come greater financial disciplines.'

covering Scotland (at about 1:1,750,000), and they are well worth the attention of anyone with an interest in the progress of OS large-scale mapping, whatever material form the end-product may take! They have evidently been produced by desktop publishing means, and, simply as artefacts, ought to appeal to anyone willing to take a positive view of 'minimalist;' digital mapping. What emerges above all else is that this is *rural* mapping: a 'brick-pattern' on the four larger diagrams (and discreet dots on the Scottish diagram: the one failing of the design, or content) show that not only all small towns, however one defines them (including such marginal cases as Wragby and Saltfleet, Lincolnshire, TF 1377–1378 and TF 4593–4594 respectively), but also a great many larger villages are classed as 'built-up areas' for revision purposes: indeed, apart from their avowed purpose of indicating the revision programme, the diagrams are interesting as settlement distribution maps. The order of rural revision was decided after consulting local OS field offices, but is subject to amendment if customers feel that particularly out-of-date blocks should have higher priority, and so the forward programme will be republished annually.

Differential Global Positioning System

Readers who have felt that the music accompanying OS promotional videos is less than equal to the subject matter may be interested in a recent development announced in OS Information Paper 4/1996. Differential GPS (dGPS)⁷ is the method whereby signals from GPS satellites are received at a known co-ordinated position and forwarded by radio to an unknown GPS receiver position, so as to remove errors in the GPS signal and enable the position of the unknown station to be calculated to a far greater accuracy.

OS has collaborated with Focus FM who are providing a dGPS service on part of the frequency allocated to Classic FM. The

⁷ This is a vintage issue of *Sheetlines* for new acronyms, if for nothing else.

OS consultative committees

The present system of OS consultative committees came into being following the Janes Committee Report of 1973, and has remained largely unchanged since. (The Charles Close Society participates on the Royal Geographical Society Ordnance Survey Education Committee.) OS Consultation paper 1/1996 reports that it was decided at the Director General's Conference in December 1995 to review the system, not because of any shortcomings in the existing membership and

Small scales mapping index

OS Information Paper 4/1996 announces that the 1996 edition has been produced by computer technology for the first time.

Upgrading of 1:2500 National Grid mapping to 1:1250

It may seem to some, as it seemed to your correspondent, a legitimate question as to whether the resurveys in the 1980s of certain towns at 1:1250, which had previously been covered by National Grid 1:2500 'overhauled' (i.e. County Series derived)

differential correction signals can be received on receivers obtainable from Focus FM. There are two services available, one to 10 metre accuracy and another to 1 to 2 metre accuracy; the former is mainly for simple navigation purposes whilst the latter could be used for collecting data for GIS and very accurate navigation systems. The output is in terms of the European Terrestrial Reference Frame 1989 (ERTF89), and, used in connection with the OS transformation, can be output in National Grid co-ordinates. Full national coverage (the same as for Classic FM) is proposed by the end of 1996.⁸

⁸ Further information about Focus FM receivers can be obtained from: C & MT, 18 Howard Way, Cromwell Business Park, Newport Pagnell, MK16 9QS, phone 01908 218200 or fax 01908 217327.

contributors, but because several significant user-groups are not represented (including the police and the military), others are represented anomalously (with several privatised organisations still represented by the Public Services Ordnance Survey Committee), and some of the committees are extremely heterogeneous. It is felt that the present structure needs thorough revision, and it is hoped that a new structure can be implemented in 1997.

120,000 have been printed, of which 50,000 have been customised for the trade.

mapping, were in fact complete resurveys, or whether some of the 1:2500 data was reused. I put it to OS, and the short answer is that they were indeed complete resurveys: the only use of the 1:2500 was 'as a guide and to assist in the rapid supply of ancillary

information'. It was decided to resurvey at 1:1250 because the accuracy standard for 1:2500 mapping is 2.5 metres, and difficulties can be experienced in revision where significant development has occurred. There has also been some resurvey at 1:2500, and sometimes existing 1:2500 mapping is *reformed* rather than resurveyed to resolve

revision difficulties when existing map detail is adequate and small areas of mapping can be repositioned to remove anomalies arising from the overhaul process.⁹

Richard Oliver

⁹ I am indebted for this information to the OS in its letter of 11th January, 1996.

Future of 1:25,000 map series

Ordnance Survey has been developing interesting policies on the future of 1:25,000 mapping. Not having the luxury of starting the series from scratch, the OS is having to adapt the existing *Pathfinder* series to meet both customer requirements and be a self financing package by the millennium (*1st January 2000 or 1st January, 2001?*), as well as still providing national coverage. This last criterion must be defended by all bodies and individuals, otherwise the availability of maps will be on the same basis as the well known Bartholomew half-inch series, which under the ownership of Harper Collins now appears to be purely on what is most likely to sell.

At this date (August, 1996) there are 37 *Outdoor Leisure* maps and 15 *Explorer* maps, with the other areas being covered by *Pathfinder* maps. At the end of last year, the Ordnance Survey's market research findings indicated that it might be viable to publish up to 45 *Outdoor Leisure* and 60 *Explorer* maps, with the remaining areas still being covered by the *Pathfinder* series, but with the present sheet size doubled to 20km by 20km, giving, in total, 550 sheets.

However, on 29th July, 1996, the OS announced a major upgrade to the 1:25,000 scale mapping;

existing *Pathfinder* maps will be phased out as part of an upgrading programme. Commencing immediately, it is anticipated that it will take up to six years as the 1200 plus remaining *Pathfinders* are replaced by about 350 *Explorer* or *Outdoor Leisure* titles. The *Outdoor Leisure* will continue to focus on Britain's National Parks and Areas of outstanding Natural Beauty; the new large format *Explorer* titles will cover the rest of the country, "...but unlike the *Pathfinder* maps, they will have geographically based sheet lines to cater for regional tourism needs as well as for local ramblers and cyclists. This means some sheets will overlap in places to ensure relevant local geographical features at the edge of maps are included, rather than cutting them in two or missing them off altogether(?) because rigid grid lines have been followed."

One would like to hope that there could be a built-in overlap in the same way as was intended for the One-inch Fifth Edition. Write to the Ordnance Survey!

Lionel Hooper

BATH, Old Series, Sheet XIX, dated 1817

Reports of Meetings

Annual General Meeting, Birkbeck College, London, 18th May, 1996

The Annual General Meeting of the Charles Close Society was again held at Birkbeck College, by kind permission of the Head of Department of Geography. The meeting was attended by 65 members and 17 other members apologised for their absence.

Prior to the Annual General Meeting Professor David Rhind, the Director General and Chief Executive of the Ordnance Survey, talked to the Society on "History and the Ordnance Survey" in which he discussed recent changes in the OS and how these affected the historical database. Professor Rhind's style is quite inimitable, chatting without notes, rather than a formal presentation, but the following may serve, somewhat imperfectly, to convey the gist of his talk.

In opening, the Director General said that that the Ordnance Survey is unique in being the only government department with its own "fan club"; he is delighted that the Society exists to study the products of the Survey and went on to say that *Sheetlines* is eagerly awaited in the OS headquarters as many of the staff believe that it is only way they know what is going on! He did point out, however, that although he is a member of the Society, he actually has information in advance of *Sheetlines*.

Professor Rhind then went on to describe how the mechanisms of government within the UK have changed more within the last ten years than at any time since the Northcote-Trevelyan reforms. The greater part of the Civil Service has been separated off into Agencies working to targets laid down in their framework documents; hence the OS Framework Document is absolutely essential to understand what the OS is doing.

The document lays down demanding targets in terms of quality of information and cost recovery. Digitisation has been

invaluable in enabling the OS to meet these targets, and it is fortunate that the first steps were taken long before the OS became an Executive Agency. Nevertheless, the pace has been quickened considerably in the last few years.

In consequence, the OS has needed to think through its functions afresh. Central to its new philosophy is the concept of a National Topographic Database; this is its main asset, maintaining it and selling data from it, its main business. Paper maps are just one way of selling data, and they are increasingly seen as merely a spin-off from the database. Most large customers want their data in digital form to provide the underlying reference system for Geographical Information Systems. This has led to new (conventionally published) products, such as the Statlas, a statistical atlas of the UK combining base data from the OS with statistical data from thirty other government departments. At the same time, concepts such as scale, edition and sheet lines are becoming of subsidiary importance.

Quality, in terms of currency of data, has greatly improved. Mountains and moorland are now reviewed at 10-year intervals, the rest of the country at 5-year intervals or better; major changes are incorporated within six months. This is a huge improvement on the old 40-year cycle for Large Scale revision. There may be scope for using or integrating satellite coverage. The current 10-metre resolution from SPOT is of little use, but 3-metre resolution is expected to be

commercially available by the end of the year, and 1-metre resolution by 1997.

Turning to history, the Campbell Report in 1994 identified 118 uses of historical maps. This focused attention on the importance of historical topographic data, and a requirement to safeguard the historical database was written into the 1995 OS Framework Document. In consequence, the OS is preserving an annual 'snapshot' of the National Topographic Database, it is negotiating with the Public Record Office to become an official place of deposit for OS mapping (in computer form), and it started scanning its historical map series (500,000 maps) into digital form from 1st April. It is hoped to complete the last task by the year 2000 or so; coloured products such as the 1:500 plans are being left until last to allow time for technology to stabilise.

This is not being done primarily as a commercial activity, but there are commercial spin-offs. Indeed, the co-operation with the Landmark Information Group referred to in *Sheetlines* 45 would, by itself, have led to 10% of the OS's holdings being scanned in; the extension of its to the remainder of the holdings will doubtless facilitate such activities in the future. *(Rob Wheeler)*

A vote of thanks to the Director was proposed by the chairman.

Following the Directors talk, Yolande Hodson, our retiring Chairman, made the first Hodson Award, a cheque for Fifty Pounds, to Brian Adams in recognition of the contribution which he has made to the understanding of the mathematical concepts necessary for Ordnance Survey mapping.

The Annual General Meeting proper commenced at 1215, the minutes of which are circulated separately with this issue of *Sheetlines*. At the conclusion of the AGM, the new Chairman, Chris Board had the pleasant task to present an original Martin Ellis watercolour to Yolande Hodson as a Thank You from the Society for all her work since the society was founded in 1981. The meeting closed at 1315

Following the usual lurch at the Bricklayers Arms, the afternoon Map Market was a great success — well, lots of people seemed to find maps for their collections, and none of the stall holders looked gloomy.

Our Thanks goes to Steve Simpson for organising the refreshments and to Tim Nicholson for his organisation of the Map Market.

Lionel Hooper

(Regrettably, your resident photographer, who was using an unfamiliar 'new' camera, did not take any reproducible photographs with which to illustrate this report. Your editor did not do any better.)

Branston, 25th June, 1996

The date of the sixth Midlands meeting at Branston clashed with, not least, Euro 96, and three apologies for absence were received. Nevertheless, the meeting was a successful one with five members attending who had risen to the challenge of producing Large Scale maps of places within 25 miles of the meeting room. This had proved to be no easy task, but, as 'Large Scale' had been redefined

for the evening to include 1:25,000 maps, the selection turned out to be quite varied.

Several County Series Six-inch maps of south west Staffordshire and the Black Country proved of particular interest, largely for their canal and railway content. A 1960s County Council 1:25,000 overprint map of Cannock Chase had been brought along containing early rights of way prefiguring in

content, and to some extent style, the recently published *Explorer* sheet 6. Also on show were three maps of the Burton upon Trent area: a National Grid 1:10,000 sheet of nearby Walton-on-Trent, a pre-war Six-inch sheet of part of the Needwood forest, and a sheet of the 1:500 survey of Burton depicting the home of one of our members.

Later in the session members studied other pertinent small scale maps, including

Royal Air Force Museum, Hendon, 13th July 1996

On 13th July 1996, a party of seven members visited the Royal Air Force Museum at Hendon. The visit, which had been postponed from 8th June, was a follow-up to Tim Nicholson's talk on aviation maps at the 1995 Shap Meeting. We were welcomed by Peter Elliott, Keeper of Research and Information Services at the Museum, who acted as our host for the afternoon.

Mr Elliott explained that the Museum regarded Maps as falling into two main categories — those used for navigation, and those used for special purposes such as target maps and escape maps.

The Museum's aims are to collect :

- examples, rather than complete sets, of topographical and plotting series used by the RFC, RNAS and RAF covering all periods and geographical areas appropriate to operations in which the RAF and its progenitors took part,
- complete sets of special purpose maps used by the above services, provided the Museum has sufficient space available,
- representative examples of maps and charts used by allied and enemy forces.

Other maps giving historical information, such as the disposition of forces in a particular campaign, are judged on their individual merit.

the latest local 1:50,000 sheet 128 (edition B1) which appeared in the shops only a few days earlier, despite having a print date of 12/94. It seems the need to clear Southampton's old stock still prevents the OS from providing up-to-date small scale sheets.

The next meeting will be on Tuesday, 29th October, 1996 at Branston. See *Future Meetings* inside the front cover for details.

Lez Watson

Earlier during the day Tim Nicholson and Peter Elliott had selected various maps from the Museum's archive for members to examine. The maps selected illustrated much of Tim's article in *Sheetlines* 23 and in addition to examples of the more well known OS based RAF Air Maps, included:

Airfield Planning Maps — the map collection includes two sets of maps used by officers recording the sites of airfields in the two World Wars. One set covers Scotland at two miles to the inch, the other covers Britain using the quarter Million RAF edition. It was interesting to note that Lulsgate Bottom had been placed in the East Riding of Yorkshire (at 54deg N, 0deg 40'W); it is what is now Bristol Airport !

Early Aviation Maps included an Aviation Chart of North East France and Belgium dated 1916, the RFC Map No 2 dated January 1918 and a Hostile Aerodromes Map dated 5th June 1918.

An example Flak Map was based on an Outline and Water version of GSGS sheet 4072 — the 1:500000 (Air) Map of Europe, April 1945. It was noted that although the Luftwaffe was responsible for German anti-aircraft guns, intelligence on flak positions was collated by MI15 at the War Office. The map shown had probably been used by unit intelligence officers for planning purposes

and was unlikely to have been taken into the air. Rob Wheeler subsequently commented that he hadn't realised until the visit to Hendon, how general purpose the GSGS series had been — without the roads, contours and layering the source of the flak maps was not immediately obvious.

A rare example of a Tissue escape map based on a reduction of GSGS 3982 Sheet L32/7 of the area around Turin was shown. Escape maps on silk issued to aircrew are fairly well known. Other sheets were printed on tissue and far fewer have survived. The example seen was donated by a former employee of the EMI company whose task had been to develop a means of concealing sections of tissue escape maps inside gramophone records which were to be sent to POW camps.

A Decca Chart GSGS 5030, Sheet 14, (1968), based on the OS quarter inch 5th series, showed the map overprinted with aeronautical information and hyperbolae. The Decca navigator uses the synchronised pulses from four radio stations to determine an aircraft's position. The coloured hyperbolae — in red, green and purple, one for each slave transmitter — tend to obscure most of the map's surface detail.

Private Aviation maps included maps produced by the Automobile Association and examples from the private papers of Air Vice-Marshal Sir Edward Fielden, who had been Personal Pilot to the Prince of Wales (later HM Edward VIII) and Captain of the King's Flight. The maps also included those for the King's Cup Race in 1930 and a rare map of the Hendon-Lyon-Cannes Route for July 1935 in a cover depicting the Prince of Wales' feathers. However, Sir Edward's log book shows no trace of such a flight in 1935.

German maps included a 1940 composite strip map showing British defences and

associated aerial photographs of the coastal area from North Foreland to the Isle of Wight. A German handbook of British Aerodromes issued in November 1940 contained several photographs which appeared to have been taken by tourists !

A 1940 German copy of the OS quarter million map overprinted with potential targets had been almost faithfully reproduced — the publications note in the bottom left hand corner stated "First published bySouthampton, 1935." Members commented that the targets included potteries and breweries — obviously the German forces at the time were determined to undermine British morale by attacking the very heart of our national heritage — our cups of tea and our pints !

Another German example showed a Luftwaffe map of the Thames Estuary in 1942 where the colouring was probably selected to make best use of night vision and subdued cockpit lighting. Extra symbols for lightbuoys were provided in the margins to enable the map to be updated as buoys were moved or new ones laid.

After a thoroughly interesting afternoon members entertained Peter Elliott to some well earned tea and cakes in the Museum's excellent tea room.

Thanks are due to Rob Wheeler for arranging the visit; to Tim Nicholson for being a mine of information and advising on the selection of maps likely to be of most interest to members; and to Peter Elliott for hosting the visit. The author would especially thank Peter Elliott for allowing him to use some of the notes which the museum had produced to describe the map exhibits in the preparation of the visit report.

David Parsons

Map for the Bagshot Heath Manœuvres, 1792

Is it the first published map based on an Ordnance Survey?

Eugene Burden

A proof copy of William Faden's map prepared for the military manœuvres on Bagshot Heath in 1792 has recently come to light. It prompted speculation about the survey on which it was based. Circumstantial evidence suggests that it may be the first published map based on an Ordnance Survey .



On July 21st, 1792, William Faden published the above map and a dissected copy of the finished map in a slipcase is in the British Library, Map Library¹ The manœuvres were planned to be from Monday, 23rd July, until Wednesday, 8th August, and the King, Queen, Prince of Wales and members of the Royal Family were expected to attend, no doubt with the events in France firmly in their minds (the French Royal Family were under

arrest in Paris, and Louis XVI was executed shortly afterwards).

The finished map shows three proposed camp-sites, numbered and marked in red, and the proposed timetable for the manœuvres which were to end with a Royal Review. Large numbers of the public were also expected to attend and Faden, no doubt, expected to sell many maps as well as have them used by the officers.

¹ British Library (Maps C.21a.13).

Fig. 2 Site of Camp at Wickham Bushes, marked in red by hand on the original.

A proof copy of this map² was recently offered for sale at a London book fair. The engraved map does not show the camp-sites, which have been added, by hand, in red ink

(see figure 2 for site 1). The red ink markings overlie pencilled alignments. The proof copy is signed by Captain Macleod, one of the aides-de-camp named in the Order of Battle (see figure 3). Various other additions and corrections were made to the finished map. It is clear that Faden co-operated closely with the military authorities in producing this map.

The map was based on a careful survey and was more accurate than other maps of the area produced to that date. It was on a 1"-

scale and the features were closely followed by Sheet VIII of the Old Series Ordnance Survey published in 1816. This prompted speculation on the identity of the surveyor which suggested that he was William Gardner.

In 1791, the Duke of Richmond, Master General of the Ordnance, authorised the triangulation of Great Britain. This date is generally regarded as marking the foundation of the Ordnance Survey.^{3,4} William Gardner had already been appointed Chief Surveying

³ Yolande Hodson, *Map Making in the Tower of London*, Southampton, Ordnance Survey, 1991.

⁴ J.B. Harley and Yolande O'Donoghue, *Introductory Essays to the Old Series Ordnance Survey Map of England and Wales*, Lympne Castle, Harry Margary, 1975.

² Now in the author's collection.

Draftsman in 1787 and he had started a series of military surveys.⁵

In 1792, the Duke of Richmond, knowing he was to command the military exercises on Bagshot Heath, ordered Gardner to conduct a survey of the area.^{4,5} Robert Dawson, then aged 20, and a draftsman at the Tower Drawing Room, took part in the survey and he was most impressed by the “table hills” in the area.^{3,5} Gardner’s original drawings have not survived but one may justifiably argue that the map produced by Faden, and signed by one of the officers on the manœuvres was based on Gardner’s survey. Others qualified to judge may like to give an opinion on whether the map is in Gardner’s style, but it does show the finely drawn long hachures said to be a characteristic.³ One may possibly argue that this is an early example of an Ordnance Survey map and the first published example.

Faden clearly stole the march on his rivals. John Andrews was only able to rush out a map after the manœuvres had started. He amended Sheet 12 of *A Map of the Country Sixty Five Miles Round London* by adding a title and marking the camp-sites. He published it on July 24th, 1792.⁶ In the event, the manœuvres did not go as planned. During the first period at Wickham Bushes, by Caesar’s Camp, near Bracknell, the King and the Prince of Wales rode over daily from Windsor. Disaster struck in the form of a heavy rainstorm when the troops made the night march to Hartford Bridge, near Hartley Witney.⁷ The new camp-site was a swamp and officers and men were laid low by colds and “fluxes” caused by contaminated drinking water. The proposed march to Beacon Hill,

above Farnham, was abandoned and the troops returned to Wickham Bushes to prepare for the Royal Review.

The Review and the final exercises went well,^{7,8} but they were marred by the large number of spectators that came by coach, foot and horseback. One estimate put the numbers at 200,000.⁷ Another estimate said that over 50,000 came by coach, cart and wagon alone.⁸ The exercises finished by the soldiers being pursued for miles across the open heath by coach-loads of “well dressed sprightly females”.⁸

As a footnote, I should add that the dealer sold the map at a reduced price because someone had been writing on it!

I would like to thank Peter Barber for encouraging me to write this short account and particularly Dr. Yolande Hodson for pointing me in the right direction and for her great interest.

Editor’s note: Readers will appreciate the difficulty of reproducing Captain Macleod’s signature, but has been included because it is the authentication of the map. The author also included an illustration of a View of the Camp at Wickham Bushes, near Bagshot, from a drawing taken on the spot. Unfortunately it is too dark to suffer further reproduction.

⁵ Yolande Hodson, *Ordnance Survey’s Drawings 1789–c.1840*, Reading, Research Publications, 1989.

⁶ British Library (MT 6.d.1(2)).

⁷ Newspaper reports in *The London Recorder and Sunday Gazette* and *The Public Advertiser*. British Library (Burney 841 and 843)

⁸ Report in *The Lady’s Magazine*, Volume 23, August, 1792. British Library (P.P.5141).

The Unique Numbers applied to the 1:253,440 Fourth Edition (National Grid).

Roger Hellyer.

Over the years several notes have appeared in *Sheetlines* which discuss the system of Unique Numbers that the Ordnance Survey applied mostly to small scale maps, starting in 1947. It is now clearly established that certain parts of the series were allocated to specific classes of map, and the One-inch New Popular Edition sequences (1001-1307, 4701-4791), the One-inch Scotland Popular (National Grid) Edition (2201-2354) and the One-inch Seventh Series (4001-4041) numbers have all been listed by Richard Oliver, so far as they have been identified, in the booklets he has compiled on those series. Furthermore I was able to list in my book *The 'Ten-Mile' maps of the Ordnance Surveys* (CCS, 1992) the sequence of numbers starting at 3801 that were applied, or for the most part allocated rather than applied, to the 1:625,000 Planning Maps. It has always been our intention at some point to publish lists of the remaining numbers, but the larger of the outstanding sequences remain so full of gaps in the current state of our knowledge that it is not practical to do so, though there may at some point be some merit in printing a provisional list in the hope that the membership at large can add to the Unique Numbers known. At present the sequence relating mostly to maps at the six-inch scale, from 1-125, is half complete. That relating to the 1:25,000, starting at 751, has only seven gaps remaining, and is probably ripe for publication.

The miscellaneous sequence starting at 3201, and the sequence concerning large scale mapping, indexes and administrative maps numbered L1 to L1620 are both less than half filled.

I have at last been able to complete the Quarter-inch Fourth Edition (National Grid) sequence numbered from 2001 to the highest known, 2040. The numbers 2001-2018 were allocated, hypothetically in the sequence listed below, but since the entire edition had already been published in 1945-46, before the application of Unique Numbers, these were in the event never used. The first map of this type to receive a Unique Number was Scotland Sheet 4 when it was redesigned in 1948 with extension in the south to encompass the entire Kintyre Peninsula. After that reprints received Unique Numbers until 1952. They were never dated by more than their Magnetic Variation dates, and those not until 1949, for which reason these dates are included below.

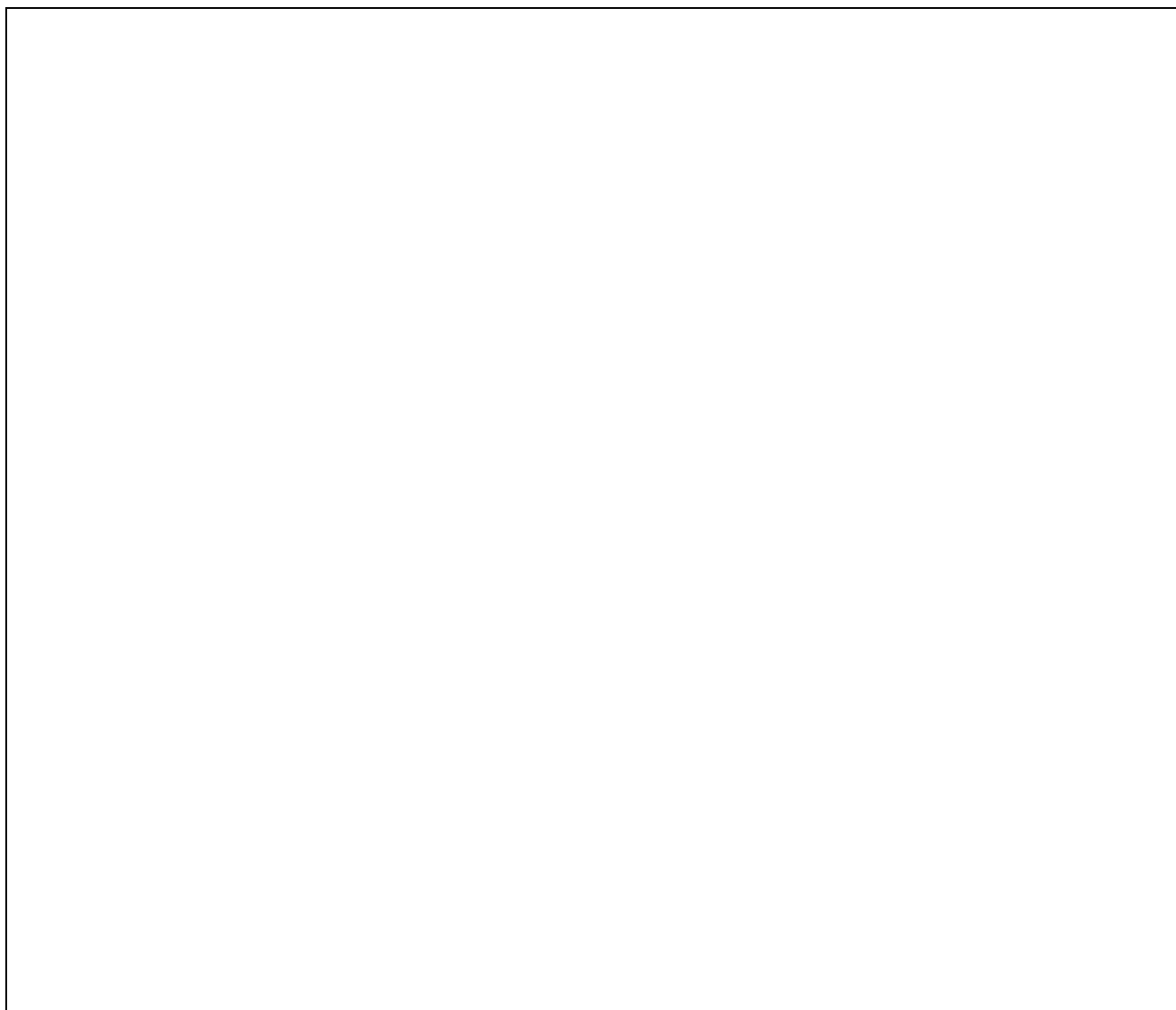
Most of the Unique Numbers have now been located on military issues, either GSGS 4628 or GSGS 4650, and all except 2037 are known on coloured civilian issues. The author or editor would welcome information regarding any known civilian printing of 2037, Scotland Sheet 3. So far the only recorded issue with this Unique Number is GSGS 4650, Fifth Edition, print code 15000/6/54 S.P.C., R.E.

2001	Probably allocated to Scotland Sheets 8 & 9
2002	Probably allocated to Scotland Sheet 7
2003	Probably allocated to Scotland Sheet 6
2004	Probably allocated to Scotland Sheet 5
2005	Probably allocated to Scotland Sheet 4
2006	Probably allocated to Scotland Sheet 3
2007	Probably allocated to Scotland Sheet 2
2008	Probably allocated to Great Britain Sheet 1
2009	Probably allocated to England And Wales Sheet 2
2010	Probably allocated to England And Wales Sheet 3
2011	Probably allocated to England And Wales Sheet 4
2012	Probably allocated to England And Wales Sheet 6
2013	Probably allocated to England And Wales Sheet 7

2014	Probably allocated to England And Wales Sheet 8	
2015	Probably allocated to England And Wales Sheet 9	
2016	Probably allocated to England And Wales Sheet 10	
2017	Probably allocated to England And Wales Sheet 11	
2018	Probably allocated to England And Wales Sheet 12	
2019	Scotland "Extended" Sheet 4	MV 1.6.1948
2020	England And Wales Sheet 10	[MV 1.1.1946]
2021	England And Wales Sheet 11	[MV 1.6.1945]
2022	England And Wales Sheet 12	[MV 1.6.1945]
2023	England And Wales Sheet 8	[MV 1.1.1946]
2024	England And Wales Sheet 9	[MV 1.1.1946]
2025	England And Wales Sheet 4	MV 1.6.1949
2026	England And Wales Sheet 6	MV 1.6.1950
2027	England And Wales Sheet 7	MV 1.6.1950
2028	England And Wales Sheet 2	MV 1.1.1951
2029	England And Wales Sheet 3	MV 1.1.1951
2030	England And Wales Sheet 4	MV 1.1.1951
2031	England And Wales Sheet 8	MV 1.6.1951
2032	England And Wales Sheet 9	MV 1.6.1951
2033	England And Wales Sheet 11	MV 1.6.1951
2034	England And Wales Sheet 12	MV 1.6.1951
2035	Scotland Sheets 8 & 9	MV 1.6.1951
2036	England And Wales Sheet 6	MV 1952
2037	Scotland Sheet 3	MV 1952
	(Military edition only so far recorded.)	
2038	England And Wales Sheet 8	MV 1952
2039	England And Wales Sheet 10	MV 1952
2040	Scotland Sheet 4	MV 1952

Variations on an Ordnance Survey cover design.

Roger Hellyer



Four variants of the cover design I tabulated as No 8 in John Paddy Browne's *Map Cover Art* (Southampton, 1991) have emerged recently, which marry uncomfortably with the descriptions there. One is on a copy of the One-inch Tourist Map *Dorking and Leith Hill*, the cover design of which is a more natural candidate for the 8.1.a.2 section. It differs markedly from other one-inch covers I have seen in lacking a location diagram, and is only different from the half-inch and two-inch maps of 8.1.a.2 in having

a wavy line divider between map title and price.

A second cover perhaps also best placed in 8.1.a.2 is on a three-inch map of *North Wirral* (print code 250/29) — a 1929 special map based on the 1920 Footpath Map. On this not only are coat of arms and scale (there is no price) in black, but also the single line border. In red are “Ordnance Survey”, the map title, and the information at the foot of the cover “Sold by Philip, Son & Nephew, Ltd., 20, Church Street, Liverpool.”

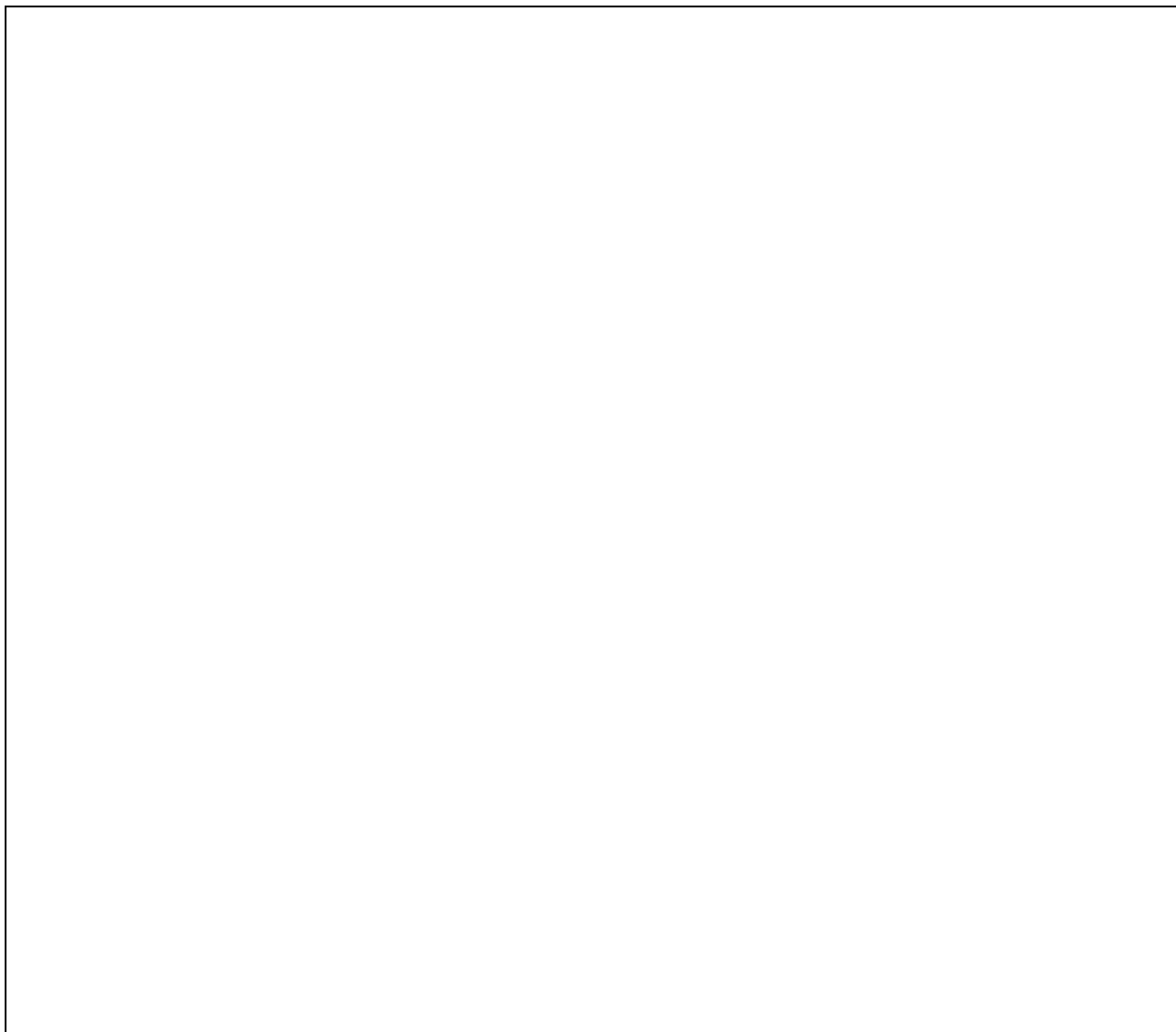
Another map has emerged that should be placed in the 8.3.b.2 “Large Portrait Format” section. During the 1930s some 25–inch plans were dissected into eight sections, mounted on cloth and given end cards. I have a copy of Staffordshire Sheet LVI.13 (print code 35/35) in this form.

The various map cover types in Section 8 of my list all of course had one thing in common, the use of the “Official” Royal Arms designed by George Kruger Gray (No 596 in Charles Hasler *The Royal Arms* (London 1980)). Recommended by the Royal Fine Arts Commission, it was adopted in 1924, and thanks to the white dots that initially formed its background, became known as the “snowstorm” design. It had appeared in OS covers from 1924, but, enlarged, became the what I adopted as

the feature of the covers in Section 8 of my list from 1928.

For that reason I had to exclude the 1930 half-inch map made for the *British Association Topographical Map for the Bristol Meeting 1930*, which became cover 80. But for its Bristol coat of arms it would have been in section 8.2. Now another exceptional case has emerged on a copy of the 1909 outline district map with coloured main roads of *Dundee District*. Like the other members of 8.2 all cover detail is black. The difference lies in its Scottish version of the Royal Arms, which is similar in design to Hasler 617, designed by Lyon King of Arms and approved by the King in 1930.

My thanks for information to Messrs Archer and Sanderson.



Depiction of Airfields on New Popular and Seventh Series One-inch Maps

John V Nicholls

I recently purchased New Popular sheet 179 *Bournemouth*, at a local second-hand market for the princely sum of 50p, my modest collection of OS maps and plans being acquired by the cheapest possible method. Fortunately, I am not someone who requires pristine copies and however worn and tatty, all of my OS maps are treasured possessions, appreciated in their own right. I use them as a tool in pursuance of my many other pastimes and interests such as English canals, long forgotten railways and, in general, the ever changing landscape of Britain. I am the Membership Secretary of the Airfield Research Group (ARG) and hence the interest in airfields on maps.

The map was coded 1154, of 1947/48; and what immediately caught my attention on a first cursory study was that the airfield at Tarrant Rushton (ST 946058) was depicted in full detail, something I thought unusual on a One-inch map of this period. Lez Watson, also an ARG member, informed me that no

airfield was shown on his sheet 179 of 1946, coded 8046/Cr. This was the first of a number of anomalies and variations in the depiction of airfields on the post-war New Popular and early Seventh Series One-inch maps. I will limit my observations at this time to Tarrant Rushton and to Boreham airfield in Essex.

New Popular editions, as to be expected, would not normally show airfields and other sensitive establishments such as military installations and oil refineries, etc.. Some early post-war New Popular One-inch do show their pre-war origins, as, for example, on two copies sheet 169 (London S.W.), coded 30047 and 1142, which depict a good mix of pre-war civil and military aerodromes with details of buildings at Brooklands, Hanworth, Heathrow, Heston, Kenley, London Airport (Croydon) and Redhill.

I have subsequently obtained other editions of sheet 179, including a 1940 dissected, coded 11041, edition, and the plot

New Popular code 1154, 1947

code 1236, 1951

Seventh Series edition A, 1962

TARRANT RUSHTON AIRFIELD

It is interesting to note that the code 1236 map shows the roads as existing before the building of the airfield; on the 7th series all spot heights have decreased by one foot and the trig point 181 has become a spot height. On the 5th Edition, sheet 140, Tarrant Rushton church is depicted with a tower.

thickens. The 1947 map, coded 1236 and with a magnetic variation date 1st Jan. 1951, does not have any indication of an airfield at Tarrant Rushton. And also, the Airspeed aircraft manufacturing site at Christchurch airfield and the Blandford Camp Army barracks, shown on the earlier map(s) have similarly disappeared. As I have not seen copies of the final printings of the New Popular editions (E and E/ issued in c1954 and c1958), I am not aware if representations of the airfield appeared on these.

The airfield did reappear on the Seventh Series. My 1962 reprint (coded A/) shows the airfield as the familiar white space notated "Tarrant Rushton Airfield". However, all the other airfields on this sheet, i.e. Christchurch, Holmsley South, Hurn, Ibsley and Stoney Cross, as well as the Blandford Camp, are shown in complete detail. By the 1971 edition, coded C, Tarrant Rushton is again depicted in full.

Tarrant Rushton airfield construction was started in May, 1942 and handed over a year later. It was declared surplus to requirements in December, 1947; it lay abandoned until June, 1948, when it was taken over by Flight Refuelling Ltd. The company was involved with airborne refuelling systems and conversions, not only for the Royal Air Force, but many overseas air forces. In the 1950s, the airfield was one of many stand-by sites for the dispersal of the V-bomber force in time of war. Flight Refuelling moved to Hurn Airport in 1979 and the airfield officially closed in 1980.

I have also not seen Seventh Series edition A, 1960; edition B, 1966.

Boreham airfield (TL 743120) was built by the 861st Aviation Engineer Battalion in 1943, one of eight Class A bomber airfields built by the American Army's Engineer Battalions in Essex. After the war it was used for a while as a motor racing circuit and then bought by the Ford Motor Company as a test circuit. It is still owned by Ford Motorsport.

It appears on the overlap of New Popular and Seventh Series sheets 161 (London N.E.) and 162 (Southend-on-Sea). Depiction of this airfield and its buildings is interesting both for its errors and variations.

New Popular sheet 161 of 1951 (code 1255) and 1953 (code F) show all the airfield buildings and the dispersed living sites. However, with my personal knowledge of the airfield layout, I detected an error. The only major building not depicted is the hangar on the south-west corner; it *is* there on the map, but as a nice blue rectangular pond! (Other actual pre-war ponds, filled when the airfield was constructed, are still depicted.) No other airfields, pre-war or wartime, British or American, are shown on these two sheets even though some of the sites had been virtually abandoned by 1947. Sites include Chipping Ongar, Fairlop, Great Dunmow, Hornchurch, Hunsdon, Matching, North Weald, Stansted Mountfitchet and Stapleford Tawney. The last named was a pre-war civil aerodrome before its wartime military use, but none of the civil buildings are depicted.

Sheet 162 for 1946 (code 20,046/7/46.Wa.) has no depiction of Boreham airfield. It does appear on the 1951 map (code 1274) in the same manner as the two 161 sheets referred to above but with the south-west hangar correctly shaded black. (The large Romney hut adjacent to the hangar which still remains to this day is not shown. It is represented as an addition to the hangar on the Seventh Series.) No other airfield sites are depicted on these sheets, such as Birch, Bradwell Bay, and Rivenhall. On the 1951 edition, a hint of Bradwell Bay (TM 005082) can be detected by the deletion of the road leading to the farms at East Wick and Weymarks, leaving them sitting rather incongruously in a white space. An indication of Rivenhall airfield can also be seen on this edition. At TL 824204 there is a group of buildings which were formerly the communal and headquarters sites, which had been taken

over as refugee accommodation camps in the late 1940s. The buildings on these sites are still extant.

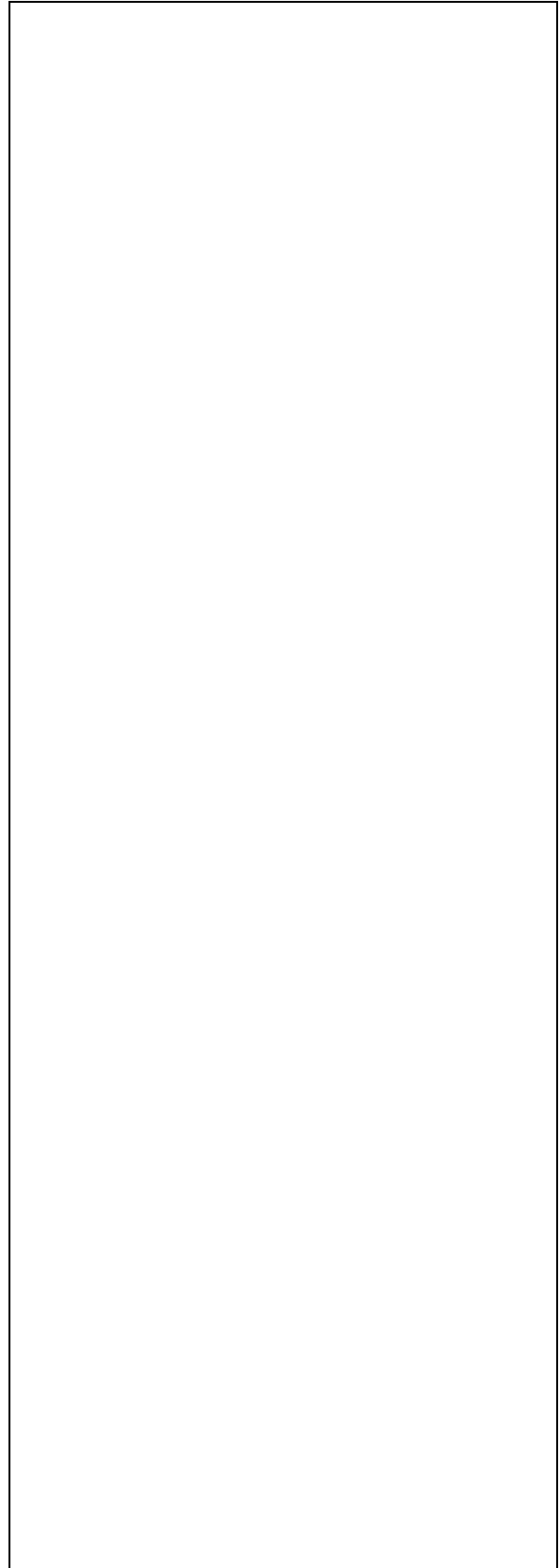
The different ways of depicting of Boreham airfield sheets 161 and 162 on the Seventh Series is also worthy of note. On all of the copies of the Seventh Series 161 in my collection (1960, code A/; 1964, B; 1968, B/* and 1970, C), the airfield is shown in full detail including the runways, perimeter and bomb stores track. The variation arises with sheet 162 — on the editions for 1961, coded A/ and for 1965, coded A/*, only the buildings, perimeter and bomb stores track are shown. No details of the runways are depicted. They only appeared on the 1969 edition coded B. What was the reason for sheet 162 not catching up with 161 for perhaps eight years?

I have not the opportunity of viewing sheet 161, New Popular 8046/Cr, 1946; code 1137, (date?); code 1149, (1948?); Seventh Series edition A, 1958; or sheet 162, New Popular 10045/Ch, 1945; code 1197, 1949; edition F, 1956; Seventh Series edition A, 1957.

I would like to thank Lez Watson for giving me information from his map collection and files in the preparation of this article. Any member who has information on similar anomalies and variations of the depiction of airfields can contact me (with the possibility of a more detailed follow up article) at 220 Woodland Avenue, Hutton, Brentwood, Essex CM13 1DA.

John Nicholls would be pleased to furnish details of the Airfield Research Group to anyone interested. The Group was formed in the late 1970s and is dedicated to the dissemination of material on the history, architecture, development and current status and use of military and civil airfields in the UK. Peripheral interests such as radar sites and aeronautical memorials are also covered in the Group's journal, *Airfield Review*, which

is published three times a year. Membership is open to all by annual subscription.



Some previously unrecorded one-inch coloured maps of Ireland.

Roger Hellyer.

Publication of the coloured one-inch map in Ireland began in 1902, but recently some earlier and presumably unpublished issues have been recorded. There is in the Map Library, Trinity College, Dublin, a most interesting undated printing of Sheet 129, probably made about 1897, much the same time as the first sheets of the comparable map of England and Wales were published. We can date it with some confidence, because the black plate used is of the first edition outline engraved sheet in its republished form of 1890. It therefore precedes the revision of 1898 which was published in the second edition in 1899. And, being coloured, the map is unlikely to be earlier than 1896.

But the border has been redesigned, and is of exceptional interest, in being divided into alpha-numeric two-inch sections, as was introduced on the coloured map being issued from 1896 in England and Wales. Its use in Ireland is curious, however, in that when this Sheet 129 was published in 1902, it was one of a block of sixteen sheets all of

which retained the graticule border of the engraved map, with no alpha-numeric system. Other 1902 sheets have alpha-numeric borders in two-inch sections, but I know of no other Irish map other than this one before that date.

Route destinations for main roads are present, in much bigger lettering than is normal. Unusually, if not uniquely, the destination of the railway is also labelled, at least to the south (it is less obvious in the north since the railway and a road meet the neat line at the same place). But another detail that really singles this sheet out is that route mileages are also offered, so far as I know, for the first time on an Ordnance Survey map. This is information that was not printed as standard for about another ten years on the England & Wales One-inch Third Edition (Large Sheet Series). But even then the information was only given in round figures. On this sheet distances are accurate to the furlong: thus we see labels such as "To Tullow $7\frac{1}{8}$ Miles", and "From Carlow $11\frac{7}{8}$ Miles". Can any member offer

Extract of One-inch Sheet 129, circa 1897, showing route mileages.

earlier instances of what may be the unique features of this sheet?

Three sheets, 101, 119, and again, 129 have been recorded that carry 1901 dates. All have graticule borders, and were printed from transfers to stone. They were quite probably made for military use prior to their publication a year later. Sheet 119 is of particular interest. It is priced 1/6 instead of the standard 1/-, and the area of The Curragh is shaded black. The copy known is in the Department of Geography, The Queen's University of Belfast. It would not be surprising were Sheet 120 to emerge in similar style and date, covering the remainder of the area of The Curragh.

In his summary lists in "The one-inch maps of Ireland to 1922: a summary" in *Sheetlines* 30, p.10, Richard Oliver noted the existence of two I-3-SC sheets, 36 and 129. Neither of them carried the words

"Third Edition", though they do have second revision dates. Several sheets reprinted by OSI after partition similarly carry second revision dates, and three sheets, 174, 187, 200/205, are now recorded with "Third Edition" headings, though perversely Sheet 200/205 only has a first revision date of 1899. It is perhaps too early to offer a definitive list of OSI reprinted sheets, though 65 have been noted to date. However, another I-3-SC sheet has been discovered, in the Record Map Library of the Ordnance Survey of Northern Ireland in Belfast. It is Sheet 60/61pt, dated 1914, again with no "Third Edition" heading, and printed, almost certainly at Southampton, as late as 1932 (print code 250/32) on Place's waterproof paper. This was just three years before it was presumably superseded by the OSNI Popular Edition district map *Mourne Mountains*.

Postscript.

The list of district map printings provided at the end of my article on Irish one-inch maps in *Sheetlines* 43 was provisional, and many further states have since been noted and reported. It is my intention at some future date to publish a revised list, and it would be appreciated if any members with knowledge of additional states would report the information to me at 60, Albany Road, Stratford-on-Avon, Warwickshire CV37 6PQ

BATH, Fifth Edition, Sheet 111, Bristol and Bath, 1937, (code 60/37)

Some further notes on military mapping in Ireland.

Roger Hellyer.

I. The Irish military 5,000 Yard Grid

A recent visit to the Military Archives, Cathal Brugha Barracks, Rathmines, Dublin enables me to offer members some further information on the Irish 5000 yard grid, and the map series on which it was used. While among the archives' holdings there are undoubtedly many thousands of maps, these support the military operations for which they were used, and are therefore not catalogued in their own right. Thus I counted myself very fortunate during the course of an afternoon visit last October to see both documents and maps enough to write a preliminary report.

The 5000 yard grid was introduced by the Irish military authorities in 1940, characteristically overprinted in red, apparently for use on only two scales of map. These were the half-inch, known as the operational map, and the one-inch. Special requirements pertained for each scale.

The Half-inch map

The overlaps present between sheets of the half-inch map of Ireland were generally to be eliminated "with a view to conserving stocks of paper and minimizing work in their production.... Sheets having their extents curtailed in this way will be distinguished by having the letter A added to the Sheet Number"¹. I was not able to find copies of all the sheets of the half-inch map in the new military edition, so cannot describe all the overlaps so altered. But my own

copy of Sheet 2 has an adjoining sheet diagram which shows Sheet 4A reduced at the top to abut Sheet 2, and Sheet 5A still overlapping Sheet 2 to the north, but reduced to the west to abut Sheet 4A. The overlap between Sheets 8 and 9 was likewise eliminated from Sheet 9A.

The only other sheet I know about is Sheet 25. This case is unique, being the only sheet to exist in the military edition in both unmodified and modified forms. Presumably the sheet was first issued prior to the decision to eliminate or reduce the sheet overlaps. In

*Extract of Half-inch Sheet 2
with Irish 5000 Yard Grid. (Full size)*

¹ Document Ref. A.D.27. Secret. / C.S.O. G2 Branch, 27 August 1940, in file G2/X/0351.

this case the twelve-inch overlap of its original 1918 edition was to be reduced to six. Thus we learn from the document noted above that a stock of 950 copies of the unmodified and gridded full Sheet 25 remained, in addition to 1100 copies of the modified Sheet 25A. "This will be the only case in which the modified and gridded edition will be available in both sheet sizes and it is not proposed to print any further supplies of same in the full sheet size". Since the war all civilian printings of Sheet 25 have incorporated the new 27 by 18 inches dimensions of the war-time Sheet 25A.

Three specific editions of the half-inch military map were issued. Almost all sheets were headed "Modified Edition". The first to appear was an outline edition with water and contours coloured, in 1940. In 1942 a coloured edition with hill-shading was issued, and in 1943 a document dated 28 February made reference to a change from hill-shading to layers. Some later issues lack the layer colours, and I have a copy of Sheet 16 dated 1951 in this style. Mapping on all the sheets seen covering Northern Ireland is redrawn. Secret editions were prepared using this map as a base.

All these sheets may be found in quantity in the Military Archives in Cathal Brugha Barracks, given the time to search enough files. Those sheets that I saw were usually glued together into large composite maps overdrawn with operational instructions. At the time this practice struck me as another reason why the military requirement should have been for a map with minimum overlaps. There are in addition copies of Sheets 22 (hill-shaded), and 23 and 25A (layered) in the Map Library, Trinity College, Dublin.

The One-inch map

Readers of my article "Sheet lines: some notes on GSGS 3917 and other one-inch large sheet maps of Ireland" in *Sheetlines* 43 will have noted at its conclusion the expectation

of a Combined One-inch series, each sheet of which will contain four of the traditional Irish small sheets. And so it proved. Some documents that I found also in File G2/X/0351 revealed something of the origin of the series, that on 29 January 1941 a 54 sheet layout was still the intention, though this had been increased to 55 by 13 March 1941. An undated Memorandum, attached to the 13 March document, announced:

O.S. Map of Ireland 1" to 1 mile — Military Edition — Large Sheets incorporating 4 Sheets of Standard size.

1. The Ordnance Survey have now completed the above map which has all detail printed in Black and the 5,000 yard grid in Red. The entire country is covered in 55 sheets.

2. Co-ordinates of this map are interchangeable with those of the 5,000 yard grid on the ½" to 1 mile Operations Maps.

3. It is not proposed to make any general issue of this 1" to 1 mile map. The ½" to 1" mile O.S. map will continue to be the general operations map for all units.

4. Issues of the 1" to 1 mile map will be made as follows:-

Commands 10 Sets (40).

(Divisions) 10 Sets (40).

Brigades 10 Sets (80).

Artillery Corps — about 100 sets.

(The artillery Corps will use a 1/20,000 map for gunnery but will use the 1" to 1 mile map for liaison purposes with the infantry and formation staffs).

Military College — As required.

5. Ordnance Survey are being informed that they should make issues as detailed in paragraph 4, and in addition meet demands from Commands and Military College for supplies of this map as required for special purposes.

6. Ordnance Survey will hold a reserve stock of about 300 sets and a supply to meet current replacements.

I was fortunate enough to locate one of these sheets in the Military Archives in Rathmines. It was Sheet 51 Cork, dated 1940, and headed "For Military Use Only". On the red plate is the 5000 yard grid and its co-ordinate values, and, top left "1:63,360", and bottom centre "5000 Yard Grid". The publication information bottom right reads: "Printed by the Ordnance Survey Department and published by the Director at the Ordnance Survey Office, Dublin, 1940". Other marginalia include a diagram shewing Numbers of adjoining Sheets, the legend, scale bars in yards and metres, altitude datum and the magnetic variation date, 1940. From the adjoining sheet diagram we are able to deduce that Richard Oliver's hypothetical layout appearing on p.17 in *Sheetlines* 43, while close, is not quite accurate, but since the information which will confirm the correct layout throughout the island is still unavailable, the provision in *Sheetlines* of a second potentially inaccurate diagram is not considered advisable. But what can be deduced from adjoining sheet diagrams is that the layout permitted a shift 18 inches laterally in some rows, and this is the case with 49-52, which is 18 inches east. Sheet 55 overlaps 54 by 18 inches, though why this should have been considered necessary is unclear: far better would have been to move Sheets 53 and 54 18 inches west in order to eliminate any extrusions necessary on Sheet 53. If one looks further north, one can also see that if the second and third rows were displaced by 18 inches from Sheets 1-3, then with Sheets 4-7 in row 2 and 8-11 in row 3, almost all extrusions could be eliminated. But we must await either an index or the evidence of some northern sheets to confirm this.

But more was to come. Not only did we now have confirmation of another one-inch

map of the whole of the island of Ireland, but there was, in the same file as this copy of Sheet 51, a district map entitled Limerick Areas. It is also a full sheet at 36 by 24 inches, and is numbered Sheet 39A. It is coloured with brown hachures. Contours are present on the base plate, and both water and roads are coloured blue. There is no green plate. Red was reserved for the 5000 yard grid and again some marginalia. The publication information is "Printed by the Ordnance Survey Department and published by the Director at the Ordnance Survey Office, Dublin, 1942".

We may thus summarise. The 5000 yard grid was introduced in 1940, for use on the half-inch map and the One-inch Combined Sheet Series map. I am told the grid was also applied to the one-inch district maps: a copy of *Cork* is in the Map Library, Trinity College, Dublin, but I have yet to confirm the existence of *Belfast, Dublin or Wicklow*. It is reasonable to assume that the grid would have remained in use until the introduction of the Irish Transverse Mercator [Metric] Grid in 1955 — the latest map retaining the yard grid that I have so far seen is dated 1951. Brian Adams has kindly calculated the origin of the grid, and these are his findings:

"The false origin [is] at or near the SW corner of the one-inch sheet-line system, i.e. south of 197 and west of 203. I say 'at or near' because use of the actual SW corner would leave both false co-ordinates of the true (Lough Ree) original ending in .33333... yard. They might have left them like that, or knocked off the thirds, or added two-thirds, or if they did alter them they might have rounded them up to the next ten; so....."

To clarify the previous point, on the Bonne's Projection of Ireland the western neat line of the original one-inch full sheet 197 is 597,280 feet west

of the true origin in 53°30'N, 8°W, and the southern neat-line of full sheet 203 is 787,960 feet south. Whence, if the

false origin of the yard grid were located precisely at the SW corner of the one-inch system, the co-ordinates of the true origin would be:

199,093·333....yards east,
262,653·333....yards north.”

II. The War Office Irish Grid

Two one-inch sheets in the Department of Geography, The Queen's University of Belfast, may be of interest. They are Sheets 7 and 19 of the One-inch Outline Third Edition, both overprinted in purple with the War Office Irish Grid. They carry the grid in what I take to be an early form, showing in the border three-figure co-ordinate values every 10km, but no values between these. The values are restated in two-figure form across the face of the map. When I wrote my article on GSGS 3917, I knew nothing of these maps, but now that we have record of two sheets of what it is not unreasonable to assume may be a gridded military map at least of the whole of Northern Ireland, I am even more at a loss to understand the need for GSGS 3917 than I was before. One would

have thought the very eccentricity of its sheet lines would have outweighed any advantage in its generally larger sheets, and it would presumably have been as easy to apply overprinted contours to this map as to that one.

It would be valuable if one of our members expert in the niceties of military maps and grids were able to comment further, the more so since it is singularly unfortunate that the margins of both these maps have been cut back, in places almost to the map frame, though the printed marginalia is retained, so we cannot tell what if any military publication information was originally printed. A GSGS number is unlikely, but, again, may have been removed.

I would like to acknowledge the assistance in the preparation of this report of Commandant Peter Young and the staff at the Military Archives, Cathal Brugha Barracks, Rathmines, Dublin, of Paul Ferguson, Map Librarian at Trinity College, Dublin, of Mrs Doreen McShane, Map Librarian of the Department of Geography, The Queen's University of Belfast, and of Brian Adams.

Mirrors of History—4 Civil War on the Streets

Tim Nicholson

During the first Irish “Troubles”, the war between the forces of the Crown and the Nationalists ended in December 1921 with the Anglo–Irish Treaty and the foundation of the Irish Free State. But in the northern counties, where a preponderance of Protestant Unionists over Catholic Nationalists had produced a civil — and, indeed, a religious — war, a parallel conflict continued.

Its main arena was Belfast. Here, sectarian violence began in spring 1920, its armed face represented on one side by the Irish Republican Army, and on the other side by the unofficial, civilian Ulster Volunteer Force, the official, but demoralised and ineffective Royal Irish Constabulary, and the British Army. A night time curfew was imposed in August, and in October the Royal Ulster Constabulary, recruited from Protestant Unionists, was set up to reinforce the RIC. In December, the Government of Ireland Act established Northern Ireland as a distinct political entity.

Killings and reprisal killings by the IRA, UVF and police of each other and of uninvolved men, women and children mounted. The first quarter of 1921 was regarded as a quiet spell, with “only” 12 dead and 24 injured. The declaration of a truce on 9th July, 1921, had little effect in Belfast — the 10th was “Bloody Sunday”, on which day alone 15 people died. The violence continued throughout the first half of 1922; after that it subsided into an exhausted state of semi-peace. In the two years between mid-1920 and mid-1922, more than 450 civilians had been killed and over 2000 injured.

In 1921, at the height of the conflict, a special Ordnance Survey map of Belfast on the Six-inch scale was produced. On it were overprinted flashpoint areas, the dispositions

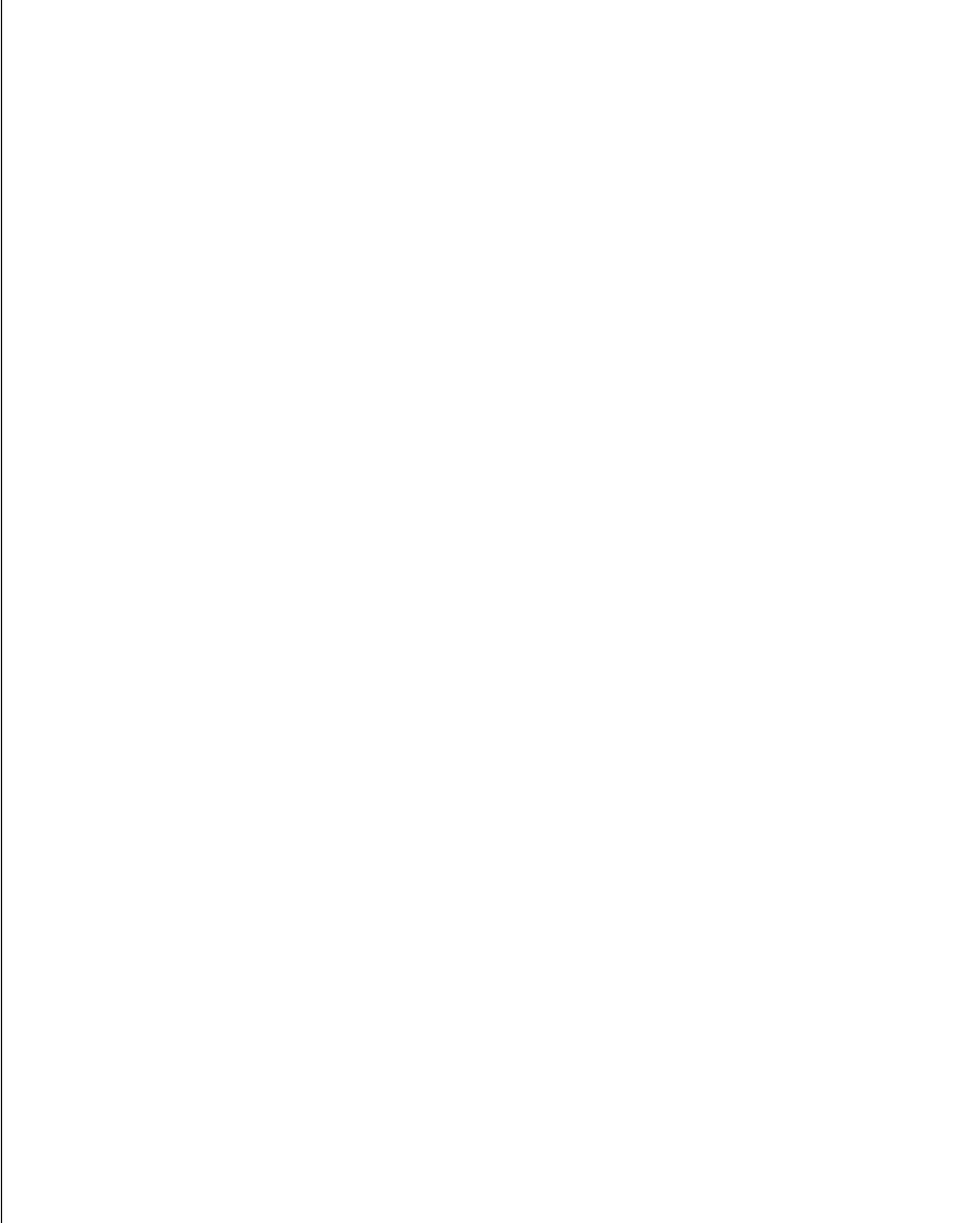
of the security forces, and an alphanumerical squaring system with ½ mile (3 inch) intervals. Predominately Catholic areas were distinguished appropriately by a wash of Nationalist green. Military road blocks, police district boundaries, and the squaring system were in red, while police barracks and the county borough boundary were shown in blue.

The writer has traced no contemporary civilian version of the base map, which appears to have been printed especially for the security forces. It was a composite of standard Second Edition Six-inch sheets, put together by an unspecified lithographic process giving a rough result. The sheets concerned were part of Co. Antrim sheet 60, all of Antrim sheet 61, and all of Co. Down sheet 4. All had been published in 1904. The revision date on the composite map is given as 1901–2, which bridges the revision dates of the component sheets. The imprint was, of course, still that of the original OS Dublin office; surely making this map one of the last new products to come out of Phoenix Park before the Free State’s own Ordnance Survey was set up in 1922.

Not surprisingly, in view of the security implications, the Ordnance Survey of the almost equally new Government of Northern Ireland issued its own, updated Six-inch map of the turbulent city in 1923 — barely before the gun-barrels had cooled. The revisions of 1917–20 that were incorporated show that the 1921 map had been badly out of date in places. Whole new streets had appeared since 1901–2, which was a serious defect in a security tool. The new map was heliozincographed from 1:2500 plans, this time giving a notably sharp and clear result. There was a marginal squaring system at two-inch intervals. The map was printed in

full colour, and came with an index of street names. It was on this map that the more familiar Belfast Six-inch town map of 1933

was based, sharing the same sheetlines, but uncoloured and printed on flimsy paper like contemporary English town plans.



Extract from the Six-inch Belfast “security” map of 1921, showing overprint.

Some unrecorded one-inch maps with hachures.

Roger Hellyer.

I. Scotland.

Twice recently has it been my experience that as soon as I have committed a subject to print, further information emerges immediately afterwards. I report elsewhere in this issue on a visit I made to the Military Archives in Dublin where I found sheets of the Combined One-inch map of Ireland, a discovery which necessitated a revision of the concluding section of my article in *Sheetlines* 43 on Irish large sheet one-inch maps. But at least, in a sense, that was expected. Completely unexpected were some unrecorded Scotland one-inch engraved maps with hachures located in the Map Library of the Department of Geography, University of Edinburgh — and not just one or two, but seven sheets which were not listed in the Ordnance Survey Publication Reports, and which as a consequence seem not to be in the copyright libraries.

As I noted in my article “One-inch engraved maps with hills: some notes on double printing” in *Sheetlines* 44, the programme of making separate hill plates for the whole of England and Wales had been completed early in 1903. The department then turned to the daunting task of separating 132 Scottish topographical plates from their hachures. The temporary publication by zincography of the S-2-H edition was also completed by 1903 (not 1902 as I stated in *Sheetlines* 44), and Sheets 1-3 appeared late in 1903 in engraved form before second edition publication was abandoned in favour of Third Edition. Although production of S-3-O had begun a year earlier, so successful had OS techniques become at separating hills and topography on to different plates that the backlog had been cleared in Scotland by 1905. Thereafter hill editions followed outline editions almost immediately, and in at

least one case (Sheet 27) preceded it. In the case of Sheets 83 and 84, the hill plates were obviously ready a year or more ahead of the Third Edition publication material, and thus incredibly the hills were applied in these two instances in November 1910 to second edition maps! Whether this was done experimentally or as an interim publication measure it is probably at this stage impossible to determine. Thus the total of Scotland engraved second edition with hills sheets has risen to five — Sheets 1-3 produced at the end of 1903, with 83 and 84 seven years later.

I also commented in my earlier article (p.19), that when the decision came late in 1911 to discontinue publication of the hill edition, only 28 Scotland Third Edition sheets had not been printed with hachures. I might have added in a footnote that these were Sheets 79, 83, 84, 99, 102-105, 109, 110, 115-131 and the theoretical possibility also of making a separate Sheet 50. Sheets 83 and 84 are now accounted for, albeit in second edition format. Among the other apparent casualties were six sheets, 79, 99, 104, 105, 109, 118 of which outline editions were published before the end of 1911. The manufacture of separate hill plates for many if not all of these sheets must have been in progress at the time of cancellation, and now it transpires that at least five of them, 99, 104, 105, 109, 118 were ready, and copies of them are in Edinburgh. All have embossed printed date stamps dated December 1911, i.e. after the discontinuation of the hill edition had been announced!

Thus I should revise the totals listed on p.19 in *Sheetlines* 44. 109 Third Edition sheets were issued with hills before cessation in 1911. With the addition of 5 sheets (3 of them the same) appearing in second edition

form, we may summarise that 111 Scotland double engraved hill sheets have now been

recorded, leaving only the 21 sheets (50, 79, 102, 103, 110, 115-117, 119-131) outstanding — or 20 if Sheet 50 was not intended.

II. England

Since writing the article, it has become clear that work continued on hachured issues by zincography in England until 1901, by which time two sheets, 147 and 161, had been reissued in NS-2-AH form. Their marginalia was only imperfectly adjusted, with no new publication date or date of revision. They do have reprint codes, and are provided with the fuller legend box characteristic of second edition maps. Their mapping is thoroughly revised. Thus in the case of Sheet 161, we have the remarkable situation that there were three completely different zincographed issues with hills, in four different printings recorded so far. First came the prototype *Advance Edition with Hills Photozincographed* of 1892, illustrated in *Sheetlines* 5. In 1894 the same map was published, with its hills heliozincographed, in

the *Temporary Advance Edition with Hills*, and it is this issue that reached the copyright libraries. The black plate appears to be the little altered — the addition of adjacent sheet numbers, new publication details, the removal of the reference to turnpikes in the legend. But the hill plate was wholly new. The sheet was reprinted in 1899 (reprint code 40/99: copy in RCHME, Swindon). In 1900 came “Reprint 30/1900”, which was actually a new map with a completely revised black plate in second edition style. The printed publication date was now 1893, not 1894! NS-2-AH 147 appeared in 1901 (print code 50/1901). There are copies in the OS Record Map Library (Sheet 161), and the British Library (Maps 1175 (315) — both sheets). Both sheets 147 and 161 were replaced by NS-2-H editions in 1901.

I am very grateful to Richard Oliver, and to Alastair Fleming, Map Librarian in the Department of Geography, The University of Edinburgh, for their assistance in the preparation of these notes.

New maps

Ordnance Survey of Great Britain

New publications between 1 January and 30 April 1996 included the conventional paper maps:

1:250,000 administrative Boundary Maps:

Sheets 2-9 inclusive (4/96). These use the same sheet lines as the 1:250,000 *Travelmaster* sheets, and are available at £18:00 each, paper flat only. They include the new unitary authorities which came into being on 1 April 1996; the boundaries are shown in green, the boundaries of administrative counties are in brown, and the boundaries of administrative districts are in green, all on a grey base. (Presumably there will be a new edition of these maps post April, 1997, when the second tranche of unitary authorities come into being.)

1:63,360 tourist map:

Yorkshire Dales, A1 (2/96).

1:50,000 *Landranger* (2nd Series):

9, A2 (3/96);	18, A2 (3/96);	19, A2 (3/96);	26, B (3/96);
28, A1 (1/96);	30, A2 (1/96);	33, B1 (1/96);	52, A3 (1/96);
75, A2 (2/96);	126, A5 (4/96);	129, B2 (3/96);	131, B1 (4/96);
160, A2 (3/96);	162, B2 (4/96);	163, B1 (4/96);	166, B3 (3/96);
171, B2 (2/96);	172, B1 (3/96);	191, B ([revised 1995], 2/96).	

1:25,000 *Explorer* (2nd Series):

10, *Gower* (1/96); *The Trossachs* (3/96).

12, *Lleyn Peninsula west*, 13, *Lleyn Peninsula east* 14, *Malvern Hills*, and 15, *Rutland Water*, have subsequently been issued in June and May respectively.

As a result the following *Pathfinders* will presumably be withdrawn:

785 (SH 45);	801 (SH 34/44);	821 (SH 13/23);	822 (SH 33/43);
843 (SH 12/22/32);	896 (SK 80/90);	1019 (SO 84/94);	1042 (SO 83/93).

Gower replaces the unique *Pathfinder* 1126.]

1:25,000 *Outdoor Leisure Maps* (2nd Series):

30, *Yorkshire Dales: northern and central* (1/96).

38 *Ben Nevis and Glen Coe* (6/96).

County street atlases:

New titles: *West Yorkshire*; *South Yorkshire*; new editions: *Berkshire*; *Hertfordshire*.

They are all published to a new specification, including colour-coding of through routes, and are available in hardback, spiral and paperback editions.

[*Durham* and *Tyne & Wear* are to be published similarly on 12 August, and *Surrey* on 14 October.]

It is hoped to include a review of an atlas in the new multi-colour style in *Sheetlines* 47.

Ordnance Survey of Ireland

The following 1:50,000 *Discovery* series sheets have recently been published:

First edition: Sheets 86, 88, 89.

The Godfrey Edition

Between 6 April 1996 and 24 June 1996 coverage was extended to the following places:

Banager;	Barton upon Irwell;	Bognor;	Brecon;	Cannock;
Cheltenham;	Coventry;	East Wickham & Welling (Kent);		
Hendon;	Lincoln;	Redcar & Coatham;	Winchester.	

Richard Oliver

1:50,000 and 1:100,000 mapping of Northern Ireland

It may be remembered that in *Sheetlines* 40 (1994, p.22) Richard Oliver referred to the then recently published Ordnance Survey of Northern Ireland 1:50,000 Sheet 36A, and wondered why it had been produced. In *Sheetlines* 42 (1995, pp 51–2) he referred to a 1:100,000 map of Northern Ireland which OSNI were advertising in their current map catalogue, which has so far not materialised. Very interesting information has now reached

him from a trustworthy gentleman whom he will call Mr Seamus O'Mole. It appears that the suspicions of some of us are confirmed, and that 1:50,000 36A was indeed produced at military behest. It appears also that a sales stock of one of the four sheets of the 1:100,000 (which already covers the whole of the 'six counties' in an edition restricted to the military) was printed, but then destroyed!

Review

Large Scale National Grid Index, Southampton, Ordnance Survey, 1995, pp 178, spiral bound, A4, £12.50, ISBN 0-319-00876-2.

This is described as 'showing the last editions of Ordnance Survey Published Maps prior to the introduction of Superplan'. Printed on light green paper, most pages have a quarter (50 by 50 km) of a National Grid square, at about 1:385,000 (about 1 inch to 6 miles), indicating published maps at 1:1250, 1:2500 and (but only where it is the basic scale) 1:10,000, and also 1:2500 sheets published in 2 x 1 km format, and those where that format was partly superseded by the 1 x 1 km format. The only base-map detail is the outline of the coast, which may have been taken from the 1:625,000 database, '1974' county boundaries, and names of towns, perhaps from the same source. 'West' quarters are invariably placed on a left-hand

and 'East' quarters are invariably placed on a right-hand page; the otherwise blank pages which would result from this arrangement have been used for 1:1250, 1:2500 and 1:10,000 conventional signs and similar information. It is for this reason that 'Interpreting the Large Scale National Grid Index' is on page 11. It would be interesting to know whether those responsible for this thought of the arrangement for themselves or got the idea from somewhere else.

Although it is nowhere stated, this publication is in fact a derivative of the old 'Plandex', or Plan Availability Index, which was only fairly recently converted to computer-output form. The Plandex indicated not merely the availability of conventional

paper large-scale mapping but also of digital data, and as a result was latterly very hard to read. Omitting the digital information makes what is presumably the Plandex's last word easier to read, though, as the only indication of the National Grid is by figures round the neat line of each section, a straight edge is an essential adjunct for using the diagrams effectively. Although there is great value in having an indication of the 'state of play' at the end of the analogue period of OS large-scale mapping, it is not a complete record: although some of the 1 x 1 km plans shown were indeed replacements for earlier 2 x 1 km plans, others, notably in the backwoods of Devon and Essex dated from before the adoption of the 2 x 1 km format in the late 1950s. There may be a few areas which were successively covered by 1 x 1 km plans in the 1950s, which were replaced by 2 x 1 km plans in the 1960s and 1970s, and which were in turn replaced by 1 x 1 km plans in the early 1990s. There is no indication of which 'published maps' were latterly derived from digital information (as all new editions were after about 1987), which would help greatly in separating pre-1960 from post-1989 1 x 1 km sheets.

Thus the present publication does not remove the need for a comprehensive list of OS large-scale mapping, which as well as indicating the format of publication would also indicate the date of survey or revision of each sheet. Such a catalogue would be a very bulky volume — at least the size of the gazetteer of names on the 1:50,000 even were a four-column arrangement and the same compressed type to be used — and it is to be doubted whether the information would ever be a practicable proposition as a conventional book. It is the sort of thing which would be best made available on the World Wide Web, leaving more conservative users to print out hard copy of areas of particular interest. Meanwhile it is a useful corrective and

amplification of some details in my *Ordnance Survey maps: a concise guide for historians*, (published by this Society, and at £12.95 only a little more expensive than the volume under review): for example, it appears that the decision in the mid-1970s to downgrade much of Salisbury Plain from 1:2500 to 1:10,000 cover was later reversed, and that the last of the resurveys at 1:1250 in the late 1980s of places such as Oxted were never made available as conventional 'published maps'.

This is distinctly a working tool rather than something for show, as such its sales-appeal will be limited, and it might be unreasonable to suggest that 'cartographic design' ought to enter into consideration. Still, two points. First, most of the names of towns are either nearly illegible, being confused with the cross-hatching which indicates the extent of 1:1250 cover, or else are cut off by the neat lines, and not 'made good' on the adjoining sheet. As most users will probably have used the 1:50,000 or 1:25,000 to establish their area of geographical interest, perhaps this does not matter too much. A second point concerns the coast. There are several places where (assuming 'the coast' to be high-water mark) it would appear that 1:2500 plans were published of areas wholly below high water mark, notably along the Holderness coast (for example TA 3231, 3626, 3823, 4020). Reference to the 1:50,000 shows that in fact all of these included some land above high-water mark, and the coast, as shown here, is shown in error. Assuming that the coast was indeed obtained from the 1:625,000 (it must be admitted that the shape of Spurn Head, for example, differs here from that shown on both the 1991 (edition BB) and 1993 (edition A) versions of the 1:625,000 route planning map), then it is a striking illustration that digital data cannot be treated as 'scale-free', and that it may be subject to the same

disadvantage as analogue mapping, in that whilst it can always be reduced without loss of accuracy, it cannot be enlarged without that danger. Enlarging a coastline which

appears to fit a grid at 10 km with a view to fitting a grid at 1 km, and failing, drives home the point.

Richard Oliver

‘Gower, or a goner?’ revisited: the Ordnance Survey 1:25,000 *Explorer* maps

The first five *Explorers* were published in April 1994 they were a development of the ‘large format *Pathfinder*’ idea of the republished *Pathfinder* 1126 *Gower* of 1992¹. Complaints about variously the comparatively small sheet size and the rigidity of layout by 10 km squares of the National Grid have dogged the OS civil 1:25,000 since its inception², and although in 1972 the advent of the *Outdoor Leisure Maps* went a small way in the direction of a 1:25,000 ‘large sheet series’ they were no more intended as a national series than were the inter-war 1:63,360 Popular-derived Tourist maps with their ‘enhanced specification’³ of layer-tinting, and 1126 *Gower* was published as a move in the direction of providing more widespread 1:25,000 ‘large sheet’ cover, without the extra expense of the *Outdoor Leisure Maps*’ more elaborate colour-scheme. It was a success, and the *Explorers* were born.

Gower and the *Explorers* differed from the standard *Pathfinders* in that they included tourist information in blue; otherwise, they followed the established straightforward colour-scheme of outline in black, water in blue, contours and roads in orange, and woods and public rights of way information in green. *Gower* was to remain a unique sheet, produced by established analogue means, with an integral cover; *Explorers* numbers 1 to 5 had separate hinged card covers,

and were produced by computer-scanning of the analogue material. They were amongst the first 1:25,000 sheets to exemplify the new policy of omitting precise survey and revision dates in favour of a meaningless ‘selected revision’ date; this was hammered home by appearing boldly at the head of the legend, which, unusually in OS practice (though quite common for commercial topographic mapping) was printed inside the front cover rather than on the map proper. Whilst many of us were glad that at last there seemed to be a prospect of a 1:25,000 ‘large sheet series’, there was a distinct suspicion that the whole thing was being done on the cheap; the computer raster-scanning had resulted in a serious degrading of image-quality.

As in the commercially-minded Ordnance Survey handsome is as handsome sells, it seemed that supporters of national 1:25,000 cover were faced with a stark choice: either accept an inferior-quality product, or prepare to see the map gradually die due to the inability to maintain it by modern cost-effective means. It was not ‘Gower, or a goner?’⁴, but rather ‘Raster, or a goner?’ as the future facing the 1:25,000 as a national series: what was so frustrating was that the price for keeping the 1:25,000 going was such a sharp decline in its superficial visual quality.

In the event, this proved to be only a teething problem: four more *Explorers* followed in 1995, three (numbers 7, 8 and 9) of excellent quality, and one (6) slightly less so. *Gower* was once more in control. What was more interesting was the colour scheme: except for the omission of the ground tint, it was that of the *Outdoor Leisure*

¹ For a review of *Gower* see *Sheetlines* 34 (1994) pp 48-50; for a review of the first five *Explorers* see *Sheetlines* 40 (1994), pp 22-4; for correspondence between Steve Simpson and OS as to the heterogeneity of the 1:25,000 cover of Britain see *Sheetlines* 41 (1994), pp 22-3.

² The background to this is explored in Richard Oliver, ‘Episodes the history of the Ordnance Survey 1:25,000 map family’, *Sheetlines* 36 (1993), 1-27.

³ All right, all right, very anachronistic: the only excuse is that this is being tapped out to catch the post.

⁴ Oliver (1993), pp 19-20. but ‘Raster, or a goner?’ Raster-scanning side-stepped the difficulty that the cost of vector-digitising might well finish off the 1:25,000.

Maps. Having made a nuisance of itself on its arrival, leaving nasty marks on the doormat, the raster-scanning technology was now proving its worth. *Explorer 10, Gower*, which covers a larger area (235-265 km E, 184-204 km N) than its predecessor and *Explorer 15, Rutland Water* (480-510 km E, 295-315 km N), are both really splendid sheets and an advertisement rather than castigation of the new technology. Both make good flat maps for display on a wall. They also mark the adoption of a change in policy as regards sheet lines: no longer are *Explorers* to be bound by the rigidity of 10 km squares of the National Grid.

Gower and the only Scottish sheet so far in the series, 11, *The Trossachs*, seem to be to the same specification as *Explorers 6 to 9*, whereas *Rutland Water* marks a development: cycle routes are now shown, with off-road routes shown by dots and on-road routes by a bicycle symbol, both in orange. It is to be hoped that this manner of depiction will be adopted on the 1:50,000 *Landranger* as well; the experimental Sheet 124 had its heart rather than its cartography in the right place in this regard. Both the map and the cover (which illustrates the not-quite-submerged Normanton church, with two cyclists passing) carry the new OS multi-colour logo, and the cover has the map number against a screened rather than a solid orange ground. The map title is now in lower case on the spine, which seems a small improvement in legibility, though this user would find a reversion to the pre-1985 style of giving spine information in black on a white ground, rather than in white reversed out, better still. As compared with the constituent *Pathfinders*, there has been some revision, including the addition of a 'Superstore' north-east of Oakham (SK 869009), the first time I have seen one mentioned on a small-scale OS map. How comprehensive the revision has been on the ground cannot be established without visiting it: it is at times like this that one misses the late Guy Messenger, who lived at Uppingham, and would certainly have been amongst the first purchasers of this sheet.

One aspect of it which I suspect he would not have commented on kindly is its layout in relation to the National Grid. When I sent him a

copy of my submission to the OS Cartographic Concepts Study in 1993, he commented adversely on my recommendation that a standard sheet size of 27 km west-east by 22 km south-north should be adopted; my idea followed the style and paper-size of the 1:250,000 *Routemaster* and some 1:25,000 *Outdoor Leisure Maps*, with their legend placed on one side of the sheet, which would have enabled an integral-cover arrangement to be adopted. As a botanical recorder he, and fellow botanists, much preferred an arrangement whereby any 1:25,000 large sheet series would be laid out with sheet lines formed by grouping 10 km squares of the National Grid. He died in November 1993, but would no doubt have approved of this formula being followed by the first *Explorers*, which appeared a few months later. From this it follows that he would not have approved of the move towards what others — myself included — consider to be more flexible and more satisfactory sheet-lines. (By the way, it is strange that the term 'arbitrary sheet lines' is customarily used by cartographers for non-butt-jointed layouts such as the 1:50,000 *Landranger* which are designed to afford convenience to the user; what can be more arbitrary than an arrangement determined by certain lines of the National Grid, itself ultimately arbitrary in origin, out in the English Channel?) The 1996 edition of the OS combined small scales index shows several more *Explorers* as due to be published this year: numbers 12, 14 and 18 will be 30 by 20 km sheets bounded by 10 km lines of the grid, whereas numbers 13, 16 and 17 will be more irregular. (Incidentally, *Explorer 17* will cover much of the area of the erstwhile *Brighton and Sussex Vale* published in 1975, and withdrawn about 10 years later.)⁵

One interesting feature of the 1:25,000 *Explorers* is the restricted information on them as

⁵ This was a unique example of an *Outdoor Leisure Map* falling victim to *Pathfinder* cover, rather than the other way round. The layout of the sheet was determined by the availability of 1:25,000 Second Series material — a block of three sheets — rather than the layout of the landscape. The top third of the map (corresponding to most of TQ 22/32 was of limited use; a sheet 30 km W-E and 20 km S-N, and including TQ 40 and 41 would have been much more useful to Brighton residents, such as this writer!

to the availability of other mapping at this scale. In their paper flat form, each *Explorer* appears to exist as an independent entity rather than as part of a national whole. The back cover diagrams of folded copies show other *Explorers*; the inside cover refers briefly to the *Outdoor Leisure Maps* and *Pathfinders*, but refers prospective users and purchasers to the OS's small scale mapping index, which does not appeal to those of us who like to deal with one piece of paper rather than several. Even if one decides to forgo the pleasures of the other two members of the 1:25,000 family, the back cover indexes are likely to be as mystifying or frustrating as they are enlightening. *Explorer 10, Gower*, shows only the first ten sheets, itself included; 11, *The Trossachs*, shows numbers 1 to 15; *Rutland Water* shows numbers 1 to 19. Number 19 does not appear on the 1996 Small scales index (of which, OS tells us, 120,000 copies have been printed), but is to be called *West Pennine Moor*.

The obvious answer might be to publish an index to the whole of the *Explorers* and have done with it; verbiage could explain that some of the sheets are not yet published (by present day standards the back covers of the *Explorers* are fairly free of this), and might serve more members of the public than the increasingly wordy declarations as to copyright, trademarks and registered names, which probably say rather more about smart lawyers defending wealthy intellectual property pirates than they do about

the landscape or the map. As so often, the obvious answer is the wrong one. Ordnance Survey has recently announced that a review of OS 1:25,000 mapping is under way, looking particularly at reformatting the three existing groups of sheets. 'The aim is to produce a cohesive series which gives full national cover and better value for the customer. We will achieve this by a two-tier system of *Outdoor Leisure* and *Explorer* maps, with a consequential phasing out of the smaller *Pathfinder* maps. This will result in a much smaller number of maps in the series as a whole, with the new maps conforming to the *Outdoor Leisure* specification and printed in process colours.'⁶

So there.

The 1:25,000 'large sheet series' is thus on its way, and the apparent coyness as to indexes and adjoining sheets is explained. One is reminded irresistibly of the development of the One-inch Fifth Edition in its 'large sheet series' phase, and hopes that the 1:25,000 will have a happier history. Local authorities and others are being consulted as to possible sheet lines, and this must be as good a time as any for those of us with ideas on the subject to communicate them to OS.

Richard Oliver

⁶ OS Information Paper 4/1996. I am indebted to contacts within OS for some additional information here.

The Landmark Information Group (2)

Very wide-awake members reading Richard Oliver's piece on Landmark in *Sheetlines* 45 should have realised that something had been left unsaid. As Richard stated, each Landmark 'SiteCheck' report includes the relevant historic and current Ordnance Survey large-scale mapping of the site and a surrounding buffer zone, in other words a succession of congruent extracts from county series and National Grid plans, usually at 1:2500. But not only are these two classes of plan on different projections, one without and one with a scale factor, more significantly they are constructed on different origins and are therefore on differing orientations. For any one place two different county origins can be involved, whilst the extreme case with three county origins concerned as well as the National Grid happens to be the significant development area of Cumbernauld.

The cartographers of my generation could easily cope with such differently constructed plans by some juggling on a light-table, but at the present time, with the old and new plans digitised and contained in Landmark's computer's memory, the juggling has to be carried out by the computer also. Landmark, led by their Operations Director, former military surveyor James Cadoux-Hudson, were able to devise the software necessary to perform this operation, but they did not have the large quantity of basic data required to put the operation into practice for the fifty-one origins involved. Having found that the Ordnance Survey were unable to supply all this data, James Cadoux-Hudson did the correct thing; he asked David Archer, as

publisher of reprints of the county plan indexes, whether he knew all about the county origins.

"No," said David, "but I know a man who does." And in no time at all I was discussing Landmark's requirements with James. He was evidently relieved to learn that I could not only supply all the data for every county origin, including those superseded as long ago as 1875, but that I could also supply the sheetline construction data for all 109 separate county blocks which make up the OS county series plans. I should make it clear that all the above refers to Great Britain and the Isle of Man only, and also that, whilst all the necessary material was contained in my note-books, that relating to the most abstruse superseded series had not been codified and required a short batch of computing before sending it on to Landmark.

So it was that, when I subsequently visited Landmark's headquarters, I was pleased to find that my good name had preceded me and I was welcomed by their staff; and there are two footnotes to this story. Firstly, that we are able to welcome James Cadoux-Hudson into the ranks of the Charles Close Society members; and secondly, that in his address before the Society Annual General Meeting, Professor David Rhind remarked that he was surprised to hear that Brian Adams had been of considerable help to Landmark because he thought that he was a pop-star. But as I pointed out to the Director General, that one can't even spell it right! (*With apologies to any CCS members named Bryan.*)

Brian Adams

The evolution of the National Grid...

Richard Oliver

The following amplify and correct my two articles in *Sheetlines* 43 and 44:

First, apropos my comment in *Sheetlines* 44, p.22, that had Popular Edition Cassini sheet lines been used in conjunction with a grid on a Transverse Mercator projection, then the sheet lines would, in theory, have been slightly curved: Brian Adams points out that curvature of grid lines will occur with a change of meridian, even if the projection is unchanged.

Second, apropos the use of full co-ordinate references: John Taylor tells me that the Post Office 'Post Address File' uses them, to a 100 metre resolution (e.g. 585200 E, 185700 N): presumably this is for reasons of computer storage.

Third, Mike Meredith draws my attention to Chapter VIII, 'Map references', in Sir Charles Arden-Close's *Geographical Byways* (London, Edward Arnold, 1947). On page 93 is discussed referencing correct to 100 metres, using One-inch New Popular Edition Sheet 126 as an example: 'Take the case given in the legend at the foot of the map, namely, the position of Wroxham Station. If we count eastward from the origin the distance is 630.3 kilometres; and counting northward from the origin the distance is 318.6 kilometres... the position of Wroxham Station would be described as 63033186. But this may be felt rather cumbersome, as indeed it is, and to reduce the number of figures, the convention is to omit the hundreds of kilometres, so that the reference would ordinarily read 303186, and that is quite long enough! Omitting the hundreds of kilometres is equivalent to saying that the other numbers will occur only once in every square of 100 kilometre side. But if the

hundreds are to be included, then the official custom is to write 63/303186.'

Close goes on to discuss the utility of the grid: '... no doubt, for army training purposes at home the grid on all our maps will serve a military necessity. There is also some reason to suppose that the grid on the large scale maps may be used for civilian needs as the public becomes accustomed to it, for the secure identification of positions in a perfectly unambiguous way. But it is doubtful if the addition of a grid to the maps on the one-inch scale and smaller scales gives anything of such value to the maps as to counter-balance the undoubted disadvantage of a close network of lines, covering, and to some extent obscuring, the detail on the map.' (pp 93–4). It is therefore unsurprising that he calls the Davidson Committee's recommendation of publishing alternative gridded and ungridded versions of the small-scale maps 'reasonable'.

Close concludes the chapter (pp 94–7) by describing a system of reference 'which has never been used, and perhaps never will be', for maps for which no reference system has been supplied, which involves dividing the map into nine equal areas, subdividing each of those nine areas into nine, and so on, so that each 'primary cell' is 1/9 of the area of the map, each 'secondary cell' 1/81, each 'tertiary cell' 1/729, and so on, so that a reference might be, say, 468. Close admits that the system is more satisfactory for defining areas than for defining points!

Fourth, although for many years the Ordnance Survey of Ireland has employed the 'Modified British System', using one letter and six figures for a unique 100 metre

reference, the reference example given on the earlier 1:50,000 and 1:25,000 sheets gives an eight-figure reference, e.g., 3123 1968 for The Seven Churches, Co. Wicklow, adding, seemingly as an afterthought, ‘The grid square letter may be used instead of the 100 km digits’, e.g. T 123 968.

Fifth, John Taylor writes to enquire why the 100 km squares of the National Grid begin in the middle of the alphabet at HL, and points out that that the system of 100 km square designations used for the civil grid in 1945-51 began at the south-west, with the false origin of the grid, so that both 100 km square designations and references within them increased as one moved away from the false origin. Figure 1 shows that the first letters in the two-letter designations for National Grid 100 km squares are divisions of a 2500 kilometre square, and that Britain is placed as centrally as possible in this super-square. The same principle had been used for the predecessor ‘Woffo’ Cassini grid, but, as Figure 2 shows, there Britain was placed in the south-west of the 2500 km super-square! Perhaps having the grid figures working east

and north and the grid letters working east and south might be thought illogical, but the practice can be traced back to the earliest squaring systems, of 1914 and earlier, and is used so universally that any change for the sake of logic is highly unlikely!

Sixth, on pages 43–4 of *Sheetlines* 43 I described the early method of giving a 10 metre National Grid reference, e.g. 54/4012/3823 instead of TA 40381223. It was used in Bench Mark lists produced before the changeover in 1951 to designating 100 km squares by letters, as the appended illustration shows.

And lastly, I have come across a most extraordinary mix of full co-ordinates *and* the 100 km square designation, in an archaeological note in the latest issue of *Lincolnshire History and Archaeology* (Vol. 30, 1995); on page 45 we are treated to the reference ‘SK 493920 366370’ for North Hykeham, which if taken literally, would be correct to 10 centimetres: slack for geodetic work, in order for topographic survey, and pedantic as a site reference. It seems that SK 939663 is meant!

....Scotland in Roman Times.

Roger Hellyer.

I. The Title

Richard Oliver’s reference in his article “Sheetlines and the overlap of the One-inch Fifth and New Popular Editions” in *Sheetlines* 44 (footnote 28) to the 1:253,440 *Forth Clyde and Tay in Roman Times* prompts me to write to make two points. First, about 30 of the surviving 50 copies were distributed in 1940, by O.G.S. Crawford to a few libraries and colleagues he considered deserving of copies. It cannot be said to have been published, since it was not sold to the public at large. Secondly, precisely what should we entitle this map? Richard’s inaccurate title here was the consequence of

conversation between us rather than written correspondence, but several forms of words have over the years appeared in print.

The source of the confusion is, of course, the map itself which offers three possible forms of the title. First, the cover has the words *Map of the Forth Clyde and Tay Roman Period*. The type size of *The Forth Clyde and Tay* is bigger, perhaps implying that the cover may at some point have been intended for general use throughout Crawford’s planned nationwide quarter-inch Roman map, with different area titles replacing this on other quarter-inch sheets.

Second, the map itself has two title lines, the lower one of which contains the words *The Forth, Clyde and Tay* in grey forming part of the base map plate, which it would surely have been sensible to clear before printing. Above these words are what is obviously intended to be the sheet title, in black *Scotland in Roman Times*. I would recommend we adopt this title in future, and avoid all further reference to the Forth, the Clyde or the Tay in any permutation. Crawford would have had no plans for any sheet further north or west, where there were little or no Roman remains, and such evidence as survives strongly suggests that

Sheet 1 to the south would have been entitled *The Border*. The majority of Roman sites on Sheet 2 would have been covered by the overlaps with 1 and 3. Sheet 3 can thus safely and simply be *Scotland* in Roman Times. We can only hazard guesses as to why the cover has *Forth Clyde and Tay* — perhaps it was printed before the sheet title was decided upon, perhaps the wartime situation resulted in a certain lack of co-ordination in the overall planning. But it would anyway seem to me a good general principle that when sheet title and cover title differ, as is by no means uncommon, that the sheet title should take preference.

II. The National Yard Grid

Richard Oliver implies that this may have been the last map to appear carrying the Yard Grid. It may indeed have been the last new map, but it should be noted that a Black issue of the 1937 One-inch Fifth Edition *London* sheet was printed in 1944 (print code 844/Ch), still retaining the Yard Grid not just in the borders, as was quite common with wartime maps, but across the map face, and the 1937 1:633,600 *Road Map of Great Britain* remained in print throughout the war and kept its Yard Grid in 1943 and 1944 reprints. In fact the record has surely to go to

Sheet 2 of this *Road Map*, of which 1000 copies remarkably were ordered by the War Office in 1947 (order WOPD 4184/OS)! Proofs were sent in November, and the copies issued in December 1947 still retained the National Yard Grid, almost two years later than the publication of the National [Metric] Grid 1:625,000 *Roads* in 1946. One can only marvel at what the War Office wanted with such a map: since they received proof copies it is hard to believe that the wrong grid was applied to it by the Ordnance Survey.

III. Ordnance Survey Grid

The omission of *Scotland in Roman Times* from Richard Oliver's list of maps carrying the National Yard Grid, which appeared with his article "The Evolution of the Ordnance Survey National Grid" in *Sheetlines* 43, was caused by my forgetfulness. I also assisted with his list of maps carrying the "Ordnance Survey Grid", and am happy now to be able to state that all

sheets in the Quarter-inch Fourth Edition of England and Wales carried this grid. They were printed in 1940 for the internal use of the Ministry of Town and Country Planning. A dyeline set is in the Bodleian Library, Oxford. It is probable that all of Scotland was also made, presumably for the Department of Health for Scotland.

A Map in my collection

7—1:50,000 integral covers

In his note in *Sheetlines* 44 on 1:50,000 maps with integral covers, Bill Batchelor overlooks one edition issued in this style, the A// printing of Sheet 204. These covers were listed in Roger Hellyer's "Ordnance Survey

covers: the extended list" in *Supplement to Sheetlines* 31, p.19, and Yolande Hodson set the historical background to them in "1:50,000 integral covers" in *Sheetlines* 14, p.20.

Roger Hellyer

18—Map of the Rural District of Godstone County of Surrey

The above map was purchased in Edinburgh, which considering its nature, is rather surprising. As its title indicates, it is of such a size that it includes the whole area of the former rural district council; from Sanderstead in the north to East Grinstead in the south, and from Redhill in the west to Westerham in the east, each of the named towns falling outside the council area. The rural council area is shown in blue, the map itself being printed only in black. It is dissected mounted on cloth and folded brown board covers.

What makes this map particularly interesting is that it is at 2 miles to the inch scale, although it appears to be pure One-inch Large Sheet Series, (being part of sheets 116 and 126), but without contours. The map was printed by Stanford, London, shown in bottom right hand corner, and in the bottom

left hand corner it has the usual *Reproduced from the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office* followed by what appears to be the figures 3.47 and which I always presumed to be the print date. There is a date written on the cover, with what looks like the then new Biro ball point pen, 14/1/48.

However in the responses to my note in *Sheetlines* 44 (p 62) on the *Vision of England* Series map of the Isle of Wight, it was suggested by Francis Herbert that the number '347' printed after the acknowledgement to the Controller, H.M.S.O., could possibly be a licence number. Perhaps it is a print date after all, or do all Stanford printed maps carry that number?.

Were other similar maps produced for other local authorities?

Lionel Hooper

*BATH, Seventh Series, Sheet 156, Bristol and Stroud, 1967, edition B
(on this series, Bath was divided by the sheet line; the southern half of the city is on Sheet 166)*

Letters

1:25,000 Map of the Isle of Man: from Roger Hellyer

In his review in *Sheetlines* 45 (p.40) of the *Isle of Man: Public Rights of Way and Outdoor Leisure Map*, Richard Oliver states that the only post-1870 civil mapping of the island at a scale larger than 1:50,000 appears to be complete coverage at the 1:10,560 scale and partial at the larger scales for urban areas.

In fact the entire island has been covered at the 1:25,000 scale in black outline 10km

square sheets, prepared for the Government of the island. The mapping is reduced Six-inch, revised in 1955-56, with partial revision 1967-72. The 12 sheets were issued in 1974: NX30, NX40, SC16/17pt, SC26, SC27, SC28, SC37/36pt, SC38, SC39, SC47, SC48, SC49. There is a set in the Record Map Library, Ordnance Survey.

Six-inch sheets — “Surveyed” or “Fair drawn”? From Richard Porter

Richard Oliver suggests in *Ordnance Survey maps: a concise guide for historians* (1993, p54), and reiterates it in *Sheetline* 45 (p15), that the date of survey or revision given on the Six-inch mapping before September 1887 was not the survey date but the date when the Divisional Officer responsible signed the fair drawn plans, certifying them fit for publication.

In Ireland, “the parish plans were drawn in the district offices”¹. Would Oliver’s D.O. have been the officer-in-charge in the field?

But is it likely that “fair drawn plans” would have been certified fit for publication several times, over a period of years? That would be the implication of date ranges such as 1846–7, 1848–53, which occur on the Yorkshire Six-inch. I have looked at a 95% sample of these sheets and on 3% of them the “surveyed” dates span at least three calendar years (e.g. 1848–50, 1849–51. There then follows a 2–3 year gap before the date of the engraving.

When one looks at the dates of Survey compared with the Surveyor’s career, one

finds almost exact correspondence, although precision is made difficult when two surveyors are named over a span of years. Lieutenant Bayly joined the Ordnance Survey in January 1846 and his name appears, usually with others, on at least ten sheets “Surveyed” 1846–7, or 1847. At the end of his Yorkshire career, Bayly (a 2nd Captain since September, 1847) “Surveyed” nine sheets in 1851–52, nine in 1852, and one in 1852–53. In 1853 he moved to Scotland and opened the Glasgow office². It seems significant that none of the “Surveyed” dates seen for his work is later than 1853. The years given are therefore likely to refer, at latest, to the dates when the officer-in-charge surveying (e.g. Captain Bayly) approved the plots of the various portions of a particular sheet — which would be of the order of a couple of weeks rather than years after the actual field survey.

But Dr. Oliver refers in *Sheetlines* to ‘documentary evidence’ — does this relate to the English Survey?

¹ *A History of the Ordnance Survey*, W.A. Seymour, Editor, p89

² “The Ordnance Survey 1:500 town plan of Glasgow...”, J.N. Moore, *Cartographic Journal*, 32:1, (June 1995) 26

Homeland Handbooks: from Richard Porter

Further to the responses in *Sheetlines* 45 (p48) to the question raised by Lionel Hooper in *Sheetlines* 44, I recently came across Volume 37, *Lynton, Lynmouth and the Lorna Doone Country*. This was apparently first published in 1904 (British Museum *Subject Index... 1901–1905*), but my copy is “23rd Ed.” (head of spine) with a printing code(?) NSH38 on p xxvi.

The list on p xxv gives only 35 titles, presumably those in print at the time of publication, but their volume numbers extend up to: 96 *The Sussex Highlands* (a new term to me!); 97 *Maidenhead, Berkshire*; and 98 *The Isle of Wight*.

A prefatory note in the volume 37 refers to “Sheet 118 in the 1 mile to the inch map (Popular Edition) Paper 1/6, Mounted 2/6”, and to the Half-inch and Quarter-inch sheets which cover the district, but the folding map of *LYNTON AND LYNMOUTH* appears to be from the One-inch Third Edition in black, as in volume 30, (*Littlehampton and Arundel*),

Suppressed information on OS maps: from Ian Mumford

Bill Henwood’s note in *Sheetlines* 45 on the Branston meeting in February mentions the suppression of contours around naval ports presumably for security reasons, and says more information on this policy would be welcomed.

In 1968 when Peter Clark and I were helping Brian Harley in the early stages of his David and Charles reprints, he asked the same question whilst we were looking at the daft situation on the Old Series sheets covering Woolwich and Devonport, where the pre-1870s versions showed details blatantly blanked out for the rest of the life of the Old Series!

I sent him a note on the lengthy discussions on deletions from the One-inch map to be found in *Report to the Committee on a Military Map of the United Kingdom*

but without the distance circles. The note in the bottom right hand corner is in the same type face as in volume 30 but reads:

Reproduced from the Ordnance Survey Map by the HOMELAND ASSOCIATION LIMITED with the sanction of the Controller of H.M. Stationery Office.

Incidentally, Prescott Row, the founder of the Association, wrote in 1928 (*The Outdoor Monuments of London*, C.S. Cooper, p238) “The Homeland Association, Limited, was founded in 1896 with the view of collecting and publishing accurate descriptions of the towns and countryside of Great Britain... It has therefore been in active existence for thirty-two years...” In view of Philip de Paris’ comments (*Sheetlines* 45, p48), was Row carrying back the date of foundation to 1896 in the same way as the numeration of the Handbooks?

War Office 1892 [A 237}, especially pages 9–10, and the *Report of the Departmental Committee...to enquire into the present condition of the Ordnance Survey* 1893 [C–6895] (known as the Dorrington Committee), especially Q 756 to Q 761 and Q 1326 to Q 1331.

When Chris Board was developing his theme of secrecy on maps and charts I drew his attention to a file in the PRO, AIR2–1463, which gives the early history of the reaction to the 1850s–onwards threats from the French, the Fenians, and Uncle Tom Cobby, which underlay pre-war OS security treatments. Several Circulars on security deletions have been available in the sets in the Library at Southampton for decades.

At the risk of being ‘spurned’ by Richard Oliver, I would suggest that the same secrecy

causes the chaotic OS map evidence of most coastal defence areas which remained in Service occupation for over a century. In 1967 after hearing the paper by G. de Boer on Spurn at the HistCarto Conference in London, at which A.P. Carr gave a progress report on his investigations at Orfordness, I drew de Boer's attention to the surveying and mapping work related to coastal (physical) defence works controlled by the Director of Fortifications and Works, War Office. This was done not only by the OS for restricted military editions of the standard large scale

sheets, but also by contractors. I do not know how much of this data succeeded in migrating from DFW to MPBW to PSA to the PRO.

From time to time this century serious floods on the East Coast have brought into question the lack of adequate OS mapping of the coasts in such circumstances; the Reports of the Royal Commission on Coastal Erosion and the widely reported expressions of public opinion before the Great War would be another good starting point for researchers with an itchy ball-point pen.

How good were the provisional OS maps?: from John Cole

I have come across a rather amusing contradiction in the Ordnance Survey descriptive booklets for Small Scales (1947) and Medium Scales (1949).

In the former describing the Sixth *New Popular* edition of the One-inch: 'These maps are as up to date as possible, but in the North of England are in provisional form. The term "provisional" is used to describe maps which are not to the standard of quality usually associated with the Ordnance Survey.'¹

But in 1949: 'The term "Provisional" must not be read to imply any denigration of

the quality of the map production. On the contrary, admiration for the map is widely expressed...'² That map, by the way, was the 1/25,000 (*sic*) newcomer, largely produced from the pre-war six-inch.

Noticing that second-hand *New Populars* are relatively plentiful covering the southern half of the country, whilst those for the north are thinner on the ground, one wonders if there was any serious sales damage during the intervening two years!

Or perhaps, a 'Provisional 1/25,000' was a better buy than the 'provisional One-inch'.

¹ *A description of ORDNANCE SURVEY SMALL SCALE MAPS*, 1947, Director General of the Ordnance Survey, Chessington, Surrey, p6.

² *A description of ORDNANCE SURVEY MEDIUM SCALE MAPS*, 1949, Director General of the Ordnance Survey, Chessington, Surrey, p14.

The Charles Close Society and the Internet; from April Carlucci

During discussion at the Annual General Meeting the inevitable question arose regarding the use of the Internet by the Society as a means of communicating officially among the members. The Chair wisely asked for a show of hands as to how many members present had access to the Internet; the low percentage (about 25% if I remember correctly) effectively tabled the suggestion for the present. However, as such

musings are bound to come up again, I write to offer some advice of a similar experience.

In 1993–94 I was Chair of the Map and Geography Round Table of the American Library Association, a group composed of map librarians from across the United States. In the few years proceeding my chairmanship, the electronic mailing list maps-L, of which some CCS members may be aware, had become an increasingly and

popular way of communicating amongst map librarians and enthusiasts across the globe. While I was Chair, it was suggested that the Round Table's bi-monthly newsletter appear in electronic format, as so many members of the group had been bitten by the "e-mailbug." I found myself constantly reminding the group that not all members had access to the Internet (certainly, my home institution, The New York Public Library, was one of the last to install the Internet, so I certainly never knew what people were talking about!). This question of access is the first point I wish to make.

The second point that I wish to make is that, even though the Round Table's newsletter did not change over to an electronic format, it has steadily decreased in

size. I believe that because people are busy pouring their energy into writing notes, letters, volumes queries, responses, etc., into maps-L, they do not have the time or energy to produce items for publication. Indeed, once something goes onto maps-L, that first glow of interest disappears, and onto the next. Thus ideas get lost in the rushing immediacy of the "Net."

One of the great assets of the Charles Close Society is the remarkable volume of scholarly study which is published. I believe that moving the Society onto the "Net" will threaten this. Certainly, I don't mean to deny the future, but any move the Society makes towards "The net" must be carefully considered and controlled, lest we lose one of our most important assets.

Work in Progress

1. *The Parallel Roads of Loch Aber*

Brian Dobbie is researching "The Parallel Roads of Loch Aber" for an article to be published in *Sheetlines*. He needs to purchase, borrow, or otherwise view, Scottish One-inch sheets 62, *Loch Eil*, and 63, *GlenRoy*, of the Third Edition, or earlier

maps covering the same areas. Naturally, Brian will meet all expenses for borrowed material, and will return it promptly.

Please contact Brian Dobbie, 72, Moor Lane, Beeston, NG9 3FH; Tel: 0115 925 8926.

2. *Biographies of past Directors General, Ordnance Survey*

Following his involvement in updating the biographical notes of a past Director General of the Ordnance Survey and a subsequent discussion with Professor David Rhind, the present Director General, Jim Smith of Petersfield is proposing to compile a volume of biographies of past Directors General of the Ordnance Survey, and other notable members of the Survey.

The proposal is that for selected personages, say 10 to 15, the biography could be reasonably extensive, whilst the others

would be shorter entries. As members of the Charles Close Society have an obvious interest in the development of the OS it may be that there are some members who would like to be involved in such a project. In the first instance, Jim suggests that they contact him to indicate the person they are most interested in writing about; or they may have already researched one particular individual; or they might have information on the location of useful source material.