

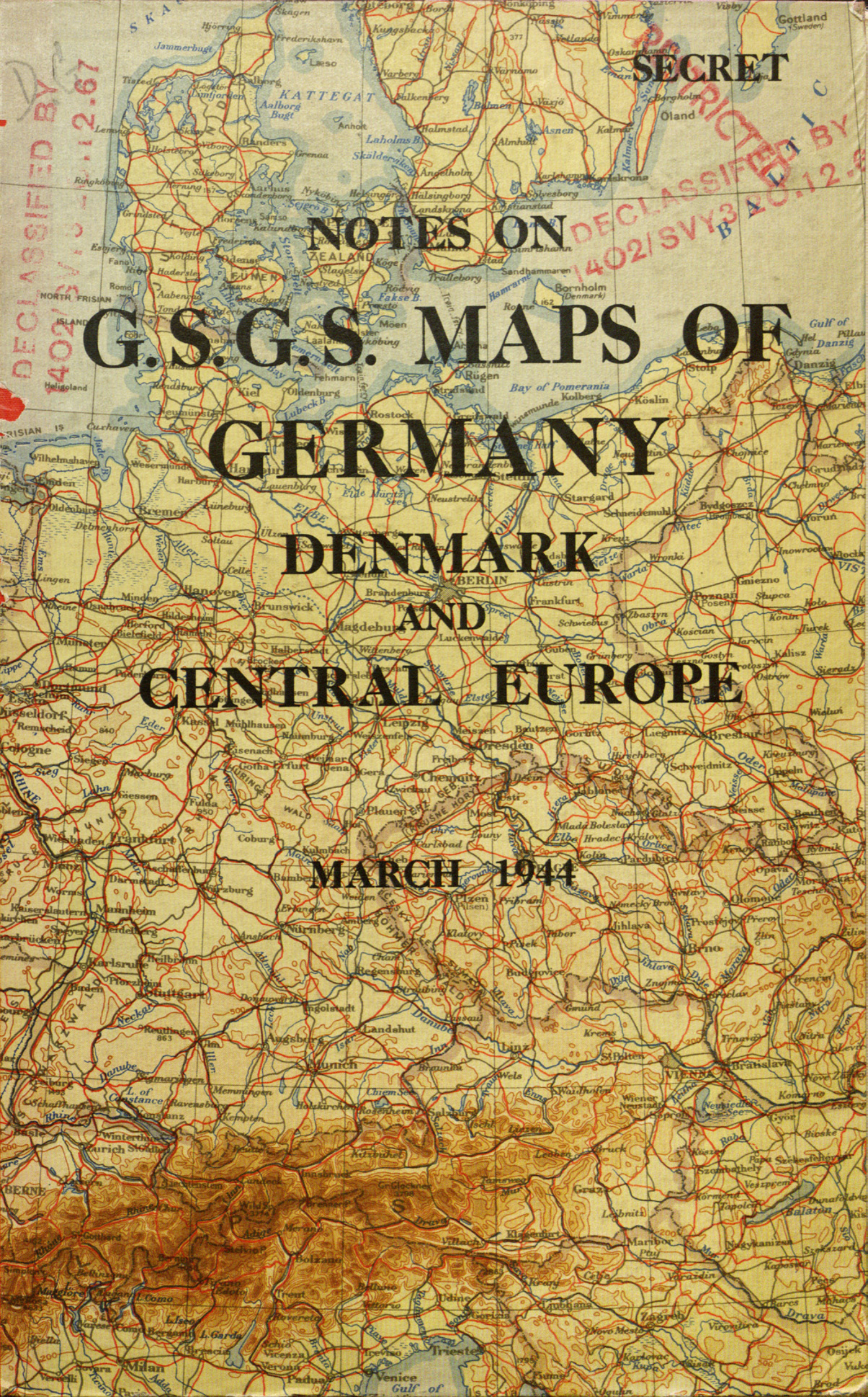
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NOTES ON G.S.G.S. MAPS OF GERMANY DENMARK AND CENTRAL EUROPE

MARCH 1944



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Map samples shown in these Notes do not always do justice to the printed maps they illustrate, detail on printed sheets generally being clearer.

NOTES ON G.S.G.S. MAPS OF GERMANY DENMARK AND CENTRAL EUROPE

THE area covered by this book consists of Germany, Denmark, Austria, Czechoslovakia, and Poland. All the G.S.G.S. map series covering these countries are described in detail.

The object of the notes is to show what maps are available (or will shortly be so) in this area, to describe the material used for their preparation, and to provide certain auxiliary information (such as glossaries, gazetteers, and detailed indices) of value to map users.

It must be emphasized that much of the information given in these notes is accurate only to the date to which it applies (March, 1944), and that, for instance, new series of maps, new editions of individual sheets, or new town plans may be prepared later. In general, however, the maps mentioned will be those supplied for operational requirements in this area.

Only the main series are listed below ; less important series are described in the text under their appropriate scale group.

Volumes similar to this one have been prepared for Italy (1st May, 1943), and for France, Belgium, and Holland (December, 1943) ; a further volume on the Balkans is in preparation.

DIRECTORATE OF MILITARY SURVEY,
WAR OFFICE,
LONDON.

March, 1944.

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PART II.

GENERAL NOTES.

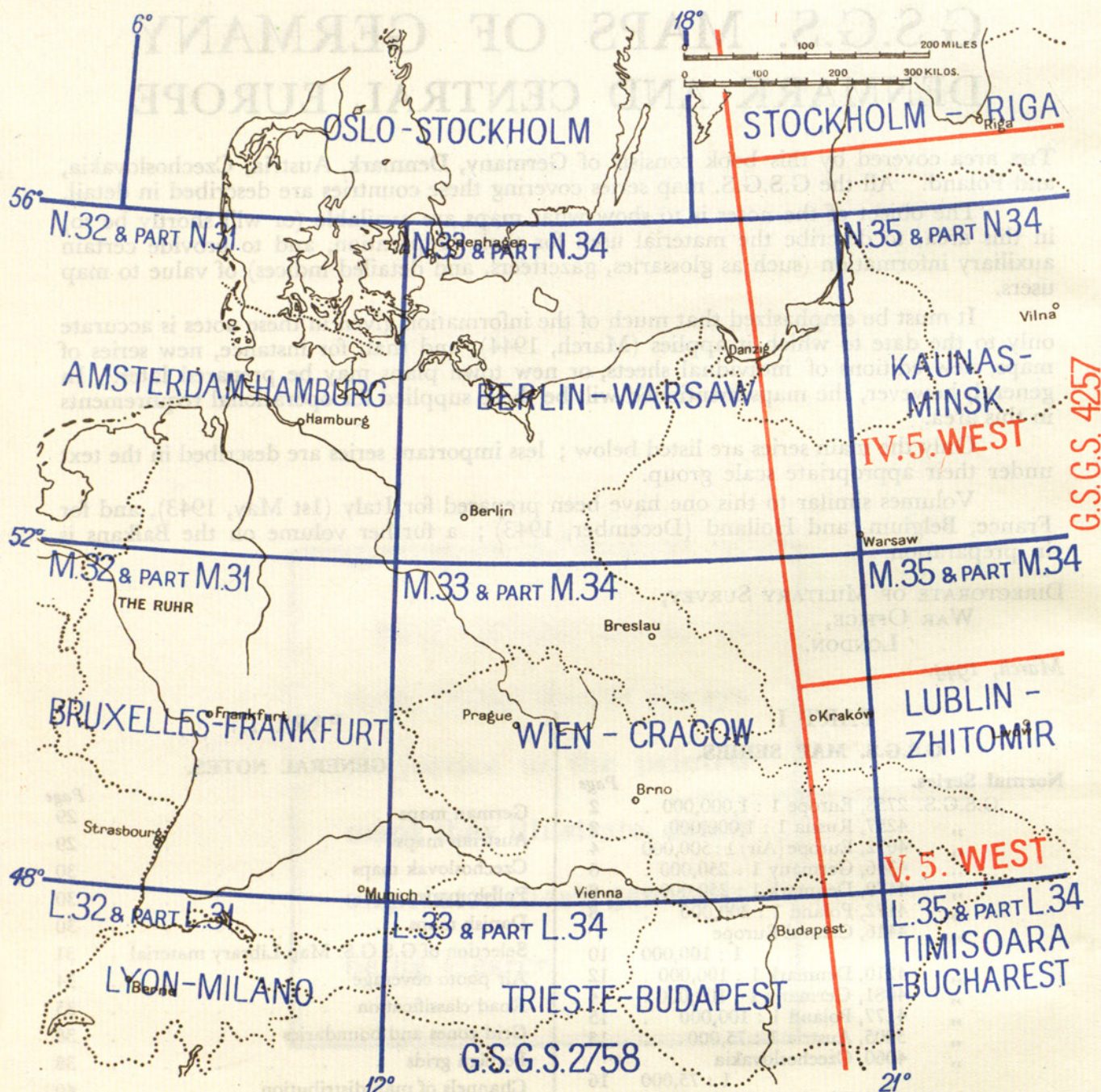
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Map Reference Cards are supplied at the back of the book.

EUROPE 1 : 1,000,000



G.S.G.S. 2758, EUROPE, 1 : 1,000,000 (See sample opposite).

The primary use of this series is for topographical form-at-a-glance. It is also of value as an air map ; hence sheets are now being printed with purple layer tints instead of the green and brown tints of previous editions. On some sheets the smaller names and detail are "thick" and difficult to read.

The more easterly sheets have not yet all been published in the new style (with purple layers), and their publication in this style is being combined with a general "comb-over" of the whole series to ensure up-to-date information on main roads and railways, consistent name spelling throughout, and correspondence of detail along common sheet edges.

G.S.G.S. 4257, RUSSIA, 1:1,000,000 is a layered series similar to G.S.G.S. 2758 ; as the index shows, western sheets of it cover most of Poland and the eastern part of Czechoslovakia. Sheets have been reproduced from a recently published Russian map, names being transliterated and layer tints (in purple and brown) added. No revision to this series is contemplated at present.



EUROPE 1 : 500,000



G.S.G.S. 4072, EUROPE (AIR), 1 : 500,000 (See sample opposite).

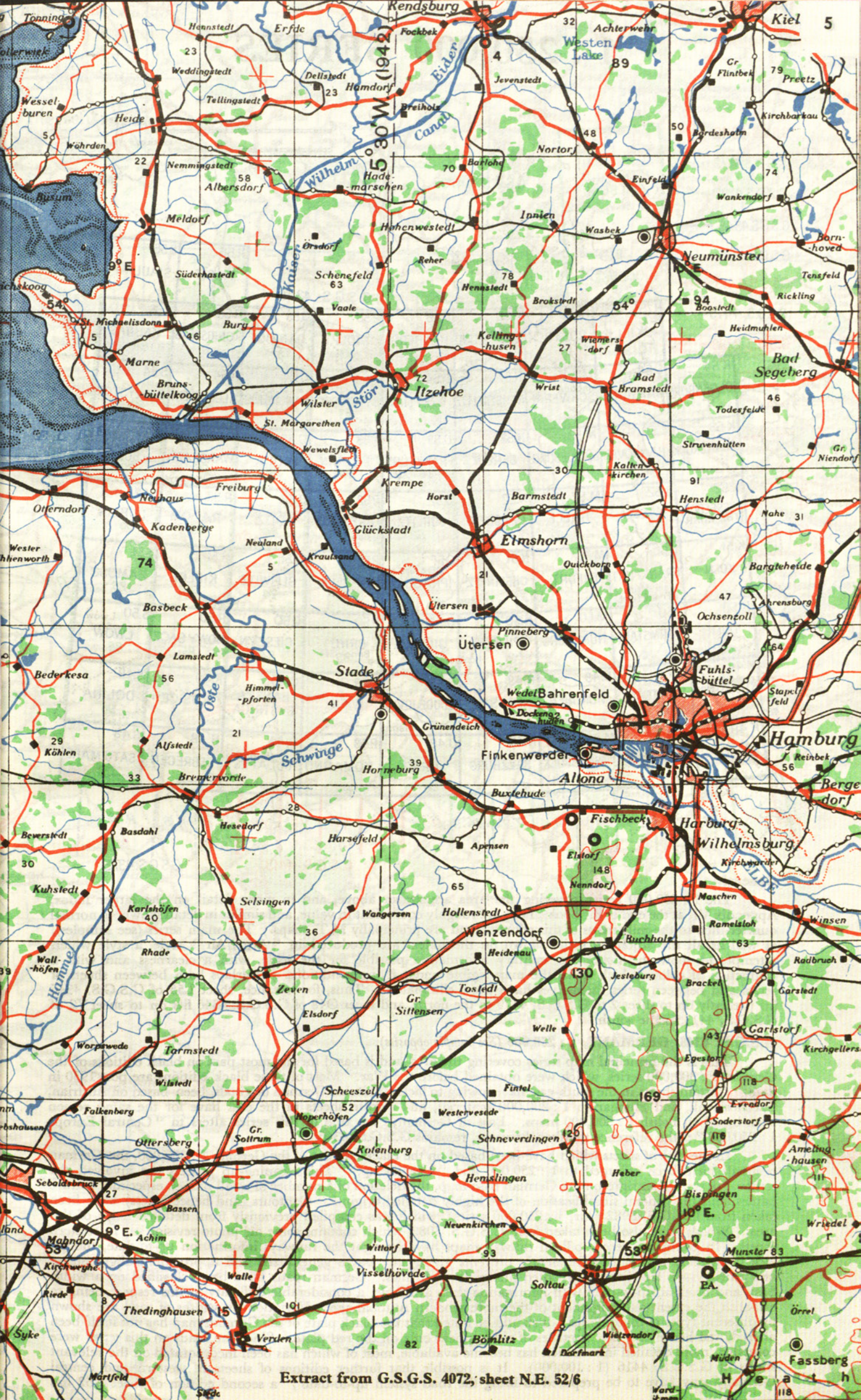
As its title indicates, this series is principally an air map. It has been designed solely to meet R.A.F. (in particular, Bomber) requirements, and the emphasis on certain features, the generalization of all outline, and the elimination of detail not essential to the airman, are shown by the sample. Woods stand out conspicuously; in fact their very prominence is a danger, since obviously they are not often so well defined on the ground.

The generalized style of the series limits its value for military use, nor is it infallible for communications. The series has, however, been compiled from sound local maps of the same or larger scale.

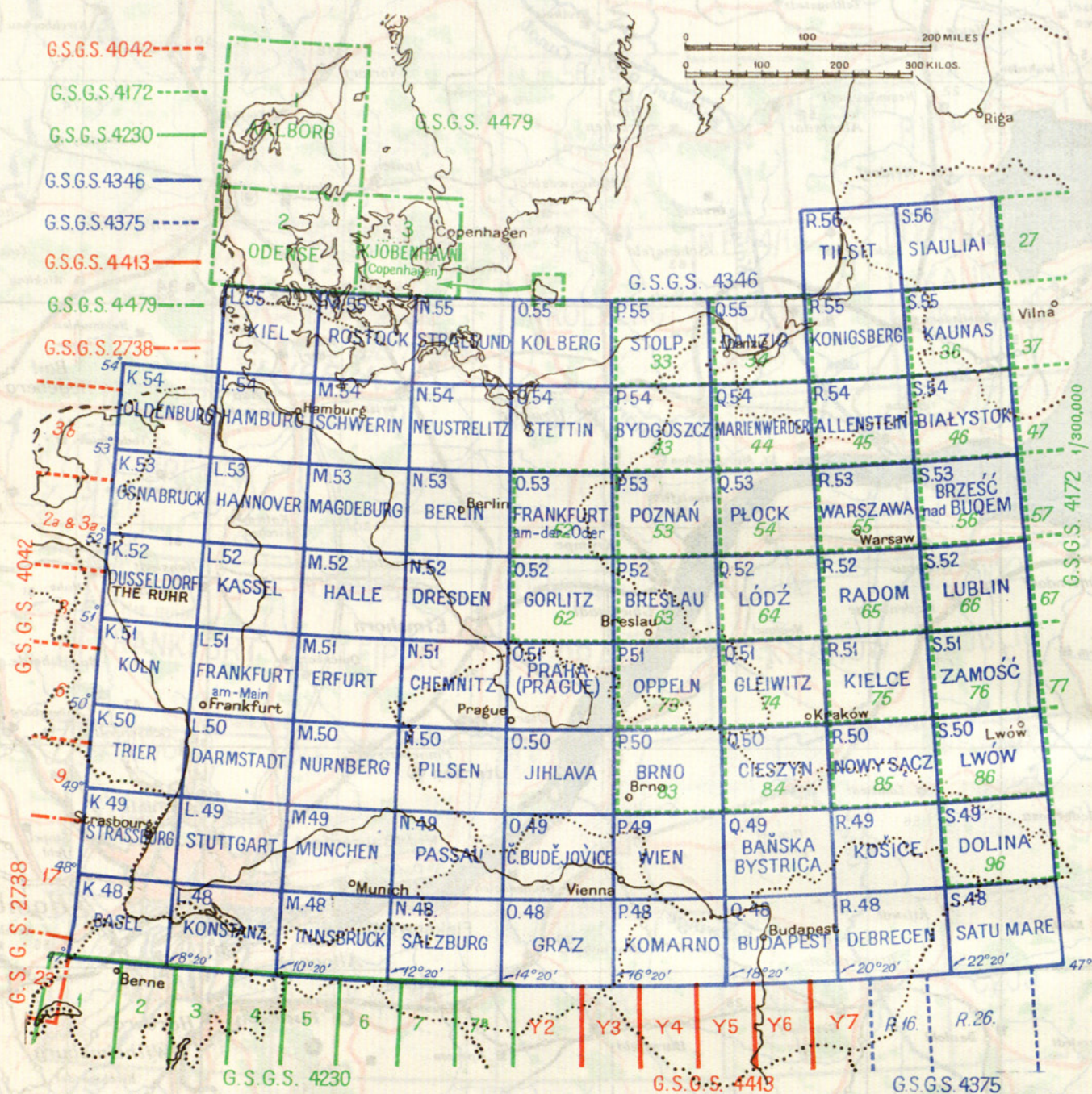
It should be noted that the military grid is shown by ticks and crosses (in red on the sample). Each sheet overlaps by 20 minutes (about 2 inches) those to north, south, east, and west, though except in the case of the special combined sheet "Lubeck," these overlaps have not been shown on the index.

One of the chief merits of the map is that it is the only homogeneous series which covers the entire area (and, in fact, nearly the whole of Europe) at a scale between 1 : 1,000,000 and 1 : 250,000.

Other "Air" maps are described on page 25.



1 : 250,000 SERIES

**General.**

The 1 : 250,000 series covering the area are shown above, and in more detail on the larger index, Appendix VI, at the end of the book. They are roughly equivalent in value, and similar in detail shown, to normal quarter-inch-to-the-mile maps of this country, and are principally M.T. maps. The main series (see samples), as well as all the adjoining series shown on the index, are produced in "Army/Air" style, a style which attempts to show the maximum military information possible for the scale, with a clearness and with a distinction of colour which make the map legible under flying conditions. Overlaps both between sheets of series and between series themselves have been eliminated. Thus, for instance, sheet L55 of G.S.G.S. 4346 fits precisely on to sheet 2 of G.S.G.S. 4479 to the north, and sheet O48 of G.S.G.S. 4346 fits on to sheet Y2 of G.S.G.S. 4413 to the south.

G.S.G.S. 4346, GERMANY, 1 : 250,000 (See sample opposite).

This is the principal map series covering the area and is based for the most part on black editions of the German 1 : 300,000 series, which were obtained before the War. Most of these black editions are post 1930 in date. Certain sheets in the south-east have, owing to lack of suitable German originals, been based on Austrian, Czechoslovak, and Hungarian 1 : 200,000 material, and certain sheets in the east have for the same reason been based on Polish 1 : 300,000 maps. East of Germany, the title of this series alters to "Central Europe 1 : 250,000"; the reference number, however, remains G.S.G.S. 4346.

In the case of sheets which have been based on the black editions of the German 1 : 300,000, the German originals have been enlarged to 1 : 250,000 and "cleaned up." This cleaning-up process has involved the removal of the woods signs on the German base map, the deletion of a number of small names, especially feature names, and the general simplification of the highly detailed original. Contours (and hence layers) have been taken from G.S.G.S. 3982 (Air, 1 : 250,000 series), which was compiled previously from detailed maps of this area. Woods have also been taken from G.S.G.S. 3982, which contains some air photo-revision on its western sheets. In Germany, recent official railway maps have brought the railways information up-to-date, though lack of detailed information frequently prevents giving any but a generalized and approximate alignment to new railways—a fact invariably noted alongside such lines. German roads have been classified on a width basis and brought up-to-date with information then available, a considerable difficulty in this respect being to establish the extent and alignment of the more modern Autobahnen. Variations in widths of road are shown by different types of road fillings; it should be noted that the black plate of the German map has not itself been altered, and hence that new stretches of road appear only on the red plate. Since the roads on this series were compiled, more detailed information has become available, most of which has been incorporated on the relevant sheets of G.S.G.S. 4416 (1 : 100,000). It is possible that further editions of sheets in western and central Germany may have to be prepared to bring the road system up-to-date; a second edition of sheet K52 has



already been prepared, incorporating the same road information that appears on the corresponding 1 : 100,000 sheets. In Germany, route numbers of Reichsstrassen are shown in red against the solid red filled roads ; these numbers are sometimes difficult to see. No attempt to provide detailed bridge information has been made on this map. For a variety of reasons sheets are difficult to read : streams and small rivers quite often fade out for a distance in the middle of their courses ; names are often thick and difficult to decipher, and in crowded areas like the Ruhr it is often hard to associate them with their exact positions, despite the fact that some of the names of the German originals have been eliminated.

A few further points that should be noted are that multiple-track railways have been emphasized by thickening up the German sign (which shows "sleepers") ; that many place names are given in abbreviated form, e.g. "... hsn." for "... hausen" and "... df." for "... dorf" ; that certain important spot heights have been re-written in larger figures for the benefit of airmen, and are emphasized with white tabs in areas where the layer system is heavy.

Sheets O49 to R49 and O48 to S48 are based on Austrian, Czech, and Hungarian 1 : 200,000 originals. The most up-to-date and suitable original has been colour-separated ; in some cases it has been necessary to join up, for example, a Czech sheet to two Austrian colour-separated originals to form one G.S.G.S. 4346 sheet ; details of woods, rivers, contours, etc., have then to be plotted on to this composite base map. In sheets prepared in this way, Czech and Hungarian place names appear for the most part in their correct forms ; in other areas, e.g., sheet N51 and sheet P50, where German 1 : 300,000 originals have been the basic maps, place names and topographical terms may be in German forms, though generally the local name, where there is one, is also provided. The 1 : 200,000 maps which have been used as bases in this area are not contoured, and contours have been obtained from G.S.G.S. 3982 where it exists, or from the various 1 : 75,000 sheets which were the basis for the contours on G.S.G.S. 3982. Woods have been taken from the same sources as contours.

For most of Poland, Polish 1 : 300,000 originals have been used as base maps ; the black bases of sheets being formed by the enlargement of the black plates of sheets of G.S.G.S. 4172 (the direct reproductions of the Polish 1 : 300,000) which are on the same sheet lines as the German series. These Polish 1 : 300,000 originals are contoured, and contours on G.S.G.S. 4346 sheets in this area are taken from this source, as are woods. Poland is also covered by the original German 1 : 300,000 series, but this map gives the German, as opposed to the Polish, versions of place names. On the other hand, where black editions of the German series are available, a clearer map is obtained by reproducing these, than by using the less clear, colour-separated, black plates of the Polish series. Thus, along the Polish-German frontiers (e.g. sheets in the "P" vertical row) the G.S.G.S. 4346 sheets are based on either Polish or German originals depending on such factors as the areas of Poland involved, and the clarity of the Polish originals concerned.

Further details of the foreign map material used are given in Part 2, and in the glossary of Conventional Signs, both of which should be consulted.

Roads in Austria, in Czechoslovakia, and in Poland have all been classified on various width bases formulated by the War Office Section concerned, and as in Germany the distinctions of road fillings indicate the probable width of the road. Railways have been checked up with the various local railway maps of the countries concerned, and with such little other information as has become available.

The authorities notes on each sheet list all the material used, giving dates where necessary. The precise value of each sheet can, to a large extent, be gauged by careful study of this note.

Sheets are on graticule sheet lines, measuring 2° east to west, 1° north to south. The western row of sheets (the "K" row) stop short on the 515,000 metres easting grid line to form a butt join with sheets of G.S.G.S. 4042 and G.S.G.S. 2738 to the west.

All sheets in the "K," "L," "M," and "N" rows (see index) are available, and those to the east are in preparation at the moment, and will be published in the course of the next few months. As these eastern sheets are published they will supersede sheets of G.S.G.S. 4172 (which are indicated in green pecked lines on the index).

It should be noticed that the Gazetteers of Germany, Appendices IX, and X, and those of Czechoslovakia and of Poland, Appendices XIII, and XIV, are based on sheets of this series, and that of Austria, Appendix XII, is based on them for most of the country. In this connection, it is of interest to find that this 1 : 250,000 map contains as many names as appear on sheets of G.S.G.S. 4416, the 1 : 100,000 series, for an equivalent area.

G.S.G.S. 4479, DENMARK, 1 : 250,000 (See sample at top of page 9).

This series of three sheets has been based on a very detailed Danish map at 1 : 320,000 scale, dated 1938, and known as "Automobilkort." Corrections to certain features, such as roads and railways, were made to each of the three original sheets, which were then enlarged and reproduced by colour-separation. Contours were added from the Danish 1 : 100,000 sheets at 50 and at 100 metres, land above 100 metres being shown with a purple layer tint identical with that used for the same level of land on sheets of G.S.G.S. 4346 to the south. Certain spot heights of importance are emphasized.

Revision to railways was made from a small-scale Danish railway map of 1943 ; along with this revision, multiple-track railways were made thicker. Roads were entirely reclassified on a general width basis by adding red "fillings" (continuous, long pecks, or short dots) without alteration to the black road network of the basic map, and official route numbers have been added in red alongside relevant roads. Road and railway ferries have been retained from the original map with the object of indicating towns which have such facilities. Corrections to certain main roads have been made on the basis of new information, chiefly recent air photographs. As in G.S.G.S. 4346, no attempt to give accurate bridge information has been attempted, and any implications about road/rail crossings, etc., that may appear should not be relied on.

As the sample shows, the map carries a surprisingly large number of place names considering the extent of the enlargement ; unfortunately many of the smaller names tend to be indistinct and as difficult to read as on sheets of G.S.G.S. 4346. A fairly comprehensive sheet glossary on each map explains most of the abbreviations and Danish topographical terms used on the map. A fuller glossary is given at Appendix III.

Sheets are on the same sheet lines as the Danish originals except that the two southern sheets, 2 and 3, have been cut so as to join up exactly with G.S.G.S. 4346 along the 55° N. parallel. The longitudinal graticule shown on sheets is based on the meridian of Copenhagen and not of Greenwich.

All three sheets of this series have just been published.

G.S.G.S. 4042 and G.S.G.S. 2738, covering Holland, Belgium and France, are fully described in "Notes on G.S.G.S. Maps of France, Belgium, and Holland." Generally similar in style, they join the western edge of G.S.G.S. 4346. All sheets of both these series are published.

G.S.G.S. 4230, Italy, 1 : 250,000 joins on to the south of G.S.G.S. 4346 along the 47° N. parallel, each series covering about half of Switzerland. Further to the east, G.S.G.S. 4230 includes the southern part of Austria. This series, which is fully described in "Notes on G.S.G.S. Maps of Italy" is very similar in style to G.S.G.S. 4346. The areas of Switzerland and Austria lie to the north of the area covered by the main Italian basic map of this series (Carta d'Italia del T.C.I.), and the necessary extensions have been based on the Michelin 1 : 200,000 sheets to the west and on the Carta Automobilistica 1 : 200,000 sheets to the east. Railway revision in both Switzerland and Austria has been carried out from local railway maps, and the roads in both countries have been revised and classified on their respective national width bases. All sheets of this series are published.

G.S.G.S. 4413, Yugoslavia, 1 : 250,000 covers a small area at the south-east corner of Austria. This map has been compiled and drawn *ab initio* from all the best available material (1 : 200,000 and 1 : 75,000 maps in Austria) and while of similar style to the other series, succeeds in being more legible (because redrawn) if not more accurate. The northern sheets of this series will shortly be available.



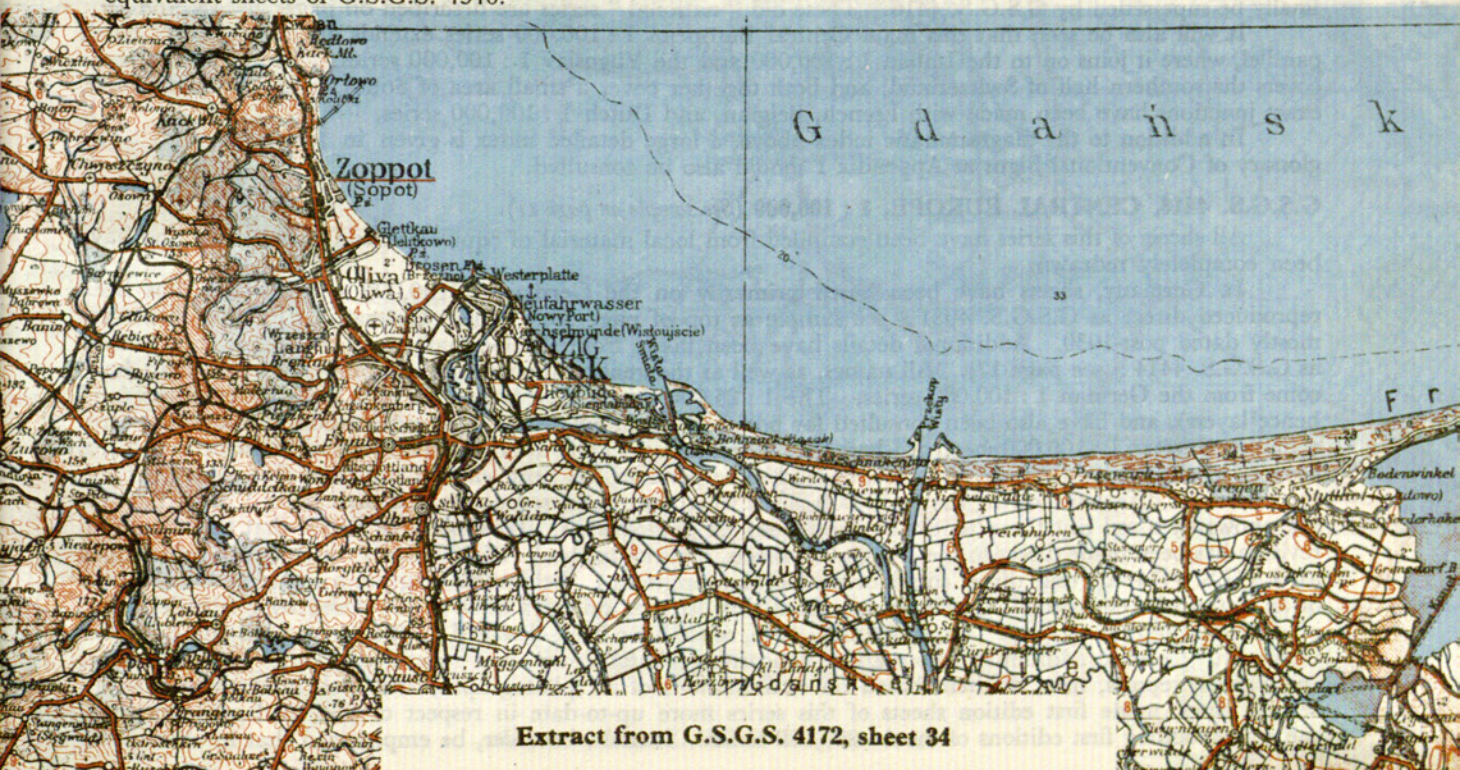
The close relationship between this series and G.S.G.S. 4346 has already been mentioned in the note on the latter. This series was reproduced in 1941-2, before G.S.G.S. 4346 was started ; it will be superseded as the equivalent sheets of G.S.G.S. 4346 are published.

Sheets have been reproduced by the direct colour-separation of the Polish 1 : 300,000 originals, and no attempt to revise them, grid them, or classify their roads has been made. The date of each Polish original copied is shown in the imprint at the bottom right-hand corner of each sheet ; the average date is about 1935.

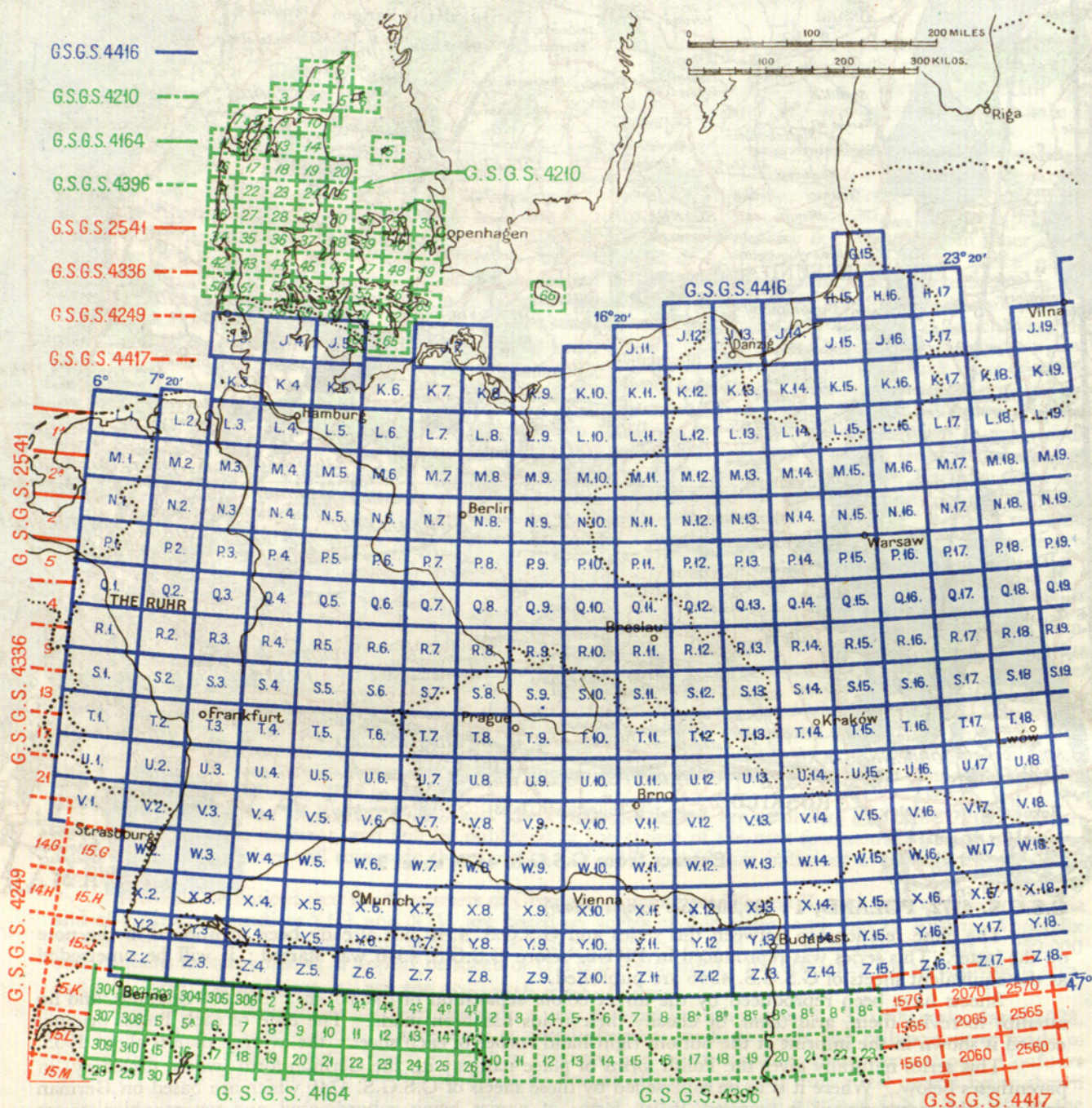
This series naturally gives the Polish forms of place names with the German form (where necessary) in parentheses below. Where it is to be superseded by those sheets of G.S.G.S. 4346 which are based on German originals, this arrangement is reversed, Polish forms of names being subordinated and topographical terms appearing in German.

Sheets carry marginal notes in bilingual form ; unfortunately they do not carry a glossary to explain the topographical terms (see, however, Polish glossary at Appendix V).

Small stocks of all sheets of this series are available, and will continue to be so until superseded by the equivalent sheets of G.S.G.S. 4346.



1 : 100,000 SERIES



General.

The index above shows that nearly all Central Europe is covered by one main 1 : 100,000 series, G.S.G.S. 4416. The only other main series involved is G.S.G.S. 4210, the Danish 1 : 100,000 series. G.S.G.S. 4416 is not yet completely available (it is described in detail below), and it is, therefore, necessary to describe the other maps of similar scale which have been published covering Austria, Czechoslovakia, and Poland, and which will finally be superseded by G.S.G.S. 4416. These old "national" series are described on pages 14, 15, and 16.

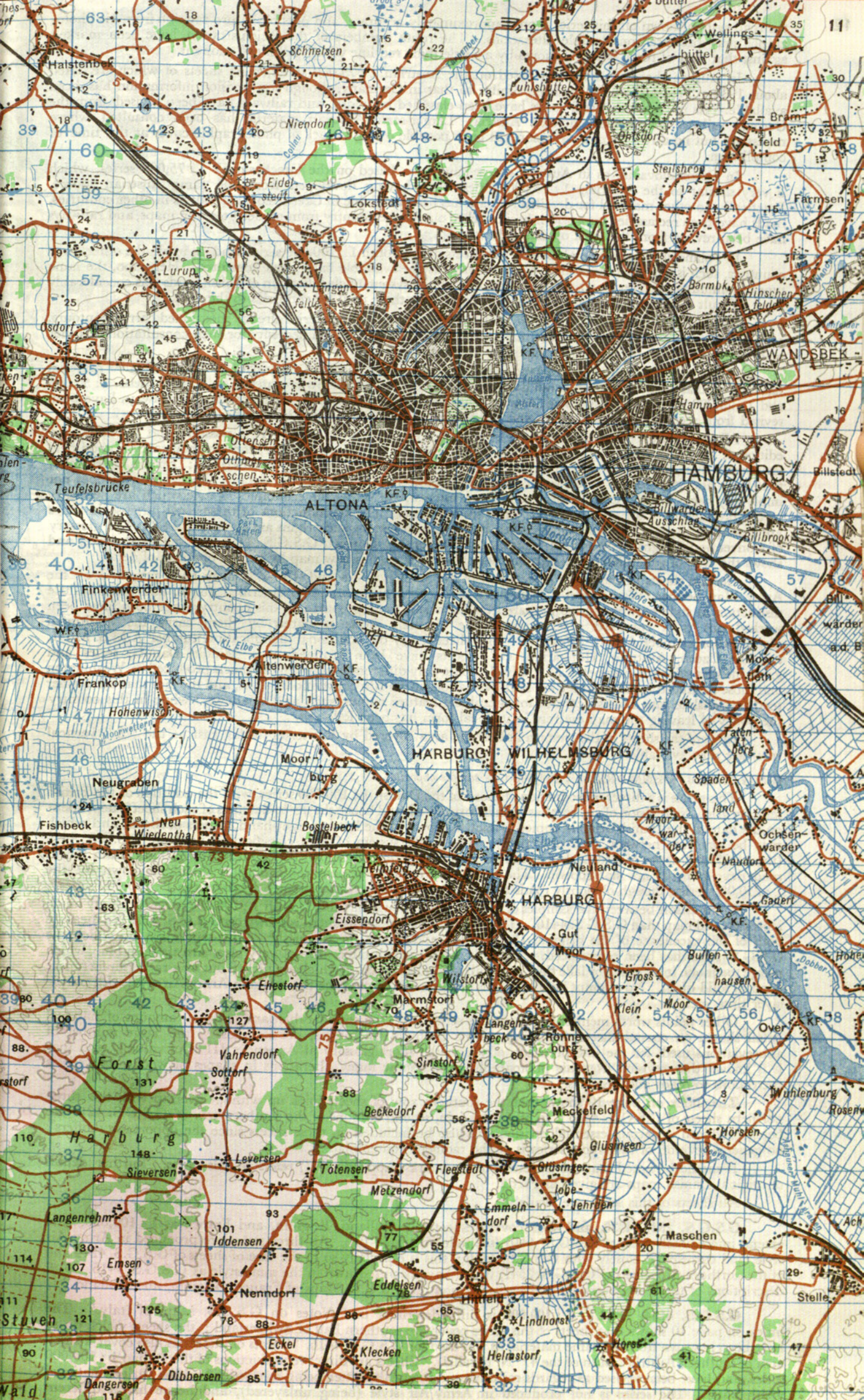
It will also be seen that this main Central European 1 : 100,000 series extends down to the 47° north parallel, where it joins on to the Italian 1 : 100,000 and the Yugoslav 1 : 100,000 series. The former of these covers the southern half of Switzerland, and both together cover a small area of South Austria. To the west, exact junctions have been made with French, Belgian, and Dutch 1 : 100,000 series.

In addition to the diagrammatic index above, a large detailed index is given in Appendix VII. The glossary of Conventional Signs at Appendix I should also be consulted.

G.S.G.S. 4416, CENTRAL EUROPE, 1 : 100,000 (See sample on page 11).

All sheets of this series have been compiled from local material of equivalent and larger scale, and have been completely redrawn.

In Germany, sheets have been based primarily on the German 1 : 100,000 series (which has been reproduced direct as G.S.G.S. 4081; see sample at top of page 15); these German 1 : 100,000 sheets are mostly dated post-1930. Additional details have been taken from the German 1 : 25,000 series (reproduced as G.S.G.S. 4414; see page 17). All names, as well as the general topographical framework of the map, have come from the German 1 : 100,000 series. The 1 : 25,000 sheets have been used as a basis for contours (and hence layers), and have also been consulted for points of detail where they are more modern than the corresponding German 1 : 100,000 sheet, or where the latter is indistinct and difficult to read. In addition, certain sheets have been checked against air photographs, and some revision has been carried out from this source. Each sheet carries a diagram showing the 1 : 25,000 sheets which fall in the same area and their dates; this diagram also shows by a red tint the extent of revision from air photographs. (It should be noted that this air photo revision has been made direct to the 1 : 100,000 sheets, and not to the 1 : 25,000 sheets which, when reproduced as G.S.G.S. 4414, are only direct copies of the German originals.) Below this diagram a complete list is shown of all authorities consulted. It will be seen from this list that railways have been revised by reference to the official German railway map. As in G.S.G.S. 4346, roads have been classified on the width basis laid down for Germany. Certain additional information concerning Autobahnen has recently become available from Intelligence reports, most of them based on examinations of air photographs, and such information has, in several cases, made first edition sheets of this series more up-to-date in respect of this road category than the corresponding first editions of the 1 : 250,000 series. It must, however, be emphasized that in all respects



the road system shown on this series is only approximately accurate, and possible future revision from air photographs may produce considerable alterations. The route numbers of the Reichsstrassen have been marked against that class of road, which is shown by a single thick red line with "bobbles" along it.

In Austria the series has been based on the Austrian 1 : 75,000 series, most sheets of which are dated about 1936. Treatment here has been similar to that in Germany, though less revision information has been available. As in Germany itself, roads have been classified by width, and railways have been revised from the German railway map which includes Austria. Larger-scale Austrian material has been consulted where necessary, but no direct air photo revision has been possible owing to lack of photographic cover at the time of compilation.

In Czechoslovakia, as in Austria, sheets have been based on the Czechoslovak 1 : 75,000 series, which is very similar to the Austrian 1 : 75,000 series, both having developed from the same Austrian source. Practically no other material for detailed revision has been available in Czechoslovakia, but as in other countries, roads have been reclassified on a width basis worked out for the country from modern touring maps, and railways have been revised from the local official railway map.

In Poland sheets are being based on the sheets of the Polish 1 : 100,000 series, and, as in all the other three countries, such isolated scraps of large-scale material as are available have been consulted. Here, too, the same type of communication revision has been made, though the system of classification of Polish roads was considerably more difficult to formulate and is somewhat different from those used for countries to the west.

In Austria, Czechoslovakia, and Poland, the large-scale basic material already mentioned carries contours, so that detail has come direct from the main basic source, without much necessity for such consultation of other scale material as was necessary for obtaining contours in Germany.

In the northern half of Switzerland, which is covered by sheets of this series, Swiss 1 : 100,000 material has been used as a basis; certain detail has been taken from large-scale Swiss material such as the Swiss 1 : 50,000 and 1 : 25,000 maps, which supplied, among other features, the contours. Swiss roads and railways have been revised from recent small-scale maps, and roads placed on a width basis of classification.

All sheets are reproduced in Army/Air style, and carry layer tints. (It is possible that an unlayered edition of all sheets will also be published.) The maps are exceptionally clear, though they carry a good deal less detail than the rather over-elaborate basic material from which they are derived; certain users may, therefore, find it necessary to consult copies of the basic map for additional detail. This, however, does not imply any neglect of the main features of military interest, but rather the economies in style which are necessary in the production of an extensive map series in war time. The reproductions of these local large-scale series are described on page 14, while some further details of their history and origins are given in Part 2. The glossary of Conventional Signs at Appendix I shows the relationship between G.S.G.S. 4416 and the local series, and shows the type of generalization which has been necessary on this new map by way of omission of detail.

Certain sheets in this series (sheets east of the lines K8—S8 and T3—Z3) have been prepared by the Army Map Service, Washington. They have used precisely the material described above, and there is little distinction in style between sheets prepared by them and those prepared in this country, since both have been worked out to a standard specification. The German sheets prepared by them carry the additional identification number A.M.S. M641, the Polish sheets carry the additional identification number A.M.S. M651, and the Czech, Austrian, Hungarian, etc., sheets have been grouped as a Middle Danube series and given the identification number A.M.S. M671. The only differences between the sheets produced in Washington and those produced in this country are slight variations in certain conventional signs, and the fact that the former tend to translate into English certain topographical feature names, such as "meadows," while in this country the policy of leaving the map entirely in its local form has been followed.

Most of the sheets in the western half of the area covered by this series (as far east as the "8" vertical row) are now available.

G.S.G.S. 4210, DENMARK, 1 : 100,000 (*See sample opposite*).

This series is a direct reproduction of sheets of the Danish 1 : 100,000 series, with the addition of the British military grid. No revision of any sort has been incorporated, and hence the up-to-dateness of each sheet is dependent on the date of the Danish original copied (which is shown at the bottom right-hand corners of sheets, and which may be any year between 1927 and 1938). The width system of road classification used on G.S.G.S. 4479 (the 1 : 250,000 series of Denmark) has not been employed on G.S.G.S. 4210, and it is known that certain recent road developments are not shown. The latest information on communications is therefore shown by the 1 : 250,000 series, though obviously roads and railways are shown in far greater detail on the 1 : 100,000 series.

Comparison between the samples of the two series shows that this Danish 1 : 100,000 series is a very much more detailed map than G.S.G.S. 4416. The clarity with which this detail is shown on G.S.G.S. 4210 is a measure both of the excellence of the original Danish map and of the success of the colour-separation by which the G.S.G.S. series has been reproduced. The only names which often are not very clear are those in blue, which merge too much into the sea or lake tints, especially round shore lines (which are picked out by a rather unfortunate band of solid blue). No attempt has been, or is being, made to produce this series in Army/Air style with purple layer tints, etc.

Other points worth mentioning about this series are: the considerable (and unusual) amount of nautical detail shown on coastal sheets, including marine contours (in metres, not fathoms); the large number of abbreviations used, for the interpretation of which the short glossary at Appendix III is of value; and that it is known that revision from air photographs would show many alterations in shapes of woods, as well as corrections to roads and railways.

The index on page 10 shows that the southern row of sheets joins up without overlap with the three northern sheets of G.S.G.S. 4416; to effect this join, second editions of the southern row of G.S.G.S. 4210 are being produced. Certain essential revision will also be included on these sheets since the opportunity offers; no general revision of the whole series is at the moment contemplated.

It should be noted that the Gazetteer of Denmark (Appendix XI) refers to this series. Further details of original Danish maps are given in Part 2.

All sheets of this series are available.

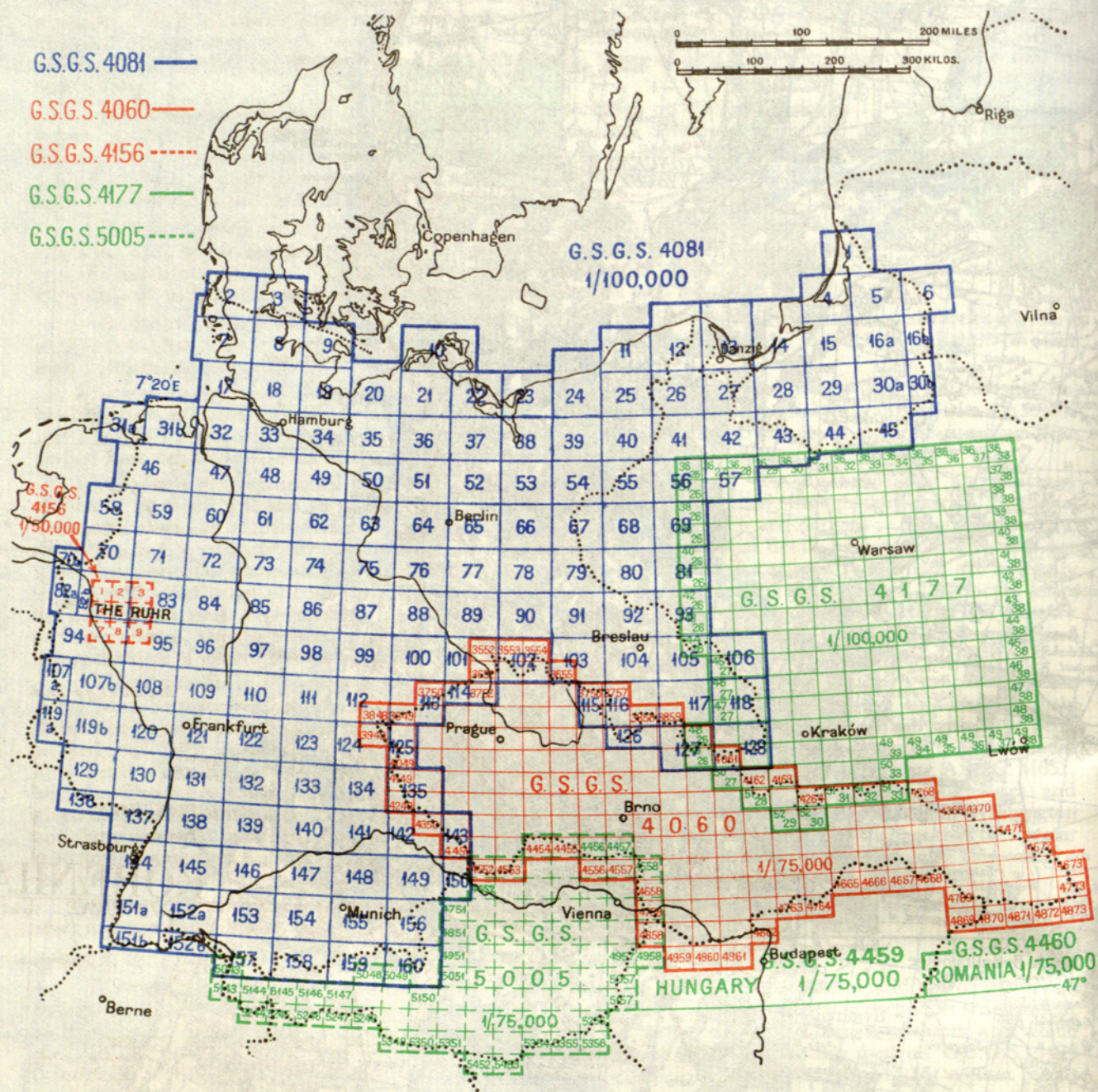
G.S.G.S. 2541, 4336, and 4249 cover respectively Holland, Belgium, and France at 1 : 100,000, and extend immediately west of G.S.G.S. 4416 (see index on page 10). All three series are produced in Army/Air style, and correspond closely with G.S.G.S. 4416; this is especially so in the case of sheets of G.S.G.S. 4249 and of the northern two sheets of G.S.G.S. 2541, which have been redrawn in the same style as G.S.G.S. 4416. Full descriptions of these three series are given in "Notes on G.S.G.S. Maps of France, Belgium, and Holland."

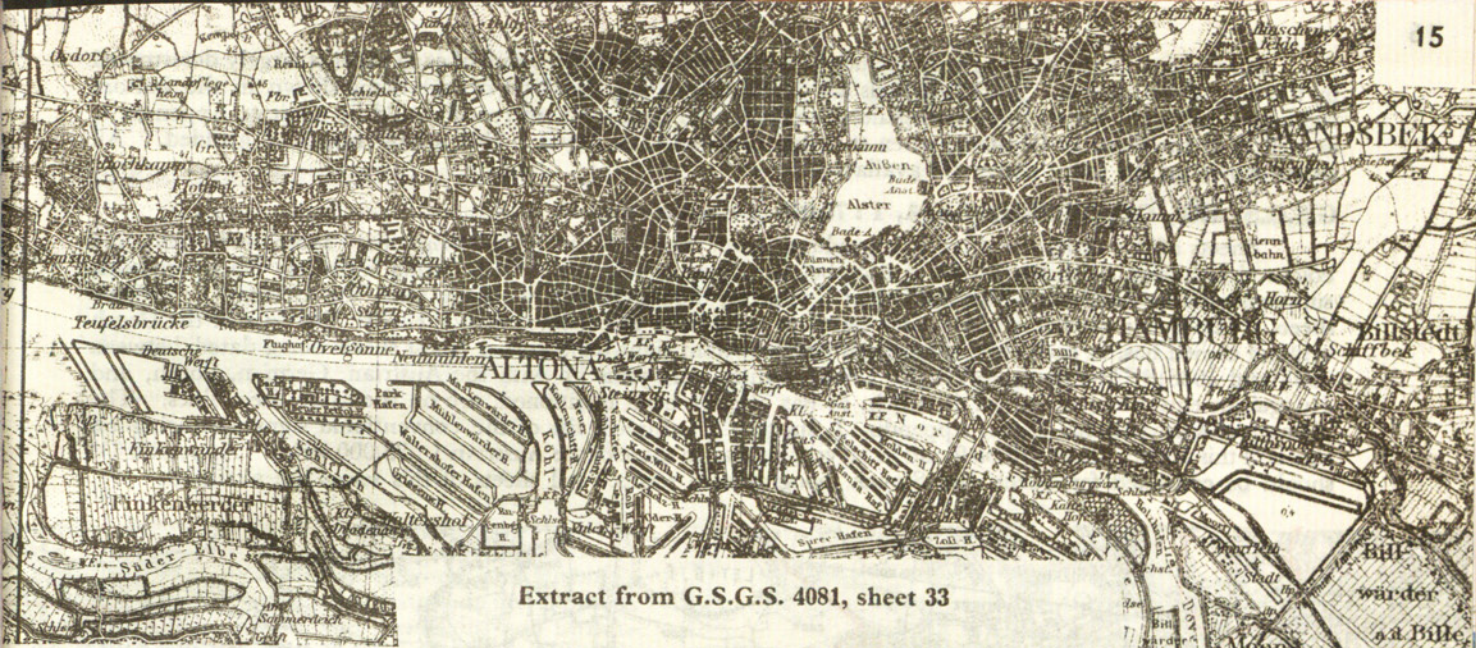
G.S.G.S. 4164, ITALY, 1 : 100,000 is fully described in "Notes on G.S.G.S. Maps of Italy." The index on page 10 shows that sheets of this series cover the southern half of Switzerland; the sheets which do so have been redrawn from the same material as was used for G.S.G.S. 4416. Sheets of this series also cover a small area of southern Austria (south of the 47° N. parallel). Sheets are direct reproductions of the Italian 1 : 100,000 series, and have been revised as regards railways and roads, the latter being re-classified on the various national width bases. The series is not produced in Army/Air style (being unlayered), and hence has a different appearance from the redrawn series to the north.



Extract from G.S.G.S. 4210, sheet 41

G.S.G.S. 4396, YUGOSLAVIA, 1 : 100,000. The index on page 10 shows that this series covers a small corner of southern Austria. Sheets of this series are direct reproductions of Yugoslav 1 : 100,000 originals, themselves based on old Austrian 1 : 75,000 material and produced around 1938. No revision or road re-classification has so far been incorporated on sheets of this series in this area.



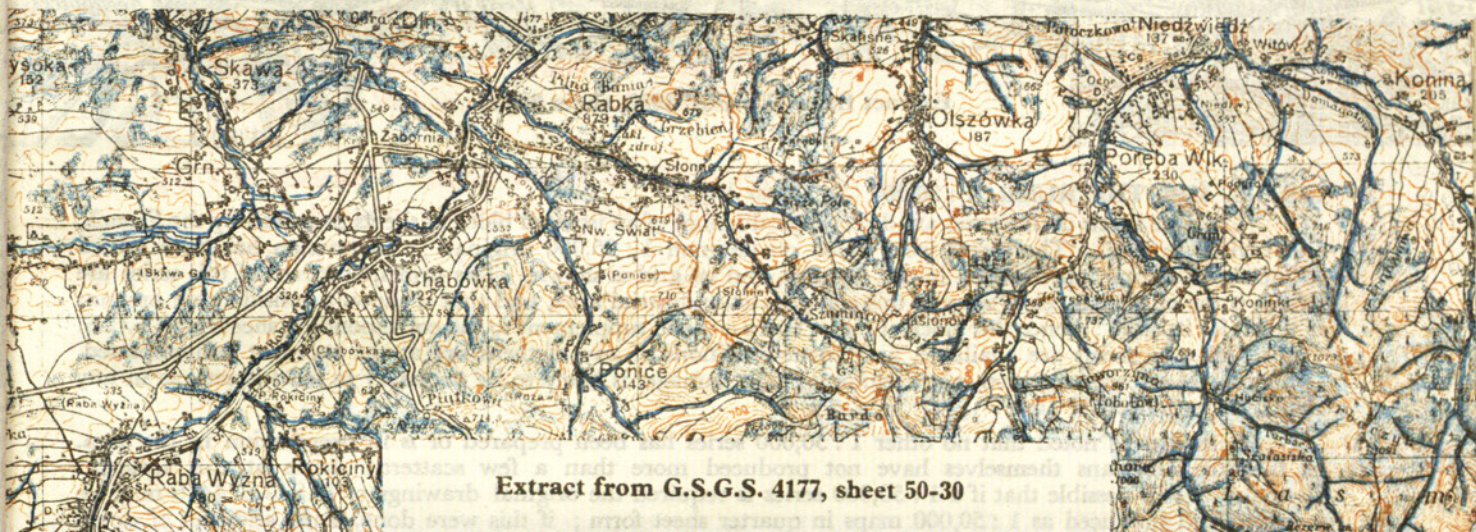


Extract from G.S.G.S. 4081, sheet 33

G.S.G.S. 4177, POLAND, 1 : 100,000 (See sample below).

This series has been reproduced direct from Polish 1 : 100,000 originals. Some of the sheets have been reproduced in colour (see the sample below), and others have been prepared in black only ; but since the originals are good clear maps, both black and coloured sheets are quite legible.

Sheets carry no revision, and no attempt to classify roads on a width basis has been made. The date of the original reproduced is in each case given in the right-hand bottom corner ; the average date of the originals is about 1930. Sheets have been prepared with a bilingual reference for use by both Polish and British troops. No sheets have been gridded with the British grid, although most of them carry the official Polish military grid. As in the case of G.S.G.S. 4081, the originals which have been copied carry considerably more detail than the equivalent sheets of G.S.G.S. 4416 and are, therefore, of some value even after the reproduction of this latter series. It will be seen that, like the Austrian and Czech series, sheets are numbered by two pairs



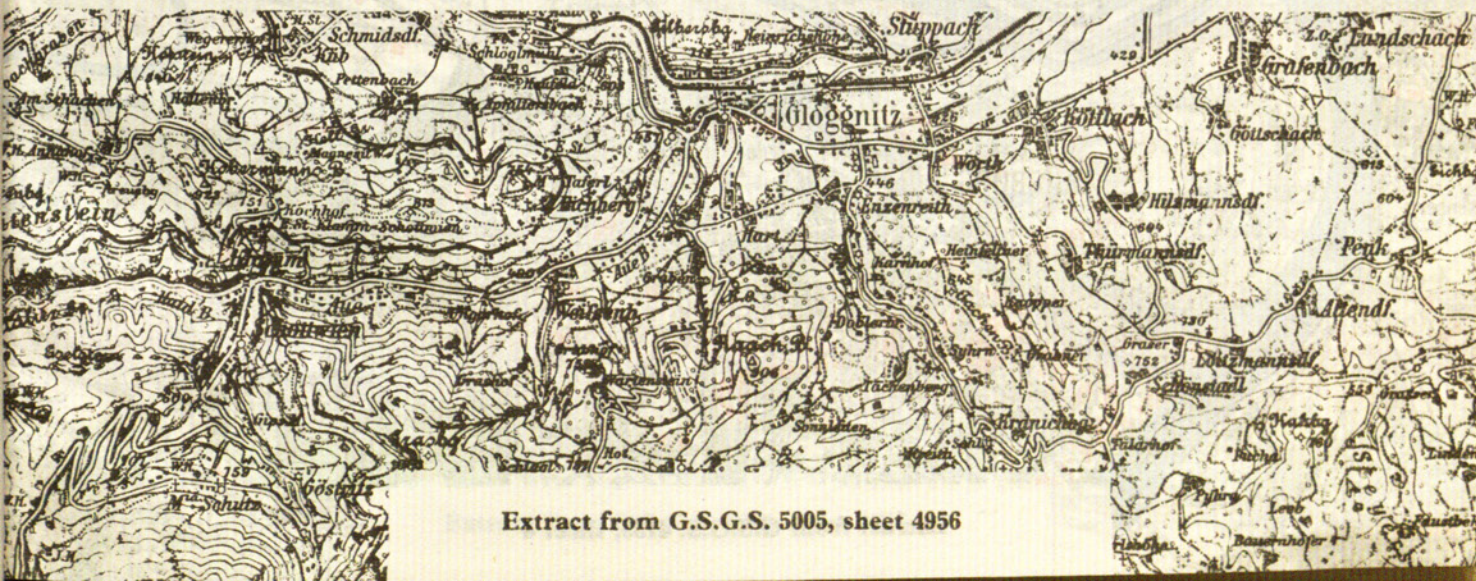
Extract from G.S.G.S. 4177, sheet 50-30

of figures, one denoting Northings, the other Eastings, so that it is simple to find the number of any adjoining sheet. It has already been mentioned that sheets are on the same sheet lines as those of G.S.G.S. 4416, though they form quarters of sheets of the latter.

All sheets shown on the index above are available as well as another block of sheets further east.

G.S.G.S. 5005, AUSTRIA, 1 : 75,000 (See sample below).

This series is a direct and all-black reproduction of Austrian 1 : 75,000 originals, and covers the entire country with the exception of small areas which are already included on G.S.G.S. 4081 (see index). Most of the Austrian originals show relief by contouring and by hachures. The sheets are more detailed than sheets of G.S.G.S. 4416, since the latter, owing to the speed of their production, have had to omit certain minor points of detail which the Austrian originals carry.

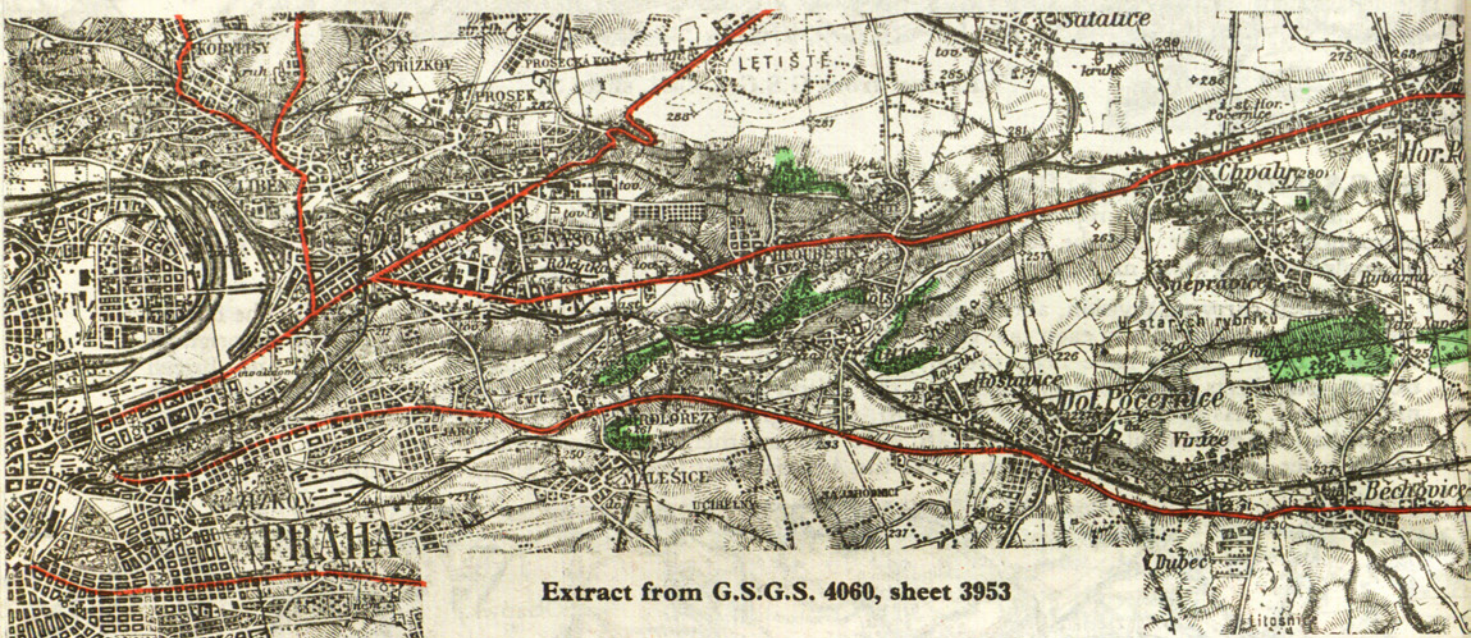


Extract from G.S.G.S. 5005, sheet 4956

No revision of any sort has been included on these sheets, and the value of each sheet is largely determined by the date of the original. Most originals are dated about 1935, the dates of each being shown in the bottom right-hand corner. Sheets carry no legend of conventional signs, and reference should be made to Appendix I, as well as to the German Glossary, when studying these series in detail. Sheets have **not** been gridded. All sheets shown on the index above are available.

G.S.G.S. 4060, CZECHOSLOVAKIA, 1 : 75,000 (See sample below).

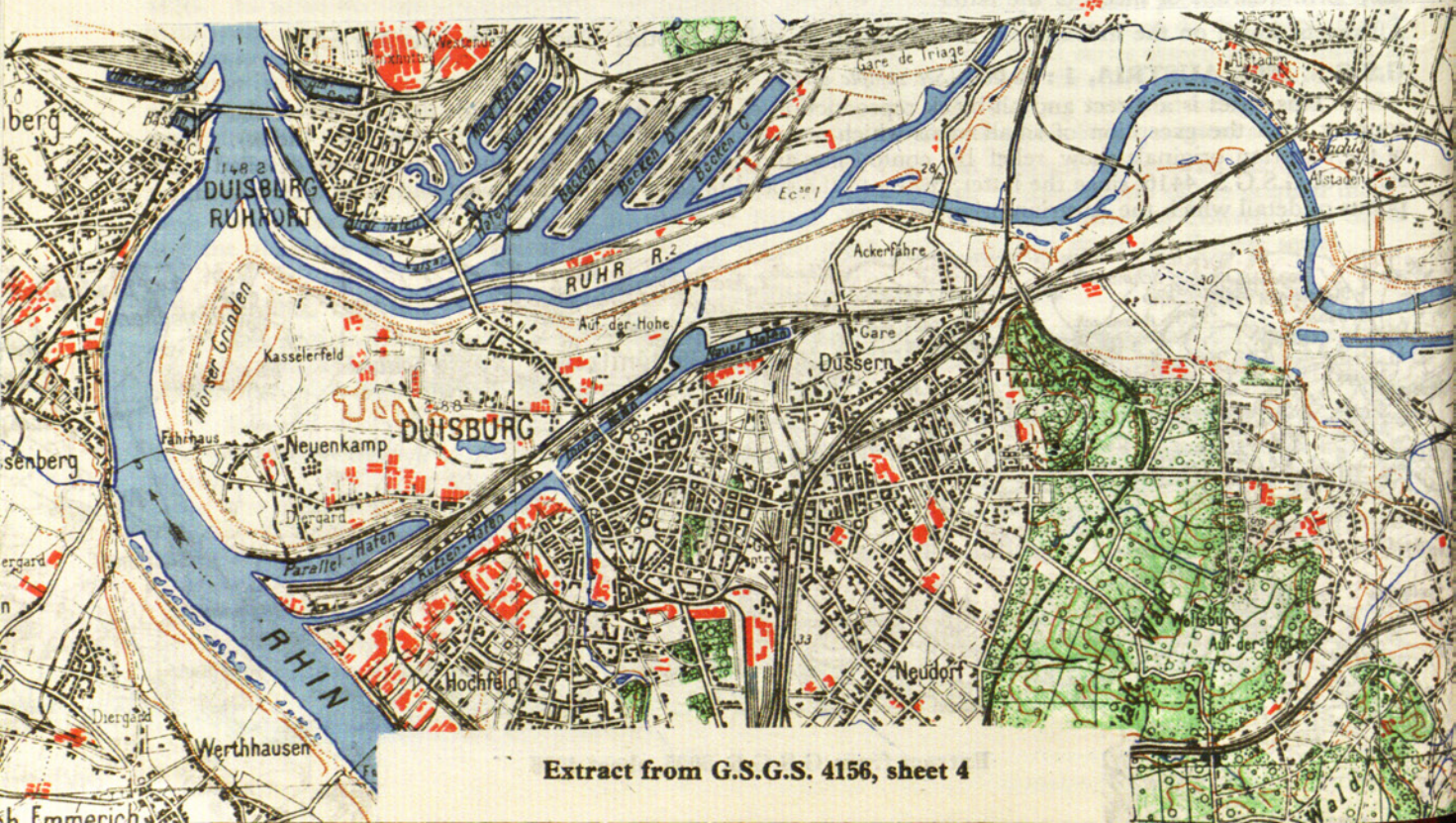
Sheets of this series are directly reproduced from the Czech 1 : 75,000 originals. Most sheets have had colour tints added, as shown in the sample below. Sheets show relief with rather indistinct black contours, supplemented by hachures which are rather similar to, though generally clearer than, the German 1 : 100,000 sheets. The sheets are **not** gridded, and carry no revision or re-classification of roads. The date of the Czech original copied has, in each case, been given at the bottom right-hand corner (most sheets being dated between 1935 and 1938). The series covers the whole country, and joins up with the Austrian, German, Polish, and Hungarian equivalent series, all of which, as has already been mentioned, are on the same sheet lines. The glossary of Conventional Signs, Appendix I, supplies a complete list of the conventional signs appearing on sheets of this series; these will be found to be very similar to those of the Austrian 1 : 75,000 series. Appendix IV should be consulted for Czech and Slovak topographical terms. All sheets of this series are available.



G.S.G.S. 4156, THE RUHR, 1 : 50,000 (See sample below).

The nine sheets of this series are direct reproductions of an isolated block of sheets prepared by the French, and revised to 1940. The sheets were based on German 1 : 25,000 originals; no revision has been added to the sheets during reproduction in this country, and **no** grid is shown. The principal merits of this series are that it is the only really clear map of this complicated industrial area, and that it shows a considerable amount of detail for its scale; hence this block of sheets forms a useful supplement to the corresponding sheets of G.S.G.S. 4416. All nine sheets are available, and no new editions of any of them are at the moment contemplated, though fairly extensive revision, not excluding bomb damage, is likely to be necessary to most sheets, as in any similar large industrial area.

It should be noted that no other 1 : 50,000 series has been prepared or is in preparation in the area. In fact, the Germans themselves have not produced more than a few scattered sheets at this scale for Germany. It is possible that if a 1 : 50,000 series is required the original drawings of G.S.G.S. 4416 may be enlarged and produced as 1 : 50,000 maps in quarter sheet form; if this were done, some addition of detail from other material, such as the relevant 1 : 25,000 German sheets or air photographs, would probably be necessary. The equivalent volumes to this on France and on Italy should be consulted for details of adjacent 1 : 50,000 series to the west and to the south.



ERRATA.

- (i) For detailed index to 1 : 50,000 series (G.S.G.S. 4156 and G.S.G.S. 4492), see Appendix VIIA in pocket at end of book.
- (ii) The Bavarian 1 : 25,000 sheets are being reproduced as G.S.G.S. 4497 on the Bavarian sheet-line system. This series is shown in detail on Appendix VIII.

1st May, 1944.

1 : 25,000 SERIES

G.S.G.S. 4414, GERMANY, 1 : 25,000 (See sample below).

The index above shows the general position of 1 : 25,000 map coverage in the area, and also indicates how the series to the west join up with the main German 1 : 25,000 series. The sheet lines of G.S.G.S. 4414 are shown by Appendix VIII, at the back of this book.

The series covers a small area of eastern Holland. In this area sheets are being redrawn by the Army Map Service, Washington, and are being revised from air photographs and all other available information. The style of these sheets is different from that of sheets in Germany, and corresponds with that of G.S.G.S. 4427—Holland, 1 : 25,000 (which is described in "Notes on G.S.G.S. Maps of France, Belgium, and Holland").

Except for this small extension into Holland, and for other still smaller extensions into Luxembourg, Belgium, and France, the series is entirely based on the German 1 : 25,000 sheets. These have been reproduced direct, except that the German grid has been deleted from originals carrying it (it can still be seen by white lines crossing the map), and replaced by the British grid. The restricted marginal space of the map does not permit of either the reference or the glossary being comprehensive, and the German glossary at Appendix II of this book and the Glossary of Conventional Signs at Appendix I should be consulted.

Most of the German 1 : 25,000 originals are themselves monochrome, but even in the cases of coloured originals the G.S.G.S. series is for the moment being produced in "all-black" form—a form in which sheets remain quite legible. (Future editions of sheets may be printed in brown, with roads overprinted in red, and water in blue.) Sheets have been designed for printing in the field by American or British Survey Units.

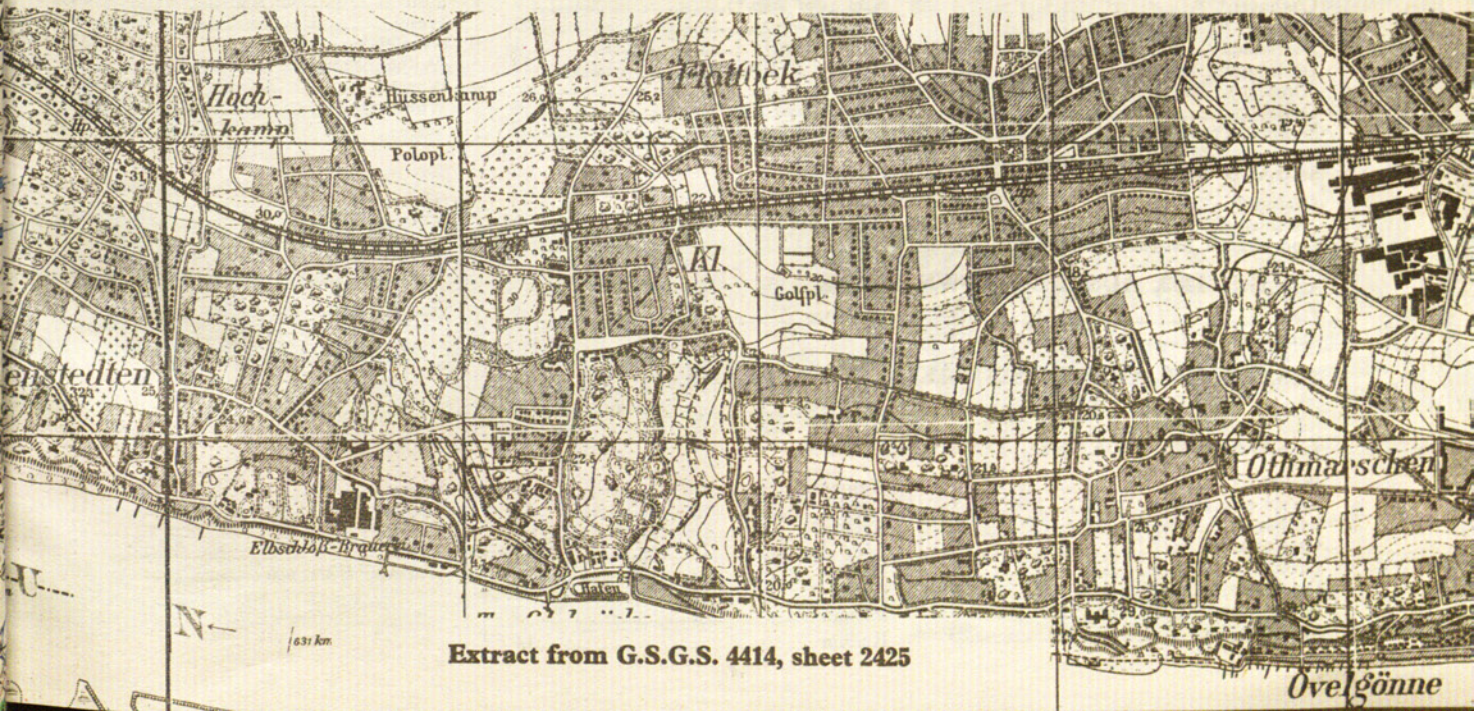
No revision is being incorporated into sheets at this stage : revision will probably be undertaken to specific sheets as occasion demands, and possibly carried out in the field. The accuracy of the basic maps now being reproduced varies with the dates of the German originals copied ; this information is provided at the bottom right-hand corner of each sheet in the usual way. In a series of so many sheets as this, an average date has little meaning, but a typical date, especially for sheets in the west, is 1930.

Details of the German 1 : 25,000 original maps are given in Part 2. Originally each main German State was responsible for the upkeep of its own 1 : 25,000 series, each having its own variations in style. The area covered by the Prussian State series (Messtischblätter) was far greater than that of any other state series, and in 1937 the other states started to bring their series into line with this one, to produce a uniform series, known as "Topographische Karte, 1 : 25,000". The Bavarian 1 : 25,000 series, however, is mostly published on different sheet-lines from the Prussian series, and only covers about half of Bavaria. The whole of Bavaria is covered by a 1 : 50,000 series, most sheets of which show relief only by hachures. It is intended to reproduce the whole of this 1 : 50,000 Bavarian series* as it stands (as G.S.G.S. 4492) ; such Bavarian 1 : 25,000 sheets as exist will probably also be reproduced as part of G.S.G.S. 4414 with the Bavarian sheet-line system either retained or converted to the normal (Prussian) system. The Bavarian 1 : 50,000 sheets are shown on Appendix VIII. In view of these complications, the general area of the Bavarian series has been marked on the index.

The G.S.G.S. series is being produced from west to east, and since about 3,000 sheets will be involved to cover Germany as far east as Berlin, it is obvious that sheets in the eastern part of the area indicated are somewhat hypothetical. Large blocks of sheets in the west and centre of the country are now available, and further sheets are being published at the rate of about fifty sheets a week.

No 1 : 25,000 series are in hand in any other parts of the area. Material exists for the simple reproduction of a 1 : 25,000 series of Denmark (by copying the Danish 1 : 20,000 sheets). Some sheets of an Austrian original 1 : 25,000 series, as well as partial Czechoslovak and Polish 1 : 25,000 series, are also available for direct reproduction should they be required. Details of these local series are given in Part 2.

* The statement on page 16 that no other G.S.G.S. 1 : 50,000 series is in preparation in this area should be corrected accordingly.



Extract from G.S.G.S. 4414, sheet 2425

TOWN PLANS



G.S.G.S. 4480, GERMANY, TOWN PLANS

Augsburg	50
Bamberg	39
Berlin, 4 sheets	15
Bonn	30
Bremen (2nd Edn.*)	13
—port plan*—Misc. 117	
(Bremerhaven*)	7
(Breslau)	32
Brunswick, Braunschweig	17
(Chemnitz)	33
Cologne, Köln	29
Cuxhaven*	4
(Danzig) G.S.G.S. 4496	3
Darmstadt	38
Dortmund	22
(Dresden)	31
Duisberg	24
Düsseldorf (2nd Edn.*)	26

(Emden*)	10
(Essen)	23
(Frankfurt-am-Main)	36
Hamburg (2nd Edn.*)	8
—port plan*—Misc. 117	
(Hanover)	14
(Heidelberg)	44
Hildesheim	18
Kaiserslautern	42
Karlsruhe	47
Kassel	27
Kiel (2nd Edn.*)	2
Koblenz	34
(Königsberg)	1
(Krefeld & Urdingen)	25
(Leipzig)	28
Lübeck (2nd Edn.*)	6
Lüneburg	12

(Magdeburg)	20
Mainz	37
Mannheim	43
(Munich, München)	51
Münster (2nd Edn.*)	19
Nürnberg	46
Osnabrück	16
(Rostock)	5
(Saarbrücken)	45
(Stettin)	11
Stuttgart	48
Ulm	49
Wesel	21
(Wiesbaden)	35
(Wilhelmshaven*)	9
Worms	40
Wurzburg	41

G.S.G.S. 4260, DENMARK, TOWN PLANS

(Aalborg)	2
(Aarhus)	3
Copenhagen, København (2nd Edn.*)	6

(Esbjerg)	5
(Frederikshavn)	1

(Helzingør)	4
(Odense)	7

G.S.G.S. 4483, AUSTRIA, TOWN PLANS

Graz	4
Innsbruck	3

Salzburg	2
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Vienna, Wien	1
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G.S.G.S. 4489, CZECHOSLOVAKIA, TOWN PLANS

(Pilsen, Plzeň)	2	(Prague, Praha)	1
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G.S.G.S. 4435, POLAND, TOWN PLANS

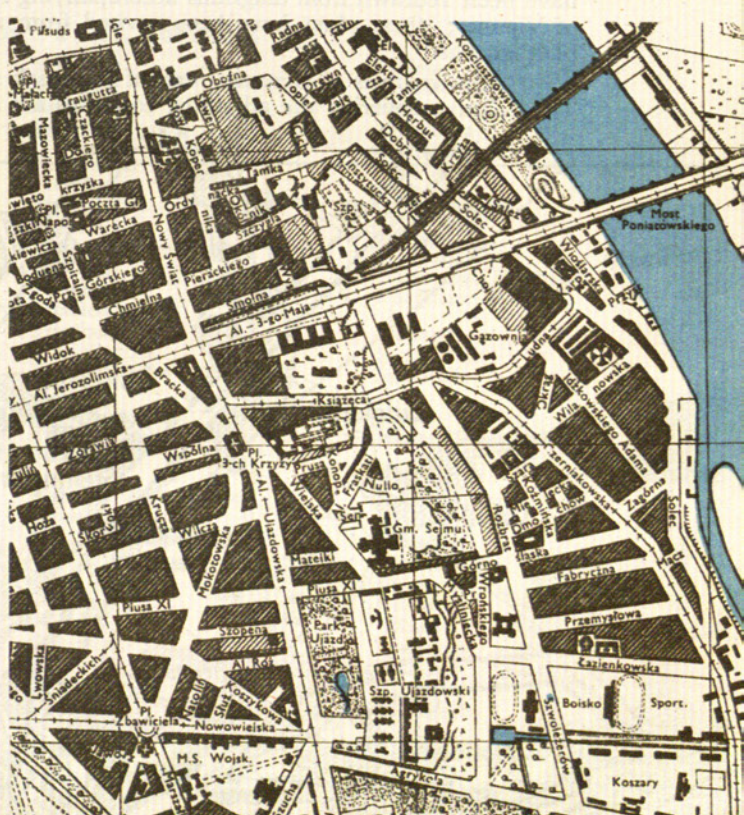
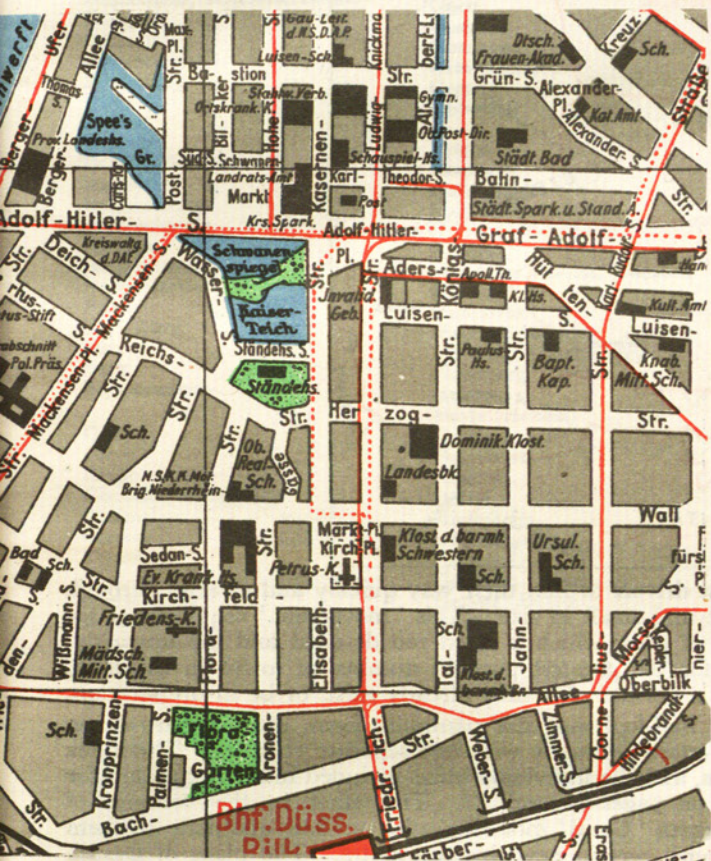
Białystok	5
Brześć nad Bugiem	12
Bydgoszcz	6
Częstochowa	17
Grodno	2
Grudziądz	4
Inowrocław	8
Jasło	23

Katowice	18
Kowel	15
Kraków	20
Łódź	13
Lublin	16
Lwów	22
Poznań	9
Radom	14

Rzeszów	19
Siedlce	11
Tarnów	21
Torun	7
Warsaw, Warszawa	10

The lists opposite show those plans which are published or in hand. It must, however, be emphasized that in all probability many additional plans will be prepared, as well as new editions of existing ones. More than anything else in these notes, these lists of plans are provisional, and both index and lists should constantly be kept up-to-date.

Attention must be drawn to the wide variety of style and accuracy of plans, and the four samples below cover the range fairly typically. The bottom left sample, an extract from the plan of Lüneburg, shows a type of plan which has been reproduced in half-tone (and reduced in scale) direct from a coloured German original; this is an economical method of producing provisional editions of plans until such time as the facilities for producing an improved edition become available. The top left sample is an extract from the plan of Düsseldorf; this plan again is a direct and unrevised copy of a German plan of this town, but the reproduction in this case has been more elaborate and hence the result is far clearer; this type of plan is, of course, diagrammatic as regards street widths, the layout of dock areas, etc., but forms an adequate guide to streets and important buildings. The extract at the bottom right (from the plan of Warsaw) is very similar to all the plans of Poland (G.S.G.S. 4435), which have been reproduced from drawings prepared by the Geographical Section of the Polish General Staff. The remaining sample is typical of the best type of plan carefully prepared from air photographs and carrying information about industrial and municipal buildings that result from research; this type of plan is often produced with the co-operation of the Central Interpretation Unit of the R.A.F. and of the Inter-Service Topographical Department, and can be regarded as being the most complete, clear, and authoritative plan that it is possible to produce. Other plans have been reproduced by I.S.T.D. and the Hydrographic Department of the Admiralty. American map reproduction units in this country have produced, with great success, many of the plans that have been colour-separated from originals, such as the four-sheet plan of Berlin.



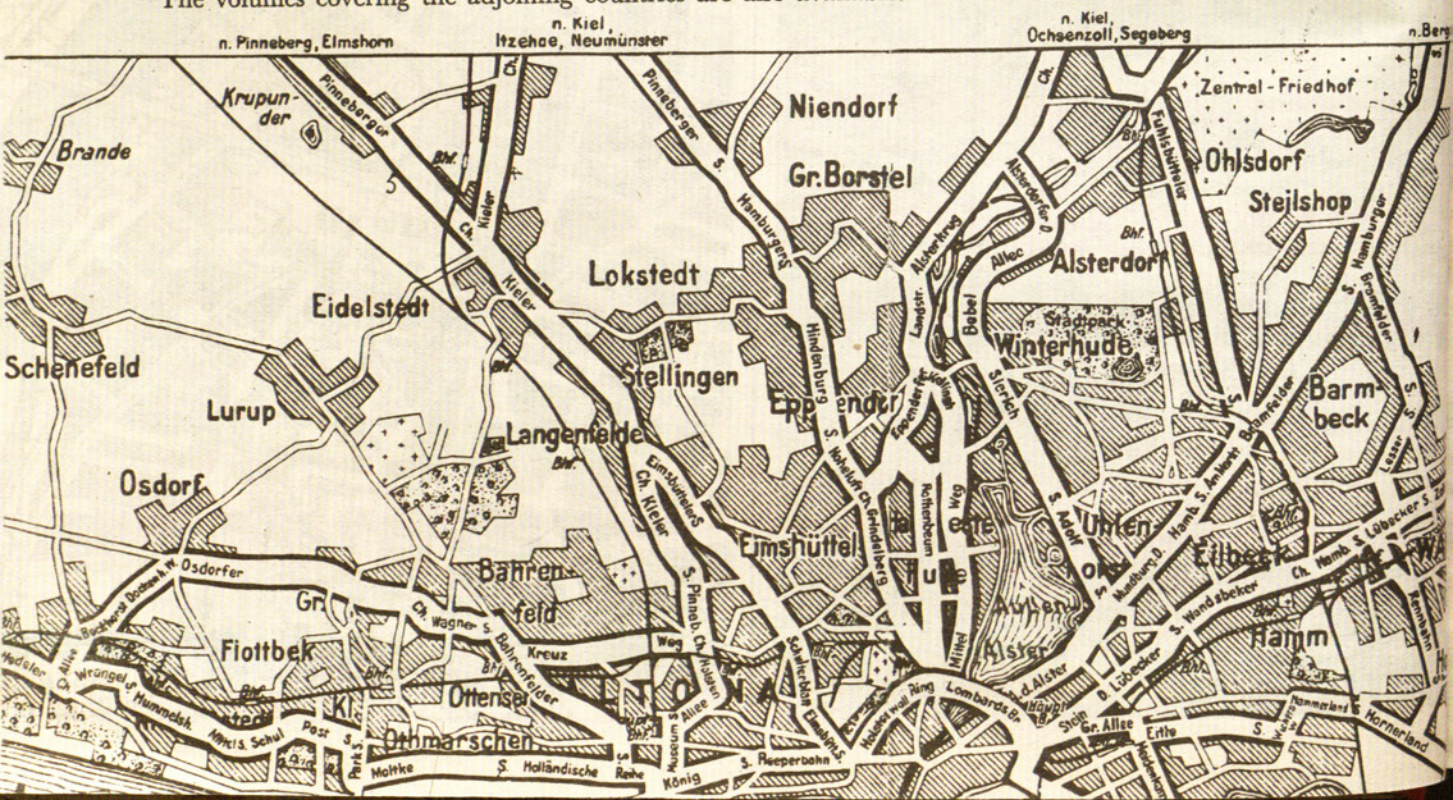
THROUGH-WAY TOWN PLANS



This type of plan is primarily intended to assist drivers to find their way quickly and directly through any town ; it therefore requires to be simple in style and small in size. This 'movement' requirement for town plans is generally not met by the normal type of plan, which is often too detailed and too unwieldy. Through-way plans have, therefore, been produced for the greatest possible number of towns in the area, notwithstanding the fact that for any particular town a normal plan may already exist, or be in preparation.

All the plans are available in small (generally half-foolscap) size pamphlet form, each country being treated with a volume of its own, or in the case of Western Germany with two separate volumes. The index above shows the areas covered by the different volumes, and the individual plans included in the pamphlets for Western Germany, Denmark, and Austria are listed on pages 21 and 22. The plans in the volumes of Germany have mostly been taken direct from the German 'Conti' motoring atlas of 1938, and none of them include revision; they may, therefore, occasionally, omit certain new through-routes. The plans of Danish towns have mostly been taken from an official 'Geodætisk Institut's' publication of 1938 (a few have come from a 1932 Shell road atlas of Denmark) but certain new by-passes, etc., have been added from air photographs; hence this volume should be more up-to-date than the German one. Most of the plans in the pamphlet of Austria have been redrawn from diagrams accompanying road maps, such as those published by Freytag and Berndt of Vienna; these plans have been revised from available information, which has occasionally included air photographs.

The volumes of Germany and of Denmark are available : that of Austria should be published shortly. The volumes covering the adjoining countries are also available.



G.S.G.S. (Misc.) No. 80, GERMANY, Thoroughway Town Plans, Volume 1

Aachen	Elmshorn	Langensalza	Rastede
Ahlen	Emden	Lauenburg	Rathenow
Ahrweiler	Emmerich	Lauterberg, Bad	Ratzburg
Altenkirchen	Eschwege	Leer	Recklinghausen
Andernach	Essen	Leipzig	Remagen und Erpel
Arnsberg	Eutin	Lemgo	Remscheid
Artern		Lingen	Rendsburg
Aschersleben	Flensburg	Linz (<i>Rhein</i>)	Rheine (<i>Westphalia</i>)
Aurich	Frankenhausen (<i>Bad</i>)	Lippstadt	Rosslau
	Friedrichstadt (<i>Eider</i>)	Lübeck	Rotenburg (<i>Hanover</i>)
	Fritzlar	Lüchow	
	Fürstenau (<i>Hanover</i>)	Luckenwalde	Salzwedel
Bad Harzburg		Lüneburg	Sangerhausen
Bassum		Lunen	Schleiden (<i>Eifel</i>)
Beckum	Gardelegen	Lütjenburg (<i>Ostholstein</i>)	Schleswig
Bergedorf	Geldern		Schwerin
Berlin	Gelsenkirchen	Magdeburg	Segeberg, Bad
Bernburg	Genthin	Marburg (<i>Lahn</i>)	Siegen
Bielefeld	Geseke	Marne	Sinzig
Bitterfeld	Gifhorn	Marsberg	Soest
Blankenburg (<i>Harz</i>)	Gladbeck (<i>Westphalia</i>)	Meldorf	Solingen
Blumenthal, Vegesack, Lesum	Goch	Meppen	Soltau
Bocholt	Goslar	Merseburg	Sonderhausen
Bochum	Gottingen	Minden	Stade
Bodenwerder	Grevesmühlen	Mühlhausen i. Thur.	Stadthagen
Boizenburg	Gronau	München-Gladbach	Stendal
Bonn	Gutersloh	Münster	Sterkrade
Borken		Munstereifel	
Bottrop	Hagen		Tangermünde
Brake (<i>Oldenburg</i>)	Hagenow	Nauen	Tönnig
Bramsche	Halberstadt	Naumburg	Torgau
Brandenburg	Halle	Neuhaus (<i>Oste</i>)	Trendelburg
Braunschweig	Haltern (<i>Westphalia</i>)	Neumünster	Treuenbrietzen
Bremen	Hameln	Neuruppin	
Bremerhaven	Hamburg, Altona, Wandsbek	Neustadt	Ulzen
Bremervörde	Hamm	Neuwied	Unna
Brilon	Hannover	Nienburg (<i>Weser</i>)	Varel
Buckeburg	Hannov.-Munden	Norden	Vechta
Buer	Harburg-Wilhelmsburg	Nordenham	Verden
Burg	Havelberg	Nordhausen	
Burgsteinfurt	Heide	Nordhorn	
	Heide (<i>Holstein</i>)	Nortorf	
Celle	Heiligenstadt		
Cleve	Helmstedt	Oebisfelde	Wanne-Eickel
Cloppenburg	Herford	Oeynhausen, Bad	Warburg
Coesfeld (<i>Westphalia</i>)	Herne	Oldenburg	Warendorf
Corbach	Hildesheim	Oldenburg (<i>Holstein</i>)	Weissenfels
Coswig	Hofgeismar	Oldesloe, Bad	Werl
Cuxhaven	Holzminde	Olpe	Werne
	Homburg (<i>Kassel</i>)	Osnabrück	Wernigerode
Dannenberg	Honnaf (<i>Rhein</i>)	Osterholz-Scharmbeck	Wesel
Delitzsch	Hoxter	Osterode (<i>Harz</i>)	Wesermünde
Delmenhorst	Husum	Otterndorf	Westerstede
Dessau			Wildeshausen
Detmold	Iserlohn		Wildungen, Bad
Diepholz	Itzehoe		Wilhelmshaven
Dillenburg			Witten
Dorsten			Wittenberg
Dortmund	Jever	Paderborn	Wittenberge
Duderstadt	Jüterbog	Papenburg	Wolfenbüttel
Duisberg		Peine	Wolmirstedt
Dulmen	Kassel	Perleberg	Wuppertal
Düsseldorf	Kiel	Plön (<i>Holstein</i>)	Wurzen
	Kirchhain	Potsdam	
Ebeleben	Köln	Preetz (<i>Holstein</i>)	
Eckernförde	Königswinter	Pritzwalk	Xanten
Eisleben	Köthen		
	Krefeld	Quakenbrück	Zerbst
		Quedlinburg	Zeven

G.S.G.S. (Misc.) No. 80, GERMANY, Thoroughway Town Plans, Volume 2

Aalen	Bitburg	Erfurt	Hallein
Abensberg	Boppard	Erlangen	Hammelburg
Achern	Braunau	Esslingen	Hanau
Alsfeld	Bregenz	Ettlingen	Hechingen
Altenburg	Bretten		Heidelberg
Alt Otting	Bruchsal	Falkenstein	Heidenheim
Alzey	Burghausen	Forchheim	Heilbronn
Amberg	Burglengenfeld	Frankenthal	Heppenheim
Annaberg		Frankfurt & Offenbach	Hersfeld
Ansbach	Calw	Frauenfeld (<i>Switzerland</i>)	Hildburghausen
Arnstadt	Caub	Freiburg	Hohenstein Ernstthal
Aschaffenburg	Cham	Freising	Hof (<i>Bavaria</i>)
Aue	Chemnitz	Freudenstadt	
Auerbach	Coburg	Friedberg	Ilmenau
Augsberg	Cochem	Friedrichroda	Immenstadt
	Crimmitschau	Friedrichshafen	Ingolstadt
Bacharach		Fulda	
Bad Elster	Darmstadt	Fürth (<i>Nürnberg</i>)	Jena
Bad Ems	Deggendorf	Fürth (<i>Pilsen</i>)	Johann Georgenstadt
Baden-Baden	Dieburg	Füssen	
Bad Dürkheim	Dillingen		Kahla
Bad Homburg	Dinkelsbühl	Garmisch Partenkirchen	Kaiserslautern
Bad Kissingen	Donau Eschingen	Geisheim	Karlsbad
Bad Kreuznach	Donauworth	Geislingen	Karlsruhe
Bad Nauheim	Durlach	Gelnhausen	Kaufbeuren
Bad Orb		Gera	Kempten
Bad Reichenhall	Eberbach	Giessen	Kitzingen
Bamberg	Eger	Gmund	Koblentz
Bayreuth	Eggenfelden	Goppingen	Konigstein
Bensheim	Eichstadt	Gotha	Konstanz
Berchtesgaden	Eisenach	Greiz	Kronach
Bernkastel	Eisfeld	Gross Gerau	Krumbach
Biberach	Engen	Gunzenhausen	Kufstein
Bingen	Eppingen	Gunzburg	Kulmbach

Lamperth	Neustadt (<i>Jena</i>)	Rottweil	Triberg
Landau	Neustadt (<i>Kaiserslautern</i>)	Rüdesheim	Trier
Landsberg	Neustadt (<i>Nürnberg</i>)	Rudolstadt	Tübingen
Landshut	Neustadt (<i>Regensburg</i>)	Russelsheim	Tuttligen
Laupheim	Nierstein		Uberlingen
Lauterbach	Nordlingen	Saalfeld	Ulm
Lengenfeld	Nürnberg	Saarbrücken	Urach
Leutkirch		Salzburg	
Lich	Ober Lahnstein	Saulgau	Vaihingen
Lichtenfels	Offenburg	Schleiz	Villingen
Lichtenstein	Olsnitz	Schongau	Vilshofen
Limburg	Oppenheim	Schorndorf	
Lindau		Schneeberg	Waiblingen
Lobenstein	Pasing	Schwabach	Waldsee
Ludwigsburg	Pegnitz	Schwandorf	Waldshut
	Pfaffenhofen	Schwarzenbach	Wasserburg
Mainz	Pfieddersheim	Schweinfurt	Weida
Mannheim-Ludwigshafen	Pforzheim	Sigmaringen	Weiden
Marienbad	Pfulingen	Simmern	Weilheim
Markredwitz	Pfungstadt	Singen	Weimar
Mayen	Pilsen	Sonneberg	Weingarten
Meiningen	Plattling	Speyer	Weinheim
Memmingen	Plauen	Starnberg	Weissenburg
Mergentheim	Ponsseck	St. Goarshausen	Wetzlar
Metzingen	Prüm	Stollberg	Wiesbaden
Mühl Dorf		Straubing	Wittlich
Münchburg	Radolfzell	Stromberg	Worms
München	Rastatt	Stuttgart	Wunsiedel
	Ravensburg	Suhl	Wurzburg
Neckarsulm	Regensburg	Sulzbach	
Neuburg	Reichenbach		Zeititz
Neumarkt	Reutlingen	Tauberbischofsheim	Zella Mehlis
Neustadt (<i>Bayreuth</i>)	Romanshorn (<i>Switzerland</i>)	Tirschenreuth	Zeulenroda
Neustadt (<i>Coburg</i>)	Rosenheim	Traben-Trarbach	Zschopau
Neustadt (<i>Freiburg</i>)	Rothenburg	Traunstein	Zwickau

G.S.G.S. (Misc.) No. 81, DENMARK, Throughway Town Plans

Aabenraa	Grenaa	Langaa	Sakskøbing
Aakirkeby	Grindsted	Lemvig	Sandvig
Aalborg	Gudhjem	Lillebøelstbroen	Silkeborg
Aalestrup	Gørlev	Lohals	Skagen
Aarhus		Lyngby (<i>Kongens Lyngby</i>)	
Aars	Haderslev	Løgstør	Skamlingsbanken
Allinge	Hadsten	Løgumkloster	Skanderborg
Almindingen	Hadsund	Løkken	Skern
Assens	Ha's		Skive
Augustenborg	Hammel	Mariager	Skælskør
	Hammeren	Maribo	Skørping Stby.
Ballerup	Hasle	Marstal	Slagelse
Bandholm	Haslev	Masnedsund	Slangerup
Birkerød	Hellebæk	Middelfart	Sorø
Bjerringbro	Helsingør	Mols Bjerge	Steg
Blaavand	Helsingør	Møgeltonder	Stevns Klint
Blokhus	Herning	Møns Klint	Store Heddinge
Bogense	Hillerød		Strib
Bramming	Himmelbjerget	Nakskov	Struer
Brande	Hjerring	Neksø	Stubbekøbing
Bredstrup	Hobro	Nibe	Svaneke
Broager	Holbæk	Nordborg	Svendborg
Brønderslev	Holstebro	Nordby (<i>Fanø</i>)	Svinninge
Brørup	Holsted	Nyborg	Sæby
	Holte	Nykøbing (<i>Falster</i>)	Sønderborg
Christiansfeld	Hornbæk	Nykøbing (<i>Mors</i>)	Sønder Broby
	Horsens	Nykøbing (<i>Sjælland</i>)	
Dragør	Hov	Nysted	Taastrup
Dybbøl	Hundested	Næstved	Tarm
Dyrehaven and Jægersborg Hegn	Højer	Nørre Aaby	Tinglev
	Høng	Nørre Alslev	Tisted
Egtved	Hørsholm	Nørresundby	Toftlund
Esbjærg			Tranebjerg
	Jelling	Odder	Tønder
Faaborg	Jels	Odense	
Fakse	Juelsminde	Otterup	Ulborg
Fakse Ladeplads	Jyderup		
Fjerreslev	Jægersborg Hegn and Dyrehaven	Padborg	Vamdrup
Foldingbro		Præstø	Varde
Fredensborg	Kalundborg		Vejen
Fredericia	Kastrup	Randers	Vejle
Frederikshavn	Kellerup	Rebild	Vem
Frederikssund	Kerteminde	Ribe	Vestervig
Frederiksværk	Kolding	Ringe	Viby (<i>Aarhus</i>)
Fruens Bøge	Kollund	Ringkøbing	Viborg
	Korsør	Ringsted	Vinderup
Gedser	Krusaa	Roskilde	Vojens
Gilleleje	København (<i>town centre</i>)	Rudkøbing	Vordingborg
Give	København (<i>through routes and exits</i>)	Ruds Vedby	
Glostrup	København (<i>coastal roads between Charlottenlund and Vedbæk</i>)	Rødby	Æbeltoft
Glyngøre		Rødving	Ærøskøbing
Graasten		Rønne	
Gram	Køge	Rørvig	Olgod
			Orbæk

G.S.G.S. (Misc.) No. 100, AUSTRIA, Throughway Town Plans.

Baden	Innsbruck	Neunkirchen
Bad Ischl		
Dornbirn	Krems	Salzburg
Eisenstadt	Kufstein	Steyr
Feldkirch		
Gmunden	Lienz	Velden
Hall	Liesing	
Horn	Linz	Wels
	Mödling	Zell-am-See

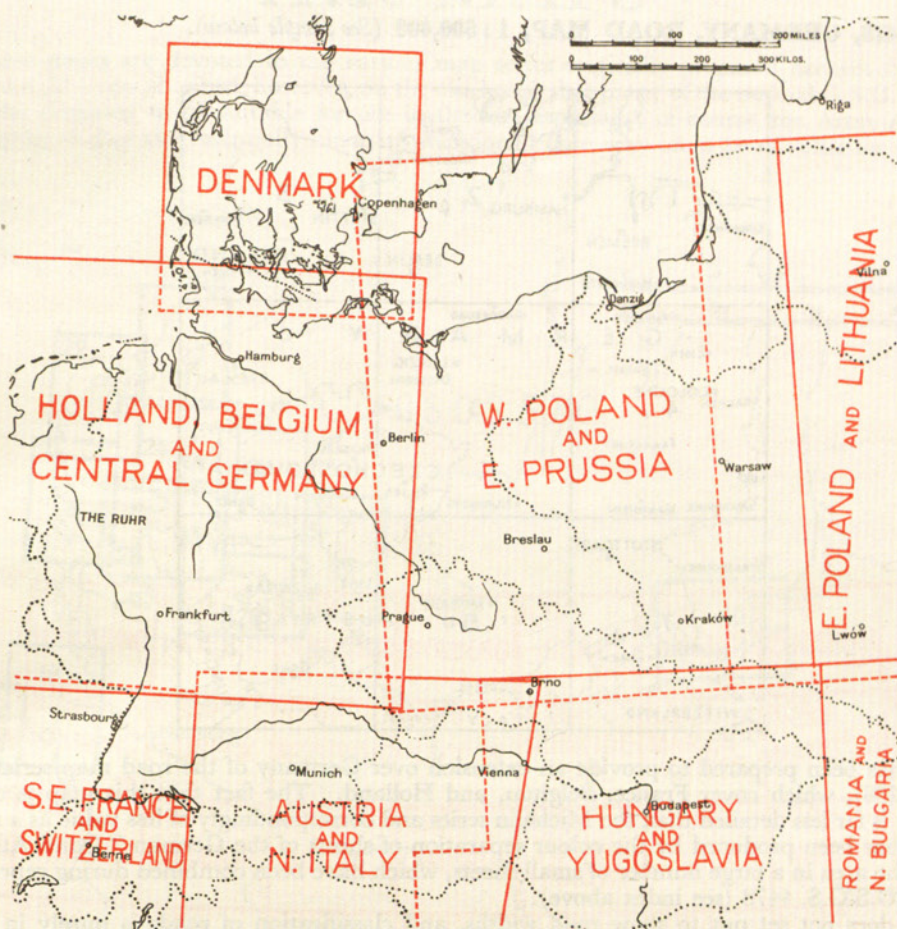
Plans published in provisional form:

Bruck a.d. Mur
Graz

Klagenfurt
Leoben

St. Polten
Villach

Wien (Vienna)
Wiener Neustadt

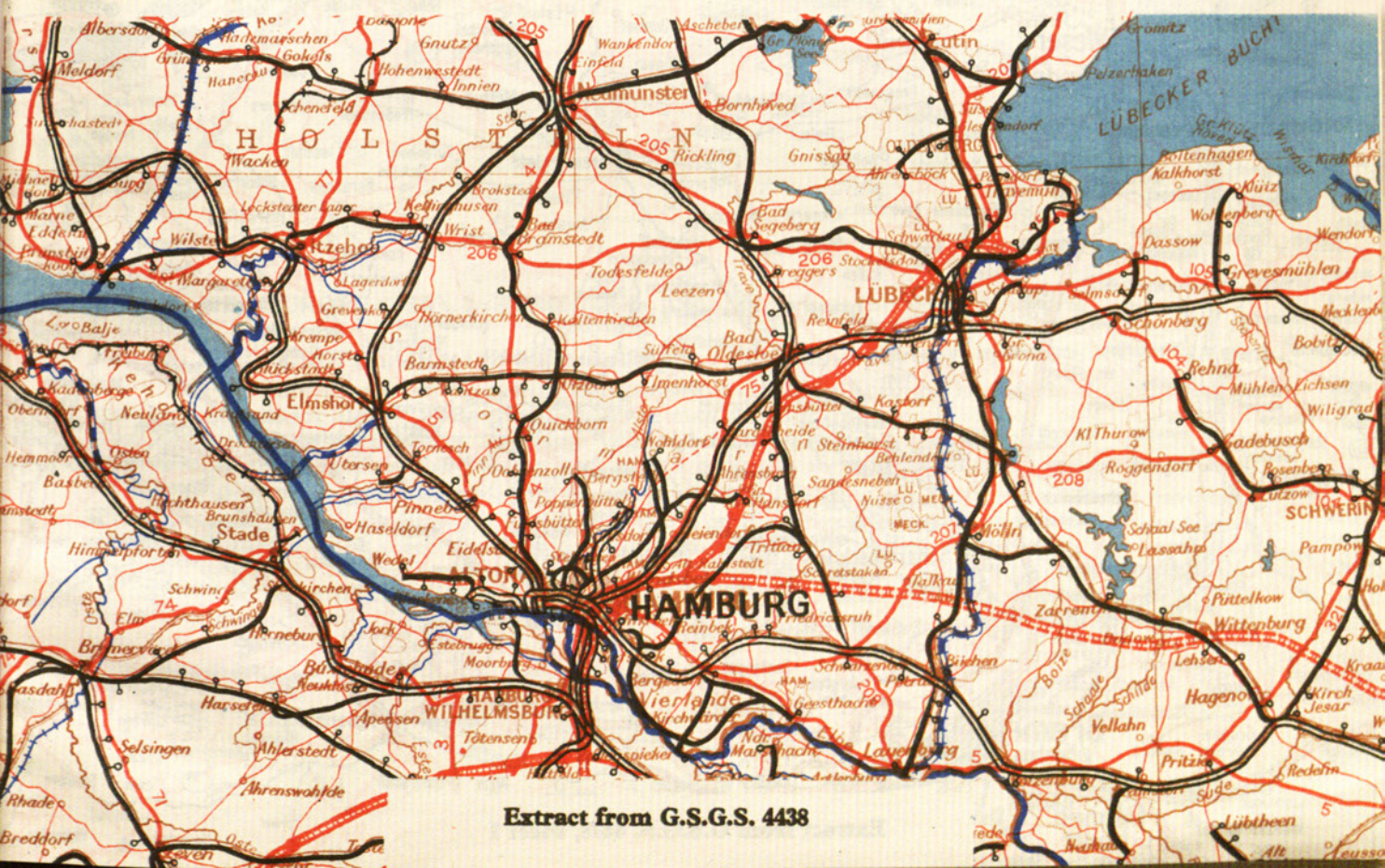


G.S.G.S. 4438, EUROPE COMMUNICATIONS, 1 : 800,000 (See sample below).

This series has been based on Bartholomew's 1 : 1,000,000 map of Europe. Roads have been plotted (entirely in red) according to their various national systems of road classification, in terms of width categories used on larger-scale series (and described in detail on pages 35, 36, and 37). Railways have been shown entirely in black, and have been taken from the various official railway maps of the countries concerned, amended and brought up to date by War Office Transportation sections. All stations have been plotted (and are shown by short lines with circles at their ends), and the main layout of junctions and of multiple tracking has been shown exaggerated in scale. Waterways (in dark blue) have been taken from the various foreign official waterway maps, and classified in terms of the draught of vessel that can use them. Separate editions of the map are printed showing only the base and the railways, the base and the roads, and the base and the waterways, in addition to the normal style shown in the sample below.

Certain larger-scale insets, e.g., of Vienna on the Austria and N. Italy sheet, are shown where space permits. The Denmark sheet carries insets of certain German towns for which space was not available on the Central Germany sheet.

All the four western sheets shown on the index are available with the exception of the Denmark sheet, which will be published shortly. The eastern sheets will be published during the next few months.



G.S.G.S. 4478, GERMANY, ROAD MAP, 1:500,000 (See sample below).



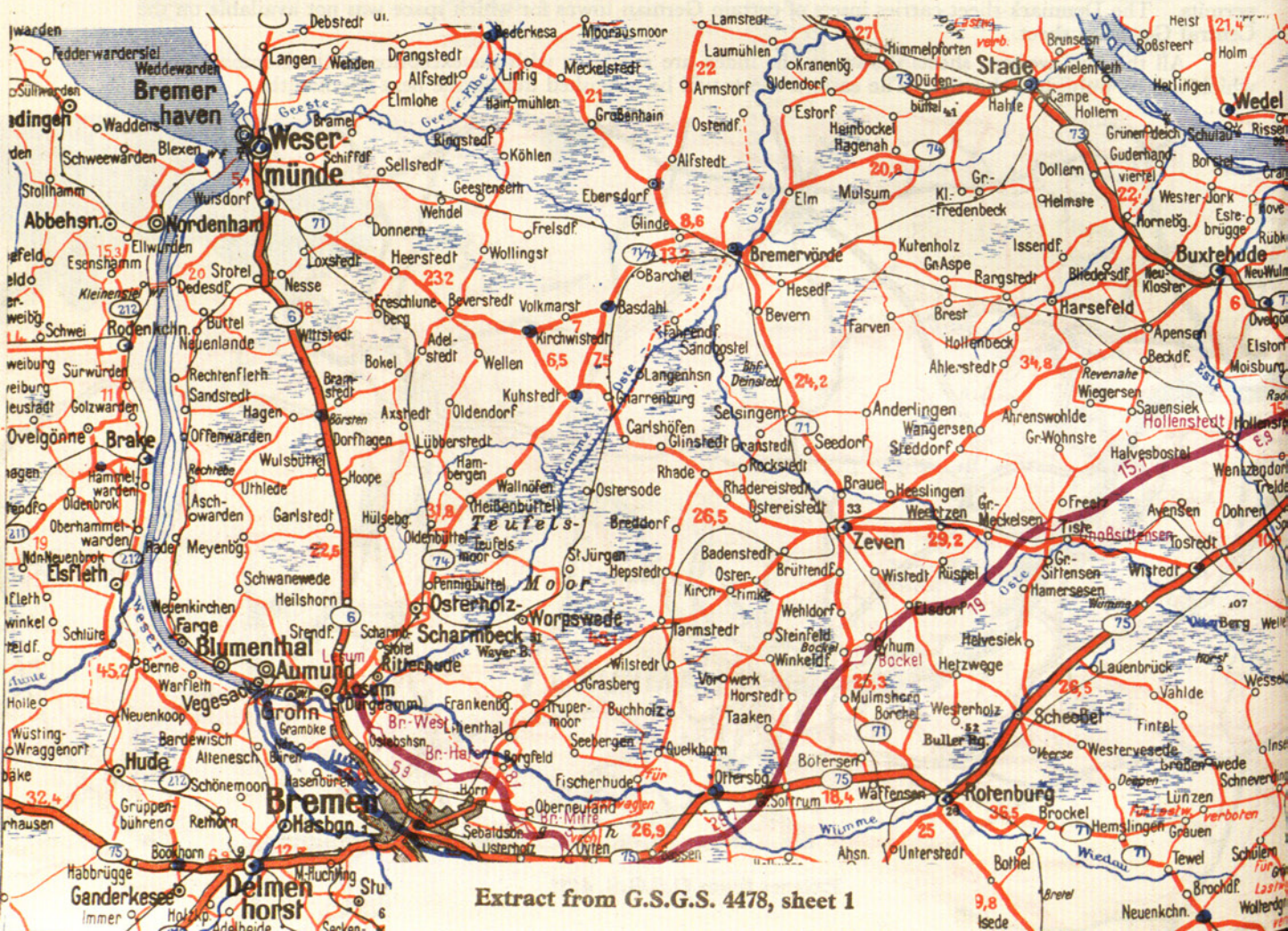
This map has been prepared to provide an extension over Germany of the road map series of Michelin maps (G.S.G.S. 4238), which cover France, Belgium, and Holland. The fact that this map is of far smaller scale means that it is far less detailed than the Michelin series and correspondingly of less value as a road map.

The series has been produced by the colour separation of sheets of the German "Conti Atlas" of 1938. This atlas covers the area in a large number of small sheets, which have been combined during reproduction into the nine sheets of G.S.G.S. 4478 (see index above).

The series does not set out to show road widths, and classification of roads is purely in terms of the relative importance (as in 1938). Autobahnen are shown in a separate purple printing, and have been revised from information available in this country up to 1943: in respect of this class of road, therefore, the map is in agreement with G.S.G.S. 4416, the new 1:100,000 series. Points of entry or exit to the Autobahnen system (Auffahrten) are shown, and many of them are named. Only a selection of these connecting points are shown, and the map cannot be guaranteed as reliable in this respect. No other revision to the map has been made. Reichsstrassen numbers are shown along roads by blue figures in black circles. It will be noted that not all Reichsstrassen are classified as 'trunk' roads; also, that not all trunk roads are Reichsstrassen. This distinction in the merit of Reichsstrassen is probably sound, though war-time developments in this class of road are not shown. Road distances, in kilometres, are shown along most of the main roads, by red figures, giving distances between blue spots.

The diagrammatic nature of the map is emphasised by the fact that it was found impossible to lay down an accurate grid on sheets.

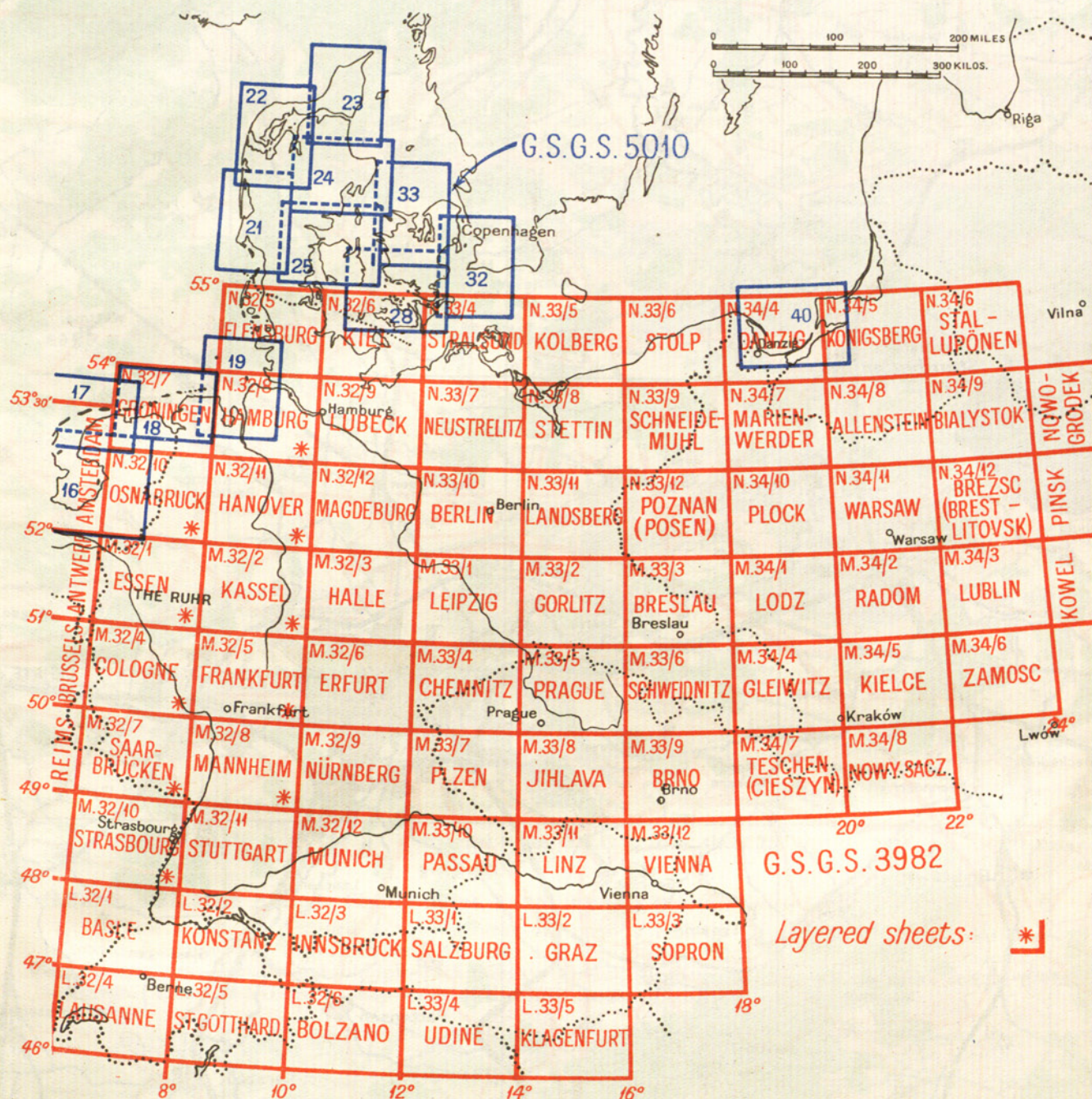
Sheets in the west are now available; all other sheets are in hand and should be published shortly.



Extract from G.S.G.S. 4478, sheet 1

AIR MAPS

These three pages are devoted to the various map series originally prepared exclusively for the use of Air Forces. It should be emphasized, however, on the one hand, that many of the normal G.S.G.S. series already described are also designed to be suitable for use in the air (especially, of course, the Army/Air style maps), and on the other hand that the essentially air maps mentioned here may often be of value for various military purposes.



G.S.G.S. 4072, EUROPE (AIR), 1:500,000 (Code A.F.) This series is fully described on page 4.

G.S.G.S. 3982, EUROPE (AIR), 1:250,000 (Code A.B.) (See sample on page 26).

This is a homogeneous series covering Germany, Austria, Switzerland, and large areas of Czechoslovakia and Poland (see index above). It is essentially an air map, and does not purport to show more than railways, main and secondary roads, towns and large villages, woods, contours, and water features. Within these limitations, it is clear and readable; and in some areas it is the only series at the moment available at this scale.

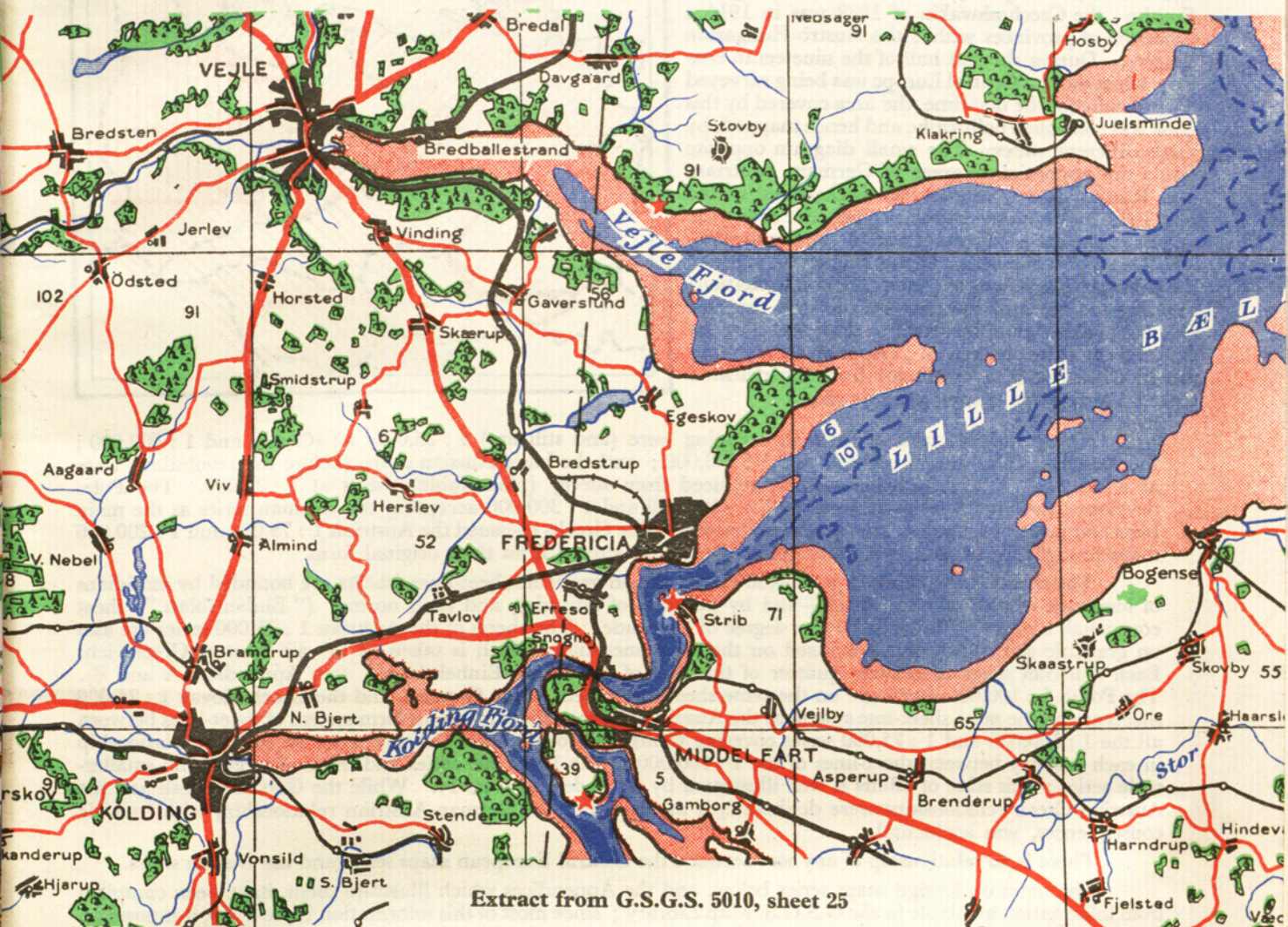
The series was compiled between 1938 and 1942. It is basically sound, but not all sheets have been revised recently. The air information is only up-to-date on those sheets marked with 'S.M.' in their bottom right-hand corner. A few sheets are layered; these are marked with asterisks on the index above. Coastal sheets are mostly in "Salmon and Shrimp" style, i.e., show marine depths in layer tints; and it is intended to complete the conversion of all coastal sheets to this style shortly. All sheets bear an overlap on adjoining sheets of 10 minutes to the North and 15 minutes to the East (about 3 inches in each case). The military grid is indicated by ticks in the margin and crosses on the face of the map. The sheets bear no reference, but a Conventional Sign Card (Code XXX) is available.



G.S.G.S. 5010, EUROPE (AIR), Marine Contoured, 1 : 250,000 (Code M.C.) (See sample below).

This is a "Salmon and Shrimp" series, primarily produced for Coastal Command. Not all the sheets covering Denmark are published (see index on page 25), and the completion of the unpublished sheets is not at present contemplated; in these areas, G.S.G.S. 4479, Denmark, 1 : 250,000, Army/Air should be used for air requirements (see page 8).

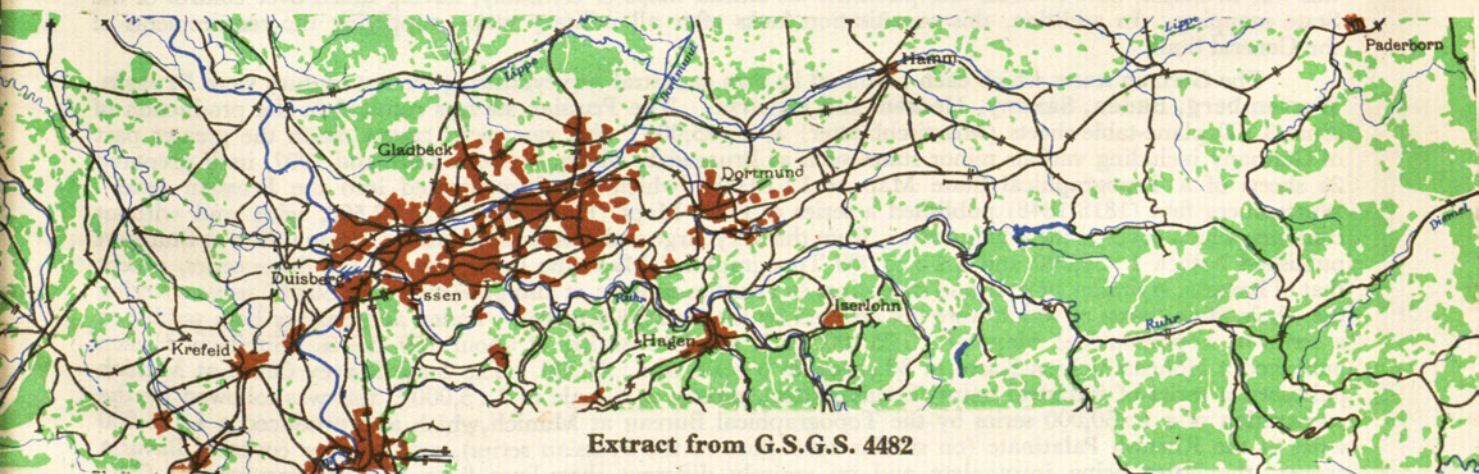
G.S.G.S. 5010 bears a resemblance to G.S.G.S. 3982; it should be noted that it is produced in an appreciably more generalized and skeleton form, and that inland relief is shown only by spot-heights.



Extract from G.S.G.S. 5010, sheet 25

G.S.G.S. 4482, High Altitude Fighter Maps, 1 : 1M (Code L.F.) (See sample below).

These sheets are designed to give a bird's-eye view of built-up areas, woods, rivers, and railways, primarily for aircraft at high altitudes. No other features, such as roads, are shown, and the map carries few place names. Single- and multiple-track railways are distinguished and larger-scale insets of certain towns are given. (No other G.S.G.S. map series at this scale shows woods.)



Extract from G.S.G.S. 4482

Navigational Maps

Details of map series solely designed for technical air navigational requirements, such as Mercator Plotting Series at 1 : 2M (G.S.G.S. 5012) and at 1 : 1M (G.S.G.S. 4080), "Lattice" and "Miniature Lattice" series (G.S.G.S. 4153A, 4392, 4473), covering the area will be found in the current R.A.F. Map Catalogue.

Target Maps

Many of the principal targets within the area are covered by night-bombing target maps and/or by daylight target maps. All target maps are published at a scale of 1 inch to 1 mile, and are checked with all available air photographs during their preparation.

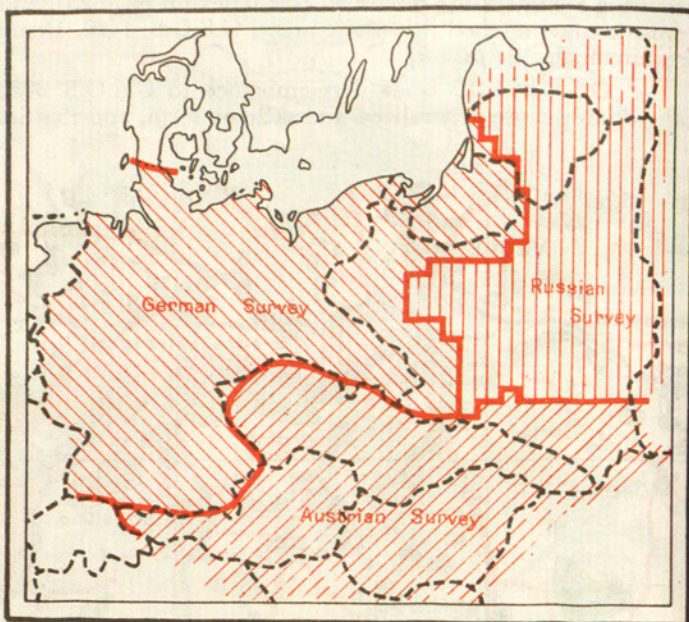
G.S.G.S. 4399, Zone Plans, 1 : 25,000

Most of the principal cities in the area (and, indeed, in Europe) are covered by plans of this series, which show by various colours built-up areas of different densities, industrial areas, public buildings, railway yards, public utility plants, etc.

FOREIGN MAPS

GENERAL

The full appreciation of the foreign maps of this area demands some knowledge of their historical background. Immediately before the 1914-18 war neither Poland nor Czechoslovakia existed as national states: the area of 1939 Poland belonged partly to Germany and Russia, and partly to the Austro-Hungarian Empire; the Czechoslovakia of 1938 was in 1914 a collection of provinces within the Austro-Hungarian Empire. During the last half of the nineteenth century, when most of Central Europe was being surveyed scientifically for the first time, the area covered by this book was controlled politically, and hence mapped, by three different states. The small diagram opposite shows the approximate areas of German, Austrian, and Russian survey against the background of the post-1919 international frontiers; hence it shows the origins of the maps of Poland and of Czechoslovakia. The Treaty of Versailles laid down that sets of plates of the old maps (as well as trigonometrical information) covering the areas of the new Poland and the new Czechoslovakia should be ceded to these states by the defeated countries concerned. (Apparently no treaty provision was made to confiscate from the defeated powers all maps and mapping information.)



The principal scales of German mapping were (and still are) 1 : 25,000, 1 : 100,000 and 1 : 300,000; the Austrian scales were 1 : 75,000 and 1 : 200,000; and the basic Russian maps (before the revolution) were at a scale of 1 : 126,000 being directly reduced from survey (plane-table) sheets at 1 : 21,000. The Poles developed their main series at 1 : 25,000, 1 : 100,000 and 1 : 300,000 accepting the German series as the main basis and preserving the German sheet-line system. The Czechs re-issued the Austrian 1 : 75,000 and 1 : 200,000 maps brought up to date, but, initially, at least, little altered from their original form.

The sheets of the German 1 : 100,000 series are on graticule sheet-lines (sheets are bounded by meridians of longitude—based on Greenwich—and by parallels of latitude), and each normal ("Einheitsblatt") sheet covers half a degree of latitude by one degree of longitude. The sheets of the Austrian 1 : 75,000 series are also on graticule sheet-lines, but are based on the Ferro meridian, which is taken as 17° 40' west of Greenwich. Each Austrian sheet covers one quarter of the area of a German Einheitsblatt; (see Appendices A and B). The Polish 1 : 100,000 sheets are on the same sheet-line system as the German, and the Czechoslovak 1 : 75,000 sheets are on the same sheet-line system as the Austrian. Thus, there is one uniform system of sheet-lines between all the 1 : 100,000 and 1 : 75,000 series covering Central Europe. There is, moreover, an integral relationship in each country between sheet-lines of the 1 : 100,000 or the 1 : 75,000 series and those of larger- and smaller-scale series; this state of affairs is well illustrated by the index on page 14. While the German-Polish and the Austrian-Czech relationships were deliberate, it appears that the German-Austrian relationship, with its wide consequences, was accidental.

There is no relationship of any sort between the Central European maps series and the Danish series.

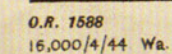
The notes on foreign maps series below, and the Appendices which illustrate them, have been compiled from information available in the G.S.G.S. Map Library; since most of this information is pre-1939, it is possible, though unlikely, that the Germans have, during the present war, extended existing, or produced new, large-scale series of importance.

GERMAN MAPS (See Appendix A)

The official maps of Germany originate from cadastral surveys which were carried out by the main States and embodied in large scale maps. The "Reichsamt für Landesaufnahme" (R.f.L.) situated before this war in Berlin, now controls and publishes all official maps of Germany, having taken over control of the State mapping. In addition, this organisation looks after all military maps, supplying the requirements of the General Staff.

The German states which each prepared its own cadastral surveys during the last century were Prussia, Wurtemberg, Baden, Saxony, Hessen, and Bavaria. The Prussian surveys resulted in the production of some 3,700 plane-table sheets (Messtischblätter) at 1 : 25,000; this vast series covers much the greater part of Germany including various minor states such as Brunswick, which, between 1897 and 1907, itself prepared 26 sheets of a Topographical State Map at 1 : 10,000 (which was incorporated into the Prussian series). Wurtemberg first (1818-1848) published a series of Field Maps (Flurkarten) at 1 : 2,500, with and without contours, which covered the whole State; from this very large scale basis the Statistical State Office at Stuttgart published both a 1 : 50,000 and a 1 : 25,000 Topographical Map (the latter, like all the State series, except that of Bavaria, is similar in style and sheet-lines to Prussian series); it also published a 1 : 50,000 series covering the whole State (parts of which were not covered by the 1 : 25,000 maps). Baden and Saxony both published a series of Topographical Maps at 1 : 25,000, each series consisting of about 150 sheets. Similarly Hessen published a Höhengschichten-Karte in 80 sheets at a scale of 1 : 25,000. The State Survey Office at Munich published a series of cadastral maps (Steuerblätter), mostly at a scale of 1 : 5,000; this was followed by the preparation of a 1 : 50,000 series by the Topographical Bureau at Munich, which also produced a 1 : 25,000 series of the Rhenish Palatinate (on similar sheet-lines to the Prussian series), and another covering Bavaria proper, the latter being incomplete and on entirely different sheet-lines from the Prussian series. (The introduction to the Glossary of Conventional Signs at Appendix I includes a small diagram showing the areas of these various States. Appendix VIII is a detailed index to the German 1 : 25,000 series.)

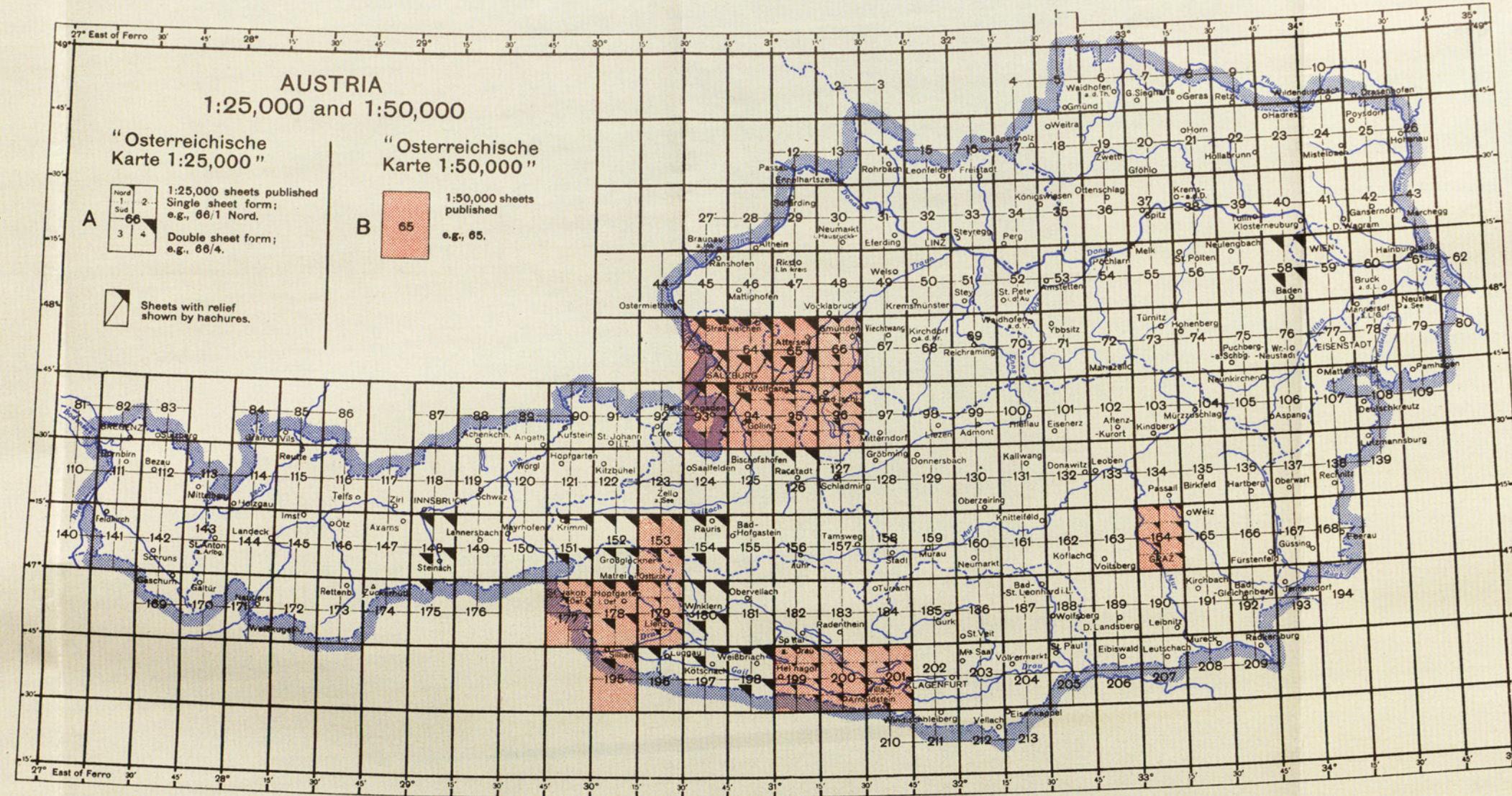
In 1937 a decree officially put an end to further production of the local State series, and laid down a uniform specification to be followed in future for the production of a standard coloured 1 : 25,000 series throughout the country—the "Topographische Karte." It appears to be at this stage that the Reichsamt für Landesaufnahme finally took over control of all maps. Previously, this organisation had used the large scale State series for the production of the smaller scale national series.



A detailed historical map of the Lützen area. The map shows the city of Lützen, the river Elbe, and surrounding towns like Borken, Pevestof, and Gerdorf. The map includes various geographical features and labels in German.

E. Sample of "Übersichtskarte von Mitteleuropa."

A Sample of 1:25,000 sheets.



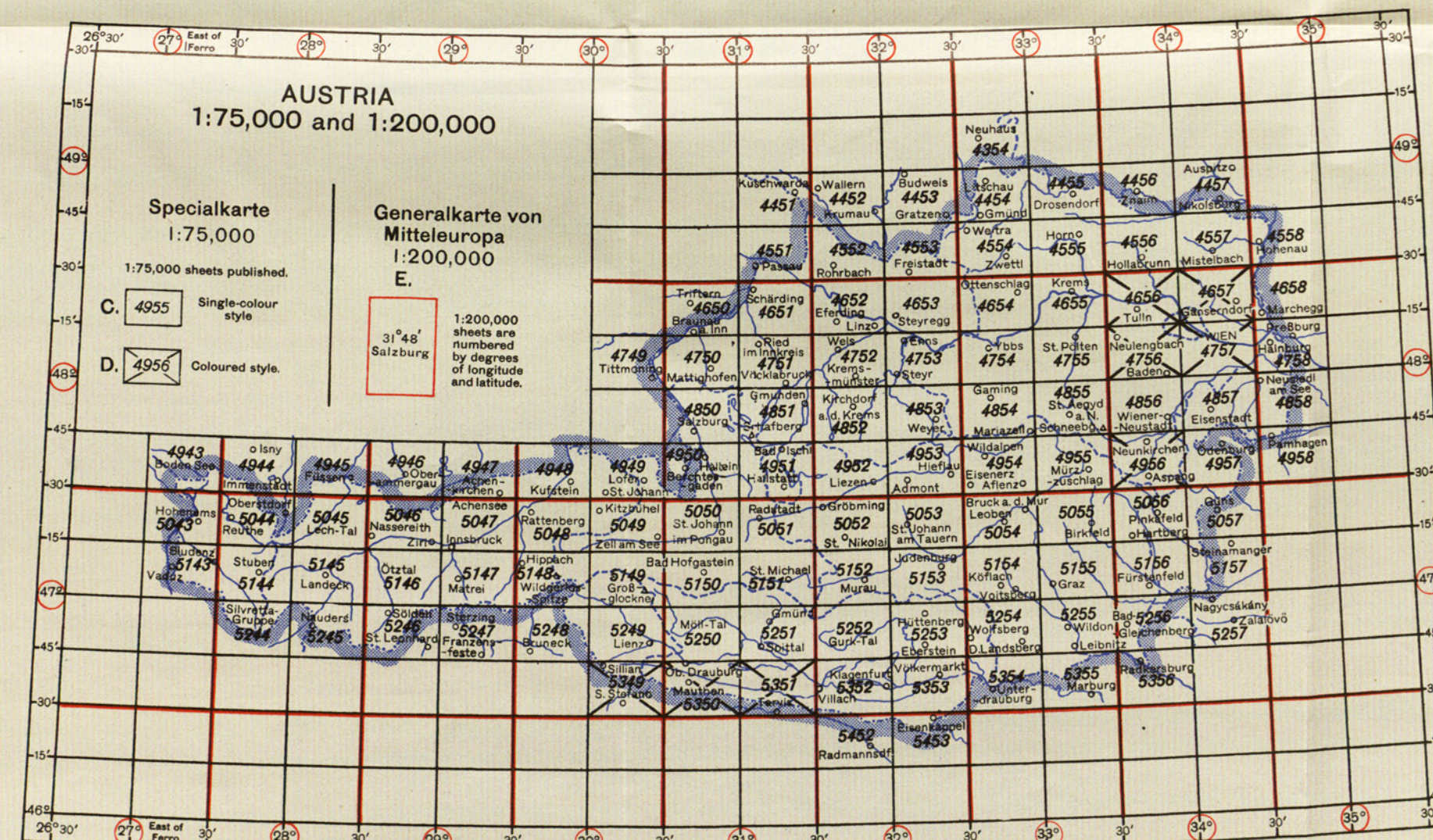
B Sample of 1:50,000 sheets.



C Sample of single-colour style 1:75,000 sheets.

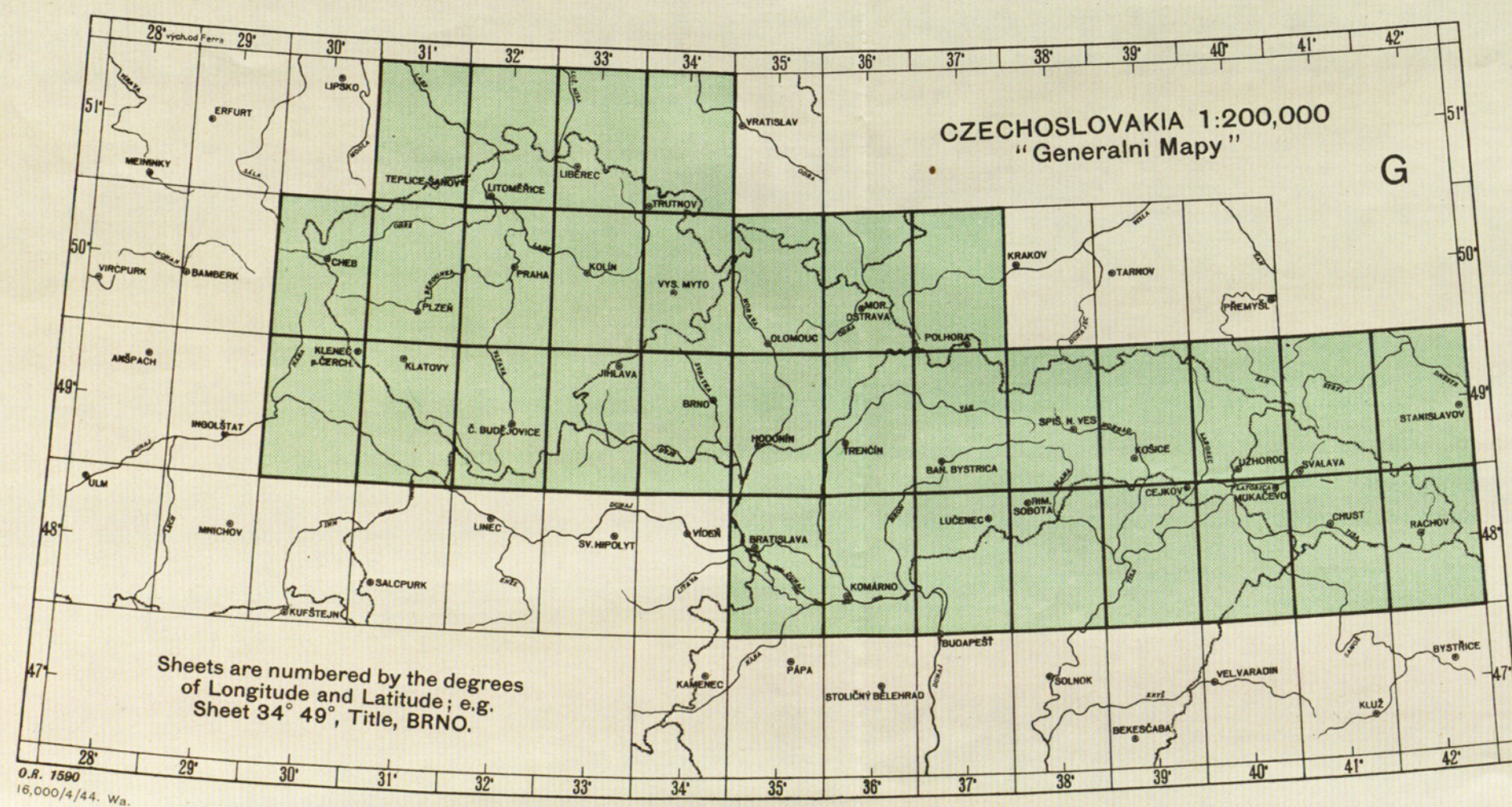
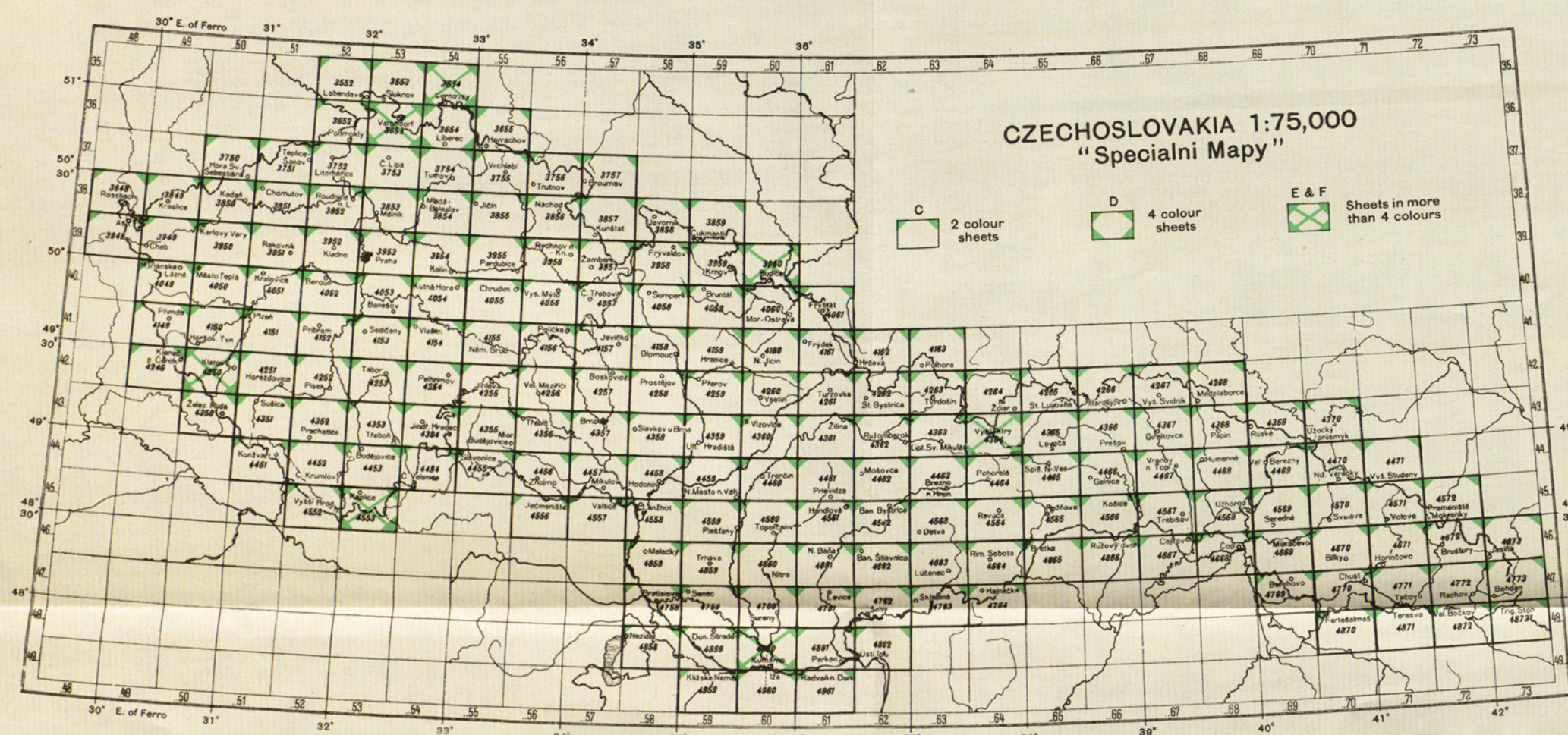
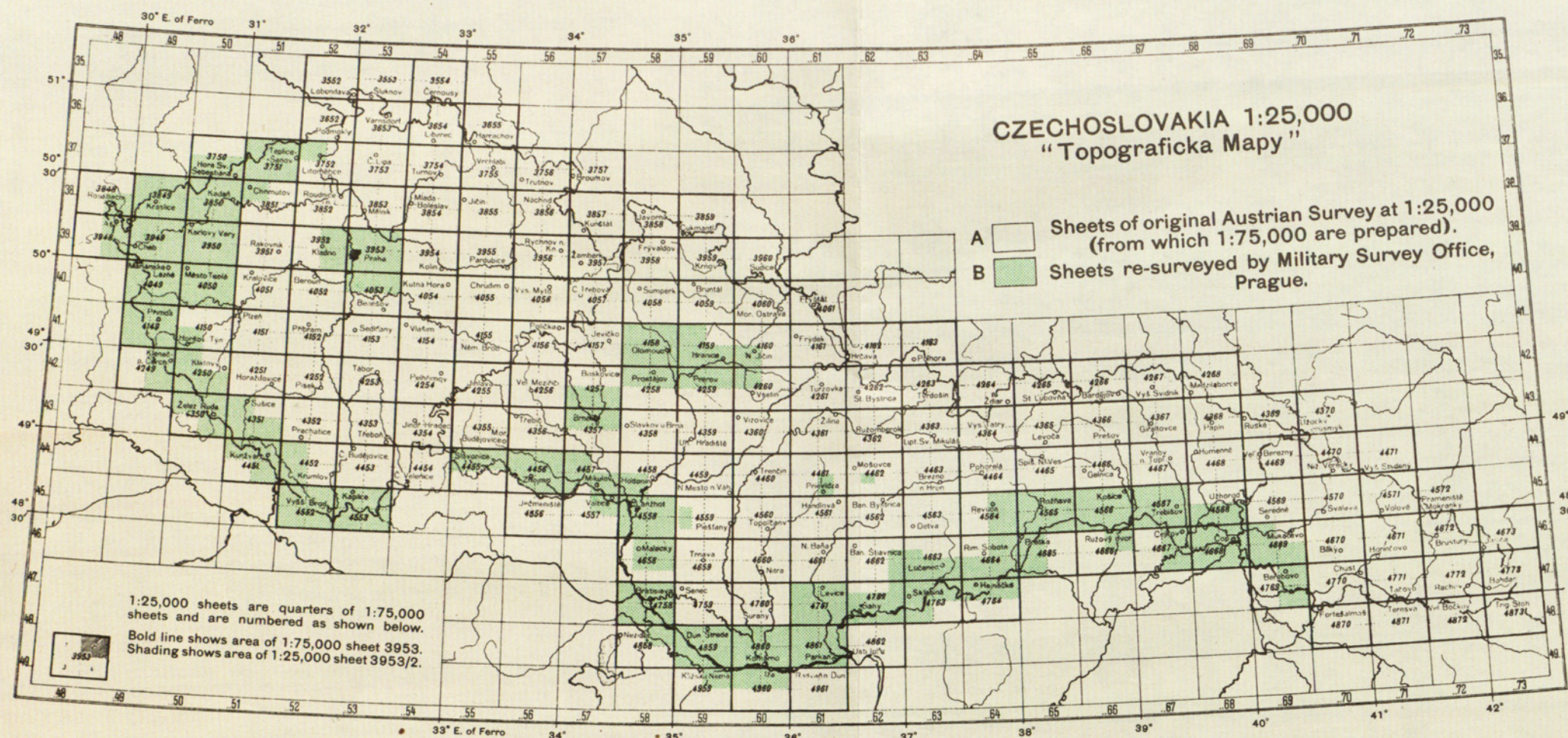


D Sample of coloured style 1:75,000 sheets.



E Sample of 1:200,000 sheets.

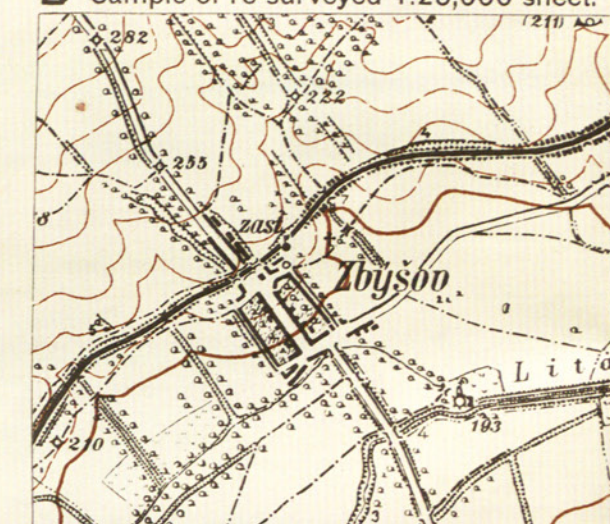




A Sample of original Austrian 1:25,000 sheet.



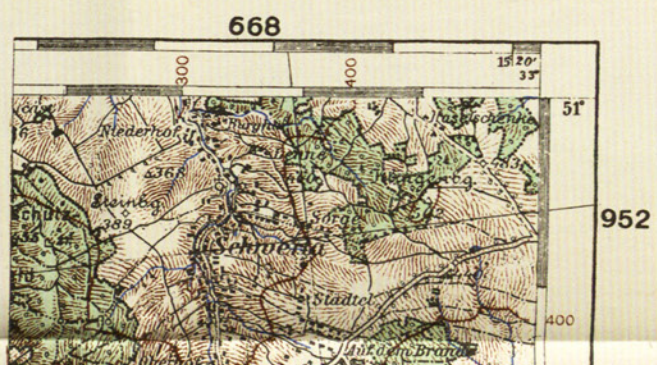
B Sample of re-surveyed 1:25,000 sheet.



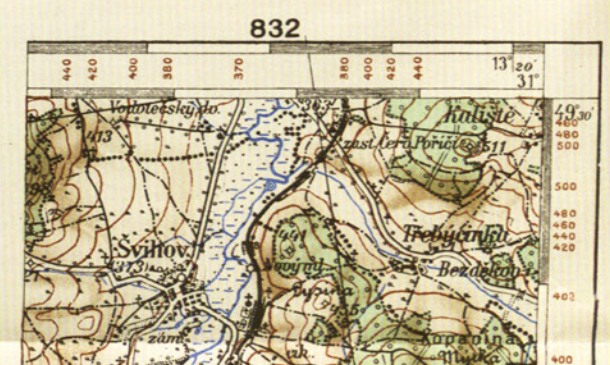
C Sample of 2-colour 1:75,000 sheet.



E Sample of 5-colour 1:75,000 sheet with relief shown by hachures and contours.



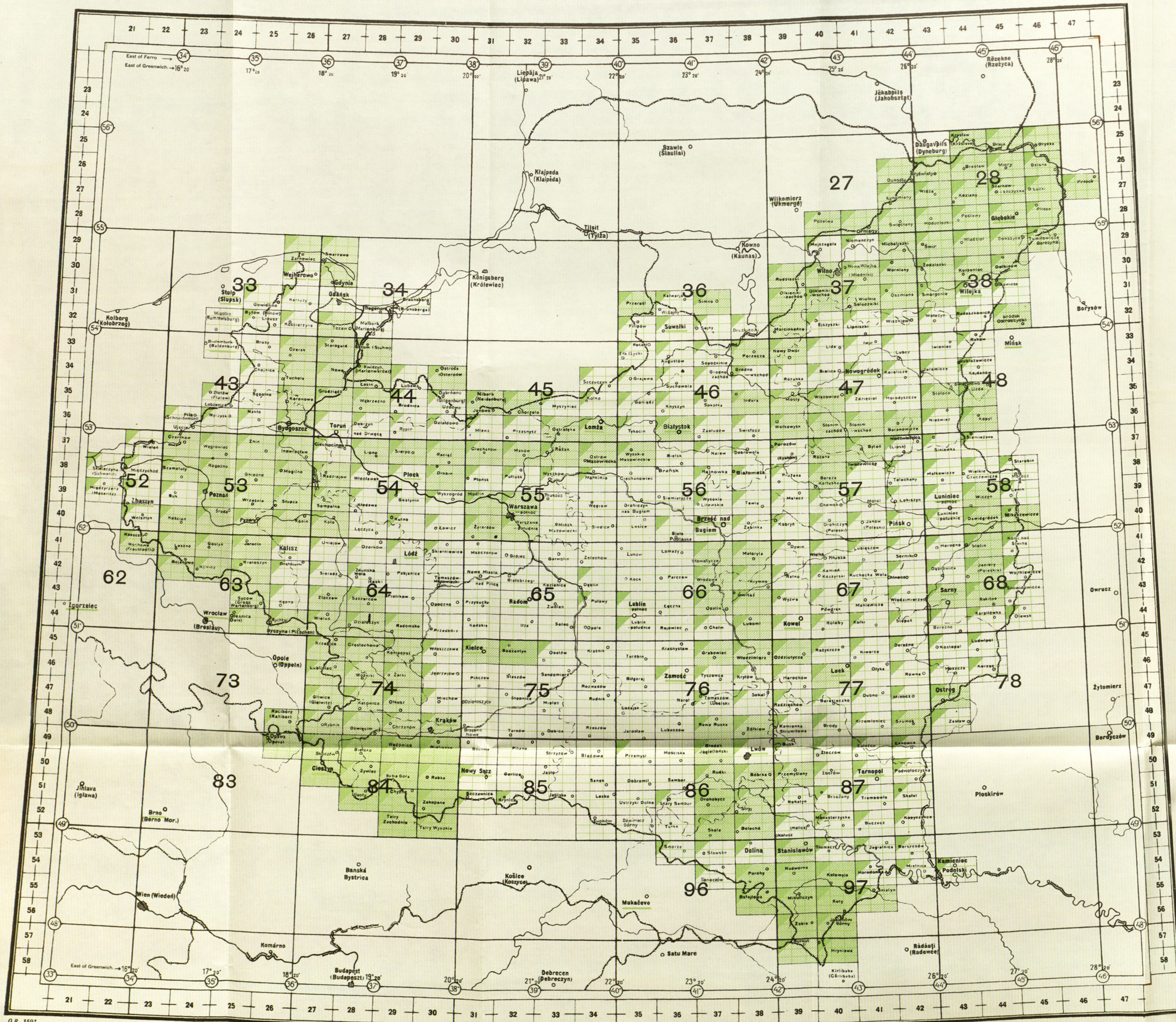
D Sample of 4-colour 1:75,000 sheets.



F Sample of 5-colour 1:75,000 sheet with relief shown by hill shading and contours.

G Sample of 1:200,000 sheet.





1:25,000
MAPA SZCZEGÓŁOWA.



A. Sample of 1-colour
1:25,000 sheets



B. Sample of coloured "Tourist"
1:25,000 sheets (for special areas).

A	B	C
D	E	F
G	H	J

1:25,000 sheets are ninths of 1:100,000 sheets
and carry the 1:100,000 sheet number followed
by a letter; e.g. 4832 E.

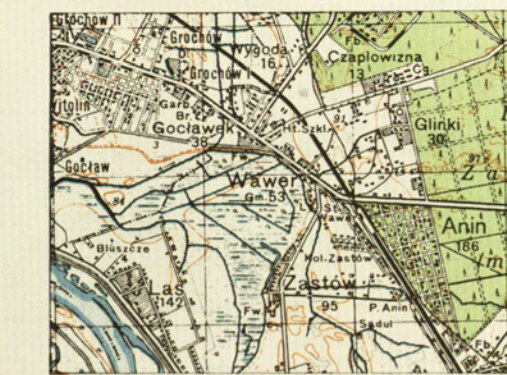
1:100,000
MAPA TAKTYCZNA.

Sheets are numbered by the pair of figures in
the East or West borders, followed by the pair
of figures in the North or South borders
e.g. Tarnów, sheet 4832.

48	Tarnów
32	



C. Sample of 1:100,000 sheets in 2-colours.



D. Sample of 1:100,000 sheets in 4-colours.



E. Sample of 1:100,000 sheets in 5- or 6-colours.

C. Sheets in 2-colour
style adopted between
1926-1931.

D. Sheets in 4-colour
normal style adopted
in 1931.

E. Sheets in 5- or 6-colours
(in tourist areas).

1:300,000
MAPA OPERACYJNA.



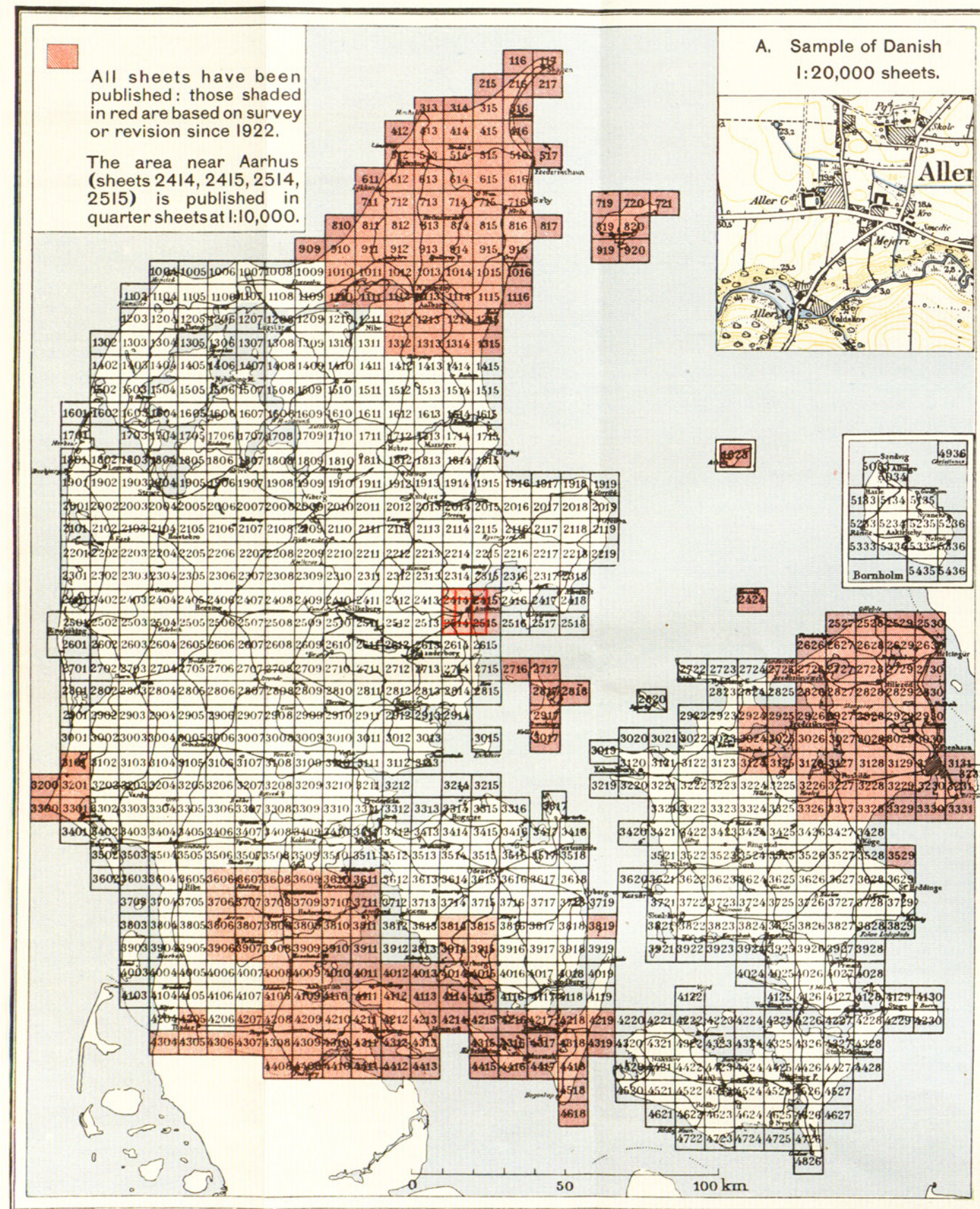
F. Sample of 1:300,000 sheets.

Lodz
64

F. Titles of 1:300,000 sheets
are underlined in green.

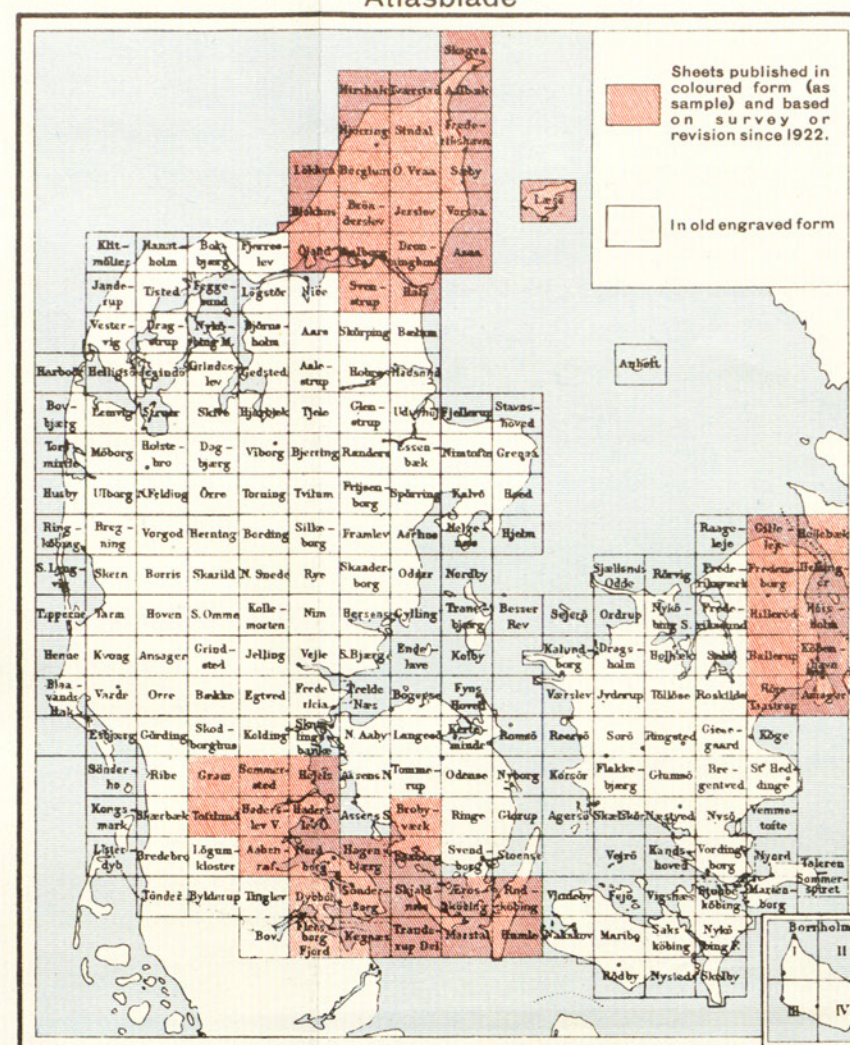
DANISH MAP SERIES

DENMARK 1:20,000
"Maalebordsblade"



O.R. 1592
16,000/4/44. Wa.

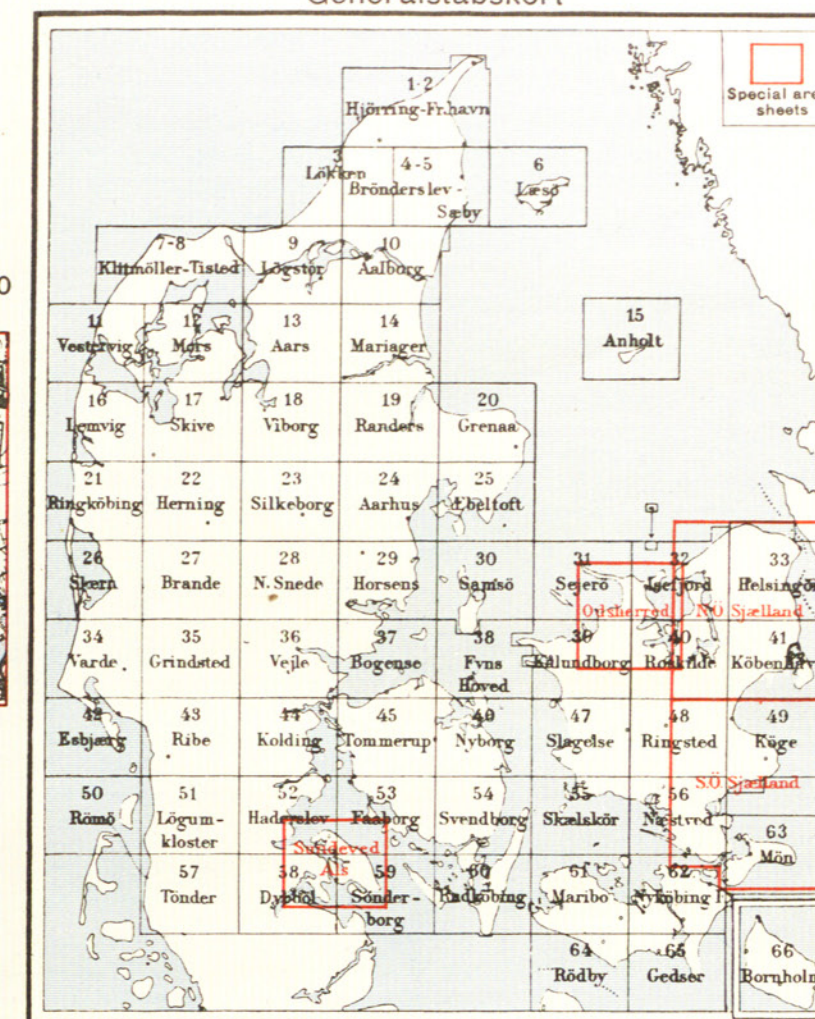
DENMARK 1:40,000
"Atlasblade"



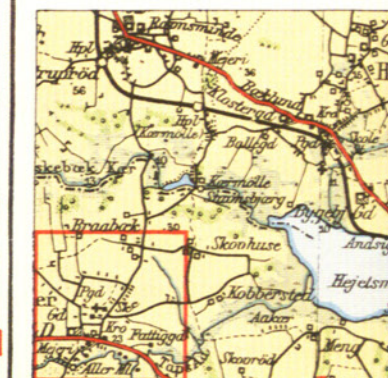
B. Sample of Danish 1:40,000 sheets in coloured form.



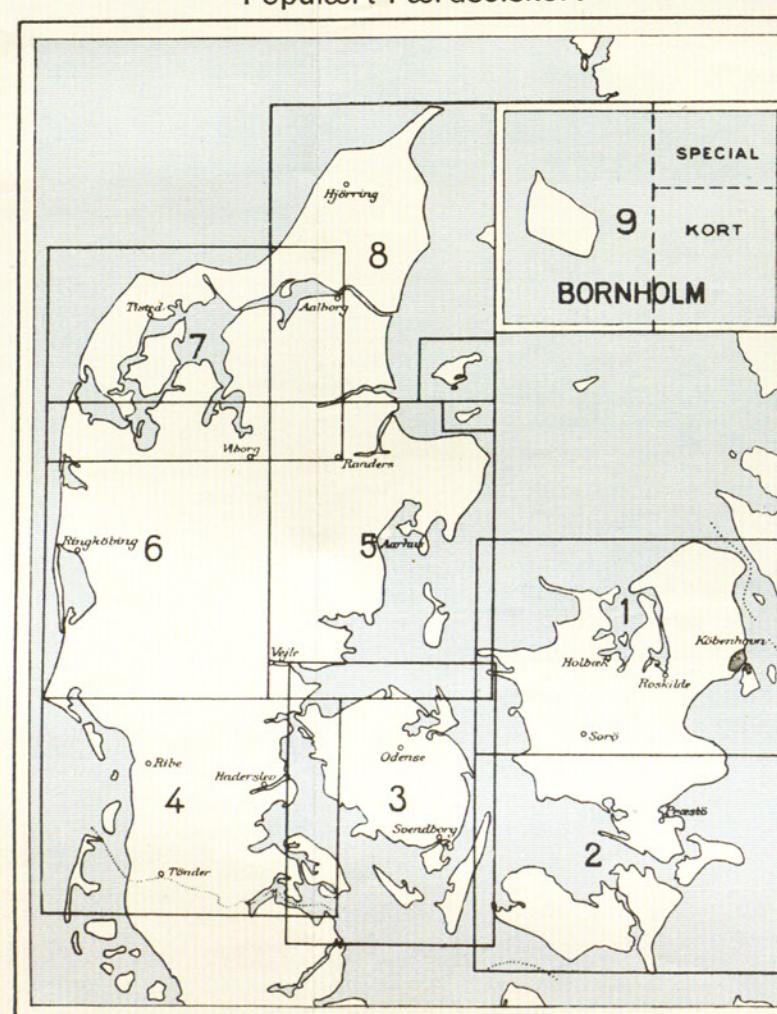
DENMARK 1:100,000
"Generalstabskort"



C. Sample of Danish 1:100,000 sheets.



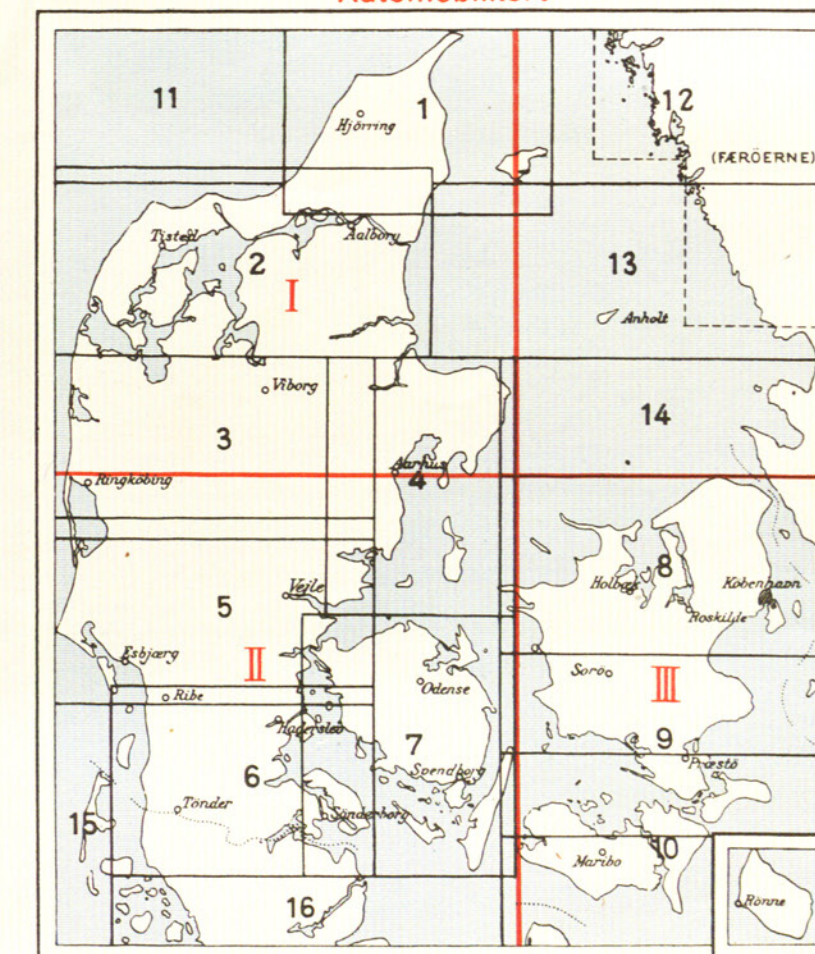
DENMARK 1:150,000
"Populært Færdselskort"



D. Sample of Danish 1:150,000 sheets.



DENMARK 1:200,000 & 1:320,000
"Automobilkort"



E. Sample of Danish 1:200,000 sheets.



F. Sample of Danish 1:320,000 sheets.



Deutsche Karte, 1 : 50,000 (Zweizentimeterkarte). This series was started just before the last war by the Topographical Institutions of various States, on the sheet-line system of the Prussian 1 : 25,000 (four 1 : 25,000 sheets to one 1 : 50,000 sheet). Few sheets were published, however, and before 1937 the series was taken over by the R.f.L. who recast it on the same sheet-lines as the *Karte des Deutschen Reiches* 1 : 100,000 (small sheets). How far this series has progressed since then is not known, though it is believed that immediately before the present war it was being developed as the main German large-scale series. It has not been illustrated opposite, since only about 30 sheets are available (all on the old sheet-line system), and since it is extremely similar in style to the "Ausgabe B" of the 1 : 100,000 series, being published in three-colour form with relief shown by brown contours.

Karte des Deutschen Reiches, 1 : 100,000. This series is produced in three styles illustrated by the Appendix opposite, which also shows its sheet-lines in detail (as well as their relation to those of the *Topographische Karte*). The series appears to be in process of being superseded by the combined sheets (*Einheitsblätter*) dealt with below. The series was originally published by the Survey Departments of Prussia and Saxony and by the Topographical Bureaux of Bavaria and Wurtemberg.

Einheitsblätter der Karte des Deutschen Reiches, 1 : 100,000. This series is based on the normal, small sheet 1 : 100,000 series, and combines (generally) four sheets of the latter into one large sheet. It is probably the best known German map, as well as being the standard military map and as such carrying the German grid. All sheets are published in single-colour form, and many sheets are also available in coloured editions. Relief is shown by hachures (even the more legible coloured editions being uncoloured).

Übersichtskarte von Mitteleuropa, 1 : 300,000. This is the standard German small-scale series. It is a highly detailed map and shows the relief (not very successfully) by brown hachures. Its sheet-lines and its styles are illustrated by Appendix A. The series has been used as a basis for various other maps, notably for the *Reich-Auto-Karte* (official Road Map) series.

Other German maps are listed under the selection of G.S.G.S. Map Library material.

AUSTRIAN MAPS (See Appendix B)

The basis of all except the most recent Austrian maps was the "1 : 75,000 *Spezialkarte*" which covered the whole of Austria, Czechoslovakia, and Hungary, and extended down into the Balkans. The initial sheets of this great series were published in 1872; the surveyors' plane-table quarter-sheets at 1 : 25,000 were joined together and directly reduced to 1 : 75,000. There is, therefore, the basis of a 1 : 25,000 series over the whole country. Since the 1914-18 war the Austrian "*Kartographisches Früher Militärgeographisches Institut*" of Vienna has concentrated on an entirely new "*Österreichische Karte*" 1 : 25,000 series, and on a new 1 : 50,000 series based on this 1 : 25,000 series. Appendix B, opposite, shows what little progress these two new series have made, but illustrates the excellent styles of both maps. Some maintenance revision of the 1 : 75,000 series has also been carried out, outside the areas of the new series, and certain 1 : 75,000 sheets are published in coloured form. Appendix B also illustrates the 1 : 200,000 "*Generalkarte von Mitteleuropa*," the equally famous complement of the old 1 : 75,000 series.

CZECHOSLOVAK MAPS (See Appendix C)

The relationship between modern Czechoslovak and old Austrian mapping is shown by comparison between Appendix B and Appendix C. The Czech Survey organisation ("*Vojensky Zeměpisný Ústav*" of Prague) has published the Austrian plane-table sheets (from which 1 : 75,000 series was prepared) as an initial 1 : 25,000 series. On the basis of this they have carried out revision survey and produced a new 1 : 25,000 series, "*Topografická Mapa*" of the area along their frontiers. This new series is on the same sheet-lines as the old plane-table sheets, and closely resembles them in style. The old inherited 1 : 75,000 series, called the "*Speciální Mapa*" was initially published as it stood in single-colour form or with woods overprinted; as revision was carried out, so more ambitious styles were developed, but the index shows that only a few sheets have been published in the various new styles. Most sheets of the old Austrian 1 : 200,000 series have been brought up-to-date by the Czechs, and the map is published by them as the "*Generální Mapa*" with the style little altered.

POLISH MAPS (See Appendix D)

Polish mapping was looked after by the "*Wojskowy Instytut Geograficzny*" of Warsaw. This organisation initially published series at 1 : 100,000 and 1 : 300,000, based directly on the maps they inherited after the last war. A considerable amount of new as well as revision survey has also been carried out, and has resulted in the production of three main series. The 1 : 25,000 series ("*Mapa Szczegółowa*") had in 1939 been produced over the whole country; the series as a whole was a secret military one, but various sheets covering tourist areas were made generally available in multi-coloured style. Most records of this series are believed to have been destroyed in 1939 when a train evacuating them from Warsaw was bombed. The 1 : 100,000 series ("*Mapa Taktyczna*") covers the whole country. Initially produced in a simple style, sheets were later developed, when being revised, along more ambitious lines, but (as the index shows) most of the sheets are published in the simpler forms. The 1 : 300,000 series ("*Mapa Operacyjna*") was a direct development of the German 1 : 300,000 series, and still remains similar to it in style.

Any comparison between German and Polish sheets of the same area, as between Austrian and Czech sheets, will emphasize the very considerable place-name changes that have been made. During the present war the German forms of these names will probably have reappeared on maps of the area.

DANISH MAPS (See Appendix E)

Appendix E illustrates the complete independence of Danish mapping from German or Austrian influences as regards styles, scales, and sheet-lines. Danish survey is looked after by the "*Geodætisk Institut*" of Copenhagen. The 1 : 20,000 series of plane-table survey sheets ("*Maalebordsblade*") covers the whole country, but (as the index emphasises) only the North, and the South of Denmark are covered by recently revised sheets. Quarter-sheets at 1 : 10,000 are known to exist for a small area (see 1 : 20,000 index), but they may well have been published for other areas too. The 1 : 40,000 series ("*Atlasblade*") is on complementary sheet-lines to the 1 : 20,000 series (one 1 : 40,000 sheet covers the area of four 1 : 20,000 sheets), and revision to the latter is stepped-down to bring the 1 : 40,000 sheets up-to-date. This series is said to be the standard military map. The 1 : 100,000 series ("*Generalstabkort*") is reproduced as G.S.G.S.4210; it is available in both contoured and uncoloured form, and most sheets appear to carry fairly modern revision (which in the centre of the country presumably does not originate from larger-scale work). The 1 : 200,000 series is the most recent Danish series; though uncoloured, it is a very detailed and clear map. Two motoring maps are also published, the "*Populært Færdelskort*" at 1 : 150,000 and the "*Automobilkort*" at 1 : 320,000. It is presumed that, as in other countries, the Germans have been using these Danish series, particularly since their own series of Denmark were poor.

A SELECTION OF G.S.G.S. MAP LIBRARY MATERIAL

The object of the following selection of items from the War Office Map Library is to supplement the description of foreign maps given above and in Appendices A to E, which deal only with the main national series. Most of the maps listed have either been reproduced direct as G.S.G.S. series, or have been used for the compilation or revision of such series.

GERMANY

<i>Title</i>	<i>Scale</i>	<i>Sheets</i>	<i>Date</i>	<i>Description</i>	<i>Publisher</i>
1. Topographische Karte (Messischblätter)	1 : 25,000	4093	1874-1936	Contoured. Railways—5 categories. Roads—5 categories. Gridded	Reichsamt für Landesaufnahme.
2. Deutsche Karte	1 : 50,000	30 sheets published	1921-	Contoured. Railways—2 categories. Roads—4 categories. Gridded. Spot heights	Reichsamt für Landesaufnahme.
3. Karte des Deutschen Reiches (Ausgabe "A")	1 : 100,000	640	1871-	Hachured. Prime meridian-Ferro. Railways—2 categories. Roads—4 categories. Spot heights	Reichsamt für Landesaufnahme.
4. Karte des Deutschen Reiches (Ausgabe "B")	1 : 100,000	304	1904-	Hachured and contoured. Railways—2 categories. Roads—3 categories. Spot heights. Some sheets gridded	Der Kgl. Preuss. Landesaufnahme.
5. Karte des Deutschen Reiches (Ausgabe "C")	1 : 100,000	590	1885-1937	Sheets 78, 479, 673 contoured. Hachured. Railways—2 categories. Roads—3 categories. Spot heights. Gridded	Der Kgl. Preuss. Landesaufnahme.
6. Karte des Deutschen Reiches. Einheitsblätter (coloured edition)	1 : 100,000	160 (incomplete)	1922-1939	Hachured. Railways—4 categories. Roads—4 categories. Gridded. Spot heights	Reichsamt für Landesaufnahme.
7. Karte des Deutschen Reiches (black edition) (Einheitsblätter)	1 : 100,000	160 (in 170)	1928-1940	Hachured (some contoured). Railways—3 categories. Roads—4 categories. Spot heights. Gridded	Reichsamt für Landesaufnahme.
8. General Karte von Mitteleuropa	1 : 200,000	(260)	1904-	Hachured. Prime meridian-Ferro. Railways—4 categories. Roads—4 categories	Militargeographisches Institut, Wien.
9. Topographische Übersichtskarte des Deutschen Reiches. Ausgaben "A" & "C" and Verkehrsausgabe.	1 : 200,000	196 (incomplete)	1912-1926	Contours. Prime meridian-Ferro. Railways—4 categories. Roads—4 categories. Gridded	Reichsamt für Landesaufnahme.
10. Übersichtskarte von Mitteleuropa (black edition)	1 : 300,000	59	1918-1936	Railways—4 categories. Roads—4 categories. Spot heights. Gridded	Preuss. Landesaufnahme.
11. Übersichtskarte von Mitteleuropa (coloured edition)	1 : 300,000	(159)	1929-	Hachured. Railways—4 categories. Roads—6 categories. Gridded	Preuss. Landesaufnahme.
12. Grosse Jro—Karte des Deutschen Reiches	1 : 500,000	6	1933	Railways—3 categories. Roads—4 categories	E. Kremling.
13. Vogels Karte von Mitteleuropa	1 : 500,000	23	1936-1938	Administrative districts. Hachured. Railways—4 categories. Roads—4 categories. Spot heights	Vogel.
SPECIAL PURPOSE MAPS.					
14. Strassenkarte von Deutschland	1 : 200,000	56 (incomplete)	193(?)	Roads—4 categories	Deutsche Automobil-Club.
15. Reichs—Auto-Karte	1 : 300,000	51	1924-1938	Railways—4 categories. Roads—4 categories. Spot heights	Reichsamt für Landesaufnahme.
16. Autostrassenkarten	1 : 300,000	9	1930-	Railways—2 categories. Roads—4 categories. Throughway plans of more important towns. Spot heights	Freytag & Berndt.
17. Autokarte von Deutschen Reich	1 : 300,000	3 sheets published	1934	Railways—unclassified. Roads—5 categories. Spot heights. Woods—outline (green)	Freytag & Berndt.
18. Strassenverwaltungs Karte	1 : 300,000	53	1936-1937	Administrative Districts. Railways—4 categories. Roads—4 categories. Spot heights. Gridded	Reichsamt für Landesaufnahme.
19. Reichs Autobahn Atlas	1 : 300,000	1 vol.	1938	Roads—5 categories	Meinhold-Mittelbach-Karten, Dresden.
20. Strassenkarte	1 : 300,000	9 sheets published	1938	Roads—8 categories	German General Staff.
21. Postleit Karte	1 : 450,000	12	1937-	Administrative Districts. Location of post offices. Railways—3 categories	Gea Verlag.
22. V.B. Strassen-Atlas von Deutschland	1 : 500,000	53	1936	International boundaries. Roads—2 categories. Photographs, Town and through-route plans arranged alphabetically.	Zentralverlag der N.S.D.A.P. München.
23. Vogels Karte von Mitteleuropa (Flieger Karte)	1 : 500,000	24	1936-1939	Air information. Hachured. Railways—4 categories. Roads—4 categories. Spot heights	Vogel.
24. Der grosse Conti Atlas für Kraftfahrer	1 : 500,000	64	1938	Full road classification. Through-route plans of principal towns	Continental Caoutchouc-Compagnie, Hanover.
25. B.Z. Atlas von Deutschland	1 : 600,000	52	1937	Roads—4 categories	"B.Z."
26. Eisenbahnen im Deutschen Reich	1 : 750,000	6	1935	Railway groups in colours	Deutsche Reichsbahn-Gesellschaft, Berlin.

<i>Title</i>	<i>Scale</i>	<i>Sheets</i>	<i>Date</i>	<i>Description</i>	<i>Publisher</i>
27. Westdeutsche Kanäle Mittelland Kanal und Märkische Wasserstrassen	1 : 800,000	1	[1939]	Inland waterways	Rhein Verlagsgesellschaft.
28. Luftverkehrs Karte des Deutschen Reiches [with booklet of plans of aerodromes]	1 : 1,000,000	1	[1937]	Railways—4 categories. Roads—4 categories. Spot heights. List of landing grounds. Distance and Direction tables.	Gea Verlag.
29. Deutschland—Karte—1939	1 : 1,000,000	1	1939	Railways—3 categories. Roads—2 categories. State boundaries	Reichsamt für Landesaufnahme.
30. Die Wasserstrassen des Deutschen Reiches	1 : 1,000,000	1	1939	Inland waterways. Railways—3 categories. Descriptive booklet	Gea Verlag.
31. Gea-Verkehrs Karte Deutsches Reich mit den Nachbargebieten	1 : 1,000,000	1	1940	Canals. Railways—4 categories. Roads—4 categories. Spot heights. State boundaries. List of place names	Gea Verlag, Berlin.
32. Strassenzustands Karte von Deutschland	1 : 1,100,000	1	1940	Roads—6 categories	Der Deutsche Automobil Club.
33. Deutsche Reichsbahn	1 : 1,500,000	1	1939	Various railway groups in colour	Kartenstelle des Reichsverkehrsministeriums.
34. Übersichtskarte der Deutschen Schifffahrtsstrassen	1 : 1,500,000	1	[1939]	Inland waterways	Gea Verlag.
35. Railway map of the thro' connections for Germany	1 : 1,875,000	1	1939	Railways—2 categories	Reichsverkehrsministerium.
SPECIAL AREA MAPS.					
36. Schifffahrts-und Industriekarte des Rheins	1 : 10,000	117	1914		"Rhein" Verlagsgesellschaft, Duisburg.
37. Topographische Karte von Bayern	1 : 25,000	517	1890-1939	Contours. Railways 7 categories. Roads—4 categories	Bayer. Topograph. Bureau.
38. Topographischer Atlas des Königreiches Bayern	1 : 50,000	175	1896-1938	Contours. Prime meridian—Ferro. Railways—3 categories. Roads—5 categories.	Topograph. Bureau, Bayern
39. Karte des Badischen Schwarzwald-Vereins	1 : 50,000	10 (incomplete)	n.d.	Contours. Railways—2 categories. Roads—3 categories	Kartogr. Institut.
40. Karte von Berlin und Umgebung	1 : 50,000	12	1930-1932	Contours. Railways—4 categories. Roads—4 categories	Preuss. Landesaufnahme.
41. Ravensteins Topographische Karte von Taunus	1 : 50,000	2	1933-1936	Contours. Prime meridian—Ferro. Railways—2 categories. Roads—3 categories	H. & L. Ravenstein.
42. Karte von Württemberg	1 : 50,000	13	1919-1926	Hachured. Prime meridian—Ferro. Railways—unclassified. Roads—5 categories	K. Statist. Landesamt.
43. Region de la Ruhr	1 : 100,000	1	1923	Location of mining-shafts	Service Geographique de l'Armée.
44. Carte Industrielle du Territoire de la Sarre	1 : 100,000	1	1928		Société de Documentation Industrielle.
45. Strassenkarte des Saargebietes	1 : 100,000	1	1935	Administrative Districts. Roads—4 categories	Ed. Haun, Saarbrücken.
46. Karte der Nordwestdeutschen Wasserstrassen	1 : 125,000	4	[1920]		Rhein Verlagsgesellschaft.
47. W. Germany, Carte Lithologique (Based on Carte de France et des frontières)	1 : 200,000	1 sheet published	1940	Geological data	Service Geographique de l'Armée.
48. Neue Ortsnamenkarte der Provinz Ostpreussen	1 : 200,000	1	1938	Administrative Districts. Railways—2 categories. Book of place names. Squared	Gräfe und Unzer, Königsberg.
49. Notice sur le bassin de la Ruhr et le Sauerland: Croquis Geologique	1 : 500,000	1	1924		Service Geographique de l'Armée.
50. Strassen - Zustands Karte des Deutschen Alpenlandes.	1 : 625,000	1	1939	Roads—6 categories. Spot heights	Deutsche Automobilclub.
51. Rheinkarte Rotterdam—Basel	1 : 1,000,000	1	1928		Verein zur Wahrung der Rheinschifffahrtsinteressen e.V., Duisburg.

AUSTRIA

<i>Title</i>	<i>Scale</i>	<i>Sheets</i>	<i>Date</i>	<i>Description</i>	<i>Publisher</i>
1. Österreichische Karte	1 : 25,000	90 sheets available (in progress)	1919-	Contours. Railways—5 categories. Roads—4 categories. Spot heights	Militargeographisches Institut in Wien
2. Österreichische Karte	1 : 50,000	17 sheets available (in progress)	1924-	Contours. Railways—5 categories. Roads—4 categories. Spot heights	Militargeographisches Institut in Wien

<i>Title</i>	<i>Scale</i>	<i>Sheets</i>	<i>Date</i>	<i>Description</i>	<i>Publisher</i>
3. Spezialkarte (von Österreich)	1 : 75,000	113	1913-1939	Contoured. Hachured. Prime meridian—Ferro. Black (some in colour). Railways—4 categories. Roads—4 categories. Spot heights	Kartographisches Institut in Wien
4. Touristen - Wanderkarte	1 : 100,000	31 sheets available (Total 38)	1920-1936	Contours. Prime meridian—Greenwich. Railways unclassified. Roads—2 categories. Spot heights	Freytag & Berndt
5. General Karte von Mitteleuropa	1 : 200,000	36	1936-	Hachured. Prime meridian—Ferro. Railways—4 categories. Roads—4 categories	Militargeographisches Institut, Wien
6. Karte von Österreich	1 : 500,000	1	[1935]	Contoured. Layered. Railways—3 categories. Roads—3 categories	Kartographisches Institut, Wien
7. Fliegerkarte von Österreich	1 : 500,000	1	[1936]	Prime meridian—Greenwich. (Air information overprinted on item 6 above)	Kartographisches Institut, Wien, für Österr. Aero-Club
8. Übersichtskarte von Österreich	1 : 750,000	1	1936	Hillshading. Prime meridian—Ferro. Railways—3 categories. Roads—2 categories	Kartographisches Institut, Wien
SPECIAL PURPOSE MAPS :					
9. Hölzel Strassenkarte von Österreich	1 : 200,000	8	1936	Contours layered. Railways. Roads—4 categories with distances and gradients	Hölzel
10. Autostrassenkarten	1 : 300,000	5	1927-1936	Railways—2 categories. Roads—4 categories. Spot heights. Through-way plans of more important towns	Freytag & Berndt
11. Strassenkarte	1 : 300,000	3 sheets in Austria	1938	Spot heights. Railways—6 categories. Roads—8 categories. Water—blue	German General Staff
12. Autokarte von Österreich	1 : 300,000	4 sheets published	1938-	County boundaries. Railways—2 categories. Roads—4 categories. Spot heights. Woods in green, outlined	Freytag & Berndt
13. Automobilkarte der Alpenländer	1 : 350,000	3	1932-1934	Roads—5 categories. Trans-frontier roads and passes	Automobil Club für Tirol und Vorarlberg
14. Eisenbahn - und Schifffahrtskarte der Republik Österreich	1 : 600,000	1	1922	Full railway information. Insets of larger towns with railway connections	Kartographisches Institut, Wien
15. Strassen Zustands - karte von Österreich	1 : 625,000	1	1936	Roads—4 categories, with distances in kms.	Österreichischer Automobil-Club
16. Übersichtskarte von Österreich : Hölzel Strassenkarte	1 : 625,000	1	1938	Roads—6 categories	Österreichischer Touring-Club
17. Strassenzustandskarte des Deutschen Alpenlandes	1 : 625,000	1	1939	Roads—8 categories	Der Deutscher Automobil-Club, München
SPECIAL AREA MAPS :					
18. Umgebungskarte von Wien	1 : 25,000	30	1903-15	Contours. Hachures. Railways. Roads	Militargeographisches Institut, Wien
19. Karte der Zillertaler-Alpen	1 : 25,000	7	1930-1937	Contours. Springs. Waterfalls. Wells	Hauptausschuss des Deutschen und Österreichischen Alpenvereins
20. Umgebungskarte von Innsbruck	1 : 25,000	1	1936	Contours. Prime meridian—Ferro. Railways. Roads	Kartographisches Institut in Wien
21. Umgebungskarte von Linz	1 : 30,000	1	1920	Contours. Prime meridian—Ferro. Railways. Roads	Kartographisches Institut in Wien
21. Wienerwald (Touristen-Wanderkarte)	1 : 50,000	1	1936	Prime meridian—Greenwich. Railways. Water—blue. Hillshaded	G. Freytag & Berndt, Wien
23. Reisekarte von Tirol und Vorarlberg	1 : 250,000	1	1936	Hillshading. Prime meridian—Greenwich. Railways—2 categories. Roads—3 categories. Spot heights	Freytag & Berndt, Wien

CZECHOSLOVAKIA

<i>Title</i>	<i>Scale</i>	<i>Sheets</i>	<i>Date</i>	<i>Description</i>	<i>Publisher</i>
1. Topograficka Mapa. (Revised editions of Austrian map)	1 : 25,000	19 sheets available (in progress)	1920-	Contours—black and brown. Full detail in black. Few sheets gridded	Vojensky Zemepisny Ustav, Praha.
2. Specialni Mapa. (Revised editions of Austrian map)	1 : 75,000	189	1926-	Contours and hachures. Some sheets gridded. Prime meridian—Ferro. Railways—2 categories. Roads—3 categories. Woods—green on some sheets.	Vojensky Zemepisny Ustav, Praha.
3. Carte Normale Aeronautique Internationale	1 : 200,000	7 sheets available (in progress)	1928-	Heights. Layout of Towns and Villages. Prime meridian—Greenwich. Railways—3 categories. Roads—3 categories. Water—blue. Woods—green	Military Geographical Institute, Prague.
4. Generalni Mapa	1 : 200,000	37	1924-1938	Hachured. Prime meridian—Ferro. Railways, Roads—unclassified. Spot heights	Military Geographical Institute, Prague.
5. Kancelarska Mapa Republiky Ceskoslovenske (Official Map of the Czechoslovak Republic)	1 : 600,000	2 (with index to names)	1934	Administrative boundaries. Prime meridian—Greenwich. Railways—4 categories. Main Roads. Squared	Freytag and Berndt, Vienna.

<i>Title</i>	<i>Scale</i>	<i>Sheets</i>	<i>Date</i>	<i>Description</i>	<i>Publisher</i>
6. Auto - Übersichts-karte der tschechoslowakischen Republik	1 : 600,000	2	1938	Railways—2 categories. Roads—4 categories, with distances	Freytag & Berndt, Vienna.
7. Prehledna Letecha Mapa Republiky Ceskoslovenske. (Carteaeronautique d'ensemble de la Republique de Tchecoslovaque)	1 : 750,000	2	1929	—	Military Geographical Institute, Prague.
8. Prehledna Mapa	1 : 750,000	9	1936-	Hachures. Prime meridian—Ferro. Railways—3 categories. Roads—3 categories. Spot heights	Military Geographical Institute, Prague.
9. Prehledna Mapa Hlavnich Silnicnich a Zeleznicnich Trati Ceskoslovenske Republiky	1 : 1,000,000	1	1935	Railways—2 categories. Roads—2 categories, with distances	Edvard Fastre, Prague
SPECIAL PURPOSE MAPS :					
10. Autokarte der Tschechoslovakischen Republik	1 : 300,000	12	1931-6	Railways unclassified. Roads—4 categories, with distances and gradients. Spot heights. Through-route plans of chief towns	Freytag and Berndt, Vienna
11. Strassenkarte	1 : 300,000	2 sheets in Czechoslovakia (in progress)	1938	Spot heights. Railways—6 categories. Roads—8 categories. Water—blue	German General Staff
12. Nacrt Ceskoslovenske Republiky	1 : 500,000	2	[1935]	Administrative boundaries only	Military Geographical Institute, Prague
13. Prehledna Mapa Stredni Evropy	1 : 500,000	1 sheet available (in progress)	n.d.	Contours. Railways—4 categories. Roads—2 categories	Vojensky Zemepisny Ustav
14. Zeleznieni Mapa Ceskoslovenske Republiky (Railway map of the Czech Republic)	1 : 560,000	1	[1928]	—	Ministerstva Zeleznie
SPECIAL AREA MAPS :					
15. Tatry Mapa Turystyczna	1 : 50,000	1	1936	Contours—brown. Railways—2 categories. Roads—4 categories, in red. Vegetation—green. Water—blue	Tadeusz Zwolinski

POLAND

<i>Title</i>	<i>Scale</i>	<i>Sheets</i>	<i>Date</i>	<i>Description</i>	<i>Publisher</i>
1. Topographische Karte (Western Poland), Former German Territory	1 : 25,000	480	Pre 1914	Contours. Railways—5 categories. Roads—6 categories	Reischsamt für Landesaufnahme
2. Mapa Szczegolowa. Tourist Edition	1 : 25,000	31 received	1933-6	Contoured. Prime meridian—Greenwich. Railways—3 categories. Roads—4 categories. Water—blue. Gridded.	Wojskowy Instytut Geograficzny, Warszawa.
3. Spezialkarte der österreichisch-ungarischen Monarchie	1 : 75,000	283	1899-	Contoured. Prime meridian—Ferro. Railways—4 categories. Roads—3 categories. Spot heights	Militargeographisches Institut in Wien.
4. Wisla	1 : 80,000	43	1935	Tourists' guide to the Vistula with map in 43 sheets showing bridges, ferries, weirs, etc.	Stanislaw Szymborski, Lwow.
5. Mapa Taktyczna (Tactical map)	1 : 100,000	478	1924-38	Contours brown, 10 m. intervals. Prime meridian—Greenwich (some sheets on Ferro). Railways—3 categories. Roads—4 categories. Water—blue. Woods—green. Gridded	Wojskowy Instytut Geograficzny.
6. Generalkarte von Mitteleuropa	1 : 200,000	260	1899	Hachured. Prime meridian—Ferro. Railways—4 categories. Roads—4 categories	Militargeographisches Institut, Wien
7. Mapa operacyjna (Operational map)	1 : 300,000	40	1928-41	Administrative boundaries. Contours—brown. Prime meridian—Greenwich. Railways—3 categories. Roads—3 categories. Water—blue. Woods—green	Wojskowy Instytut Geograficzny.
8. Mapa Polski i Krajow Ościennych (Poland and adjacent countries)	1 : 500,000	7	1936-9	Administrative boundaries. Contours and layers. Prime meridian—Greenwich. Railways—3 categories. Roads—3 categories. Water—blue	Wojskowy Instytut Geograficzny.
9. Mapa Polski i Krajow Ościennych (Aeronautical edition)	1 : 500,000	6	1936-9	Administrative boundaries. Air information. Contours, layered on most sheets. Prime meridian—Greenwich. Railways—3 categories. Roads—3 categories. Woods—green.	Wojskowy Instytut Geograficzny.
10. Mapa Rzeczypospolitej Polskiej	1 : 1,000,000	1 (with index to names)	1934	Administrative boundaries. Contours. Prime meridian—Greenwich. Railways—3 categories. Roads—2 categories. Water—blue. Woods—green.	Wojskowy Instytut Geograficzny.

<i>Title</i>	<i>Scale</i>	<i>Sheets</i>	<i>Date</i>	<i>Description</i>	<i>Publisher</i>
11. Mapa Polski i Krajow Oschiennych	1 : 1,000,000	4	1943	Layered. Canals. Railways—3 categories. Roads—3 categories	Wojskowy Instytut Geograficzny.
SPECIAL PURPOSE MAPS.					
12. Mapa Samochodowa Rzeczypospolitej Polskiej (Motoring map of the Polish Republic)	1 : 850,000	2	1935	Roads—3 categories	(Polish Automobile Club.)
13. Mapa Stanu drog bitych w Polsce 1939-40 (Road condition map of Poland)	1 : 1,000,000	2	1939-40	Roads—9 categories with distances	Automobilklub Polski.
14. Mapa Samochodowa i Stanu Drog w Polsce (Motoring and road condition map of Poland)	1 : 1,000,000	1 (with index)	1938-39	Roads—5 categories	Polski Touring Club.
15. Mapa Sieci Kolejowej Rzeczypospolitej Polskiej (Map of the Railway systems of the Polish Republic)	1 : 1,500,000	1 with index)	1938	Railways—4 categories. Water—blue	Wladyslaw Groszek.

DENMARK

<i>Title</i>	<i>Scale</i>	<i>Sheets</i>	<i>Date</i>	<i>Description</i>	<i>Publisher</i>
1. Danmark	1 : 20,000	831	1902-1938	Administrative Districts. Prime meridian—Copenhagen. Railways—2 categories. Roads—3 categories. Contours. Spot heights	Geodetic Institute, Copenhagen.
2. Danmark : Atlasblade (coloured edition)	1 : 40,000	236	1910-1937	Prime Meridian—Copenhagen. Railways—unclassified. Roads—3 categories. Contours.	Geodetic Institute, Copenhagen.
3. Danmark-General stab-kort	1 : 100,000	63	1921-1938	Administrative Districts. Prime Meridian—Copenhagen. Railways—2 categories. Roads—3 categories. Contoured	Geodetic Institute, Copenhagen.
4. Danmark	1 : 200,000	16	1932	Prime meridian—Copenhagen. Railways unclassified. Roads—3 categories. Spot heights	Geodetic Institute, Copenhagen.
5. Kongeriget Danmark	1 : 500,000	1	1937	Administrative Districts. Prime meridian—Copenhagen. Railways—unclassified. Roads—3 categories. Spot heights	Geodetic Institute, Copenhagen.
6. Kongeriget Danmark	1 : 520,000	1	1937	Administrative districts. Spot heights. Squared	Geodetic Institute, Copenhagen.
SPECIAL PURPOSE MAPS.					
7. Danmark Populært Færdselskort	1 : 150,000	9	1938	Railways—2 categories and projected. Roads—4 categories and projected	Geodetic Institute, Copenhagen.
8. Danmark : Automobil-kort	1 : 320,000	3	1938	Administrative Districts. Roads—2 categories. Spot heights	Geodetic Institute, Copenhagen.
9. Danmark—railways	1 : 975,000	1	1943	Railways—5 categories	Geodetic Institute, Copenhagen.
SPECIAL AREA MAPS.					
10. District maps (Turist-kort)	{ 1 : 20,000 1 : 15,000 }	5	1933-4	Contours. Railways unclassified. Roads—3 categories	Geodetic Institute, Copenhagen.
11. Kart over Indsoer (Lake Maps)	{ 1 : 10,000 1 : 5,000 }	20	1931-4	Contours. Lake contours. Railways and Roads in immediate neighbourhood	Geodetic Institute, Copenhagen.

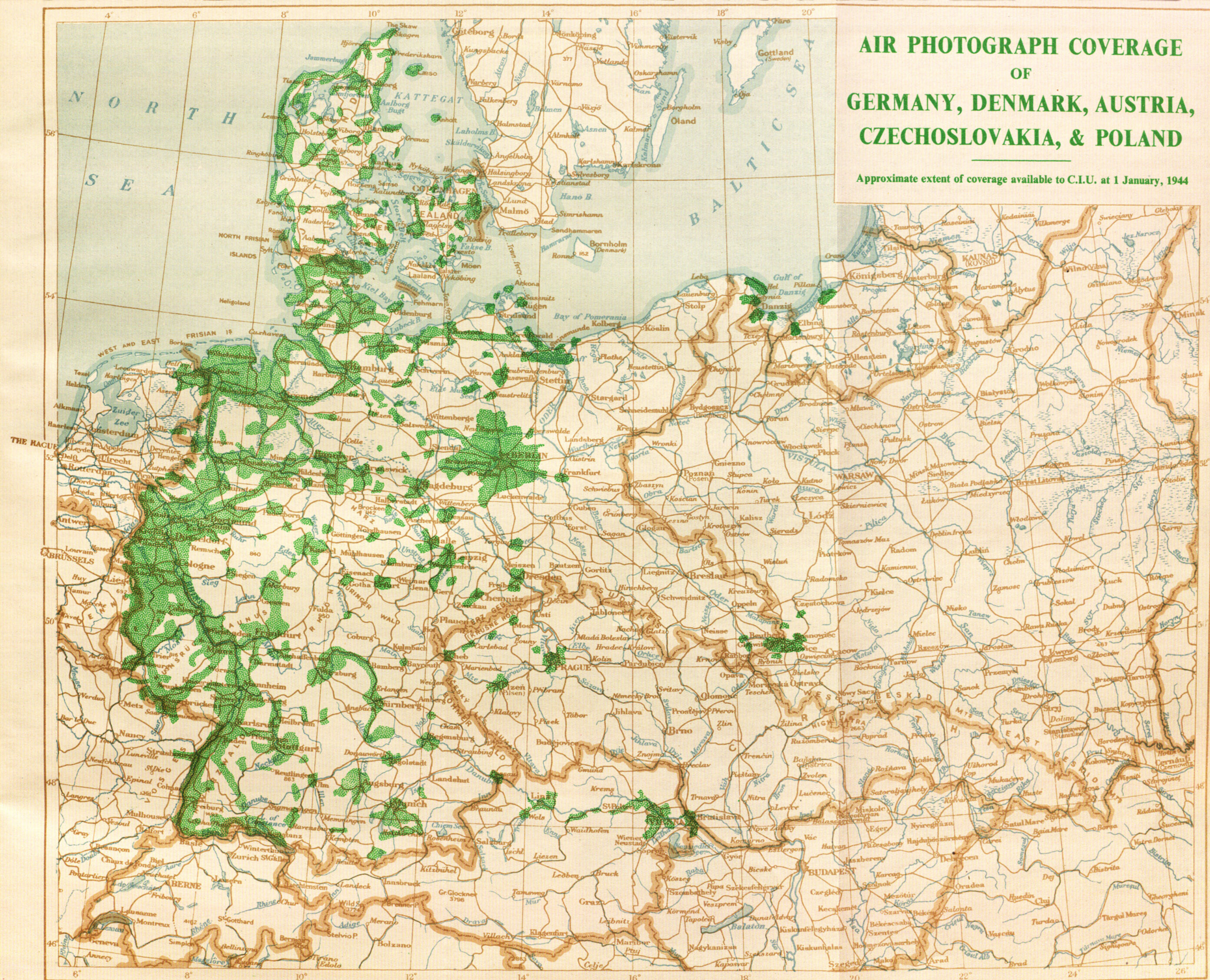
AIR PHOTOGRAPH COVERAGE

References to the revision of maps from air photographs make it necessary to show the approximate extent of the areas for which air photographs are available. This is done by the diagram opposite, which is prepared on the same base map as the two indices at the end of the book to the 1 : 250,000 and 1 : 100,000 series (Appendices VI and VII) ; the diagram is based on the information compiled from the photographic library of the Central Interpretation Unit (C.I.U.) of the R.A.F. The small extent of the area covered by photographs should be noted ; moreover, in some of the areas covered, many photographs are unsuitable for mapping use owing to tilt or to obliteration of detail by clouds. The 'survey quality' air photographs, which have been so much used for map making in western and northern France, and Belgium, and in Holland, are hardly anywhere available in this area.

The only map series (other than town plans) to which information has as yet been added directly from air photographs is G.S.G.S. 4416 (Central Europe, 1 : 100,000) ; the diagram opposite shows what small areas of this series are covered by photographs ; and not all of this coverage was available in time for use on G.S.G.S. 4416. Revision to other series, such as G.S.G.S. 4479, Denmark 1 : 250,000, has been derived in part from air photographs. It is probable that further areas will be covered by air photographs as the war moves east, and hence that further revision of maps will be possible.

AIR PHOTOGRAPH COVERAGE OF GERMANY, DENMARK, AUSTRIA, CZECHOSLOVAKIA, & POLAND

Approximate extent of coverage available to C.I.U. at 1 January, 1944



ROAD CLASSIFICATIONS

A definite requirement on 1 : 250,000 scale maps, and to a rather lesser extent on larger-scale maps, is the classification of roads into width and surface categories. Details of the categories into which roads have been classed, of the principal sources of information used for the classification, and of the signs by which the different categories are shown, are given in the tables below. It has been found both convenient and suitable to base road classifications on national areas.

Most of the systems of width and surface classification which have been applied in the area are generalisations only, and are based on localised information or experience which, when extended, is bound to include particular errors. The system used for Denmark, for example, was based on intelligence reports about the widths of particular roads, personal experience of other individual roads, ground photographs of yet other roads, articles in technical journals, etc. All this information has to be collated into terms of the local system of classification appearing on maps, and thus width and surface values are allotted to particular classes of roads. The German system of classification was easier to formulate than those for most other countries, since the width and construction of autobahen has been much advertised ; since there was a good deal of evidence to show that most Reichsstrassen were of the 6 metres wide category (though the most recent evidence indicates a large number of exceptions to this rule, especially when lower-grade roads are officially though not physically up-graded to this class) ; and since most official German maps show a class of road " Strasse 1A", described as being of 5.5 metres average useful width, and another class, " Strasse 1B ", of 4 metres.

It is thought that the various systems (other than the German one) tend to give rather conservative estimates of road widths. This is probably to the good if the map user is trying to calculate road widths for the movement of his own transport, but, conversely, requires watching if he is attempting to calculate the movement of enemy transport.

It is obvious that the general classification given on the various G.S.G.S. maps should wherever possible be checked by reconnaissance, and should never be regarded as more than a general guide to road widths or surfaces.

Most of the road classification systems have been formulated by M.I.10(c), the War Office section concerned. It will of course be appreciated that, where information (e.g., in the form of an intelligence report) about a particular road has become available, it has been incorporated into map sheets affected, in so far as the state of their production permits.

Where reliable information concerning new roads is available only in non-graphic form, or only at a scale smaller than that of the map concerned, such roads are shown diagrammatically (e.g., by straight lines) with a note such as " Alignment unknown " alongside them.

CLASSIFICATION OF ROADS IN GERMANY

ROAD CATEGORIES	CORRESPONDING SYMBOLS				
	Principal sources of information			G.S.G.S. 4416, Central Europe 1 : 100,000	G.S.G.S. 4346, Germany 1 : 250,000
	Strassenzustands- karte von Deutschland 1 : 1,100,000 (1939-1940)	Reichs-Auto- Karte 1 : 300,000 (mostly 1938)	Karte des Deutschen Reiches 1 : 100,000 (1922-1939)		
Road classification is not based on reconnaissance : its reliability is uncertain					
Motor Highways (independent of road system), Reichsautobahnen. 2 carriage-ways, each metalled, and 7.5 metres wide Connecting points with road system, where known Under construction					
Main Roads, Reichsstrassen, with route numbers. Metalled and mostly 6 metres wide					
Other Main Roads, mostly Landstrassen 1. Ordnung. Metalled and 5.5 metres average useful width					
Secondary Roads. Metalled and 4 metres average useful width					
Other Roads and Cart Tracks. Not always motorable and often unmetalled					
Paths					

CLASSIFICATION OF ROADS IN DENMARK

ROAD CATEGORIES <i>Road classification is not based on reconnaissance : its reliability is uncertain</i>	CORRESPONDING SYMBOLS		
	Principal sources of information		G.S.G.S. 4479, Denmark 1 : 250,000
	Landevejskort over Danmark 1 : 505,000 (Shell) (1939)	Geodaetisk Instituts Automobilkort 1 : 320,000 (1938)	
Main Roads, (<i>Hovedveje</i>), with route numbers. Generally 6 metres wide or over, metalled			
Other Main Roads, (<i>Anden Amtsvejen</i>). Generally 5 metres wide or over, metalled			
Secondary Roads. Generally about 4 metres wide, metalled			
Other Roads. Usually metalled			

Roads on G.S.G.S. 4210, Denmark 1 : 100,000, are not classified on a width basis.

CLASSIFICATION OF ROADS IN AUSTRIA

ROAD CATEGORIES <i>Road classification is not based on reconnaissance : its reliability is uncertain</i>	CORRESPONDING SYMBOLS			
	Principal sources of information		G.S.G.S. 4346, Germany 1 : 250,000	G.S.G.S. 4416, Central Europe 1 : 100,000
	Strassenzustands- karte von Deutschland 1 : 1,100,000 (1939-40)	Autokarte von Osterreich, Freytag u. Berndt 1 : 300,000 (1932-38)		
Motor Highways, <i>Reichsautobahnen</i>				
Main Roads, mostly <i>Reichsstrassen</i> , with route numbers. Generally about 5 metres wide, metalled				
Other Main Roads, sometimes <i>Reichsstrassen</i> , with route numbers. Generally about 5 metres wide, metalled				
Secondary Roads. Generally about 4 metres wide, metalled				
Other Roads and Cart Tracks. Not always motorable and often unmetalled				
Tracks and Paths				

CLASSIFICATION OF ROADS IN SWITZERLAND

ROAD CATEGORIES <i>Road classification is not based on reconnaissance : its reliability is uncertain</i>	CORRESPONDING SYMBOLS		
	Principal source of information	G.S.G.S. 4346, Germany 1 : 250,000	G.S.G.S. 4416, Central Europe 1 : 100,000
	Official Road Map 1 : 450,000 (1938)		
Main Roads. Generally 6 metres wide or over, metalled			
Other Main Roads. Generally 5 to 6 metres wide, metalled			
Secondary Roads. Generally about 4 metres wide, metalled			
Other Roads and Tracks	No corresponding class on Official Road Map		

CLASSIFICATION OF ROADS IN CZECHOSLOVAKIA

ROAD CATEGORIES	CORRESPONDING SYMBOLS						
	<i>Principal sources of information</i>						
Strassen- standkarte von Deutschland, 1 : 1,000,000 (1939-40)	Road Condition Map, Czechoslovakia, 1 : 750,000 (1938)	Road Condition Map, Slovakia and Sub-Car- pathian Russia, 1 : 700,000 (1936)	Road Condition Moravia, Silesia, 1 : 600,000 (1939)	Freytag und Berndt, Motor Road Maps, 1 : 300,000 (1930-38)	Automapa 1 : 200,000 (1924-30)	Generalni Mapa, 1 : 200,000 (1935-38)	G.S.G.S. 4346, Germany, 1 : 250,000
<i>Road classification is not based on reconnaissance : its reliability is uncertain</i>							
Main Roads, including Reichstrassen, with route numbers. About 6 metres wide or over, metalled							
Other Main Roads. About 5 metres wide, metalled							
Secondary Roads, About 3-4 metres wide, metalled							
Other Roads and Cart Tracks. Often unmetalled							

CLASSIFICATION OF ROADS IN POLAND

ROAD CATEGORIES	CORRESPONDING SYMBOLS		
	<i>Principal sources of information</i>		
<i>Road classification in not based on reconnaissance : its reliability is uncertain</i>	Mapa Samochodowa i Stanu Drog w Polsce na Rok (Polski Touring Klub) 1 : 1M. (1939-40)	Stanu Drog Bitych w Polsce (Automobilklub Polski) 1 : 1M. (1939-40)	Mapa Operacyjna 1 : 300,000 (1928-41)
All-weather Roads, metalled. Main, 6 metres wide, or over Modern dust-free surface			
Macadam surface			
Secondary, less than 6 metres wide Modern dust-free surface			
Macadam surface			
Dry-weather Roads, metalled. Of varying widths			
Other Roads, unmetalled			
Cart Tracks			

GRIDS

BRITISH GRID ZONES AND BOUNDARIES

Technical descriptions of the different British military grids on G.S.G.S. map series of the area are outside the scope of these notes. The diagram opposite, however, does show the areas covered by the grid zones concerned, and in doing so, serves as a warning for areas where more than one grid may be involved on any one map. The grids have in each case been shown on the diagram in their appropriate colours.

All the principal G.S.G.S. maps of this area at scales of 1 : 500,000 and larger—including many Town Plans—carry British grids (though certain less important series which are direct copies of foreign originals are not gridded). In certain areas, moreover, the Hydrographic Department has produced charts carrying the military grid, which are thus in sympathy with the grids on maps.

All G.S.G.S. maps carrying the British grid provide an explanatory note of how grid references should be given, as well as diagrams showing the “convergence” (between “grid north” and “true north”) and the magnetic variation on the sheet.

FOREIGN GRIDS

The following notes on grids liable to be found on foreign maps are included to assist in interpreting grids and grid references on captured maps.

German Grids

The Germans have divided their country into strips approximately 3° wide, each covered by a separate grid belt. These grids are referred to by the Germans as the “Gauss-Kruger Gitternetz” or the “Deutsche Heeresgitter.” Grid lines are numbered in the map margin in kilometres; the figures denoting thousands and hundreds, which only appear at the grid lines nearest to the sheet corners, are printed in smaller type than the remainder, which alone are used in giving “short” references. Eastings (Rechts) are given first and then Northings (Hoch) as in the British system. The central meridians of the belts are multiples of 3°E. of Greenwich (6°, 9°, 12°, etc.) and the belts are numbered according to these multiples, so that the belt whose centre is 6° East is No. 2, and so on. In the full figures denoting Eastings, the first denotes the number of the belt, although it appears to indicate thousands of kilometres. For example, the number 4560 lies in belt No. 4, whose central meridian is 12° East.

Although this system can be extended indefinitely, a captured German handbook on maps and survey for the countries to the east of Germany, published in 1940, indicates that the native grids have been adopted in some parts. In Russia the Germans are using the Russian system, which is similar to their own, but the belts are 6° wide instead of 3°, and for the “General Gouvernement” area of Poland instructions are given in their handbook for the Polish grid to be used. The normal German system is used in Austria, Czechoslovakia, East Prussia, Finland, Lithuania, and the Memel area. In boundary areas, the position of the adjacent grid is shown by ticks in the margins of the maps.

The sizes of grid squares on German maps vary; for example the 1 : 300,000 series has 10 km. squares and the 1 : 25,000 has 1 km. squares (like the British maps), but the 1 : 100,000 has 5 km. squares and the 1 : 50,000 has 2 km. squares. The giving of references on these maps is generally facilitated by the provision of a romer, which can be cut out, in the margin of the map (see figure). If romers are not available, care must be taken, in referencing the non-decimal squares, to break them down into the proper divisions. Thus the squares on the 1 : 100,000 map must be broken down to fifths and fiftieths, and on the 1 : 50,000 to halves and twentieths, in order to give references to the nearest 100 metres.

The western boundary of any belt is an even 10 km. grid line of that belt, lying about half-way between its central meridian and that of its neighbour. There is a danger that “short” references of points within 10 km. of a belt boundary may be duplicated by points between 5 and 10 km. away on the adjacent belt. This can be avoided to some extent by giving full references in these areas, but there is still a possibility that a full reference given to the nearest kilometre might be confused with a “short” one given to the nearest 10 metres.

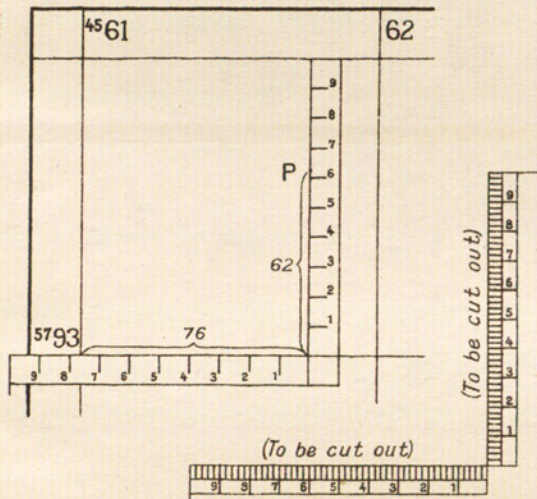
Danish Grid

The Danes give references by means of a true grid based on a rectangular coordinate system, but the method of denoting the grid squares is somewhat unusual. The country is covered by numbered 50 km. squares in rows of not more than 6 squares each. The lowest row is numbered 1 to 6 from west to east, and in the succeeding rows the number of each square is ten greater than the one below it; thus No. 42 is above No. 32, and No. 13 is above No. 3. Each 50 km. square is divided into twenty-five 10 km. squares, each of which has a letter, as shown below :—

A	B	C	D	E
F	G	H	I	K
L	M	N	O	P
Q	R	S	T	U
V	X	Y	Z	Æ

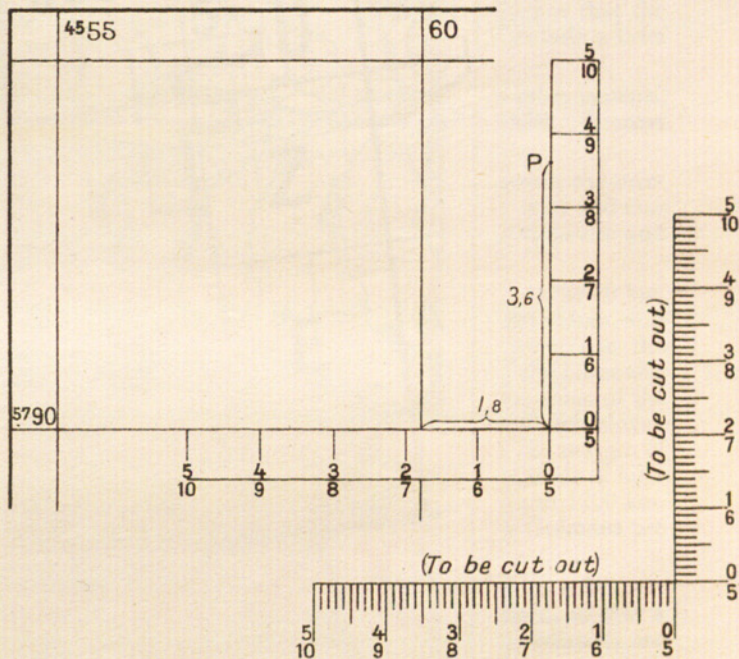
THE GERMAN "ROMERS" and examples of referencing.

Point P is: 61,76 right, 93,62 high.



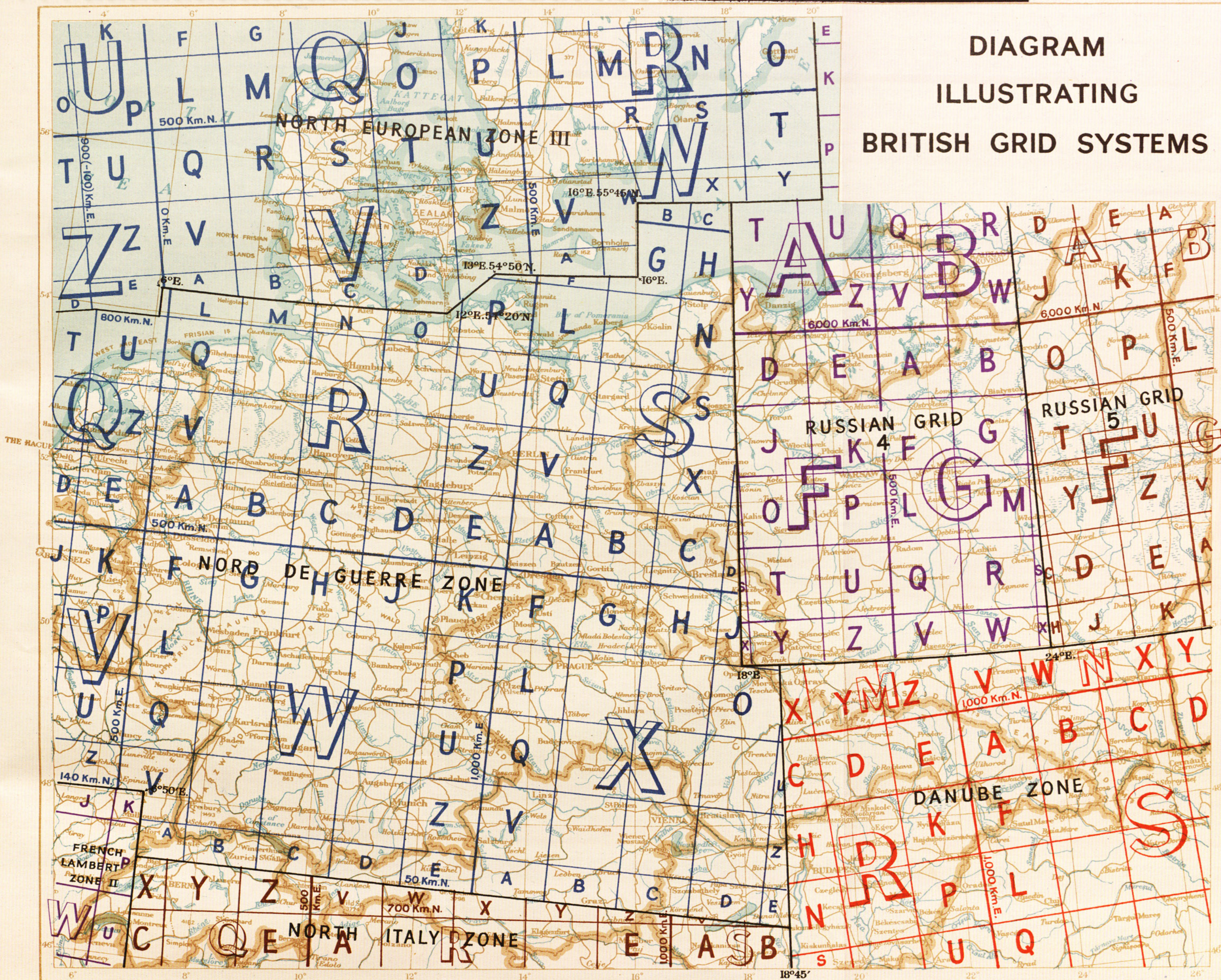
"Romer" 1:25,000

Point P is: $\begin{cases} 61,8 \text{ right} \\ 93,6 \text{ high} \end{cases}$



"Romer" 1:100,000

DIAGRAM
ILLUSTRATING
BRITISH GRID SYSTEMS



Each 10 km. square is subdivided into one hundred 1 km. squares, each of which is identified by a number denoting the column, followed by a number denoting the row in which it falls. The columns are numbered 0 to 9 from west to east, and the rows 0 to 9 from south to north. Thus the SW 1 km. square within a 10 km. square is numbered 00, the NW one 09, the SE one 90, and the NE one 99. The reference of 1 km. square 19, in 10 km. square F, in 50 km. square 13, would probably be written 13 F 19. The method of denoting the position of a point within a 1 km. square is uncertain, but the easting will undoubtedly be given before the northing, and the most probable way of writing the reference of a point in the middle of the square given above as an example is 13 F 19-55.

We possess examples of two map series on which this system is in use. On the 1 : 40,000 scale both grid and numbers are overprinted in red and the 1 km. squares are shown. Each 10 km. square has its number and letter printed in the corners of the square and where its edges meet the sheet margin. The figures for the columns and rows of 1 km. squares are printed along the W. and S. margins of the 10 km. squares. The 1 : 20,000 map has the lines in black and the figures and letters in red. The numbering is similar to that on the 1 : 40,000, except that each 1 km. square is numbered in the SW corner.

Although we have evidence that the Germans have adopted the native grids in several countries, it seems unlikely that they have done so in this case. The system described above would be liable to cause confusion to troops unaccustomed to it, whereas the extension of the German grids over Denmark would not be a large task.

Czechoslovak Grid

According to the captured German handbook, mentioned in the paragraph on German grids, the normal German "Gauss-kruger Gitternetz" is used in Czechoslovakia. Nevertheless, there is some evidence that the native Czech grid may still be found, and since it is quite unusual in character it is advisable to include a brief notice of it.

The Czech grid is numbered from the North and East, instead of the South and West as in other systems, so that co-ordinate references are given from the NE corner of the square, instead of from the SW. Romers are provided for reading co-ordinates within the squares.

The 1 : 75,000 series shows the grid in black with the grid lines at 4 km. intervals. Lines nearest the sheet corners and round 100 km. lines are fully numbered in kilometres but intermediate lines only show units and tens of kilometres. If the romer is not used, care must be taken to break the squares down into quarters and fortieths, instead of into tenths, in giving references.

On some 1 : 200,000 map sheets in our possession the same grid is overprinted in red with lines at 10 km. intervals, the lines nearest the sheet corners and even 50 km. lines being numbered in full kilometre values, and the intermediate lines in tens and units of kilometres. Information has been obtained from officers in the Czechoslovak army that this map was never gridded by them, so the grid must have been added by the Germans, in spite of the instructions in their handbook. The assumption is strengthened by the presence, on some of the sheets in Bohemia and Moravia, of an extra reference for squares, which is quite unfamiliar to the Czechoslovak officers. This is based on the Czech grid, and the squares are denoted by blue figures printed in the margin of the map. Each 100 km. square is denoted by the co-ordinate reference of its NE corner in hundreds of kilometres, for example, square 71 lies between the 700 and 800 km. Westing lines and between 1100 and 1200 km. Southing lines. The ten kilometre squares are also numbered. Details of the way in which the Germans use this reference are not available.

The Czech method of giving references on their 1 : 75,000 series is as follows. In giving short references the sheet number is always mentioned, and the figures denoting hundreds of kilometres are dropped, so that a reference to the nearest hundred metres has 6 figures. Thus, the reference of a point whose co-ordinates are 8485 West, 11053 South, which falls on sheet 4250, would be :—Sheet 4250. 485053.

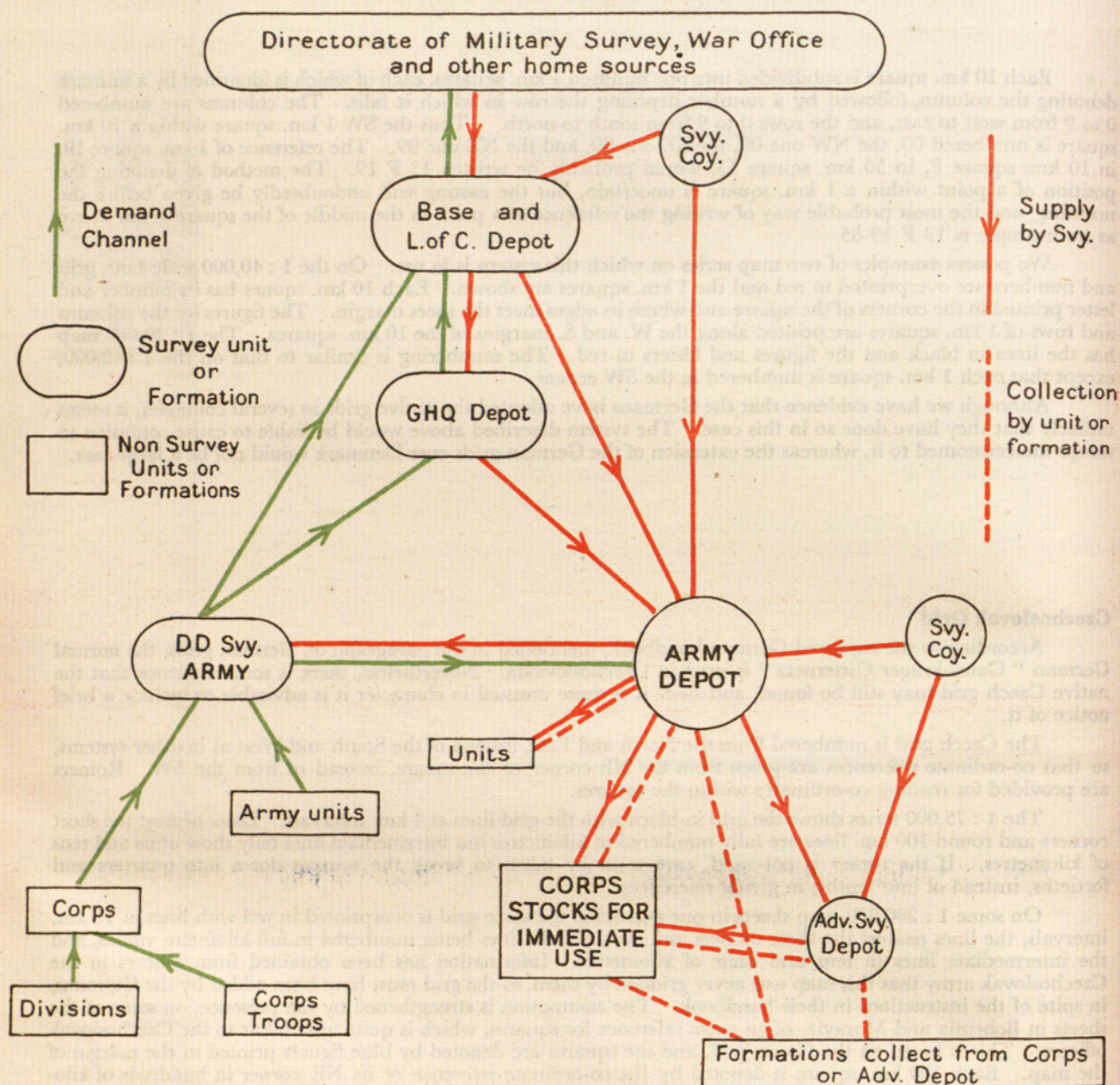
If it is desired to give a fuller reference the figures denoting hundreds of kilometres are included, but those denoting thousands are dropped ; this ensures that there is an equal number of figures in Southing and Westing, and there is little danger of ambiguity since similar references are 1000 km. apart. The reference in this case would be :—84851053.

Polish Grid

According to the captured handbook mentioned in the section on German grids, the German army has adopted the Polish grid in the "General Gouvernement" area of Poland. This grid is printed in fine black lines on Polish maps. On the 1 : 100,000 series the lines are shown at 2 km. intervals, with the alternate lines bearing a two-digit number denoting kilometres and tens of kilometres. The numbers nearest the sheet corners have an additional figure in smaller type denoting hundreds of kilometres. On the 1 : 25,000 series each kilometre line is shown and numbered.

References are given in the normal way from the SW corner of a square, but care must be taken on the 1 : 100,000 maps to divide each square into halves and twentieths, not into tenths.

CHANNEL OF MAP SUPPLY FOR THE ARMY



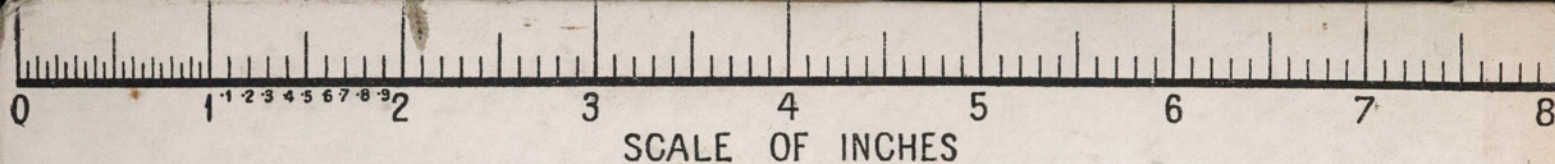
Map Supply Channel

Directorate of Military Survey (Survey 3) arrange delivery of bulk stocks of all maps to Base Depots overseas, where they are distributed, as required, either to intermediate depots in L. of C., or near H.Q.'s of Army Groups, or, in some cases, may be consigned direct to Army Map Depots.

Further distribution to Corps and subordinate formations will be carried out in accordance with accepted policy governing map distribution.

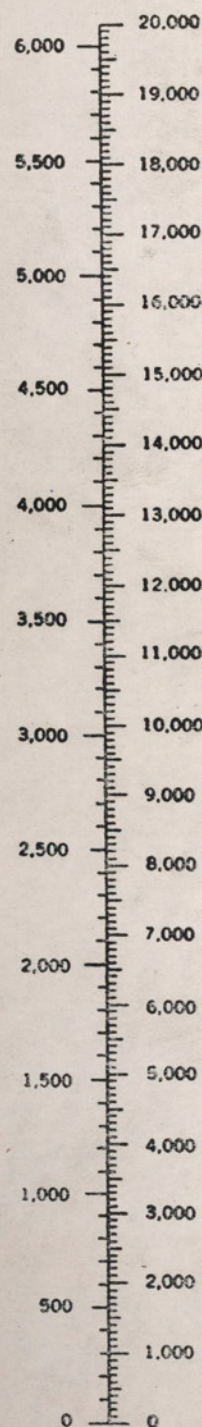
D.D. Svy. at army holds a limited stock of all maps likely to be required by the Army H.Q. Staff for current operations and for future planning.

Scales of issue are laid down in W.O. pamphlet "Standard Scales of Map Issue, 1943."



CONVERSION
GRAPH

Meters Feet



REPRESENTATIVE FRACTIONS WITH THEIR
APPROXIMATE VALUES IN INCHES TO THE MILE

1:1,000,000	...	...	...	1 inch = 16 miles
1:500,000	...	...	...	1 inch = 8 miles
1:250,000	...	...	...	1 inch = 3.95 miles
1:200,000	...	...	...	1 inch = 3.16 miles
1:100,000	...	...	...	1 inch = 1.60 miles
1:50,000	...	...	...	1 inch = 0.79 miles
1:25,000	...	...	...	1 inch = 0.39 miles
1:10,000	...	...	...	1 inch = 0.16 miles

SCALE OF CENTIMETRES

