MIL-GEO: THE GEOGRAPHIC SERVICE OF THE GERMAN ARMY

M-12

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MIL-GEO: THE GEOGRAPHIC SERVICE OF THE GERMAN ARMY

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MIL-GEOb: THE GEOGRAPHIC SERVICE OF THE GERMAN ARMY

I. Introduction

Mil-Geo was the geographic service of the German Army. In World War II the organization published a large number of handbooks and maps of strategic areas for operational and strategic use. Although these publications are now 5 to 10 years old, they still provide in concise but comprehensive form basic geographic information of value to the US intelligence agencies. The reports supply summaries of geographical information for all countries of Europe, the Soviet Union, North Africa, and the Near East. For some areas, Mil-Geo maps are either the best or the only interpretive military maps available. The techniques employed by Mil-Geo are significant because they represent the results of a generation of experience and because they culminated in the production of new and useful types of publications. The reliability of the information in Mil-Geo publications, however, is not uniformly accurate, since some of the publications were based on field work or were checked in the field and others were compiled from existing source materials.

The purpose of this report is to provide a description of Mil-Geo and its operation and a complete annotated inventory of Mil-Geo publications available in Washington. At a later date the Military Geology Branch of the US Geological Survey plans to undertake an analysis of the more technical aspects of Mil-Geo methods and publications.
This report is divided into three parts. The body of the report is a general description of Mil-Geo -- its organization, background, methods of operation, and the character of its publications. Appendix A is an annotated list of all Mil-Geo reports and maps available in Washington, arranged by countries. The final section, Appendix B, is a glossary of German words appearing in the report.

Many people in a number of agencies have provided data used in the report, as well as assistance and suggestions during the preparation of the manuscript. The best sources for procuring loan copies of Mil-Geo materials are the Army Map Service; the CIA Map Library; and the German Military Documents Section, Office of the Adjutant General, Department of the Army. The best collection of Mil-Geo map series is at the Army Map Service Library.

II. Mil-Geo in Relation to Other Geographic Agencies

Each of the German military services had a geographic unit (see Chart 9084). Mil-Geo served the Army; Mar-Geo¹ (Marinegeographie -- Naval Geography), the Navy; and Luft-Geo (Luftgeographie -- Air Geography), the Air Force. The Department of Defense (Oberkommando der Wehrmacht -- OKW) had a special geographic unit called the Forschungsstaffel.² Although these four geographic organizations collaborated closely at times, there was also considerable rivalry among them.

1. See Department of State, OIR, No. 3704.
2. See Department of State, OIR, No. 3705.
Each agency had a special mission to perform, but inevitably some of their functions overlapped. Whereas Mil-Geo produced geographic handbooks and maps primarily of land areas, Mar-Geo produced maps and studies of coastal areas. The Forschungsstaffel issued special trafficability maps for small areas of strategic importance but rarely published textual materials. Luft-Geo maps and handbooks were designed for strategic air operations and for training purposes.

Mil-Geo initiated several new types of work that were later developed more intensively by the other geographic units. For example, Mil-Geo prepared coastal maps of a new type for the British Isles and other areas. Mar-Geo, which was established in 1942, later improved the techniques for presenting coastal geography and provided coastal maps and evaluations for inclusion in Mil-Geo publications. The two organizations collaborated particularly closely in Norway.

Early in the war, Mil-Geo produced a new type of map called an Operationskarte. This map was designed to show terrain types, relief, trafficability, and, in some cases, billeting capacity. After 1942 the Forschungsstaffel developed and improved the techniques that Mil-Geo had introduced. Mil-Geo and the Forschungsstaffel, although great rivals, collaborated in some areas, notably Greece and the Pripet Marsh of Poland. Although liaison was established between Mil-Geo and Luft-Geo, there is no evidence of collaboration in the production of maps and reports.
In the United States the term Mil-Geo has been applied loosely to a number of German agencies. Correctly used, the term refers both to the producing agency and to its publications. Failure to distinguish between the publications of the various German geographic agencies is probably the chief reason why users encounter difficulty and delay in obtaining Mil-Geo publications from libraries where they are on deposit. In some cases the practice of designating other geographic intelligence studies as "Mil-Geo's" also has resulted in incorrect cataloging and filing.

III. Pre-World War II Background of Mil-Geo

A. Before 1935

Although Mil-Geo was not formally organized until 1935, the concept of military geography had long been prominent in German military thought. A military geographic description of Germany, for example, was published in 1889, and a military geographic analysis of the countries bordering Germany on the west was issued in 1908. Furthermore, training in terrain analysis had for a long time been given to German soldiers in all ranks.

During World War I, several military geographic studies were produced by the German General Staff and were used down to regiment levels. Few of the publications, however, are in existence.

today, and none of the military geography procedures or directives was available for the use of the Nazi Army.

The beginning of modern German military geography dates back to 1924, when a file of strategic objectives and installations was incorporated into the Abteilung Truppenamt of the Reichswehrministerium. Gradually the file was expanded to include most of the important bridges, factories, and key buildings in Germany. Entries were made on cards according to a uniform system, and the file was called Einheitsobjektkartei (uniform target file, abbreviated as EOK). Mil-Geo developed EOK files for many areas to provide basic data for its publications. EOK data were plotted on sheets of the 1:100,000 map of Germany. Both the files and the maps were available to interested government offices and were considered valuable for handling internal disturbances and for defensive purposes.

Textual materials issued before 1935 were principally inventories of the bridges, roads, rivers, etc., of the area covered by a sheet of the 1:100,000 map. Such data were published, along with the appropriate map sheets, in pocket-size volumes entitled Militärgeographische Einzelangaben für die Truppenführung zum Einheitsblatt. At least a dozen of these volumes were issued between 1930 and 1935.

River studies also were produced before 1935. Among these were Das Odergebiet, Berlin, 1930, and Zusammenstellung der Übergänge im Stromgebiet der Weser, Reichswehrministerium, 1933.

When the additional duties of compiling billeting tables for the use of troops on annual maneuvers and of preparing textual materials.

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of a geographic nature were undertaken, the name "Mil-Geo," or military geography, was adopted. Billeting data were overprinted on 1:100,000 base maps and published as Ortsbelegungskarten.

B. 1935 to September 1939

Mil-Geo was organized officially in 1935 as a small unit in the Ninth Division of the General Staff of the German Army (see Chart 9084) -- Gruppe IV, Abteilung für Kriegskarten und Vermessungswesen -- and functioned chiefly through its field office in each Wehrkreiskommando. Gruppe IV, which served as general headquarters for Mil-Geo, became known as the Zentrale, a designation that continued throughout World War II.

Until the summer of 1939 the Zentrale had a staff of eight people, including typists and draftsmen. At that time the staff of the Zentrale was reinforced by the addition of geographers from four of the Wehrkreiskommandos and another typist. A Mil-Geo office had been established in each of the Wehrkreise, with the possible exception of Kassel, which may have had a staff but definitely did not have a chief.

Wehrkreiskommandos\(^1\) were distributed as follows:

I. Königsberg     IV. Dresden
II. Stettin        V. Stuttgart
III. Berlin        VI. Münster

\(^1\) Wehrkreiskommandos XIV, XV, XVI, and XIX were never established.
VII. München

VIII. Breslau

IX. Kassel

X. Hamburg

XI. Hannover

XII. Wiesbaden

XIII. Nürnberg

XVII. Wien (estab. 1938)

XVIII. Salzburg (estab. 1938)

XX. Danzig (estab. 1939)

XXI. Posen (estab. 1939)

These local offices were responsible for the military geography of the Wehrkreis only. A typical Wehrkreis Mil-Geo office had, in addition to its chief, a geographer, a librarian and file clerk, a draftsman-photographer, and a typist. Its main tasks were as follows:

1. Development and maintenance of the EOK file. A copy of each card was sent to the Zentrale.

2. Preparation of the Einzelangaben texts and maps at 1:100,000. By 1938, about one-third of Germany, chiefly frontier areas, had been mapped.

3. Preparation of Ortsbelegungskarten. These were reported as complete for all Germany.

4. Preparation of river studies of two types -- river crossings (Übergänge) and general descriptions of river basins. River data were in special demand by civil authorities and were completed for all major rivers of Germany proper.

5. Preparation of city plans and traffic, or "through-way," maps.
The basic working methods of Mil-Geo had been developed by 1938. By that time the publication of Einzelangaben texts had been abandoned, and most of the data were being presented by color overprints on brown monochrome editions of the 1:100,000 map. Terrain evaluations and other information were printed in the map margins. On the back of the map were city plans at 1:25,000. The Liegnitz sheet was the first one published by the Zentralle and served as a model for the Wehrkreis offices.

IV. Mil-Geo during World War II

Mil-Geo expanded rapidly with the outbreak of war and drew into service geographers with special skills and knowledge of foreign areas. Some of these geographers were army officers or enlisted men¹ and some (usually the older university professors and clerical personnel) were civilians, with military rank. In addition, senior university professors were occasionally brought in as consultants or were given contracts to prepare country studies. The professional personnel of the Zentralle reached its maximum number in 1942, with 25 to 30 employees.

Among the key geographers were Major Professor Wolfgang Panzer of Heidelberg, Professor Herbert Lehmann of Berlin, and Professors Gustav Braun and Wilhelm Hartnack of Greifswald. Professors Troll of Bonn, Dörries of Münster, and Schrepfer of Würzburg were among the consultants.

¹. Rank was often ignored, and in some cases enlisted men supervised the work of officers.
The Chief of Mil-Geo from 1935 to about 1941 was Colonel Schmöckel. He was followed by Colonel Thielebein. Both were World War I officers, not geographers. In October 1944, when Mil-Geo was no longer important, Captain Professor Wilhelm Hartnack took over as Chief.

The Zentrale had a fairly flexible internal organization. In 1939, it included four divisions: (1) Referat Inland, (2) Referat Ausland Ost (Lithuania, Poland), (3) Referat Ausland West (Netherlands, France, Belgium), and (4) Referat Ausland Süd (Czechoslovakia). Within these divisions the personnel was generally organized into country units, each headed by a senior geographer.

As Gruppe IV of the Abteilung für Kriegskarten und Vermessungswesen, the Mil-Geo Zentrale had immediate control of the work of its detachment in each Wehrkreiskommando and of the outposts in various occupied countries and territories. It also had some measure of control over the work of numerous other offices and received data from them. Chart 9084 is an attempt to show graphically the interrelationships of all of the surveying and mapping services in the German armed forces. Since these relationships were not static, the graph is not absolutely accurate as of any specific date.

When the German Army occupied a new area, Mil-Geo set up an outpost under the local commander. The Zentrale controlled the work program of the outposts, but they were attached administratively to the local Wehrmachtsbefehlshaber of OKW or to the Militärbefehlshaber of OKH. The Mil-Geo outpost in Rumania, however, was attached to the German military mission, and that in Italy to an army group.
The following table gives a complete list of Mil-Geo outposts:

<table>
<thead>
<tr>
<th>Area</th>
<th>Place</th>
<th>Opened</th>
<th>Closed</th>
<th>Parent Wehrkreiskommando</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Poland (General Government)</td>
<td>Radom</td>
<td>1939</td>
<td>1944</td>
<td>Breslau</td>
</tr>
<tr>
<td>South Poland (General Government)</td>
<td>Cracow</td>
<td>1939</td>
<td>1944</td>
<td>Breslau</td>
</tr>
<tr>
<td>Denmark</td>
<td>Copenhagen</td>
<td>1940</td>
<td>1943</td>
<td>Hamburg</td>
</tr>
<tr>
<td>Norway</td>
<td>Oslo</td>
<td>1940</td>
<td>1943</td>
<td>Stettin</td>
</tr>
<tr>
<td>Netherlands</td>
<td>The Hague</td>
<td>1940</td>
<td>1943</td>
<td></td>
</tr>
<tr>
<td>Belgium-N. France</td>
<td>Brussels</td>
<td>1940</td>
<td>1943</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>Paris</td>
<td>1940</td>
<td>1944</td>
<td>Dresden</td>
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<tr>
<td>N.W. France</td>
<td>St. Germain</td>
<td>1940</td>
<td>1942</td>
<td></td>
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<tr>
<td>S.W. France</td>
<td>Bordeaux</td>
<td>1940</td>
<td>1942</td>
<td></td>
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<tr>
<td>Central France</td>
<td>Orléans</td>
<td>1940</td>
<td>1942</td>
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<td>E. France</td>
<td>Dijon</td>
<td>1940</td>
<td>1941</td>
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<td>Rumania</td>
<td>Bucharest</td>
<td>1940</td>
<td>1944</td>
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<tr>
<td>Serbia</td>
<td>Belgrade</td>
<td>1941</td>
<td>1944</td>
<td>Wien (?)</td>
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<tr>
<td>N. Greece</td>
<td>Saloniki</td>
<td>1941</td>
<td>1944</td>
<td>Wien (?)</td>
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<tr>
<td>S. Greece</td>
<td>Athens</td>
<td>1941</td>
<td>1944</td>
<td></td>
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<tr>
<td>Ukraine</td>
<td>Rowno (?)</td>
<td>1941</td>
<td>1942</td>
<td>Breslau</td>
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<tr>
<td>Baltic</td>
<td>Riga</td>
<td>1941</td>
<td>1944</td>
<td>Königsberg (?)</td>
</tr>
<tr>
<td>S. France</td>
<td>Marseille</td>
<td>1943</td>
<td>1943</td>
<td></td>
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<tr>
<td>Italy</td>
<td>Army Group</td>
<td>1943</td>
<td>1945</td>
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</table>
Both the duties and the shortcomings of the outposts were described by General Hemmerich as follows:

...Mil-Geo groups, which are extremely short of personnel and insufficiently provided means of transportation, must in a very short time provide exhaustive information on every part of the newly occupied territory; they must know the latest road information as well as the billeting capacity of the towns and villages. They must be informed as to the condition of the terrain, the degree of forest cover, the load capacity of the bridges, and the composition of the population; they must have a clear conception of the various (administrative) districts of their spheres of operations, and should supplement this with a file of selected photographs. They are expected to know the location and courses of bodies of water as well as the seasonal weather conditions and to give reliable information to engineers, administrative officials, road builders, and billeting officers of animal-drawn units. It is obvious that such information cannot be obtained by the small Mil-Geo group through exploration alone, when unusual war conditions, such as the lack of motor fuel and pilfering activities cause a considerable decrease in field work, to say nothing of the obstacles inherent in the region, such as long winter nights in the higher latitudes, or dust-storms and summer heat in steppes and deserts. Thus, the Mil-Geo group is dependent on the closest cooperation with all military and civil authorities...

As the German war effort became increasingly directed toward defensive warfare, the need increased for data that were more detailed and more suitable for tactical use. For this reason, the efforts of Mil-Geo shifted to the production of special target and trafficability map series at medium scale, on which strategic installations and trafficability data were overprinted. Work of this type was performed chiefly by the outposts, but the maps were generally sent to the Zentrale for printing. Actually the Zentrale was not able to prepare such maps because of shortages of both data and personnel. From 1942 on, there was great pressure on headquarters staffs to release men for the fighting fronts. Between 1942 and
1944, many of the Mil-Geo personnel were transferred to Mar-Geo or the Forschungsstaffel, which by 1943 had superseded Mil-Geo in the favor of high-ranking staff officers.

In December 1943 the Zentrale moved to Gotha, and it became increasingly difficult for Mil-Geo to control the outposts and to receive orders and supplies from the Chief of the Abteilung für Kriegskarten und Vermessungswesen, who had moved to Zossen. In the spring of 1944 a basic order went out to all outposts still in existence to complete current assignments, secure all data, and cease operations. Mil-Geo offices in the Wehrkreiskommandos functioned throughout the remainder of the war but were not important. They continued to produce city plans, river studies, etc., as in the prewar period. The General Staff was interested chiefly in the EOK files.

In late 1944 and early 1945 the ambitious head of the Forschungsstaffel, Dr. Otto Schulz-Kampfhenkel, an SS officer and a personal friend of Hermann Goering, succeeded in establishing on paper a geographic and cartographic organization for the armed forces. The new organization was to include the Abteilung für Kriegskarten und Vermessungswesen (of which Mil-Geo was a part), Luft-Geo, and the Forschungsstaffel, as well as all mapping and geographic offices with the troop units. Apparently Mar-Geo and the Navy Hydrographic Office (Deutsche Seewarte) were to remain independent. The new organization was to go into effect about March 1945, but by that time the German armed forces were in such a state of disruption that the new consolidated geographic and mapping office never actually came into existence.
V. Comments on Areal Coverage by Mil-Geo Publications

During the war, Mil-Geo published more than 102 geographical handbooks on about 40 countries, (most of which included map illustrations and map separates), and more than 300 sheets from map series, more than 500 city plans, and more than 1,300 through-way city maps (see Chart 9082 and maps 10708, First Revision, and 10707).

A. Textual Publications

Mil-Geo prepared geographic surveys in varying detail for virtually all of Europe, North Africa, the Soviet Union, and the Middle East. For the first 3 years of its existence, Mil-Geo did not work on areas outside of Germany proper. In 1938, however, a study was made of the Sudetenland, and studies of Lithuania and of Poland followed in 1939. Later, major emphasis was placed on European Russia, France, England, and Norway. Albania, Bulgaria, and Hungary were treated briefly in a single general handbook on southeastern Europe. Major islands -- such as Crete, Sicily, Sardinia, and Corsica -- were covered in separate publications, and the entire European coastline from the Turkish-Greek border (including the islands of the Aegean Sea) to northern Norway (not including the Baltic) was analyzed in several coastal handbooks. Spain and Rumania were not given special attention, no handbook was prepared for Iceland, only one provisional and incomplete handbook was issued for Italy, and one road map was published for Switzerland.
Mil-Geo publications on Africa include separate handbooks for Morocco, Algeria, Tunisia, Libya, and Egypt. Short handbooks also were issued for Spanish Sahara and the Dakar area.

Turkey was the most completely covered part of the Middle East, but two editions each of handbooks on Iran and Iraq were issued. With the exception of the southern part of the Arabian Peninsula, all areas of the Near East as far east as Afghanistan and western Pakistan were covered. The northern part of the Arabian Peninsula was treated briefly in a general handbook on the Near East and in a short report.

For both European and Asiatic Russia, general handbooks were issued. European Russia was described in greater detail in more than a dozen regional handbooks. A handbook on Kazakhstan and Turkestan in Asiatic Russia was published, and two others for the rest of Siberia were planned but probably not completed.

About 2 weeks after Pearl Harbor a short booklet on the Pacific Theater of War was issued. This booklet and a short report on the United States are the only publications on areas outside Europe, Asia, and Africa.

By late 1942, when the Germans began to retreat, Mil-Geo had published basic handbooks on all areas of immediate military interest. Thereafter, emphasis was placed on revision of some of the handbooks and the collection of more detailed information on certain areas. Textual publications from then on were limited chiefly to coastal studies.
B. Maps

1. Map Types

Mil-Geo produced a great variety of maps to be used in the handbooks. Among the more significant types are the following:

*Operationskarte,* which shows terrain types, relief, trafficability, and, in some cases, billeting capacities.

*...Militärgéographische Bedingungen für die Verteidigung der...*

*Küste,* or *Küstenbeschreibungen,* on which the coastal area is described as a unit and recommendations are made concerning landing and defense possibilities.

*Ortsbelegungskarten,* billeting maps.

*Übersicht der Gewässer,* or *Gewässerabschnitte,* which shows the drainage pattern.

*Stromgebiet der...,* a map describing a river basin as a unit.

*Übergänge,* on which bridges, fords, and other crossings are located and on which conditions on either side of the river that would aid or hinder a crossing are described.

*Stadtdurchfahrtplan,* a "through-way" city plan, which shows the best route for traffic through a city.

In addition, Mil-Geo published numerous maps on such subjects as transportation, telecommunications, distribution of population, and administrative districts. These maps are not standardized in character to the same extent as those mentioned above.
2. Map Series

Map CIA 10708 (First Revision) shows the extent of coverage by map series. Most of the maps were produced during the period 1942-44, when Germany was on the defensive. The date of the information shown on Mil-Geo maps usually appears in the upper left margin, as, for example, STAND VIII.43 (Conditions as of August 1943). The pattern of coverage at 1:100,000 to 1:300,000 corresponds fairly closely to those areas of "Fortress Europe" that were in danger of invasion and to the areas of actual combat, especially in the east. The combat areas of Sicily and southern Italy are conspicuously lacking in coverage. In 1943-44, great importance was attached to completion of Mil-Geo maps for rear areas west of the Eastern Front.

During the last 3 years of its existence, Mil-Geo published about two dozen map series on which special transportation data or military objectives had been overprinted in a characteristic purple color. A specialized form of transportation series, the Durchgängigkeit, was designed to show mountainous terrain and routes through the mountains. Special attention was given to features that affect the defense and the movement of troops and equipment through passes.

A number of city plans were issued separately by Mil-Geo and were not included in any of the geographical handbooks. These plans, on many of which the location of strategic objectives had been overprinted, were mostly for German and Russian cities.
VI. Techniques and Methods

Mil-Geo was essentially a compiling unit. Like Allied geographical units, Mil-Geo was at first critically short of source materials. As war approached, an intensive collection campaign was inaugurated. Libraries and commercial establishments were combed for books, maps, and photographs. Scholars, businessmen, and travelers were interviewed. Procurement in foreign areas by intelligence units was intensified, and the Luftwaffe was requested to supply air photo coverage. Thus a great variety of source materials flowed into Mil-Geo headquarters in Berlin.

The working techniques used by Mil-Geo were similar to those employed by Allied geographers. The main contributions are not the basic techniques used but the new format and type of studies and maps that resulted. US and British agencies provided their armed forces with somewhat comparable studies and maps, but these were designed for office use at staff levels. Mil-Geo materials were more concise, usually in pocket-type editions, and were distributed down to battalion level.

The basic file of Mil-Geo was the Einheitsobjektkartei (EOK). On each card, all information about a single target or strategic objective was recorded. Each item in the file was located by geographic coordinates and keyed to maps. Thus, when texts and maps were being compiled, locational and descriptive data were available in a usable and flexible form. As the war progressed, more and more
maps and studies were produced by the outposts, and the use of air photographs increased. This technique resulted in more comprehensive and accurate studies.

A typical Mil-Geo geographical handbook is a pocket-sized paper folder containing an assortment of booklets and folded maps. The folder generally contains a Textheft with a section in which the entire country is discussed by topics; a section describing the geographic regions of the country; inventories of roads, railroads, waterways, water resources, health facilities, industrial plants, principal towns, airfields, population, administrative districts, etc.; and from 5 to 20 black-and-white maps on a variety of subjects.

In general, the Textheft did not provide a military analysis of data presented, but it did call the user's attention to items of military significance by printing a bold black line in the margin opposite selected passages. For a few areas, however, the text contains a concise military section entitled Militärische Beurteilung (military estimate) or Gesamtbeurteilung (over-all evaluation).

In most cases the folder also contains a Bildheft, or booklet of photographs with captions. The photographs usually are oriented with relation to direction of view and to neighboring landmarks, and some are keyed to a map so that the number and distribution of photos may be easily recognized. A booklet of Stadtdurchfahrtrahmplanen shows town plans on which the through routes are emphasized. Also included in the folder is a gazetteer, Ortschaftsverzeichnis or Ortsbeschreibungen, in which locations are given by map series sheet
numbers or atlas grid references and are accompanied by short descriptions. Among the items frequently given are the administrative area in which the place is located, population, transportation facilities, economic characteristics; number of hotels or other billeting facilities, and sketches or town plans. In addition to the maps bound in the Textheft, the folders contain from 2 to 5 separate large-sheet, colored maps of the country (on general topography, transportation, airfields, communications, electric power facilities, minerals, trafficability, etc.) and from 2 to 10 city plans.

The efficient organization of Mil-Geo with outposts providing field information to a central coordinating staff, in combination with the use of standard formats for handbooks and maps and the use of existing official maps or German Army reproductions of them as bases whenever possible, enabled Mil-Geo to produce regional studies and maps in a very short time. The basis for the maps were generally direct reprints of topographic maps for each country covered, on which strategic objectives or trafficability data were overprinted. A Mil-Geo title and legend were added.

France provides a good example of the concise Mil-Geo geographic summary in map form. Sheets of the 1:200,000 map series were printed in the center of large sheets, and the four margins were used for over-all descriptions and small-scale black-and-white maps on special subjects. On many sheets the back was used for city plans and for maps giving details for areas of special importance. In this way a single sheet gave an integrated general
geographic survey in which a general map was supplemented by detailed maps and concise texts on subjects of special significance.

Another contribution of Mil-Geo is the coastal handbooks. Although Mil-Geo initiated coastal studies, Mar-Geo developed the methodology to a higher degree. The contribution made by both Mil-Geo and Mar-Geo lies in the emphasis given to the coastal area as a unit.

Mil-Geo also performed a useful service by assembling photographs of various areas and by preparing and giving wide distribution to separate booklets of selected photographs that supplemented textual and map materials. Gazetteers and booklets of information on cities and towns also were published and widely circulated.

The German concept of military geography traditionally has included a detailed analysis of the terrain for military operations. Early in World War II, Mil-Geo prepared special terrain maps, called Operationskarten, for planning purposes (for example, Südost-Europa, Militärgeographische Operationskarte, 1:1,000,000, 2 sheets, 15 March 1940). For operational purposes, more detailed map series were made, using standard bases on which special transportation and trafficability data were superimposed.

VII. Evaluation of Mil-Geo Publications

A. General

In spite of the great quantity of other geographic literature on the areas covered by Mil-Geo publications, much of which is in
greater detail than the German wartime studies, Mil-Geo maps and handbooks are still of considerable value. They not only bring together information from a large number of scattered sources but also comprise the largest and most comprehensive collection of geographic materials analyzed specifically from the point of view of military operations. Possibly the greatest single value of Mil-Geo publications is the military-geographic approach and the method by which the variety of geographic aspects have been integrated to serve this end.

For most areas, the information given concerning roads, railroads, telecommunications, electric power facilities, and population is now out of date and has been superseded by more recent publications. Geologic, climatic, terrain, and trafficability data, however, are less subject to change, and most of these analyses are still valid.

The publications vary greatly in detail, comprehensiveness, and reliability. Some were published before or during the early part of World War II, others shortly before V-E Day. Some of the publications that were at first considered authoritative later proved to be superficial and inaccurate. For these reasons, a brief evaluation of the publications by larger regions is presented in the following pages.

B. Northwestern and Western Europe

Mil-Geo publications on northwestern Europe are among the best published by the agency, largely because outposts established in the
area were able to check the accuracy of the data in the field. The work of the Norwegian and French outposts was of outstandingly high quality. Cultural data presented in both texts and maps, however, are now out of date and should be supplemented by postwar information. Analyses of physical features of the area are still valid.

The most significant contributions are the coastal studies, which cover not only the Atlantic but also the Mediterranean coasts of Europe. The coastal waters and adjacent land are discussed as a unit on the basis of physical characteristics, landing and defense possibilities, and accessibility to the interior. The Norwegian coastal studies are the most detailed, and all are of high calibre. Even though no outpost was established in the United Kingdom, the coastal studies of Great Britain are of very good quality.

The Operationskarten of England and of northeastern France are particularly detailed and thorough, whereas, by contrast, the sheets covering the Scandinavian Peninsula are overgeneralized and practically worthless. The waterways of Norway, however, are covered in excellent detail by regions. The water features of the Netherlands also are well-covered. For the Iberian Peninsula the most significant publications are the Durchgängigkeit, or trafficability maps, of the Pyrenees, which deal with the mountains as obstacles to movement of troops and equipment.

The Mil-Geo maps on which military objectives were superimposed on sheets of standard topographic series were particularly well-developed for northwestern Europe. The maps of Denmark are complete.
in coverage and excellent in quality. Although coverage for France was not entirely completed when the war ended, the large number of sheets published are accurate, highly detailed, and well-supplemented by textual descriptions and city plans. The sheets for Belgium and the Netherlands are similar to those for France, and the French and Belgian sheets together give an excellent presentation of the Franco-Belgian industrial area. For all parts of northwestern Europe covered, these map series are more recent and reliable than the textual descriptions of the corresponding areas.

Mil-Geo river studies are of two types: (1) inventories of river crossings and (2) detailed studies of river systems. Practically all of the larger rivers of Germany were covered by such studies by the outbreak of World War II. The first type includes information on bridges, such as width, length, height above water, and capacity, as well as detailed locational and jurisdictional references. The second type presents detailed physical data on the major rivers, all tributaries, and canals, including depth of water, stream flow, ice conditions, dikes, and areas that could be flooded for military and other purposes. In both types of studies, there are frequent map and EOK references and one or more index maps on which floodable areas, bridges, etc., are plotted. These two types of studies are impressive because of their elaborate detail and comprehensive coverage. Although they probably are not adequate for current tactical use, they cover most features of potential significance for strategic planning.
C. Southeastern and Southern Europe

No general evaluation of Mil-Geo publications on southeastern Europe can be made, because the items differ radically in accuracy and detail. One publication may be of exceptionally high quality, and another may contain so many inaccuracies that it should be suppressed. Among the examples of excellent work, the Militärgeographische Operationskarten at 1:1,000,000, from the geographic handbook Südosteuropa, Donauraum und Balkanhalbinsel, are still the best maps known for showing relative relief and trafficability in the area. Other valuable and highly recommended maps include the Mil-Geo Karte Griechenland and Mil-Geo Karte Griechenland (Insel Kreta), both at 1:100,000; Karte des von Gibraltar aus eingeschiehen Geländes, at 1:50,000; Militärgeographische Karte von Rumänien, at 1:200,000; Mil-Geo-Karte Durchgängigkeit Karpaten, at 1:300,000; Einzeldarstellung der geographischen Bedingungen für die Verteidigung der Küsten Dalmatiens mit angliedender Mil-Geo-Karte, at 1:500,000; and Karsthöhlen -- Beilagen-Mappe zur Höhlenkarte Italien, at 1:25,000.

The Militärgeographischer Überblick über die Insel Sizilien (Entwurf) is one of the best textual descriptions published by Mil-Geo. The military geography of the terrain is so well analyzed and evaluated in this handbook that the information could still be of considerable operational value. The Bildheft zur Mil-Geo-Karte von Griechenland, 1:100,000, and the Bildenhaff of the Überblick de militärgeographischen Bedingungen für die Verteidigung der Küsten

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RESTRICTED
Südost-Europas are excellent collections of photographs that are well-oriented and supplement the texts and maps.

In contrast to the foregoing outstandingly good items is the Eisenbahnübersichtskarte von Südosteuropa at 1:2,250,000, which contains a large number of errors. Most noteworthy of these is the inclusion in Albania of 430 kilometers of railroad that is actually nonexistent. The map Griechenland, Fernsprech- u. Telegraphennetz at 1:800,000 also contains so many errors that it should not be used for any purpose.

Most of the other items in the Mil-Geo coverage of southeastern Europe have slight to moderate value or cover subjects for which other material of equal or greater value is available.

D. Poland

The handbook on Poland was one of the earlier publications of Mil-Geo. Although its organization differs slightly from that of the later handbooks, the topics covered are essentially the same. Since the end of World War II the Polish handbook has been thoroughly exploited, and most of the information of value has been incorporated into more recent research studies or has been added to the files of the interested agencies. Consequently, the most valuable features of the Mil-Geo publications on Poland are now available in English.

Much basic information on the military geography of the area of 1939 Poland was published by Mil-Geo, but its value varies from topic to topic. Probably the best information is that on waterways. In
comparison, the section on terrain description is mediocre. Although more recent material on both topics has been published, it is not generally available. The terrain description in the Mil-Geo handbook is supplemented by a good Polish physical map at 1:1,000,000, reproduced in color.

Other topics -- transport, communications, economy, and peoples -- are treated superficially in the text of the handbook. Considerably more information is given on the corresponding maps, which were reproduced from reliable prewar Polish compilations. Because of the early date, however, the maps are now of little more than historical value. The lists of towns with their principal industrial and cultural features are still useful for reference purposes, since they are arranged alphabetically and are keyed to the 1:100,000 map series.

City plans are of little value. None is dated, and some are merely crude enlargements of undated and unidentified topographic maps. The through-way sketches of towns are of little use except for street names, since no attempt has been made to indicate the suitability or adequacy of the streets for transport.

The map of minor civil divisions (Gemeindekarte) is of reference value only, as some of the boundaries have been changed since the war and some of the cultural features shown are also out of date.

E. USSR

Mil-Geo issued more publications on the USSR than on any other country. Although these publications were the only comprehensive
basic intelligence summaries of the USSR available in the
United States at the end of World War II, they are of comparatively
little value today as geographic sources. During the last 5 years
the studies have been carefully examined, and significant parts have
been extracted, translated, and added to research files. Many of
the maps are based on sources that are readily available in the
United States, such as the Great Soviet Atlas of the World, and
others are direct reproductions of prewar maps. The US also has
acquired a large quantity of captured German maps and aerial photo-
graphs that include information of more recent date than that pre-
sent at by Mil-Geo. Recency of data is particularly significant for
the USSR, since few parts of the world have experienced as much
change in cultural features during and since the war. In spite of
these limitations, Mil-Geo maps and text contain information not
elsewhere assembled in convenient reference form. Until they are
replaced by more recent summaries, such descriptions should not be
discarded.

All of the handbooks on European USSR were published in 1941
just before, and in preparation for, the German advance into that
country. Consequently, they have not been checked in the field.
The most valuable parts of the handbooks are the Bildhefte and the
terrain descriptions. Even the Bildhefte, however, contain some
notable inaccuracies. For example, the photograph captioned
"Gor'kiy auto factory" is in reality a picture of the Highland Park
plant of the Ford Motor Company in Detroit, Michigan, and the
illustrations of the bridges over the Reka Moscow show the old low-level bridges, even though high-level structures had been completed before the war.

The terrain descriptions are still generally useful, especially for military interpretations of topographic features. Consideration is given to such features as relative relief rather than absolute elevation, visibility, and orientation factors in almost featureless areas like the tundra. Although the descriptions are, in general, superior to the corresponding maps, the areas described are not adequately defined.

Information given on economic conditions, administrative boundaries, population, transportation, and telecommunications is seriously out of date as a result of postwar development. The economic data presented by regions and subregions, however, are still of use for studies requiring a regional approach. No other known studies divide the country into regions as small as those used in Mil-Geo publications.

The Mil-Geo maps of the USSR are not uniform for all regions in content, emphasis, scale, or reliability. Consequently, comparison between regions is sometimes difficult or impossible. The maps showing drainage features, although giving the impression of great detail and accuracy, are in some cases inaccurately drawn, whereas in others the drainage patterns are poorly selected.

The Mil-Geo town plans have proved to be of less value than was originally anticipated. The greatest significance of the collection
is its comprehensiveness. Many of the maps are very old, and others are merely enlargements from smaller-scale topographic maps, with most of the topographic features omitted.

The two handbooks for Asiatic USSR were published a year later than those for the European area, but they also were not checked in the field. Because of the larger area covered, the first volume in particular is far more generalized than the corresponding volume for Europe. The second volume contains a good terrain map (Übersichtskarte) at 1:5,000,000, entitled Kasachstan-Turkestans, which was reproduced by color separation from a 1939 Soviet map. The railroad information added, however, is not reliable. The Soviet map covering the entire USSR also was issued separately by the Germans for general use.

In addition to the European and Asiatic handbooks, Mil-Geo issued several studies of smaller regions. Of these, the study of the Caucasus received greatest acclaim. Further investigation, however, revealed that it was not so reliable as had appeared at first, that the maps and texts did not supplement each other adequately in all cases, and that the climatic information was not presented in detail comparable with that on other topics. On the other hand, the detailed information presented on the Durchgängigkeit map series for the Caucasus is still useful. The report on Lithuania and the Memel area was published early in the war and appears to have been based on Lithuanian sources. The studies of the Duna (Daugava) and Memel (Nemunas) basins and of the battle area of Staraya Russa, however, were prepared after the Germans had advanced into these
areas and incorporate information that had been collected or checked in the field. All three studies are detailed and appear to be both reliable and useful, but it has not yet been possible to check the information thoroughly.

F. Middle East and Africa

During the past decade there have been many changes in the Middle East and Africa -- in cultural features of the landscape as well as in political and social characteristics. For this reason, Mil-Geo cannot be considered a current authority on the area. Much of the basic information is still accurate, but the user must be familiar with recent developments in order to distinguish between areas and features that have changed and those that have not.

Some parts of the Mil-Geo studies are still of value. The items of military significance today are approximately the same as those shown on Mil-Geo skeleton city plans. The general military-geology map of Palestine and Jordan contains material not found elsewhere in map form, and a few of the plans of Turkish cities are unique. The 1943 edition of the handbook on Iran is still one of the best and most comprehensive treatments of the country. Perhaps the most enduring contribution is the convenient-sized general map (Übersichtskarte) that accompanies each study. Several of these maps of Middle East countries are being used today generally as reference maps or as bases for maps published by various organizations. The Übersichtskarten are almost exclusively direct copies of maps originally
published by other governments, but the sheets have been combined so as to cover an entire country or significant area on a single sheet.

For many African areas, British Admiralty handbooks are both more recent and more comprehensive than Mil-Geo's. In addition, *L'Encyclopédie Coloniale et Maritime*, published by the University of Paris, provides a more complete study of French North and French West Africa. Consequently, most Mil-Geo studies on Africa are little better than tertiary references. Egypt, especially the Western Desert and the Nile Delta, is given more comprehensive treatment than other parts of northern Africa. The Mil-Geo handbooks on north-eastern Africa and Egypt were compiled in preparation for the German attempt to take the Suez Canal, which accounts for the emphasis on trafficability and water supply. The lack of British Admiralty handbooks on Egypt and Libya makes the Mil-Geo studies covering these areas of much greater importance than the studies of other parts of North Africa.
APPENDIX A: INVENTORY AND ANALYSIS OF MIL-GEO PUBLICATIONS

(ARRANGED BY AREA)

INTRODUCTION

Appendix A is an annotated bibliography of all Mil-Geo publications known to be available in libraries in Washington and any translations of them that are readily accessible. Citations are given in the original German, but a comprehensive glossary is provided in Appendix B. Under the major regions covered the countries are arranged alphabetically, and the character of the Mil-Geo publications for each is described according to five standard headings: A. Textual Materials, B. Translations, C. Map Series, D. City Plans, and E. Remarks.

Mil-Geo maps may be borrowed from the Army Map Service Library or from the CIA Map Library. Other Mil-Geo publications may be borrowed or consulted at the Army Map Service Library; the Engineer Strategic Intelligence Division, Army Map Service; the CIA Map Library; and the German Military Documents Section, Department of the Army. Additional offices with substantial holdings of Mil-Geo publications are the Foreign Documents Division, CIA, and the Military Geology Branch, US Geological Survey.

All map series known to have been published by Mil-Geo are plotted on CIA Map No. 10708, First Revision. The titles and Army Map Service call numbers are listed on the left-hand side of the map.
The city plans issued by Mil-Geo are of four types: (1) *Mil-Geo Plan*, (2) *Stadtplan*, (3) *Bildplanskizze*, and (4) *Skizze*. The Mil-Geo plans are plotted on CIA Map No. 10707, but only through-way town plans are distinguished individually. Some published plans, notably for German cities, have been omitted from the index.
NORTHEASTERN AND WESTERN EUROPE

Northwestern Europe
(from Varanger Fiord to the French-Spanish Border)

A. Textual Materials


2. Die militärgeographischen Bedingungen für die Verteidigung der niederländischen, belgischen und französischen Küsten; January 1942; AMS Call No. GB457 G37. Geheim

Text- und Bildheft
Karte: Teil I - Nordsee und Armalkanal, 1:1,000,000
Teil II - Atlantischer Ozean, 1:1,000,000

B. Translations -- None

C. Map Series -- See individual countries

D. City Plans -- See individual countries

E. Remarks

The text of A-1 is divided into three sections. A general section discusses locational relationships, defines the terms used, and lists geographical factors that would affect landing operations. The second section discusses the nature of the coastal waters and beaches with regard to the possibility of landings. The coastal area is divided into 3 parts for discussion -- Heligoland Bay, the Danish coast, and the Norwegian coast -- which in turn are subdivided into 13 subregions. The third section is a geographical description of the coast with reference to defense against landings and against the advances of an enemy who had already landed. Included
in the text are 11 sketch maps, which show areas where enemy forces might be most likely to land and the transportation network for each section of the coast. A large map at 1:2,500,000 outlines the regions and subregions discussed in the text and shows roads, railroads, and routes of approach to the major harbors.

A-2 was probably the first coastal defense handbook prepared by Mil-Geo. The coastal area of the Netherlands, Belgium, and France is divided into 12 regions and discussed in terms of its defensibility against amphibious attack. Natural obstacles to military movements are shown on the two accompanying maps, which also serve as an index to the Netherlands 1:50,000, Belgian 1:40,000, and French 1:80,000 sheets.

Other coastal studies of western Europe are listed under the United Kingdom, Ireland, and Spain and Portugal.
Austria.

A. Textual Materials

1. Stromgebiet der Donau in den Gauen Ober- und Niederdonau und Wien -- Einwirkung auf die Wasserversorgung; Wehrkreiskommando XVIII, 1a/Mil-Geo; Wien, 1941, GMDS H 29/IG.5. Geheim

2. Durchgängigkeit der Ostalpen -- Rundbilder der südl. (Bildheft); Komm. XVIII, Abt. 1a/Mäss - Mil-Geo: 15 August 1943


B. Translations -- None

C. Map Series

1. Durchgängigkeit der Ostalpen; 1:300,000; August 1943. Geheim

D. City Plans -- None

E. Remarks

A-1 is a description of the course of the Danube and its main tributaries, with data on the rates of discharge, channels, etc. River profiles are given for the sections described.

A-2 consists of a series of panoramic views and a map of the northern border of Italy. Numbers on the map refer to the pages on which corresponding photos appear, and arrows indicate the direction of the view. Landmarks, boundary lines, and features of strategic importance are pointed out on the photos.

C-1 presents a detailed analysis of the transportation system in the eastern Alps and is a valuable aid in transportation
studies. On the title side of each sheet in the series is an Übersichtskarte at 1:1,000,000, which shows the area covered by each sheet of the 1:300,000 series and the main routes and strategic targets in the eastern Alps. Two smaller maps show, in diagrammatic form, (1) the alignment of the mountains and the main routes through the passes and (2) the duration of the snow cover and the national and military district boundaries. In the margins are general textual descriptions of the eastern Alps and the passes through them, the influence of climate on transportation, and the roads and railroads. Average monthly temperature and rainfall figures are given for seven stations. Seventeen passes are listed, and the following data are given for each: highway number, name of pass and of the route of approach, straightness of the approach and the pass, steepness of ascent and descent, width and type of roadbed, duration of snow cover, danger of snowdrifts and avalanches, and other significant factors.

On the other side of the sheet is the main map at 1:300,000, which shows the details of passes and roads. Single- and double-lane roads are differentiated, and roads under construction, cart roads, and roads not suitable for heavy vehicles are shown. Width of road and type of surfacing, distance between places, narrow sections of roads, bridges, curves, angles of slope, and avalanche and snowdrift areas are indicated. In the margins the roads are listed and described. A target list gives data on all the road and railroad bridges shown.
Belgium

A. Textual Materials


Mappe A

Textheft
Landschaftsbilder
Landschaftsgliederung, 1:1,110,000
Bodenarten, 1:1,110,000
Geologische Übersichtskarte, 1:1,000,000
Übersichtskarte der Gewässerabschnitte, 1:500,000
Karte des nordbelgischen Kanalsystems und des Juliananahals mit Übergängen und Schleusen, 1:160,000
Flandern und Nordbelgien: Gewässerabschnitte und Höhenlage, 1:300,000
Fernsprech- und Telegraphennetz von Belgien und Luxemburg, 1:400,000
Strassenzustandskarte, 1:300,000
Verwaltungskarte, 1:300,000

Mappe B

Stadt-Durchfahrten in Belgien und angrenzenden Gebieten
Strassenkarten, 1:200,000 (4 sheets)


3. Die militärgeographischen Bedingungen für die Verteidigung der niederländischen, belgischen und französischen Küsten; January 1942; AMS GB457 G37. Geheim
(See Northwestern Europe)

Text- und Bildheft
Karte: Teil I - Nordsee und Armelkanal, 1:1,000,000
Teil II - Atlantischer Ozean, 1:1,000,000

4. EOK file at Engineer Strategic Intelligence Division, AMS

B. Translations -- None
C. Map Series

1. Mil-Geo-Frankreich-Belgien-Niederlande; 1:200,000; March 1943-November 1944; Mil-Geo-Gruppe beim Militärbefehlshaber in Belgien und in Nordfrankreich. Geheim

D. City Plans

1. In A-1, Mappe B, Stadt-Durchfahrten:
   Through-way plans of 54 towns

2. In C-1:
   Plans for the following 22 Belgian cities

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<td>Löwen</td>
<td>1:25,000</td>
<td>Tournai</td>
<td>1:12,500</td>
</tr>
<tr>
<td>Lüttich</td>
<td>1:10,000</td>
<td>Turnhout</td>
<td>1:15,000</td>
</tr>
<tr>
<td>Luxemburg</td>
<td>(n.s.)</td>
<td>Verviers</td>
<td>1:10,000</td>
</tr>
<tr>
<td>Malines</td>
<td>1:15,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Mecheln)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

E. Remarks

The texts and some of the maps of Mappen A and B of A-1 cover Belgium and its bordering areas, including parts of Luxemburg, France and Holland. The four Strassenkarten in Mappe B are reprints of a Michelin set. A-2 is probably a preliminary draft of the section on physical regions included in the Textheft of Mappe A, A-1. A-3 provides an evaluation of the coasts of France and the Low Countries from the point of view of defense against amphibious attach (see Northwestern and Western Europe, General, A-2 and E).
On all but one sheet of the map series, C-1, Mil-Geo data are shown by purple overprint. On Sheet 2 the overprint is in black, which makes the comparatively small amount of Mil-Geo data given difficult to distinguish from base data. Most of the sheets include Mil-Geo information on roads, railroads, rivers, bridges, canals, locks, harbors, military installations, electric power plants, mines, a large variety of industries, and other strategic targets, as well as target lists. Physical features, economy, transportation, etc., are described in marginal texts, and city plans are shown on the backs of the sheets and on supplementary sheets. Some streets are named, and targets are identified.

No separate city plans are included in A-1. Mappe B contains a booklet of through-way town plans, including 54 for Belgium, 11 for the Netherlands, 29 for France, and 3 for Luxemburg, and a map locating the towns for which plans are given.
A. Textual Materials

1. Militärgeographische Angaben über Dänemark; 6 April 1940

Textheft
Übersichtskarte, 1:500,000
Verwaltungskarte, 1:500,000
Verkehrsaxnen mit Stationsverzeichnis, ca. 1:750,000
Fernsprech- und Telegraphennetz, 1:600,000
Übersichtskarte der wichtigsten Brücken, 1:500,000
Einzelangaben über Brücken (with map at 1:1,000,000)
Stadtpläne (see D-1)
Stadtdurchfahrtpläne (see D-2)

2. Eingehende Einzeldarstellung der geographischen Bedingungen für die Verteidigung der dänischen Westküste; July 1943. Geheim

Hauptteil
Anhang I
Anhang II (Geheime Kommandoscache)
Bildanhang (May 1943)

B. Translations

1. Translation of pages 11-20 of the Textheft, on Einzellandschaften, by the Engineer Strategic Intelligence Division, AMS, Call No. EIF 71198

C. Map Series


D. City Plans

1. In A-1, Stadtpläne

Aalborg, 1:10,000
Aarhus, 1:10,000
Esbjerg, 1:7,800 (not in folder; was to be issued later)

Helsingør, 1:7,500
Kopenhagen, 1:15,000
Odense, 1:10,000
2. In A-1, Stadtdurchfahrtpläne:

   Booklet of through-way sketch plans of 34 towns, with a
   small-scale index map

3. On backs of sheets of C-1:

   Town plans, with street names and strategic targets

E. Remarks

A-1 is one of the early publications of Mil-Geo. The various
physical and cultural features of Denmark are treated briefly and
in a highly generalized manner. A simple sketch of terrain regions
and another of population distribution are the only maps in the
Textheft, which also includes 12 photographs. Of the 75 pages of
the Textheft, 41 are devoted to brief descriptions of the cities
and towns and 10 to a description of the terrain regions.

A-2 presents a study and evaluation of the terrain of
Denmark that is much more detailed than that in A-1. A-2 was pre-
pared in 1943 in response to demands by the German Army High Command
for a detailed analysis of the west coast of Denmark for defense
purposes. The study as a whole was classified Secret, with Anhang
II Top Secret. Numerous German organizations in Denmark assisted
Mil-Geo with this study. The principal contributors were OKM/Skl
and WSt/Heimatstab Übersee.

The Hauptteil (A-2) deals with geographic conditions relating
to the defense of Denmark as a whole, as well as of the coasts and
their hinterlands. Thirteen black-and-white maps show population
density and railroads, as well as terrain conditions. Anhang I
gives elaborate details to supplement parts B and C of the Hauptteil; for example, four colored maps show shore and offshore conditions along the west coast. Eleven additional colored maps, which are actually reproductions of parts of the Mil-Geo 1:100,000 series (C-1), cover the west coast and its hinterland from the northern tip to the German border. The outlines of the 11 maps are plotted on a colored Danish map at 1:1,000,000. Anhang II discusses briefly the significance of landing possibilities, and the Bildanhang contains 206 photographs.

The map series (C-1) is considered one of the most accurate and comprehensive prepared by Mil-Geo. The base is the German Army topographic map of Denmark at 1:100,000. Roads are shown in red. Other Mil-Geo data, overprinted in purple, include road data, bridges, ferries, steep banks, dams, observation points, high-tension lines, military posts, airfields, hospitals, schools, stables, post offices, telephone and telegraph offices, radio stations, large garages, towers with views over large areas, and other strategic targets. Mar-Geo cooperated with Mil-Geo by supplying coastal data, including sandy, stony, and rocky beaches; level coast; steep ascent from the shoreline; dunes, dikes, and harbors; types of coastal reefs on the sea bottom; and isobaths for 1, 2, 4, 6, 10, 20, and 40 meters. Marginal texts discuss physical features, soil types and passability, settlement, economy, and transportation. Also included are lists of strategic targets and place descriptions. On the backs of the sheets are city plans, with street names and strategic targets.
Finland

A. Textual Materials

1. Militärgeographische Angaben über Finnland; 1 March 1941

Mappe A.

Textheft
Bildheft
Ortschaftsverzeichnis
Übersichtskarte zum Ortschaftsverzeichnis, 1:2,000,000
Übersichtskarte (Zusammendruck), 1:1,000,000
Karte: Oberflächengestalt, 1:2,000,000
Karte: Gewässer (Nordblatt), 1:1,000,000
Karte: Gewässer (Südblatt), 1:1,000,000
Karte: Kulturland und Bevölkerungsverteilung (Nordblatt), 1:1,000,000
Karte: Kulturland und Bevölkerungsverteilung (Südblatt), 1:1,000,000
Karte: Industrie, 1:800,000
Karte: Eisenbahnen, Binnenschifffahrts- und Fernautobuslinien (Südteil, 1:1,000,000; Nordteil, 1:2,000,000)
Stadtpläne (see D-1)

Mappe B (15 January 1941)

Übersichtskarte, 1:1,000,000, Strassenübersicht
Strassenkarte, in 12 Blatt:
6 Blatt, Südfinnland, 1:200,000
5 Blatt, Mittelfinnland, 1:400,000
1 Blatt, Nordfinnland, 1:1,000,000
Stadtdurchfahrtspäne (Sammelheft) (see D-2)

2. EOK file, GMDS H 29/DE4.3

B. Translations

1. Translation of pages 43-47 of the Textheft (A-1), by AMS:
   Call No. AMS DK450 G37 1941 Mappe A English Translation

C. Map Series -- None

D. City Plans

1. In A-1, Mappe A, Stadtpläne:

   Helsinki, 1:10,000, January 1941
   Tampere, 1:10,000, March 1941
   Turku, 1:8,200, March 1941

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RESTRUCTED
2. In A-1, Mappe B, Stadtdurchfahrtpläne:

Through-way plans of 65 towns

E. Remarks

The Textheft of Mappe A is divided into three sections. The first section gives a general description of the country (including the geographic location and a list of administrative subdivisions), the landforms, climate, drainage, population, industry, transportation, telecommunications, and military situation. In section two the country is divided into 10 regions, each of which is described. Section three consists of a register of water features; a list of bridges (with dimensions) along the road from Rovaniemi to Liinahamari; a discussion of the Swedish-Finnish border area; a list of radio stations, with data on each; and a German-Finnish glossary. The Textheft contains 23 black-and-white maps, an unusually large number for a Mil-Geo study.

The two-sheet population map (Kulturland und Bevölkerungsverteilung) was based on the "Atlas de Finland," 1925, and was corrected from 1940 statistics. Owing to recent population shifts, it is now seriously out of date.

On the industrial map, locations are given for mining and industrial centers, electric plants, high-tension lines, railroads, canals, and first-order administrative subdivisions. The legend contains 73 different symbols.

Railroads, classified as single- and double-track broad-gauge, single-track normal-gauge, and narrow-gauge, are shown on the
transportation map. Railroad stations are located, with distances between stations indicated. Bus routes in northern Finland also are given.
France and Corsica

A. Textual Materials

1. Militärgeographische Beschreibung von Frankreich

Teil I. Nordost-Frankreich

Mappe A. Landesbeschreibung, Bilderbeilage, und Sonderkarten: 29 February 1940

Landeschreibung (Textheft)
Landschaftsbilder, NO-Frankreich
Karte: NO-Frankreich. Übersicht und Landschaftsgliederung, 1:750,000
Karte: NO-Frankreich. Hauptbodenarten, 1:1,000,000
Karte: NO-Frankreich. Politische Gliederung, 1:1,000,000
Karte: NO-Frankreich. Bevölkerung, 1:1,000,000
Karte: NO-Frankreich. Gewässeralschnitte, 1:500,000
Karte: NO-Frankreich. Eisenbahnnetz, 1:750,000
Wehrgeologische Übersichtskarte von Flandern, Artois, Oberboulonnais und Niederboulonnais, 1:300,000

Mappe B. Strassenkarten und Stadtdurchfahrtpläne, 30 January 1940

Strassenkarten, NO-Frankreich (sheets 1-10), 1:200,000
Strassennübersichtskarte von Frankreich, 1:1,000,000
Stadtdurchfahrtpläne, NO-Frankreich, mit Stadtplan von Paris

Mappe C. Wirtschaftskarten, 30 January 1940

Wirtschaftsübersicht, NO-Frankreich, 1:1,000,000
Industriekarte, NO-Frankreich, 1:200,000
Industriekarte, Lothringen, 1:200,000
Industriekarte, Elsass, 1:200,000
Industrie, Paris (4 sheets), 1:20,000
Elektrizitätsskarte (2 sheets), 1:400,000

Mappe D. MittelFrankreich (links der Seine) und Ergänzung zu Teil I, 15 June 1940
Operationskarte, Nordost-Frankreich, 1:750,000
Heft: Landesbeschreibung und Landschaftsbilder,
Mittelfrankreich (links der Seine)
Übersichtskarte und Landschaftsgliederung,
Mittelfrankreich, 1:750,000
Fernsprech- u. Telegraphenkarte, Nord- u.
Mittelfrankreich, 1:750,000
Industriekarte Seine-Maritime, 1:200,000
(mit Industrieplan der Städte, 1:10,000)
Industriekarte, Rouen, 1:15,000
Industriekarte, Nantes, 1:10,000
Karte: Gewässerabschnitte, Mittelfrankreich,
1:500,000

Mappe Paris. City plan of Paris, 1:20,000 (4 sheets, with
street register)

Teil II. Nordwest-Frankreich, 15 May 1940

(No Mappe A)

Mappe B. Strassenkarten und Stadtdurchfahrtplan

Strassenkarten, NW-Frankreich (sheets 11-18),
1:200,000
Strassenübersichtskarte von Frankreich,
1:1,000,000
Stadtdurchfahrtplanes, NW-Frankreich

Teil III. Südost-Frankreich

Mappe A. Landesbeschreibung, Bilderbeilage, und
Sonderkarten, 15 June 1940

Landesbeschreibung (Textheft)
Landschaftsbilder, SO-Frankreich
Karte: SO-Frankreich. Übersicht und
Landschaftsgliederung, 1:750,000
Karte: SO-Frankreich. Politische Gliederung,
1:1,000,000
Karte: SO-Frankreich. Bevölkerung, 1:1,000,000
Karte: SO-Frankreich. Gewässerabschnitte,
1:500,000
Karte: SO-Frankreich. Eisenbahnnetz, 1:750,000
Karte: SO-Frankreich. Fernsprech- und
Telegraphennetz, 1:1,000,000

Mappe B. Strassenkarten und Stadtdurchfahrtplane,
15 May 1940

Strassenkarten, SO-Frankreich (sheets 19-28),
1:200,000

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Strassenübersichtskarte von Frankreich, 1:1,000,000
Stadtdurchfahrtpläne, SO-Frankreich

Mappe C. Wirtschaftskarten, 5 June 1940

Industriekarte:

- Franché-Comté, 1:200,000
- Savoyen, 1:200,000
- Isère, 1:200,000
- Rhône, 1:320,000
- Loire, 1:200,000
- Rhône-Maritime, 1:200,000
- Marseille, 1:15,000

Wirtschaftsübersicht, SO-Frankreich, 1:1,000,000

Teil IV. Südwest-Frankreich

(No Mappe A)

Mappe B. Strassenkarten und Stadtdurchfahrtpläne, 20 May 1940

Karte: Frankreich, Strassenausbau und Übersicht, 1:1,000,000
Strassenkarten, SW-Frankreich (sheets 29-36), 1:200,000
Stadtdurchfahrtpläne, SW Frankreich

2. Militärgéographische Beschreibung von Frankreich -- Südwest-Frankreich, Map 1944. Gehaim

Textheft
Karte 1 -- Landschaftsgliederung, 1:500,000
Karte 2 -- Wehrgeologische Übersichtskarte, 1:500,000
Karte 3 -- Bodenbedeckung, 1:500,000
Karte 4 -- Gewässer, 1:500,000
Karte 5 -- Wasserversorgung, 1:500,000
Karte 6 -- Verkehrskarte, 1:500,000
Karte 7 -- Starkstrom, 1:500,000
Karte 8 -- Landwirtschaft, 1:500,000
Karte 9 -- Wirtschaft, 1:500,000
Karte 10 -- Siedlung und Unterkunft, 1:500,000

3. Ortschaftsverzeichnis Frankreich (published by der Militärbefehlshaber in Frankreich, 1a/Mil-Geo, Paris, 1943)
4. Die Militärgeographischen Bedingungen für die Verteidigung der französischen Mittelmeerküste; January 1944; 1st edition May 1943; map at 1:500,000. Geheim
   (For other coasts of France, see Western and Northwestern Europe, General, A-2)

5. Militärgeographische Beschreibung der Insel Korsika, 30 April 1941

6. BOK file at Engineer Strategic Intelligence Division, AMS

B. Translations -- None

C. Map Series

1. Mil-Geo-Karte Frankreich, 1:200,000; August 1941-April 1944 Geheim

2. Durchgangigkeit der Pyrenäen, 1:200,000; September 1943 Geheim (see Spain and Portugal, C-1)

3. Mil-Geo-Karte Frankreich-Belgien-Niederlande, 1:200,000 (see Belgium, C-1)

D. City Plans

1. In A-1, Teil I-IV, Mappe B, Stadtdurchfahrtpläne:
   Through-way plans of 515 towns

2. In A-1, Mappen C and D of Teil I and Mappe C of Teil III:
   Plans of over 90 towns, 1:10,000 to 1:50,000

3. In A-1, Mappe Paris:
   Plan of Paris, 1:20,000 (4 sheets)

4. In C-1:
   Plans of about 120 towns, 1:10,000 to 1:12,500

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E. Remarks

The Mappen included in the four Teile on France (A-1) are summarized briefly in the following table:

<table>
<thead>
<tr>
<th>Section of France</th>
<th>Mappe A (terrain)</th>
<th>Mappe B (roads)</th>
<th>Mappe C (industry)</th>
<th>Mappe D (operations)</th>
<th>Paris</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>NO</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>II</td>
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</tr>
<tr>
<td>III</td>
<td>SO</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>SW</td>
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</tbody>
</table>

The texts of Mappen A of Teil I and Teil III present brief descriptions of a large number of small regions in eastern France. The natural resources, water features, transportation net, and industrial areas are discussed. Place registers, with data on population, transportation, telecommunications, and industrial centers, are included. The Landschaftsbilder of Teil I and Teil III include nearly 300 photographs, chiefly of industrial and transportation centers. The majority of the pictures are extraordinarily clear. Also included in each of the two Mappen A are a general map, on which the regions described in the text are delimited; a map of the distribution of the principal terrain types and an accompanying alphabetical list of administrative districts; a map showing six categories of population density by very small units, probably communes; a map of water features and their utilization; and a railroad map. The last does not agree entirely with the official French railroad map and therefore should be used with caution. There is also a geological map made by Wa A (Wa Prüf5/x) which resembles the Mil-Geo operations and military
geology maps. For each of the 13 areas distinguished, recommendations are made concerning trafficability for artillery, construction materials, aircraft landing places, etc.

All four Mappen B contain Strassenkarten that are reprints of 1938 Michelin maps at 1:200,000 and Strassenübersichtskarten at 1:1,000,000. Through-way plans are given for 515 towns.

Maps in the two Mappen C show the distribution of industry and electric power facilities. Industrial locations are given for about 120 cities.

Mappe D is available only for Teil I. Except for an operations map of northeastern France, which shows landforms and the defensibility and trafficability of the terrain, the items cover central France only.

Mappe Paris (A-1, Teil I) is a city plan of Paris at 1:20,000 in four sheets, with a street register. A transportation plan for Paris and vicinity at 1:50,000 is found in Teil I, Mappe B, and an industrial plan at 1:20,000 in four large sheets in Teil I, Mappe C.

A-2 is a separate study of southwestern France that was produced under the German military commander of France in 1944 (1a/Mil-Geo). It is one of the best handbooks prepared by Mil-Geo. The textual organization is essentially the same as that of most of the other handbooks, but a much wider range of subjects is covered. In the Textheft are discussions of population, geographic regions, natural resources, vegetation cover, water
resources, meteorological conditions, water supply, traffic conditions, sanitation, veterinary problems, and economy. A register of places and a picture supplement also are included. This handbook puts greater emphasis on geology than most of the other Mil-Geo studies. Almost every page in the regional descriptions contains a geological map or profile. Ten excellent colored maps accompany the text.

A-5 discusses the general geographic features of Corsica in the following order: location and size, soils, natural vegetation, climate, water, population, economy, transportation, and telecommunications. A place register includes city plans of Ajaccio, Bastia, Bonifacio, and Corte. An outline map at 1:500,000 shows roads and railroads and the location and direction of the photographs in the picture supplement. Two maps of Corsica, reprints of a Michelin 1:200,000 (1938) and a 1:500,000 map (Ajaccio sheet) of the Service Géographique de l'Armée (1934), are in a pocket on the back cover of the handbook.

At least 47 sheets of the map series C-1 were published. The subtitle of the series is Militärgeographische Einzelangaben über Frankreich. The sheets are approximately 35 by 40 inches, folded to pocket size. In the center of each sheet is a topographic map around which are grouped short texts, small-scale special-subject maps, and lists identifying targets on the main map. On the back of the sheet, or on supplemental sheets, are city plans with street
names, targets, and through routes. The main map was drawn from the 1:200,000 Carte de France and Michelin road map. Strategic objectives and amplified transportation data were added by Mil-Geo. Each sheet is in effect a brief geography of the area covered. This technique was developed by Mil-Geo to a high degree in the series on France.

The city plans in D-1 were intended as strategic target location maps and show the locations of industries in 90 or more towns. The city plans on C-1 (D-4) are of good quality and are accompanied by street and target directories.
A. Textual Materials

1. Zusammenstellung der Übergänge im Stromgebiet des Rhein; Generalstab des Heeres, Abt. für Kriegskarten und Vermessungswesen; Berlin, 10 January 1940; GMDS H29/IG.1 (also 1936 edition, H29/IG.3)

2. Zusammenstellung der Übergänge im Stromgebiet der Weser und Ems; Wehrkreiskommando X (Mil-Geo) and GenSt d H, Abt. 9; Hamburg, 1939; GMDS H29/IG.12

3. Stromgebiet der Elbe; Generalkommando IV; Dresden, 1937; GMDS H29/IG.7

4. Stromgebiet der Donau; Generalkommando VII (Mil-Geo); München, 1937; GMDS H29/IG.4

5. Zusammenstellung der Übergänge im Stromgebiet der Weser; Reichswehrministerium; Berlin, 1933; GMDS H. Dw. g. 33

6. Stromgebiet der Oder; Generalkommando VIII; Breslau, 1937; GMDS H29/IG.8

7. Das Odergebiet; no author or published named; printed at the Reichsdruckerei, Berlin, 1930; GMDS H. Dw. g. 32/I

8. Stromgebiet des Rhein -- Einwirkung auf die Wasserführung; Generalkommando VI A.K. (9 Abt) Mil-Geo; Münster, 1939; GMDS H29/IG.2

9. Übersichtskarte 1:300,000 der Übergänge im Stromgebiet der Oder und der Küstenflüsse im Pommern in 6 Teilen; Generalstab des Heeres, 9 Abt (Mil-Geo); Berlin, 1938; GMDS H29/IG.9c,d

10. Militärgeographische Angaben über das Grenzgebiet an der Ostsee; Wehrmachtsmanöver (Heer) and GenSt d H, 9 Abt (Mil-Geo); Berlin, 1937; GMDS H 29/IF5.41

11. Militär-geographische Beschreibung von Deutschland; Berlin, 1889, GMDS

B. Translations -- None
C. Map Series

1. Militärgeographische Einzelangaben zum Grossblatt (some sheets, Militärgeographische Einzelangaben für die Truppenführung zum Einheitsblatt), 1:100,000; May 1939 to 1945. Geheim

D. City Plans -- None

E. Remarks

A Mil-Geo section was established in each Wehrkreiskommando (military district) of Germany to provide information on strategic installations and transportation routes and facilities. The data were plotted on topographic maps at the scale of 1:100,000, and elaborate explanatory legends were supplied. The maps, some of them with accompanying booklets, were issued in pocket-sized folders. Most of the folders were published between 1935 and 1940, but a few appeared as early as 1932 and others as late as 1945. This series differs from other Mil-Geo handbooks in that summaries of physical features, economy, etc., were omitted and only strategic data given.

C-1 is the only Mil-Geo map series with an overprint in six colors. On a light-brown base, the colors used are purple, for boundaries, industries, and communication lines; red, for roads and road data, military installations, hospitals, post offices, and telephone cables and relay stations; blue, for a number of water features and for observation posts; green, for names of woodlands and other obstacles to traffic; black, for bridges; and
dark brown, for dams, escarpments, and road cuts. A text describing the physical features and a list of strategic targets are printed in the margins. On the backs of the sheets are city plans (on which the same six colors are used) and a list of strategic targets.
Ireland

(Including Northern Ireland)

A. Textual Materials

1. Militärgeographische Angaben über Irland; 30 September 1940

Textheft
Bildheft
Übersichtskarte, 1:1,000,000
Elektrische Stromversorgung, 1:750,000
Eisenbahnnetz mit Stationsverzeichnis, 1:1,000,000
Funktstellen, Fernsprech- und Telegrapheennetz, 1:1,000,000
Strassenkarte mit Hervorhebung der wichtigsten
Geländebedingungen, 1:316,800 (2 sheets)
Stadtpläne (see D-1)
Stadtdurchfahrtpläne (see D-2)

2. Militärgeographische Angaben über Irland: West- und Nordküste; 15 October 1941

Text- und Bildheft mit Kartenanlagen

3. Militärgeographische Angaben über Irland: Süd- und Ostküste; 31 May 1941

Text- und Bildheft mit Kartenanlagen

4. EOK file at GMDS, H 29/IA2.4

B. Translations -- None

C. Map Series -- None

D. City Plans

1. In A-1, Stadtpläne:

   Belfast, 1:10,000
   Dublin, 1:10,000

2. In A-1, Stadtdurchfahrtpläne:

   Through-way plans of 25 towns

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E. Remarks

The treatment of Ireland in A-1 is similar to that of other countries for which early Mil-Geo studies were made. The short text contains black-and-white maps showing administrative divisions, terrain regions, population density, areas in which the Gaelic language predominates, agriculture and stock raising, inland waterways, and minerals and industries. The Bildheft contains a map that gives the location of the photographs reproduced. At unusual feature of the Übersichtskarte is the Mil-Geo overprint that shows the terrain trafficability in general terms and classifies the large industrial cities as of first or second order. On the road map, which is unusually comprehensive, all areas with a slope gradient in excess of 1:10 are blocked out in brown, and all cliffs and numerous spot heights are shown.

A-2 and A-3 cover the entire coast of Ireland. They include numerous photographs, several cross sections and sectional geological maps, a few black-and-white maps, brief texts, and six sectional coastal classification maps that are based chiefly on slope.

Each Stadtdurchfahrtplan in A-1 includes a marginal list giving the distances from the town mapped to other towns along each route leading out of town.
The Netherlands

A. Textual Materials

1. Militärgeographischer Überblick über die Niederlande; 20 November 1939 (earlier edition, 1 February 1939)
   Textheft
   Landschaftsbilder
   Stadtdurchfahrten (see D-2)
   Gewässerschnitte, Höhenlage und Pegelstationen der Niederlande, 1:300,000
   Strassenkarte, Nordblatt, 1:200,000
   Strassenkarte, Mittelblatt, 1:200,000
   Strassenkarte, Südblatt, 1:200,000
   Fernsprech- und Telegraphennetz, 1:400,000
   Verwaltungskarte, 1:300,000

2. Sonderbeilage zu Militärgeographischer Überblick über die Niederlande; 1939
   Stadtverkehrspläne (see D-2)

3. Die militärgeographischen Bedingungen zur Verteidigung der niederländischen Küste; 16 October 1942; mimeographed.
   Geheim

4. Die militärgeographischen Bedingungen für die Verteidigung der niederländischen, belgischen und französischen Küsten;
   January 1942. Geheim

   Text- und Bildheft
   Karte: Teil I - Nordsee und Armelnkanal, 1:1,000,000
          Teil II - Atlantischer Ozean, 1:1,000,000

B. Translations -- None

C. Map Series

1. Militärgeographische Einzelangaben über die Niederlande, 1:200,000
   12 sheets, with supplementary city plans, dated 1 August 1943 to 1 January 1944 (see D-3)

2. Karte der Belegungsmöglichkeit der niederländischen Gemeinden, 1:200,000 (3 sheets)
3. Brückenkarte der Niederlande, 1:50,000 (114 sheets)

4. Marschstrassen in den Niederlanden, 1:200,000 (9 sheets)

D. City Plans

1. In A-1, Stadtdurchfahrtpläne:

Through-way plans of 43 towns, with an index map

2. In A-2, Stadtverkehrspläne:

Amsterdam, 1:15,000
's Gravenhage, 1:15,000
Groningen, 1:15,000
Rotterdam, 1:15,000
Utrecht, 1:15,000

3. In C-1:

Plans for 52 towns, 1:12,500:

Alkmaar
Almelo
Amersfoort
Amsterdam
Apeldoorn
Arnhem
Assen
Breda
Delft
Delfzijl
Den Helder
Deventer
Dordrecht
Enschede
Franeker
Gorkum
Gouda
's Gravenhage
Haarlem
Harlingen
Hengelo
's Hertogenbosch
Hoek van Holland
Hoorn
Ijmuiden (1:25,000)
Kampen
Krommenie
Kuilenburg
Leeuwarden
Leiden
Maassluis
Meppel
Nijmegen
Oldenzaal
Purmerend
Renen
Rotterdam
Scheveningen
Schiedam
Sneek
Tiel
Utrecht
Vlaardingen
Winschoten
Winterswijk
Wormerveer
Zaandam
Zutphen
Zwolle

4. From Belgium, C-1:

Bergen op Zoom, 1:15,000
Breda, 1:15,000
Eindhoven, 1:15,000
Maastricht, 1:15,000
Tilburg, 1:15,000
Middelburg, 1:12,500
Vlissingen, 1:12,500

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5. Listed in Länderweise Zusammenstellung aller Mil-Geo-Arbeiten, November 1943 (not identified with any plans or publications listed herein):

Baarn und Soest Helmond
Bilthoven Roermond
de Bilt und Zeist Venlo

E. Remarks

As might be expected, the water features of the Netherlands are emphasized in the Textheft of A-1. The black-and-white maps included show water supply, industries, and population density. The map Gewässerabschnitte, Höhenlage und Pegelstationen gives hypsometry and water features in great detail, with contour intervals at -5, -2.5, -1, 0, 1, 3, 5, 10, 30, 50, 100, and 200 meters.

A-3 was prepared by the Mil-Geo-Gruppe in the Netherlands. It contains 27 pages of discussion of coastal defense, with numerous references to the sheets of the Dutch 1:50,000 map series. The text is accompanied by three black-and-white-maps, which add nothing to the information included in A-1. No reference is made to the special 18-sheet defense series at 1:200,000 (Verteidigungskarte der Niederlande), prepared by Wehrgeologie in 1941, or to the accompanying booklet (translated by ISTD, March 1945).

(For AMS call number and a brief discussion of A-4, see Northwestern Europe, A-2 and E.)

The Mil-Geo Einzelangaben series at 1:200,000 (C-1) was prepared by Mil-Geo-Gruppe beim Wehrmachtsbefehlshaber in den Niederlanden. It provides much more local geographical detail
than does the Textheft of A-1. The base is the German Army topographic map, Niederlande, at 1:200,000. The black overprint includes 30 symbols that designate bridges, harbors, light-houses, and industries, as well as numbers by which strategic targets shown on the map are keyed to textual descriptions. Physical features, transportation, economy, and supply of drinking water are discussed, and places named on the map are listed and briefly described. Most of the sheets include several sketch maps on such subjects as soil types, place names, and telecommunications. City plans are printed on the back of most of the sheets and on some supplemental sheets. On these plans the main streets are named, main traffic routes through the town are shown, and strategic targets are located and described.

According to the Planheft Niederlande of the German Army dated 6 December 1943, map series C-2, C-3, and C-4 were published by Mil-Geo, but none of the sheets are in Washington.

Plans for the 52 cities listed under D-3 are, with one exception, enlargements at 1:12,500 from 1:25,000 maps. All streets, some street names, and important industrial and civic installations are shown.
Norway
(Including Svalbard)

A. Textual Materials

1. Militärgeographische Angaben über Skandinavien; 12 April 1940

Mappe B - Norwegen

Einzellandschaften, Gewässer und Verkehrskunstbauten, mit Bildern
Ortschaftsverzeichnis
Stadtpläne im Grossformat (see D-1)
Stadtpläne im Kleinformat (Sammelheft) (see D-2)
Stadtdurchfahrtpläne (see D-3 and D-4)

Geheim

Teil A. Allgemeine Übersicht mit Kartenmappe (Inhalt der Kartenmappe)

Karte der Elektrizitätsversorgung Süd- und Nord-norwegens, 1:1,000,000 (2 sheets)
Strassenkarte von Skandinavien, Süd- und Nordblatt, 1:1,000,000
Eisenbahnhkarte von Norwegen, 1:1,000,000
Karte der Nachrichtenverbindungen Norwegens, 1:2,000,000

Teil B. Einzellandschaften und Spitzbergen, 1942

Teil C. Einzelangaben, 1943


6. Militärgeographische Beschreibung der Gewässer, N-Norwegens und deren Übergänge, mit Karte, 1:600,000; 15 November 1942. Geheim

7. Militärgeographische Einzelbeschreibung der Gewässer, N-Norwegens und Finnisch-Lapplands und deren Übergänge, 2 Karten, 1:600,000; second edition, 1 August 1944. Geheim

8. Ortschaftsverzeichnis von Norwegen; Mil-Geo-Gruppe Norwegen; 1 September 1943; GMDS H 29/1E3.9

9. Eingehende Einzeldarstellung der geographischen Bedingungen für die Verteidigung der Küsten Norwegens; 1 February 1944

Hauptband
Kartenmappe zum Hauptband

Übersichtskarte von Norwegen, 1:1,000,000, Blatt Süd und Nord
Strassenzustandskarte, 1:1,000,000, Blatt Süd und Nord
8 Skizzen zur Geländebeurteilung der Abschnitte, I bis VIII, 1:300,000

Bildband

10. Ortsverzeichnis zur Ortskarte Nord-Norwegen, 1:300,000

11. Ortsnamenverzeichnis zur Ortskarte, 1:300,000, Mittelnorwegen, March 1943.

12. Ortsverzeichnis zur Ortskarte, Korpskartenstelle 470, Nr. 1, 2, und 3, August 1944

13. Militärgeographische Unterrichtungswerk über den Bereich der 69 Div

Kartenmappe, 15 July 1941

Militärgeographische Karte, 1:200,000, Nord- und Südblatt
Strassenzustandskarte, 1:200,000, Nord- und Südblatt
Ortskarte des Bereiches, 1:300,000, Nebst Ortsverzeichnis

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B. Translations

AMS translation of A-2, Teil B; 19 pp.; AMS Call No. GB246G37
English Translation

C. Map Series

1. Mil-Geo-Karte Norwegen, 1:100,000; April 1944. Geheim

2. Mil-Geo-Angaben Ostnorwegisches Grenzgebiet, 1:500,000
   (Sheet 1, 1:250,000); September 1943 to March 1944.
   Geheim

D. City Plans

1. In A-1, Stadtpläne im Grossformat:
   Bergen, 1:10,000                      Stavanger, 1:10,000
   Drammen, 1:10,000                   Trondheim, 1:10,000
   Oslo, 1:13,000

2. In A-1, Stadtpläne im Kleinformat:
   Plans for 25 towns

3. In A-1, Stadtdurchfahrtpläne:
   Through-way plans of 23 towns

4. In A-1, Stadtdurchfahrtpläne, supplement:
   Through-way plans of 17 towns

5. On back of C-2:
   Plans of several cities

E. Remarks

Of the three folders on Scandinavia, only Mappe B deals
specifically with Norway; Mappe A gives a general description of
both Norway and Sweden and contains maps to be used with all
three; and Mappe C describes Sweden (see Scandinavia and Sweden).
The Textheft of Mappe B is divided into three sections. In the first section (Einzellandschaften), Norway is divided into and discussed according to 17 regions, which are outlined on a map on the inside of the back cover. Section two (Gewässer) is a description of the water features of Norway. Section three (Verkehrskunstbauten) is a list of bridges, with the dimensions, type of construction, and related data given for each. The list is keyed to a transportation map at the back of the text. Photographs and some sketch plans of towns are inserted in the text.

A-2 is more detailed and of later date than the Textheft of Mappe A, Skandinavien. A useful feature of Teil A is a list of fylker (first-order administrative units), with their area, population distribution, and population density. Teil B is a regional description of Norway and Spitzbergen (Svalbard). Teil C has registers of places, water features, and streets, and a list of the German equivalents of place names appearing on the Norwegian 1:100,000 map. An unusual item is a selected bibliography of literature on Norway, by subject.

A-3 through A-7 provide great detail on the water resources and transportation facilities of Norway. These studies were made by the Mil-Geo-Gruppe Norwegen on the basis of EOK files. The organization followed in all five volumes is as follows: foreword; detailed description of rivers, canals, and lakes, with lists of river crossings (by sheet number of Sonderausgabe
Norwegen, 1:100,000, on which the crossings are shown); and a short description of the dimensions and capacities of the bridges and ferries. The maps show roads of three categories, based on the type of vehicular traffic they can handle; railroads; six types of bridges; wagon roads; ferry landings, locks, and dams; railroad tunnels; and rivers that offer obstructions to military movement.

A-13 covers the area occupied by the German 69th Division. The first map listed delimits first-, second-, and third-order administrative units and police and judicial districts; gives the area and population of each third-order unit; and locates military targets of 31 types. The second map shows first- and second-order roads (classified on the basis of the type of traffic the road can handle), railroads and railroad facilities, data on dimensions of bridges, and distances between places. The third map is essentially a location map and is accompanied by a comprehensive place register.

The base of the map series C-1 is the German Army topographic map of Norway at 1:100,000. The overlay and most of the information for the coastal area were supplied by Mar-Geo. The legend for the Mar-Geo data includes military posts; large harbors fully equipped for repair work; harbors less well equipped; harbors for coastal ships; landing places; shoal areas; dangerous obstacles; depth contours at 40, 50, 100, 200, and 300 meters; spot depths; and areas exposed at low tide. The
Mil-Geo legend includes main highways, secondary roads, width and surface type of roads, direction of gradients, bridges, narrow bridges, ferries, observation posts with arrows showing direction of view, areas where paratroop landings are most likely, light-houses, hospitals, hotels, hydroelectric plants, shipyards, fish canneries, motor factories, iron mines, and high-tension lines.

Physical features, transportation, settlements, economy, power supply, and supply of drinking water are discussed in the marginal text. A description of the coast gives information on the sea bottom, shoals, harbor installations, tidal data, and ice conditions. The purple Mil-Geo overprint stands out more clearly on the sheets of C-1 than on any other Mil-Geo map series.

The base of the map series C-2 is the German Army topographic map of Norway at 1:500,000. Roads and road data are shown in red; railroads, boundaries, and bridges are shown in black; and water is shown in blue. Purple is used for high-tension lines and observation posts and for identifying various industries and strategic targets. A text in the margin describes physical features, economy, and transportation. A descriptive list of strategic targets is keyed to the map, and on the back are several city plans on which streets are named, strategic targets identified, and through routes shown.
Scandinavia

A. Textual Materials

1. Mitaräte der Angaben über Skandinavien: 12 April 1940

Mappe A

Textheft
Strassenkarte Skandinavien, 1:1,000,000 (Nordblatt)
Strassenkarte Skandinavien, 1:1,000,000 (Südblatt)
Übersichtskarte Skandinavien, 1:2,000,000, mit
Namenregister
Namensverzeichnis zur Übersichtskarte Skandinavien
und Osteüeländer
Fernsprech- und Telegraphennetz Skandinavien,
1:2,000,000
Befehlsmäßige Operationskarte von Skandinavien,
1:2,000,000
Verkehrsnetz von Skandinavien, 1:2,000,000
Stationsverzeichnis zur Karte Verkehrsnetz
Skandinavien

Mappen B and C are detailed accounts of Norway and Sweden,
respectively, and are treated under those countries

B. Translations -- None

C. Map Series -- See Norway

D. City Plans -- See Norway and Sweden

E. Remarks

A-1 includes three Mappen on Scandinavia. Mappe A is a
general description of both Norway and Sweden. Mappe B gives
specific information on Norway, and Mappe C on Sweden.

Mappe A comprises a Textheft and maps that describe the
physical geography, population, economy, and transportation of
the two countries. In the Textheft, Mappe A delimits the regions

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RESTRICTED
as discussed in Maps B and C. The maps in this volume are
to be used with all three texts. The north and south sheets
of Strassenkarte Skandinavien, both dated 1939, show the
main roads and also the network of lesser roads, trails, and
railroads.

The Übersichtskarte and Namensverzeichnis are useful for
location and orientation purposes. The Operationskarte outlines
five types of areas on the basis of terrain and population density an
and makes recommendations on the trafficability of the area and
its ability to support and billet troops. The main trans-
portation net is also shown, but this map is not so detailed
as most of the Operationskarten for other areas.
Spain and Portugal

A. Textual Materials

1. Militärgeographische Studie über Spanien und Portugal (Iberische Halbinsel)

Mappe A (30 January 1941)

Textheft
Ortsverzeichnisse
Bildheft: Spanien
Bildheft: Portugal
Übersichtskarte, 1:2,500,000
Karte: Land- und Forstwirtschaft und Fischerei, 1:1,500,000
Karte: Industri- und Lagerstätten, 1:1,500,000
Karte: Spanien und Portugal: Elektrizitätswirtschaft, 1:2,500,000
Eisenbahnkarte von Spanien und Portugal, 1:2,500,000
Stations- und Streckenverzeichnis; der spanischen Eisenbahnen
Eisenbahnkarte von Portugal, 1:1,500,000, mit Verzeichnis der Bahnhöfe und Haltestellen
Strassenzustandskarte von Portugal, 1:900,000
Stadtpläne (see D-1)

Mappe B

Strassenkarte, 1:400,000 (14 sheets)
Stadtdurchfahrtpläne (Sammelheft) (see D-2)
Strassenzustandskarte von Portugal, 1:900,000

2. Militärgeographische Studie über die Atlantischen Inseln (Kap Verden, Kanaren, Madeira, Azoren); Entwurf; 27 November 1942. (Typewritten manuscript at CIA Map Library)

3. Mil-Geo-Studie über die Küsten der Iberischen Halbinsel; 16 December 1942. Geheim (Typewritten manuscript at CIA Map Library)

B. Translations

1. Textheft of A-1, Mappe A, pages 5-15 and 45-74, translated by Service Branch, ID, GSUSA, as Job No. E-7452, 14 June 1948
2. A-2 translated by Service Branch, ID, GSUSA, as Job No. E-7942, 14 June 1948

3. A-3 translated by Service Branch, ID, GSUSA, as Job No. E-8427, 15 September 1948

C. Map Series

1. Durchgängigkeit der Pyrenäen, 1:200,000; September 1943. Geheim

D. City Plans

1. In A-1, Mappe A, Stadtpläne:
   
   | Badajos, 1:10,000       | Mérida, 1:10,000 |
   | Burgos, 1:10,000       | Portalegre, ca. 1:6,000 |
   | Córdoba, 1:10,000     | Porto, 1:10,000 |
   | Évora, 1:7,000         | Salamanca, 1:10,000 |
   | Faro, ca. 1:4,125     | Setúbal, 1:10,000 |
   | Lisbon, 1:10,000      | Sevilla, 1:10,000 |
   | Madrid, 1:25,000       | Valladolid, 1:10,000 |

2. In A-1, Mappe B, Stadtdurchfahrtpläne:
   
   Through-way plans of 148 towns

3. On C-1:

   In margins, small-scale plans of several towns

E. Remarks

This is one of the weakest handbooks published by Mil-Geo. The Textheft of Mappe A, A-1, is divided into three sections. The first section discusses the geographic background of the entire Iberian Peninsula and then describes the administrative setup, population, industry, transportation, and telecommunications of the two countries separately. The second section comprises descriptions of each of eight regions. The third section contains directories of water features and hospitals.
and a description of the road between Irún and Cádiz. Maps in
the Textheft show the distance across the peninsula at various
points, first- and second-order subdivisions in both Spain and
Portugal, four climatic regions of the peninsula, and the distri-
bution of population on the basis of 1939 estimates. The main
centers of five language types, agricultural regions, and roads
through the Pyrenees are shown on sketch maps. The Ortsverzeich-
nisse of Mappe A is one of the better gazetteers published in
Mil-Geo studies.

The Übersichtskarte of Mappe A is an enlargement of a map
published by the Geographische Anstalt von H. Wagner & E. Debes
and is well-suited for use as a base map. Features shown on the
map are the drainage pattern (in detail), roads and railroads,
spot elevations and depths, terrain (by hachures), a large number
of place names, and some Mediterranean and Atlantic shipping
routes. The agriculture, forest, and fisheries map outlines
areas of various types of agriculture, including irrigation
agriculture, and designates fisheries by the main type of fish
caught in the principal fishing grounds. This map and the
one showing the locations of mineral deposits and industries
were prepared by OKW WiRu Amt/Wi. The map of distribution of
electric power shows both hydro- and thermoelectric installa-
tions. The road and railroad maps for both Spain and Portugal
are out of date. The register of Spanish railroads and stations
is keyed to the railroad map. Fourteen city plans are given in
Mappe A (see D-1).
The 14-sheet road map in Mappe B (A-1) has been superseded by more recent maps but includes through-way plans of 148 towns. The road map for Portugal at 1:900,000 is identical with that in Mappe A.

In A-2 the four Spanish island groups in the Atlantic are discussed. The text is organized as follows: Section A -- location, size, physical geography, population, economy, and transportation for all groups; Section B -- similar information for each island; Section C -- information on harbor and dock installations, anchorages, and coal, oil, drinking water, and food supplies; and Section D -- an over-all evaluation. Accompanying maps of each island and a general location map of the groups were cut out of an unidentifiable Heeres Karte.

The coastal study, A-3, is a regional description of the coasts of the Iberian Peninsula in terms of the nature of the coast, possibility of landings, harbors, natural defenses, the land behind the coast, and an over-all conclusion regarding the defensibility of each section of the coast. A map illustrating these points is included in the text.

On the map series, C-1, the purple Mil-Geo overlay shows the main, secondary, and small roads; passes, tunnels, narrow roads, and roads susceptible to stone slides; steepness of slope; and airports. In the margins are descriptions of roads, some small-scale city plans, and an annotated list of strategic targets. On
the back is an orientation map at 1:1,000,000. The Pyrenees
as transportation barriers and the influence of climate on trans-
portation are described textually.
Sweden

A. Textual Materials

1. Militärgeographische Angaben über Skandinavien

Mappe C - Schweden; 1 August 1940

Einzellandschaften, Gewässer und Verkehrskunstbauten mit Bildern
Ortschaftsverzeichnis
Stadtpläne im Kleinformat
Stadtpläne im Grossformat
Stadtdurchfahrttpläne

2. EOK file at GMDS H29/IE 2.2

B. Translations -- None

C. Map Series -- None

D. City Plans

1. In A-1, Stadtpläne im Grossformat:

   Göteborg, 1:6,000
   Helsingborg, 1:10,000
   Lulea, 1:4,000
   Lund, 1:8,000
   Malmo, 1:10,000
   Stockholm, 1:12,000
   Sundsvall, 1:8,000

2. In A-1, Stadtpläne im Kleinformat:

   Through-way plans of 31 towns

3. In A-1, Stadtdurchfahrttpläne:

   Through-way plans of 115 towns

E. Remarks

Mappe C, the third of three Mappen on Scandinavia, deals specifically with Sweden (for descriptions of Mappen A and B, see Scandanvia and Norway). The Texttheft of Mappe C is divided into three sections. In the first section, 12 regions of Sweden
are discussed in text and delimited on a map inside the back cover. The second section is a description of the water features of Sweden. The third section is a list of bridges, with dimensions, type of construction, and related data for each, and the list is keyed to a transportation map at the back. Photographs are inserted in the text.
Switzerland

A. Textual Materials

1. Schweiz

Strassenzustandskarte; 1:300,000
Stadtdurchfahrtpläne (see D-1)

B. Translations -- None

C. Map Series -- None

D. City Plans

1. In A-1, Stadtdurchfahrtpläne:
Through-way plans of 41 towns, with an index map.

E. Remarks

Mil-Geo made no geographical studies of Switzerland. The only publications on that country are a road map and a booklet of through-way town plans (A-1, D-1).
United Kingdom
(Excluding Northern Ireland)

A. Textual Materials

1. Militärgeographische Angaben über England; third edition, 31 August 1941 (first edition, 1 August 1940)

Mappe A

1. Textheft
2. Ortschaftsverzeichnis (bisher im Textheft, jetzt als besonderes Heft gedruckt; neu bearbeitet und erweitert)
4. Übersichtskarte von Grossbritannien und Irland, 1:1,000,000, mit Blattbereichseinteilung für die Sonderkarte 1:100,000 (neue physikalische Übersichtskarte)
5. Militärgeographische Operationskarte England, 1:500,000, Südblatt (Süd- und Mittelengland)
6. Karte: Grossbritannien und Irland, Eisenbahnnetz, 1:1,000,000, mit Stationsverzeichnis auf der Rückseite; dient zugleich als Ortsübersichtskarte (neu bearbeitet nach Unterlagen von Chef Transp.)
7. Heft: Stationsverzeichnis zu 6
8. Karte: Grossbritannien, Fernverkehrsstrassen, 1:1,000,000
9. Karte: Grossbritannien, Übersicht der Gewässer, 1:1,000,000
10. Karte: Grossbritannien, Fernsprech- und Telegraphennetz (Vorderseite); Funkstellen (Rückseite); 1:1,000,000
11. Karte: Elektrizitätsversorgung von England und Schottland, 1:1,000,000 mit Verzeichnis der Grosskraftwerke und ihrer Leistungsfähigkeit
12. Karte: England, Bevölkerungsverteilung, 1:1,000,000
13. Heft: Stadtdurchfahrtpläne (verbessert und erweitert)

Mappe B. London; 31 August 1941 (second edition).

1. Textheft mit Bildern
2. Karte: Verkehrsplan von London und Umgebung, 1:50,000

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Mappe C. Küstenbeschreibungen (Text- und Bildheft mit Kartenanlagen); 1 May 1941


2. Militärgeographische Einzelangaben über England; Militärgeographische Objektkarten mit Objektbildern; 15 May 1942

Mappe 1. The Border

1. England 1:250,000, Blatt 1. The Border umfassend die Blattbereiche (BB) 1, 2, 3 der Karte von England 1:100,000
2. Stadtpläne (see D-3)
3. Heft: Objektbilder

Mappe 2. Nördliches Zentralgebiet; 6 May 1942

1. England 1:250,000, Blatt 2, Nördliches Zentralgebiet umfassend die Blattbereiche (BB) 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13 der Karte von England 1:100,000
2. Stadtpläne (see D-4)
3. Heft: Objektbilder

Mappe 3. Nordost-England; 30 April 1942

1. England 1:250,000, Blatt 3, Nordost-England umfassend die Blattbereiche (BB) 3, 6, 7, 9, 10, 12, 13, 14 der Karte von England 1:100,000
2. Stadtpläne (see D-5)
3. Heft: Objektbilder

Mappe 4. Nord-Wales und Manchester; 31 March 1942

1. England 1:250,000 Blatt 4, Nord-Wales und Manchester umfassend die Blattbereiche (BB) 11, 12, 13, 15, 16, 17, 21, 22, 23 der Karte von England 1:100,000
2. Stadtpläne (see D-6)
3. Heft: Objektbilder

Mappe 5. Not published


1. England 1:250,000, Blatt 6, Nord-Midlands umfassend die Blattbereiche (BB) 9, 10, 12, 13, 14, 15, 16, 17, 18 der Karte von England 1:100,000
2. Stadtpläne (see D-7)
3. Heft: Objektbilder

Mappe 7. Süd-Wales; 30 November 1941

1. England 1:250,000, Blatt 7, Süd-Wales umfassend die Blattbereiche (BB) 15, 16, 20, 21, 22, 26, 27, 32 der Karte von England 1:100,000
2. Stadtpläne (see D-8)
3. Heft: Objektbilder

Mappe 8. Midlands; 7 October 1941

1. England 1:250,000, Blatt 8, Midlands umfassend die Blattbereiche (BB) 16, 17, 18, 22, 23, 24, 27, 28, 29 der Karte von England 1:100,000
2. Stadtpläne (see D-9)
3. Heft: Objektbilder
Mappe 9. Ost-Anglia; 30 September 1941

1. England 1:250,000, Blatt 9, Ost-Anglia umfassend
die Blattbereiche (BB) 18, 19, 24, 25, 29, 30,
31, 40 der Karte von England 1:100,000
2. Stadtpläne (see D-10)
3. Heft: Objektbilder

Mappe 10. Südwest-England; 18 September 1941

1. England 1:250,000, Blatt 10, Südwest-England
umfassend die Blattbereiche (BB) 31, 35, 36
der Karte von England 1:100,000
2. Stadtpläne (See D-11)
3. Heft: Objektbilder

Mappe 11. Süd-England; 5 October 1941

1. England 1:250,000, Blatt 11, Süd-England
umfassend die Blattbereiche (BB) 27, 28, 32, 33,
37, 38 der Karte von England 1:100,000
2. Stadtpläne (see D-12)
3. Heft: Objektbilder


1. England 1:250,000, Blatt 12, Südost-England und
London umfassend die Blattbereiche (BB) 28, 29,
30, 33, 34, 38, 39, 40 der Karte von England
1:100,000
2. Stadtpläne (see D-13)
3. Heft: Objektbilder

3. Liste geographischer Eigennamen mit Angabe ihrer
Aussprache, Signaturen, Schriftmustern und Abkürzungen
auf englischen Karten; 18 December 1940

4. Militärisch-geographische Angaben über Schottland; Entwurf;
1 November 1942

1. Textheft
2. Bildheft
3. Übersichtskarte von Schottland, 1:500,000
4. Militärisch-geographische Operationskarte Großbritannien, 1:500,000 (Nordblatt): Schottland und
England (nördlicher Teil)
5. Karte: Schottland: Bevölkerungsverteilung, 1931
(1:1,000,000)
6. Karte: Schottland: Eisenbahnnetz, 1:1,000,000, mit Stationsverzeichnis auf der Rückseite
7. Karte: Schottland: Funkstellen, Fernsprech- und Telegraphennetz, 1:1,000,000
8. Karte: Elektrizitätswirtschaft von Schottland
9. Heft: Stadtverkehrspläne Schottland
10. Stadtplan van Edinburgh mit Mil-Geo-Eintragungen (1:15,000)
11. Stadtplan van Glasgow mit Mil-Geo-Eintragungen (1:15,000)
12. Stadtplan van Aberdeen mit Mil-Geo-Eintragungen (1:10,000)
13. Stadtplan van Dundee mit Mil-Geo-Eintragungen (1:10,000)

5. EOK file, GMDS H 29IA1.35

B. Translations -- None

C. Map Series

1. Militärgéographische Objektkarte von England, 1:250,000; August 1941

D. City Plans

1. City plans at 1:10,000; July 1940-June 1942. (Sheet numbers for each plan are given in D-3 through D-13, as indicated in the following alphabetical list.)

<table>
<thead>
<tr>
<th>City Plan</th>
<th>D-8</th>
<th>City Plan</th>
<th>D-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aberavon-Port Talbot</td>
<td>Exeter</td>
<td>Accrington</td>
<td>Folkestone</td>
</tr>
<tr>
<td>Accrington</td>
<td>D-4</td>
<td>Barrow in Furness</td>
<td>Gloucester</td>
</tr>
<tr>
<td>Barrow in Furness</td>
<td>D-4</td>
<td>Bath</td>
<td>Grimsby</td>
</tr>
<tr>
<td>Bath</td>
<td>D-12</td>
<td>Birmingham</td>
<td>Halifax</td>
</tr>
<tr>
<td>Birmingham</td>
<td>D-9</td>
<td>Blackburn</td>
<td>Huddersfield</td>
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<tr>
<td>Blackburn</td>
<td>D-4</td>
<td>Bolton</td>
<td>Ipswich</td>
</tr>
<tr>
<td>Bolton</td>
<td>D-6</td>
<td>Bournemouth</td>
<td>Keighley</td>
</tr>
<tr>
<td>Bournemouth</td>
<td>D-12</td>
<td>Bradford</td>
<td>Kingston upon Hull</td>
</tr>
<tr>
<td>Bradford</td>
<td>D-7</td>
<td>Brighton</td>
<td>Leeds</td>
</tr>
<tr>
<td>Brighton</td>
<td>D-13</td>
<td>Bristol</td>
<td>Leicester</td>
</tr>
<tr>
<td>Bristol</td>
<td>D-12</td>
<td>Burnley</td>
<td>Lincoln</td>
</tr>
<tr>
<td>Burnley</td>
<td>D-7</td>
<td>Cardiff</td>
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</tr>
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<td>Cardiff</td>
<td>D-8</td>
<td>Carlisle</td>
<td>Manchester</td>
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<tr>
<td>Carlisle</td>
<td>D-3</td>
<td>Coventry</td>
<td>Middlesborough</td>
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<tr>
<td>Coventry</td>
<td>D-9</td>
<td>Derby</td>
<td>Newcastle</td>
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<tr>
<td>Derby</td>
<td>D-7</td>
<td>Dewsbury-Batley</td>
<td>Newport</td>
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<tr>
<td>Dewsbury-Batley</td>
<td>D-7</td>
<td>Dover</td>
<td>Northampton</td>
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<td>Dover</td>
<td>D-13</td>
<td>Dudley</td>
<td>Nottingham</td>
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<td>Dudley</td>
<td>D-9</td>
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</tr>
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<td>Town</td>
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<td>Town</td>
<td>Code</td>
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<td>--------------------</td>
<td>------</td>
<td>--------------------</td>
<td>------</td>
</tr>
<tr>
<td>Oldham</td>
<td>D-6</td>
<td>Stoke on Trent</td>
<td>D-6</td>
</tr>
<tr>
<td>Oxford</td>
<td>D-9</td>
<td>Sunderland</td>
<td>D-3</td>
</tr>
<tr>
<td>Plymouth</td>
<td>D-11</td>
<td>Swansea</td>
<td>D-8</td>
</tr>
<tr>
<td>Portsmouth</td>
<td>D-12</td>
<td>Torquay</td>
<td>D-11</td>
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<td>Preston</td>
<td>D-4</td>
<td>Wakefield</td>
<td>D-7</td>
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<tr>
<td>Reading</td>
<td>D-13</td>
<td>Walsall</td>
<td>D-9</td>
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<tr>
<td>Rugby</td>
<td>D-9</td>
<td>Warrington</td>
<td>D-6</td>
</tr>
<tr>
<td>Sheffield</td>
<td>D-7</td>
<td>Wolverhampton</td>
<td>D-6</td>
</tr>
<tr>
<td>Southampton</td>
<td>D-12</td>
<td>York</td>
<td>D-5</td>
</tr>
<tr>
<td>South Shields</td>
<td>D-3</td>
<td></td>
<td></td>
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</table>

2. London, 1:20,000 (see A-1, Mappe B, 3)

3. In A-2, Mappe 1, 2

<table>
<thead>
<tr>
<th>Town</th>
<th>BB</th>
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</thead>
<tbody>
<tr>
<td>Carlisle</td>
<td>2a</td>
</tr>
<tr>
<td>Newcastle</td>
<td>3a, b, c</td>
</tr>
<tr>
<td>South Shield</td>
<td>3 Zusammendruck</td>
</tr>
<tr>
<td>Sunderland</td>
<td>3 Zusammendruck</td>
</tr>
</tbody>
</table>

4. In A-2, Mappe 2, 2

<table>
<thead>
<tr>
<th>Town</th>
<th>BB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrow in Furness</td>
<td>8a, b</td>
</tr>
<tr>
<td>Preston</td>
<td>8c, d</td>
</tr>
<tr>
<td>Accrington</td>
<td>9e, f</td>
</tr>
<tr>
<td>Blackburn</td>
<td>9g, h</td>
</tr>
<tr>
<td>Keighley</td>
<td>9ae, af</td>
</tr>
</tbody>
</table>

5. In A-2, Mappe 3, 2

<table>
<thead>
<tr>
<th>Town</th>
<th>BB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middlesborough</td>
<td>6b, c, d, e</td>
</tr>
<tr>
<td>York</td>
<td>10 Zusammendruck</td>
</tr>
<tr>
<td>Kingston upon Hull</td>
<td>10 Zusammendruck</td>
</tr>
</tbody>
</table>

6. In A-2, Mappe 4, 2

<table>
<thead>
<tr>
<th>Town</th>
<th>BB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oldham</td>
<td>12a, b, c, d</td>
</tr>
<tr>
<td>Manchester</td>
<td>12e, f, g, h, i, k, l, m, n, o, p, q, r, s</td>
</tr>
<tr>
<td>Bolton</td>
<td>12t, u</td>
</tr>
<tr>
<td>Warrington</td>
<td>12v, w, x, y</td>
</tr>
<tr>
<td>Liverpool</td>
<td>12aa, ab, ac, ad, ae, af, ag, ah, ai</td>
</tr>
<tr>
<td>Wolverhampton</td>
<td>16 Zusammendruck</td>
</tr>
<tr>
<td>Stoke on Trent</td>
<td>16e, f</td>
</tr>
</tbody>
</table>

7. In A-2, Mappe 6, 2

<table>
<thead>
<tr>
<th>Town</th>
<th>BB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burnley</td>
<td>9a, b, c, d</td>
</tr>
<tr>
<td>Halifax</td>
<td>91, k, l, m</td>
</tr>
<tr>
<td>Bradford</td>
<td>BB 9n, o, p</td>
</tr>
<tr>
<td>Leeds</td>
<td>BB 9q, r, s, t, u, v</td>
</tr>
<tr>
<td>Dewsbury-Batley</td>
<td>BB 9w, x</td>
</tr>
<tr>
<td>Wakefield</td>
<td>BB 9y, z</td>
</tr>
<tr>
<td>Huddersfield</td>
<td>BB 9aa, ab, ac, ad</td>
</tr>
<tr>
<td>Sheffield</td>
<td>BB 13a, b, c, d, e</td>
</tr>
<tr>
<td>Lincoln</td>
<td>BB 14 Zusammendruck</td>
</tr>
<tr>
<td>Grimsby</td>
<td>BB 14e, f</td>
</tr>
<tr>
<td>Nottingham</td>
<td>BB 17 Zusammendruck</td>
</tr>
<tr>
<td>Derby</td>
<td>BB 17c, d, e</td>
</tr>
<tr>
<td>Leicester</td>
<td>BB 17f, g</td>
</tr>
</tbody>
</table>

8. In A-2, Mappe 7, 2

| Swansea | BB 26 Zusammendruck |
| Aberavon-Port | BB 26c, d |
| Talbot | BB 27 Zusammendruck |
| Newport | BB 32a, b, c |

9. In A-2, Mappe 8, 2

| Walsall | BB 17h, i, k, l |
| Dudley | BB 22a, b, c, d, e |
| Birmingham | BB 23a, b, c, d, e, f, g, h, i |
| Coventry | BB 23 Zusammendruck |
| Rugby | BB 23m, n |
| Northampton | BB 23 Zusammendruck |
| Gloucester | BB 27g, h, i, k |
| Oxford | BB 28 Zusammendruck |

10. In A-2, Mappe 9, 2

| Ipswich | BB 25 Zusammendruck |

11. In A-2, Mappe 10, 2

| Exeter | BB 35 Zusammendruck |
| Plymouth | BB 36 Zusammendruck |
| Torquay | BB 36 Zusammendruck |

12. In A-2, Mappe 11, 2

| Bath | BB 32 Zusammendruck |
| Bristol | BB 32 Zusammendruck |
| Bournemouth | BB 38 Zusammendruck |
| Portsmouth | BB 38 Zusammendruck |
| Southampton | BB 38 Zusammendruck |
13. In A-2, Mappe 12, 2

Reading    BB 33 Zusammendruck
Brighton   BB 39 Zusammendruck
Dover      BB 40 Zusammendruck
Folkerstone BB 40 Zusammendruck

14. Plans of four Scottish cities (Aberdeen, Dundee, Edinburgh, and Glasgow) at various scales (see A-4, 10-13)

15. Through-way plans of 146 English towns (A-1, Mappe A, 13)

16. Through-way plans of 14 Scottish towns (A-4, 9)

E. Remarks

Mil-Geo did a rather complete job on England, Wales, and Scotland, with special attention to coasts and strategic objectives.

A-1, Mappe A, 5, is a very detailed operations map. For example, it is much more carefully done and shows more information than the Norway operations map. The map on drainage (Mappe A, 9) gives figures on depth and width of streams. The population map (Mappe A, 12) shows general distribution of population according to the latest complete census, 1931. Population density is shown by isarithms.

The Texitheft on London (A-1, Mappe B, 1) is merely a listing of transportation and telecommunications centers, with some mention of industry. The pictures stress the importance of bridges.

A-1, Mappe C, is composed mainly of pictures and maps of the coastal areas described in the text. The short textual introduction describes small sections of the coast on the basis of coastal forms, the beach, and the hinterland.
A-2 comprises 11 folders (Mappen 1-12, with Mappe 5 missing), each of which contains a Mil-Geo map at 1:250,000, a picture booklet, and some city plans.

The base of the map series, C-1, is the German Army topographic map of England and Wales at 1:250,000. Mil-Geo data are printed in black, red, and purple. Bridges are the only item shown in black, and fewer of them are identified than is usual in these studies. Items such as radio stations, military posts, airfields, hospitals, railroad workshops, and harbors are shown in red. Mines, electric power stations, and a large variety of industries are shown in purple. An Objektverzeichnis identifies and describes the strategic targets, this list being the only text. The sheet lines for the Sonderausgabe der Karte von England und Wales at 1:100,000 are shown on the map.
SOUTHEASTERN AND SOUTHERN EUROPE

Southeastern Europe

A. Textual Materials

1. Südosteuropa, Donauraum und Balkanhalbinsel; 15 March 1940

Ein militärgeographischer Überblick, Beschreibungen
und Angaben über Slowakei, Ungarn, Rumänien, ehemaliges
Jugoslawien, Bulgarien, Albanien, Griechenland und
Europäische Türkei

Militärgeographischer Überblick (Textheft)
Übersichtskarte 1:1,000,000 (Nordblatt)
Übersichtskarte 1:1,000,000 (Südblatt)
Landschaftsliederung, Karte 1:3,000,000
Die Völker des Donauraumes und der Balkanhalbinsel,
Karte 1:3,000,000
Übersicht der Kartenwerke, Karte 1:3,000,000

Militärgeographische Operationskarte, 1:1,000,000
(Westblatt)
Militärgeographische Operationskarte, 1:1,000,000
(Ostblatt)
Eisenbahnübersichtskarte von Südosteuropa, 1:2,250,000

2. Nachträge zur Mappe: Südosteuropa, Donauraum und
Balkanhalbinsel; December 1940

Übersichtskarte von Rumänien, 1:1,000,000 (Grenzen
am 30 August 1940)
Berichtigungen zum Textheft
Pausen (3) mit den zur Zeit gültigen Grenzen für die
wichtigsten Karten der Mappe Südosteuropa (March 1940)

3. Überblick der militärgeographischen Bedingungen für die
Verteidigung der Küsten Südost-Europas; July 1943.

Geheim

Textheft with map (1:2,500,000) in pocket
Bildanhang

B. Translations -- None

C. Map Series

1. Mil-Geo-Karte Südost-Europa, 1:200,000; 1939 to March
1944

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RESTRICTED
D. City Plans

1. In A-1, Textheft:
   An annotated directory of important cities

2. On C-1:
   Plans on backs of sheets

E. Remarks

The study on southeastern Europe is especially useful in that it provides the only textual coverage of Bulgaria and Hungary by Mil-Geo. More detailed handbooks were published separately for European Turkey, Greece, Rumania, and Yugoslavia, but the only other coverage for Albania is a coastal defense study, and for Slovakia only prewar studies were used.

The Textheft of A-1 is unusually long -- 295 pages. Following a summary of the entire area, each country is treated separately. First, the general geography is presented, and then the geography of each region within the country. Numerous black-and-white maps illustrate the text. The volume also contains a directory of water features, gazetteers of important cities and of place names, a summary of linguistic characteristics for each country, a brief listing of the main German map series of Southeast Europe, and a bibliography of the most important geographic works on each country.

The two-sheet Militärgéographische Operationskarte is the best relative relief map of the Balkans.

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Coastal defense problems are covered in detail in A-3. The coast is divided into 15 sections, which are outlined on a map in the pocket of the Textheft. The text for each section is accompanied by a colored map, and the pictures in the Bildanhang are grouped according to the sections. The study was done jointly by OKM/Skl and three Mil-Geo Aussenstellen (Mil-Geo Gruppe Saloniki-Ägäis, Mil-Geo Gruppe Südostgriechenland, and Mil-Geo Gruppe Serbien).

The base of C-1 is the Germany Army topographic map of southeastern Europe at 1:200,000. The purple overprint shows the main roads and road data, passes, tunnels, bridges, river data, areas susceptible to flooding, harbors, cliffs, observation points, sink areas, areas where gliders might land, mines, various types of industries, power plants, high-tension lines, hospitals, military posts, and seaplane bases. There is a list of strategic targets. The data on bridges and tunnels are given in tabular form rather than in the more usual textual form. Also on the map is a brief description of physical features, transportation, population and settlement, economy, billeting, supplies, and health conditions. City plans are on the backs of the sheets. Streets are not always named, but the main through routes and strategic targets are shown.
Albania

A. Textual Materials

1. Orts- und Geländenamen Albaniens; 15 February 1941; GMDS E29/I C2.1
2. Einzeldarstellung der geographischen Bedingungen für die Verteidigung der Küsten Albaniens; October 1943. Geheim

B. Translations -- None

C. Map Series


D. City Plans

1. In A-2, on back of map:
   Tirana, 1:15,000

E. Remarks

There is no standard-type geographical handbook on Albania. The only general geographic treatment appears as a brief summary in Südosteuropa, Donauraum und Balkanhalbinsel, pages 162 to 172. Two black-and-white maps are included.

A-1 (12 pages) gives the various spellings of place names that appear on eight different map series covering Albania, with indexes for two of the series, Balkan 1:200,000 and Sonderausgabe Albanien 1:50,000.

The coastal study (A-2) is limited primarily to considerations of defense of the Albanian coast. An important part of the study is a map that shows coastal forms, trafficability,
transportation routes, aircraft landing possibilities, and other related data. On the back of the map are a general description of Albania, descriptions of the various sections of the coast, a map at 1:1,000,000 showing the distribution of malaria in the country, and the city plan of Tirana. Mar-Geo assisted Mil-Geo in the preparation of the coastal portions of both the text and the map.
Bulgaria

Mil-Geo did not publish a separate handbook on Bulgaria. A generalized treatment is given the country in the handbook on Southeast Europe. A book on Bulgarian roads, which is often mistaken for a Mil-Geo work, is "Bulgarien," published by Fremde Heere Ost in December 1940.
Cyprus

A. Textual Materials

1. Militärgeographische Angaben über Zypern; 10 May 1941

   Textheft mit Bildanhang
   Übersichtskarte, 1:250,000
   Seekarte, 1:325,000

B. Translations -- None

C. Map Series -- None

D. City Plans

1. In A-1, Textheft:

   Famagusta und Varosha
   Ktima und Paphos
   Kyrenia
   Larnaca
   Limassol
   Nicosia
   Troodos und Pano Platres

2. In A-1, inset on Übersichtskarte:

   Nicosia, 1:15,625

E. Remarks

The text is short and general. It is stated in the foreword that insufficient material was available from which to prepare a detailed study. Included are seven black-and-white sketch plans of the main cities (D-1) and four black-and-white maps, two of which show annual precipitation and terrain regions, respectively.
Czechoslovakia

A. Textual Materials

1. Militärgeographische Beschreibung der Sudetenländer (Böhmen, Mähren-Schlesien); GenSt d H, 9 Abt (Mil-Geo); 1937 and 1 July 1938; GMDS H 29/1F4.5 and H 29/1F4.1. Geheim

2. Militärgeographische Beschreibung des sudetendeutschen Gebietes beiderseits der Elbe; Generalkommando IV A.K., Abt Mil-Geo; Dresden, 15 May 1938; GMDS H 29/1F4.2

3. Durchfahrtpläne von Orten in der Tschechoslowakei; OKH, GenSt d H, 9 Abt; Berlin, 1938; GMDS H 29/1F3.1

4. EOK file, GMDS H 29/1F.1

B. Translations -- None

C. Map Series -- See Rumania, Mil-Geo-Karte Durchgängigkeit Karpaten (C-2)

D. City Plans

1. In A-3:
   Pilsen, 1:15,000
   Prag, 1:25,000
   Brünn, 1:25,000
   Olmütz, 1:25,000

E. Remarks

A-1 is an early Mil-Geo study. The theft contains descriptions of individual regions, water features, weather, air transportation, railroads, roads, telecommunications, economy, and population; directories of populated places and strategic targets; and pictures of the places and objects discussed in the text.
Five maps show the distribution of soil types, geographic regions, road classifications, industry, high-tension lines, transportation, telecommunications, agricultural districts, and distribution of nationalities. Much of this information is given in tabular form.
Gibraltar

A. Textual Materials

1. Militärgeographische Angaben über die Strasse von Gibraltar; 12 December 1940.

   Text- und Bildheft
   Karte: Strasse von Gibraltar, 1:200,000
   Karte: Halbinsel Gibraltar, 1:10,000
   Karte des von Gibraltar aus eingesehenen Geländes, 1:50,000

B. Translations -- None

C. Map Series -- None

D. City Plans

   1. Halbinsel Gibraltar, 1:10,000

E. Remarks

This study on Gibraltar was intended to be a supplement to the Mil-Geo handbook on Spain and Portugal. In addition to Gibraltar, the text describes the Spanish hinterland, Tangier, and Spanish Morocco and discusses the oceanographic characteristics of the Straits. Photographs are included as a part of the Textheft. There are brief glossaries of Spanish and Arabic geographical terms.

An unusual map at 1:50,000 shows land exposed to observation from Gibraltar, with visible areas in the Spanish hinterland blocked out in red.
Greece

A. Textual Materials

1. Südosteuropa, Donauraum und Balkanhalbinsel, pages 173-197; 15 March 1940

2. Militärgeographische Beschreibung von Nordost-Griechenland (Ebene von Saloniki bis Maritzatal); 20 December 1940
   Textheft mit Bildhang
   Mittelbalkan, l:1,000,000
   Strassenkarte, l:600,000 (2 sheets)
   Stadtplan von Saloniki, l:10,000

3. Militärgeographische Beschreibung von Griechenland (ohne Nordost-Griechenland); 31 March 1941
   Textheft
   Bildheft
   Südosteuropa, Donauraum und Balkanhalbinsel, Südblatt, l:1,000,000
   Griechenland. Fernsprech- u. Telegraphennetz, l:800,000
   Strassenkarte von Griechenland, l:600,000
   Stadtplan von Athen, l:10,000
   Mil-Geo-Plan von Piräus, l:10,000

4. Militärgeographische Beschreibung von Griechenland (mit Makedonien und Westthrakien); 20 April 1944. Geheim
   Textheft
   Ortschaftsverzeichnis

5. Militärgeographische Beschreibung von Griechenland
   Teil: Kreta und Ägäische Inseln; Entwurf; first printing 19 March 1941; Textteil, Bildteil, and Kartenanhang (8 maps) bound together

6. Militärgeographische Überblick über die Insel Rhodos; Entwurf; 3 March 1943; mimeographed. Geheim

7. Die italienischen Inseln des Ägäischen Meeres; April 1942; typewritten manuscript. Geheim

8. Militärgeographische Beurteilung der Insel Zante (dazu Militärgeographische Skizze der Insel Zante), l:100,000; 27 October 1943; mimeographed. Geheim

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9. Der Einfluss des Klimas auf die Benutzbarkeit und Leistungsfähigkeit der Strassen Südgriechenlands, sowie der Ionischen und Südägäischen Inseln; no date, catalogued by Germans in 1943; mimeographed. Geheim

10. Bildheft zur Mil-Geo-Karte von Griechenland, 1:100,000; Mil-Geo-Gruppe Griechenland Außenstelle Saloniki; 1944. Geheim

B B 8-D Epanomi
B B 9-D Polijiros

B. //Translations -- None//

C. //Map Series//

1. Mil-Geo-Karte Griechenland, 1:100,000; October to December 1943. Geheim

2. Mil-Geo-Karte Griechenland (Insel Kreta), 1:100,000; September to December 1943. Geheim

3. Mil-Geo-Karte Griechenland, 1:500,000; May to December 1943. Geheim

Sheet A: Nordgriechenland und Ägäische Inseln Küstengestaltung, Durchgängigkeit, Luftlandemöglichkeiten, Malariagefährdung
Sheet B: Nord- und Mittelgriechenland Küstengestaltung, Durchgängigkeit, Luftlandemöglichkeiten, Malariagefährdung
Sheet C: Mittel- und Südgriechenland Küstengestaltung, Durchgängigkeit und Luftlandemöglichkeiten

D. //City Plans//

1. In A-2:
Saloniki, 1:10,000

2. In A-2, Textheft:
Drama, 1:12,000
Komotini, 1:12,000
Saloniki, 1:75,000
Serres, 1:14,000

3. In A-3:
Athen, 1:10,000
Kerkyra (Korfu) no scale given
Larisa, 1:18,690
Patras, 1:10,200
Piräus, 1:10,000
E. Remarks

About 25 pages of the Textheft of A-1, a general handbook for all of southeastern Europe, are devoted to Greece. A general description of the country is followed by descriptions of the 10 regions into which Greece is divided. Three black-and-white maps, at approximately 1:7,000,000, show the boundaries of the 35 provinces, the population density per square kilometer as of 1928, and the vegetation types. Greece is also included in the general discussions and on the maps of southeastern Europe. (See also Southeastern Europe, Remarks.)

The Textheft of A-2, which covers northeastern Greece, is small but detailed. Several sections not usually found in Mil-Geo texts are included. One section contains descriptions and photographs of seven large cities (Saloniki, Serres, Drama, Komotini, Kavalla, Xanthi, and Alexandroupolis), with black-and-white maps of the first four (D-2). In another section, important military installations are discussed. The spellings of place names on four German map series and one Greek series are compared in tables. At the back of the Textheft are four large-scale black-and-white maps which show, respectively, agricultural areas, road connections, railroads, and roads. A road map, Das Strassennetz von Griechenland, at 1:1,650,000, evaluates the quality of the roads, which are shown on a base that gives elevations, a rather unusual feature. Other maps in the Textheft include one on the distribution of malaria in northeastern Greece and one showing the drainage system in the vicinity of
Salonika. A better map on malaria, at a larger scale, is included in the Textheft of A-4.

The Strassenkarten in A-2 and A-3 are sheets 82, 83, and 90 of Freytag und Berndt's Autokarten, a good six-color road map that was kept up to date. The sheets also cover large areas adjoining Greece.

The city plan of Salonika in A-2 has extensive street and place registers, whereas the plans of Athens and Piraeus in A-3 lack such lists.

A-3 covers all of Greece except the northeastern part. The Textheft is divided into three sections. The first section gives a general picture of the physical geography, population distribution and characteristics, sanitation, transportation, industry, and military problems. The second section is a description of each of the regions of south Greece and the Greek islands. The third section describes individual water features, railroads, roads, airfields and facilities, radio facilities, submarine cables, mines, industries, and electric power stations. A place register contains plans not available elsewhere for Patras, Larisa, and Kerkira (Korfu) (D-3). Several harbor plans included in the text are for the eastern and western entrances to the Corinth Canal, Bucht von Elunta (Spinalonga), Bucht von Ajos Nikolaos (Golf von Mirabella), Hafen von Ermopolis (Siros), Hafen von Argoatoli, Hafen von Saloniki, and Hafen von Volos. Three monochrome maps at the back of the Textheft are Umgebung von Chania und der Suda-Bucht, 1:25,000; Umgebung von Iraklion (Kreta), 1:20,000; and Umgebung von Pachiammos (Ost Kreta), 1:20,000.
Other items of interest in the Textheft are a map delimiting the provinces; a 1928 map of population density; a sketch map of the distribution of malaria in Greece and neighboring areas (in red, white, and black); a drainage map of the vicinity of Salonika; and a sketch map showing distances from Greek cities to points in Sicily, Italy, Albania, Bulgaria, Turkey, Cyprus, Rhodes, Egypt, and Cyrenaica.

A-4 is a revised edition of A-2 and A-3; A-4 was classified Secret; whereas the earlier volumes were Restricted. The organization of the material and the text figures are the same in all three. A sketch map of submarine cables is included at the end of the text of A-4, and a map in the pocket on the back cover, for which the Deutsche Weltkarte was used as a base, shows the distribution of malaria in Greece and delimits the terrain regions discussed in the text. The malaria map was prepared by the Hygieniker beim Heeresgruppenarzte E.

A-5 is a single volume. The text deals in fair detail with Crete and in lesser detail with the Aegean Islands, which are grouped for discussion as follows: the Northern Islands, the Eastern Islands, the Northern Sporades, and the Cyclades. Next is an alphabetical list (in German spelling) of the Aegean Islands. The picture section is only fair. The following maps are included: Übersichts- und Strassenkarte von Kreta, 1:500,000; Umgebung von Chania und der Suda-Bucht, ca. 1:25,000; Umgebung von Iraklion (Kreta), 1:20,000; Der Golf von Mirabella; Umgebung von Pachammos.
(Ost-Kreta), 1:20,000; Kreta: Flugplätze, Funkstellen, Fernsprech und Kabelnetz; Hafen von Hermopolis (Syros); and Griechenland, Karte der Telegrafenlinien, Seekabel, und Funkstellen.

A-6 is handled in the standard manner. A German Army map, Türkei, 1:200,000, sheet J-III, accompanies the study.

A-7 covers the Dodecanese, the former Italian islands of the Aegean Sea ceded to Greece on 10 February 1947, including Rhodes, Castel Rosso, and about 40 small islands and islets. The first section is a general discussion of the islands under these headings: strategic importance, administration, land forms, climate, roads, telecommunications, industry, and military significance. The second section is an alphabetical register of the islands, which includes the area and population and a short description of each.

A-8 is an eight-page mimeographed report on the Island of Zante (Zakynthos). A map at 1:100,000, by the Generalkdo, LXVIII. A.K. Is/Mess, which accompanies the report, indicates mountains, plateaus, and lowlands; shows several types of coast; and locates roads, airports, potential landing areas, swamps, and seasonally flooded areas.

A-9 is a five-page mimeographed report which discusses the effects of climate on use and load capacity of roads in each of three zones.

A-10 consists of two small booklets of pictures with a map that locates the places where the pictures were taken.
The base used for C-1 is a German Army topographic map, Griechenland, 1:100,000. A purple overprint shows the main roads, with width, type of surface, curves, steep gradients, and bridges; sandy beaches; high points affording views in all directions; cliffs; and springs, swamps, and areas subject to flooding. Words indicating the type of surface of subsoil, such as "Karst," "Kalk" (chalk), and "Steiniger Boden" (stony surface), are overprinted in purple across the map. Each sheet has several sketch maps, which show malarial areas, political subdivisions, the area for which aerial photos were available at the time of compilation, and an index of adjoining sheets. A textual description of the physical features, roads, and transportation, economy, population and settlement, health conditions, and telecommunications is found on each sheet. A place register with short descriptions of each important place also is provided. City plans are shown on the back of some sheets, but streets are not named, and only a few buildings and installations are identified.

The base of C-2 is the German Army topographic map Griechenland (Insel Kreta), 1:100,000. A purple overprint shows the main roads, the width and surface material; narrow passages, passes, tunnels, bridges, canals, high-tension lines, soil materials, anchorages, cliff coasts, and flat beaches where landings are most feasible. It is unusual to find landing data on a Mil-Geo map series, this information usually being included only on Küstenbeschreibung maps. Also shown are disembarkation points; observation posts, with arrows...
showing the direction of the view; places where paratroop landings
could be made with the least difficulty; industrial areas; and areas
where the water supply is sufficient for the whole year, where it is
insufficient in summer and fall, and where it is insufficient during
the entire year. Sketch maps in the margin show the adjoining sheet
areas, the coverage of 1:50,000 sheets for the same sheet area, the
distribution of malaria, and terrain regions. The textual description
covers the physical features, health conditions, roads, passes, native
transportation, population, settlements, agriculture, industry,
power, and telecommunications. A list of strategic targets and a
gazetteer also are included. Strategic targets are identified
either on the map or in a list in the margin. Some streets are
named. The C-2 series of maps is considered the best produced by
Mil-Geo.
Hungary

Mil-Geo published no separate handbook on Hungary, but the country is included in the general chapter of the handbook on southeastern Europe. There is an EOK file at GMDG, Call No. H 29/IF.1, and part of Hungary is shown on the map series of adjoining countries (see CIA 10708, First Revision).
Italy

A. Textual Materials

1. Ober-Italien Strassenkarten und Stadtdurchfahrtpläne; June 1940
   Strassenübersicht und Strassenausbau, 1:1,000,000
   Strassenkarten Ober-Italien, 1:200,000, sheets 1-12
   Stadtdurchfahrtpläne Ober-Italien (see D-1)

2. Militärgeographischer Überblick über die Insel Sardinien;
   Entwurf; 15 March 1943. (Mimeo) Geheim

3. Militärgeographischer Überblick über die Insel Sizilien;
   Entwurf; 25 March 1943. (Mimeo) Geheim

4. Militärgeographischer Überblick über die Halbinsel Italien
   (ohne Italienisches Alpengebiet); Entwurf; 1 June 1943.
   Geheim
   Textteil
   Kartenskizze: Durchgangsstrassen Stand von 1938
   Übersichtskarte, 1:1,000,000: Gangbarkeit und Küsten-
   beschaffenheit

5. Nautisch-Geographische Küstenbeschreibung der Halbinsel
   Italien; Entwurf; 15 July 1943. Geheim
   Textteil
   Kartenskizze
   1. Militärgeographische Karte, 1:1,000,000
   7. Seekarten, 1:250,000
   2. Seekarten, 1:750,000

B. Translations -- None

C. Map Series

1. Mil-Geo-Karte Italien, 1:200,000; November 1943 to December
   1944. Geheim

D. City Plans

1. In A-1, Stadtdurchfahrtpläne:
   Through-way plans of 88 towns in northern Italy

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2. On C-1:

Sketch maps and through-way town plans.

E. Remarks

It is surprising that Mil-Geo published so little on Italy in view of the importance of that country in World War II. Much of the material that was completed is not of high quality.

A-1 includes an Italian road map (Raci Stato Delle Strade d'Italia 1938), at 1:1,000,000, to which a German legend was added. A German printing of Carta Auto Mobilistica al 200,000 del Touring Club Italiano shows 7 classes of roads, railways, cogwheel railroads, trams, road crossings, underpasses and overpasses, toll stations, 1/4 types of plans of interest to tourists, and first-order internal boundaries.

A-2 comprises a text with five maps. One of the maps shows the position of Sardinia in the Mediterranean Sea and names the places within a radius of 500 kilometers from Olbia, Sardinia. Another shows the terrain types (flat, hilly, or mountainous) and delimits the terrain regions of Sardinia discussed in the text. The third is a road map (as of 1938) that shows five classes of roads keyed to the text discussion. Another map locates the coastal types described in the text, possible landing places for seaborne troops, potential landing fields for airplanes, main roads, railroads, and the drainage network. The other map is a reproduction of sheet 6 of the 1942 edition of the Carta Aeronautica d'Italia (Corsica and Sardinia), 1:500,000, which shows six classes of roads, single-and
double-track railroads, and aircraft landing facilities. This sheet has only the Italian legend, which is a deviation from the usual Mil-Geo custom of supplying a German legend and title on a foreign map and making only a brief reference to the source.

A-3 is an excellent study of Sicily. Six sketch maps included in the text show (1) the location of Sicily in the Mediterranean, (2) the climate, (3) landforms and terrain studies, (4) distribution of wells, (5) distribution of population, and (6) agricultural products. In a pocket at the back are two more maps, one of which is a simplified version of an Operationskarte which shows parts of the coast where landings would be likely or unlikely, railroads, roads and potential landing fields for aircraft.

A-4 covers the mainland of Italy south of a line connecting Mount Cenis, Milan, and the northernmost part of the Gulf of Trieste. There are more black-and-white maps in this handbook than in any of the others on Italy. The following subjects are covered: location, administrative subdivisions (including those of second order), drainage basins, Apulian water-supply system, population density, patterns of settlement, distribution of malaria, important agricultural areas, industry and mineral resources, terrain regions, and a map showing the location of the coastal areas described. In the back pocket of the Textteil is a map entitled Küstenbeschaffenheit, Gangbarkeit und Häfen, 1:1,000,000, which shows the mountainous areas, swamps, passes, tunnels, types of coast, and four types of harbors. This map gives less detail than do the Operationskarten for the United Kingdom and

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Norway. A Gea-Karte was used as the base. There is also a black-and-white map showing three classes each of double-track and single-track railroads and the main highways as of 1938.

The Textteil of A-5 is a description of the coastal features of Italy written by the Oberkommando der Kriegsmarine, Amtsgruppe Nautik Nautisch-Wissenschaftliche Abteilung (Mar-Geo). It was the first project of the type undertaken by Mar-Geo. According to OIR Report No. 3704 of the Department of State, it was completed in 1 month from "source material which included nautical charts, topographic maps, nautical handbooks, and various geographical publications. No air photos were used and no field reconnaissance was possible. The text contains no maps, pictures, graphs or tables." The maps in the A-5 folder include a summary sheet overprinted on a Gea Verlag map and nine sheets printed on German nautical charts.

The base of C-1 is the German Army topographic map Italien, 1:200,000. The main roads are given, and the Mil-Geo overprint gives the width of the roads and the types of surface. The map shows narrow passages; direction and percentage of slope; bridges; stream depth, width, and flow per second; flooded areas; escarpments; observation posts, with direction of view indicated; power plants; and various types of industries. Physical features are discussed in the margins, and a sketch map delimiting the regions accompanies the text. The settlements, economy, and transportation routes are described, and a list of strategic targets, with a brief
description of each, is given. Some sheets have additional sketch maps and city plans of the through-way type. The purple overprint outlines the sheet area of the German Army topographic map at 1:100,000.
Malta

A. Textual Materials

1. Militärgeographische Angaben über Malta; 20 March 1941

Textheft mit Bildanhang
Seekarte, 1:70,000, Malta und Gozo
Karte von Malta, 1:25,000, mit Mil-Geo Angaben

B. Translations -- None

C. Map Series -- None

D. City Plans

1. In A-1, inset on Seekarte:

Hafen von Valletta, 1:12,500

E. Remarks

The Textheft of A-1 is a short summary of the physical geography, population data, transportation, economy, and military significance of Malta. A sketch map shows the main physical features and settlements. The Seekarte is a chart by the Oberkommando der Kriegsmarine corrected to March 1941. The 1:25,000 map is a topographic map of Malta with strategic installations shown by a red overprint.
A. Textual Materials

1. Militärgeographische Beschreibung von Rumänien; 1 June 1940

Textheft
Landschaftsbilder
Landschaftsgliederung, 1:1,500,000
Verwaltungskarte, 1:1,000,000
Volksgruppen, 1:1,000,000
Verzeichnis der Orte mit deutscher Bevölkerung
Wirtschaftsübersicht, 1:1,000,000
Strassenübersicht, 1:750,000
Eisenbahnterme mit Stationsverzeichnis, 1:1,500,000
Fernsprech- und Telegraphennetz, 1:1,500,000
Stadtplan (see D-1)
Stadtdurchfahrtplan Rumänien (see D-2)

2. Nachtrag zur Militärgeographischen Beschreibung von Rumänien
(as of 1 December 1940); Berlin, 5 January 1941.

Übersichtskarte von Rumänien, 1:1,000,000 (boundaries as
of 30 August 1940)
Rumäniens neue Grenzen (boundaries as of 30 August 1940)
Pausen mit den zur Zeit gültigen Grenzen für die wichtigsten Karten der Mappe

B. Translations -- None

C. Map Series

1. Militärgeographische Karte von Rumänien, 1:200,000; August
   1943

2. Mil-Geo-Karte Durchgängigkeit Karpaten, 1:300,000; 1 July
   1944 and 15 August 1944. Geheim

3. Donau-Delta, 1:100,000, Ausgabe Nr. 1, August 1943

D. City Plans

1. In A-1, Stadtplan:
   Bukarest, 1:20,000; Bukarest, 1:10,000, on back

2. In A-1, Stadtdurchfahrtplan:
   Through-way plans of 24 cities, with an index map
3. On back of C-1 (at 1:10,000 except as noted):

Barlad  Focsani
Buzău  Ismâil (now in USSR)
Călărași  Medgidia
Cernavodă  Râmnicea-Sărat
Cetatea Albă (Akkerman),  Siliștea
(now in USSR)  Sulina
Dniestr-Mîndung bei Bugaz  Tighina (Bendery)
und Carolina, 1:20,000  (now in USSR)
Dorbritsch (Bazargic)  Tulce
(now in Bulgaria)

E. Remarks

The Texttheft of A-1 is a typical Mil-Geo volume, except that it contains only one black-and-white map, a sketch of vegetation types. A directory of water features and towns occupies about one-third of the 100 pages of text.

The regions outlined on the landscape map in A-1 are described in detail in the Texttheft. The map showing ethnic groups is very detailed. An unusual feature is the inclusion of a booklet of towns with the German population of each. The economic map gives a rather detailed treatment of agriculture and industry, and an industrial target list is given in the margin. On the back are two other maps -- one of the Ploesti oil area at 1:100,000 and the other a small-scale index of standard topographic sheets at the scales of 1:200,000, 1:100,000, and 1:75,000.

A-2 was prepared as a supplement to A-1 to provide information on boundary changes. The 30 August 1940 boundaries are shown on three different overlays, to be used on the maps in A-1 at the scales of 1:1,500,000, 1:1,000,000, and 1:750,000.
A more generalized geographical discussion of Rumania is given in the handbook on southeastern Europe.

The road net of Rumania is discussed in a booklet with a bright red cover which is often mistaken for a Mil-Geo work but which was actually published by GenSt d Heeres, O. Qu. IV. Ost, in June 1940, under the title Das Strassennetz Rumäniens.

C-1 was prepared by the Mil-Geo-Gruppe of the German military mission in Rumania, using the Generalkarte von Mitteleuropa-Balkan, 1:200,000, as a base. The major emphasis is on trafficability. The width and load-bearing capacities of roads and of highway and railroad bridges, the type of road surface, steepness of grades, tunnels, cliffs, flooded areas, crossing points, and observation posts are shown. There also are many notes on the passability of the terrain. The width, depth, and rate of flow of rivers and the location of dams are indicated. Among the other features overprinted are hospitals, granaries, mills, and schools.

Marginal text includes discussions of the land forms, soil types, vegetation cover, climate, drainage system, population, transportation, economy, health conditions, drinking-water supply, and war damage. Inset maps in the text show geographic and administrative regions and transportation.

Each sheet has a strategic target list, and some sheets also list industrial targets. Most sheets have city plans on the back.

The base map used for the four westernmost sheets of C-2 (49, 50, Q49, and Q50) is the Übersichtskarte von Mitteleuropa. All other other sheets are on the Osteuropa base.
Mil-Geo data, shown by purple overprint, include double- and single-track and narrow-gauge railroads and five categories of roads, based on width, condition, passability in various kinds of weather, and type of traffic they can carry. Distance between places, type of surfacing, width, and route number are indicated along the routes. Bridges are shown and keyed to the text description, and passes, deep road cuts, percentage of slope over 8 percent, areas subject to snowslides, cliffs, and observation posts are shown. The width, depth, and rate of flow of rivers are given.

Marginal text on each sheet gives a general description, with some interpretation, of land and water features and the type of construction material, length, width, height, load capacity, and condition of all bridges shown on the sheet.

An index map of the series at 1:2,000,000, showing the main passes and routes, is on the back of the sheets. A text describes the whole area under the following headings: general, geological construction, surface construction of individual areas (Westkarpaten, Waldkarpaten, Siebenburgische Bergland, Ostkarpaten, Sudkarpaten, and Banater-Gebirge), climate, vegetation, railroads, roads, and passes.

C-3, a two-sheet map prepared by the Mil-Geo Group with the German Army Mission in Rumania, differs from regular Mil-Geo maps in the following several ways: (1) the Mil-Geo Group compiled their own base from Rumanian maps and German air photos, supplemented by field reconnaissance; (2) the characteristic purple overprint that
is generally employed to point up roads and installations is not used, and no trafficability data are given; and (3) the map more closely resembles a German Army topographic map than any of the other Mil-Geo maps. The map appears to offer the best available coverage of the Danube delta at this scale.
Yugoslavia

A. Textual Materials

1. Militärgographische Beschreibung von Jugoslavien; 15 June 1940

   Text- und Bildheft
   Übersicht und Landschaftsgliederung, 1:1,000,000
   Strassenetz, 1:1,000,000
   Eisenbahnnetz (mit Stationsverzeichnis), 1:1,000,000
   Verwaltungseinteilung, 1:1,000,000
   Fernsprech- und Telegrapheennetz, 1:1,500,000
   Volkliche Gliederung, Kerngebiete, 1:1,500,000
   Volkliche Gliederung, Mehrheitsgebiete, 1:1,500,000
   Verzeichnis der Orte mit deutscher Bevölkerung (containing a black-and-white map of population density)
   Stadtpläne (see D-1)
   Stadtdurchfahrtpläne (see D-2)

2. Einzeldarstellung der geographischen Bedingungen für die Verteidigung der Küsten Dalmatiens mit anliegender Mil-Geo-Karte, 1:500,000; October 1943. Geheim


   Trieste
   Fiume
   Mune Grande/S. Lorenzo
   Postumia
   Matteria
   Tarnova

B. Translations

1. Portions of the Textheft of A-1 dealing with physical features, FDD translation No. 100, 28 Nov. 1947

C. Map Series

1. Mil-Geo-Karte Serbien, 1:100,000; November 1943. Geheim

   (See also Southeastern Europe, 1:200,000)

D. City Plans

1. In A-1, Stadtpläne:

   Stadtplan von Belgrad (mit Zemun), 1:15,000

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2. In A-1, Stadtdurchfahrtpläne:

   Through-way plans of 18 towns

3. On sheets of C-1, plans of the following cities at
   1:200,000, dated April 1941:

   Agram (Zagreb)       Marburg
   Banja Luka           Nisch (Nis)
   Brod                 Sarajewo
   Dubrownik (Ragusa)   Subotica (Maria Theresiopol)
   Esseg (Osijek)       Usküpi (Skoplje)

E. Remarks

   The text of A-1 is less elaborate than the usual Mil-Geo
   text and contains fewer and poorer black-and-white maps. The
   administrative map has been made more usable by the listing of
   minor civil divisions along the margin. The two ethnic maps are
   reprints of maps done by Dr. Manfred Straka, Sudostdeutsches
   Institut, Graz. The Stadtdurchfahrtpäne, usually in booklet form,
   are all on a single sheet.

   A-2 is an excellent study produced jointly by Mar-Geo and
   Mil-Geo-Gruppe Serbien. Coastal defense is discussed in 71 pages.
   The accompanying map, Dalmatinische Küste und Hinterland -- Küsten-
   gestaltung, Durchgängigkeit, Verbindungen, Luftlandemöglichkeiten,
   1:500,000 (preliminary edition, July 1943, and third edition
   October 1943), was prepared with the assistance of Mar-Geo. A
   thumbnail sketch of the geography of the Dalmatian Coast is printed
   on the back of the map.

   Each folder of A-3 contains a number of excellent booklets that
   give descriptions and show cross sections of caves in the area.
Caves are classified into five types on the basis of their suitability or availability for supply dumps and billeting units.

The base map for C-1 is the German Army topographic map Jugoslavien, 1:100,000. A red overprint shows main roads only. A purple overprint shows roads classified into three groups on the basis of width, type of foundation, and bridges and crossings; hospitals; several types of industries; power stations; high-tension lines; flood lands; stream data; soil types; and availability of water. Also included are short descriptions of physical features, communications, population, economy, and strategic targets and a list of abbreviations. A note on the map states that the base is out of date and that the bridge and road data are unreliable because of the destruction of many of the bridges and roads by sabotage.

Additional material on Yugoslavia appears in both the general and the coastal defense studies of southeastern Europe.
Poland

A. Textual Materials

1. Militärgéographische Beschreibung von Polen (mit Einzelangaben zum Nachschlagen); 1:July 1939. Geheim

2. Kartenbeilagen zur Militärgéographischen Beschreibung von Polen; 1939. Geheim
   Physikalische Karte von Polen, 1:1,000,000
   Strassenzustand in Polen 1939, 1:1,000,000
   Eisenbahnkarte von Polen, 1:1,500,000
   Industriéübersicht Polen, 1:1,200,000
   Gemeindekarte der Republik Polen, 1:1,000,000
   Übersichtskarte Landschaftsgliederung und Bilderverzeichnis Übersicht der Kartenblatt-Numerierung in Polen
   Ost-Oberschlesisches Industriegebiet, 1:50,000
   26 city plans (see D-2)

3. Verzeichnis der Ortsnamen im ehemaligen Korridorgebiet in Deutsch-Polnisch und Polnisch-Deutsch; Stellv. Generalkommando XX A.K. (Wehrkreiskommando XX) Abt. Ia/Mess; 1 July 1941; at AMS

4. Wehrkreis XXI (Reichsgau Wartheland) Militärgéographische Überblick (with Biléheft); Stellv. Genkdo. XXI AK (Wehrkreiskommando XXI) Abt. Ia/Mil-Geo; Posen, 1 July 1941; at AMS and GMDS

5. Der Reichsgau Danzig-Westpreussen Militärgéographische Übersicht unter besonderer Berücksichtigung der vorher polnischen Gebiete I and II; Wehrkreiskommando XX Mil-Geo; 1 March 1940; 2 manuscripts; GMDS H 29/IDl.7

6. Ostpreussen und Danzig -- Einwirkung auf die Wasserversorgung in Flüssen und Kanälen Königsberg; Generalkommando I AK/Mil-Geo, 9 Abt.; at GMDS

7. Der Bezirk Bialystok -- Militärgéographische Überblick; Stellv. Generalkommando I AK (Wehrkreiskommando I) Abt Ia/Mil-Geo; 28 September 1944; typewritten manuscript with several ozalid maps; at CIA Map Library

8. Ortsbeschreibung für den Bezirk Bialystok; Generalkommando I AK (Wehrkreiskommando I) Abt Ia/Mil-Geo; 15 June 1942; manuscript; at AMS
B. Translations -- None

C. Map Series

1. Mil-Geo-Karte Deutsches Reich Generalgouvernement, 1:100,000; February 1944 to August 1944. Geheim

D. City Plans

1. In A-1, Stadtdurchfahrtpläne: Through-way plans of 73 towns

2. In A-2:

Warschau (mit Einzelangaben), 1:20,000

Verkehrspläne

Königshütte, 1:15,000
Kattowitz, 1:15,000
Krakau, 1:15,000
Lódz, 1:20,000
Gnesen, 1:15,000
Inowroclaw (Hohensalza), 1:15,000
Kalisch, 1:15,000
Bielitz-Biała, 1:15,000
Czestochowa, 1:15,000
Bromberg, 1:20,000
Thorn, 1:15,000
Graudenz, 1:15,000
Gdingen und Zoppot, 1:15,000
Bialystok, 1:15,000
Grodno, 1:10,000
Wilna, 1:15,000
Lemberg, 1:15,000
Przemysł, 1:15,000
Tarnów, 1:15,000
Posen, 1:20,000
Wtocolawek, 1:15,000
Radom, 1:15,000
Kielce, 1:15,000
Brest, 1:20,000
Lublin, 1:15,000

E. Remarks

The study on Poland was the earliest of the World War II Mil-Geo publications. A-1 resembles the Texthefte of later publications; A-2
is a folder containing maps. Although introductory orientation is lacking in A-1 and the organization of material is different from that in later studies, the type of data presented is essentially the same. Thirteen regional descriptions are followed by a systematic discussion of communications, water features, economy, population, climate, and health conditions. There is greater emphasis on the water features than in most of the later studies. For most of the rivers and canals, the depth, width, rate of flow, rate of fall, and a short description of the adjacent areas are given. References are made to related topographic sheets. A-1 includes directories of places and targets. Through-way town plans (D-1) and a picture section are bound with the text. Also included are black-and-white maps showing through roads, telephone net, airfields and landing places, current (1939) and planned water-transportation net, major agricultural and forest areas, administrative boundaries, population density, and ethnic groups.

A-7 is a typewritten manuscript with several sketchy maps. No published editions of this detailed study have been located. The text contains 23 maps, which show population density and distribution, ethnic types, railroads, distribution of various industries, and water features, and a 1:300,000 sheet of the Bialystok district.

The base of C-1 is the German Army topographic map of Poland, 1:100,000. The purple overprint shows the main roads, road surface, width, crossings, bridges, swampy forested places, new forests, river data, areas susceptible to flooding, observation points, military
posts, hospitals, post offices, electrical works, and several industries. Soil types and obstacles to traffic are shown and named. The margins include texts describing the physical features, population, health conditions, and industry, as well as a list of strategic targets.
A. Textual Materials

1. Militärgeographische Angaben über das Europäische Russland

Mappe A. Allgemeiner Überblick; second edition, 31 October 1941 (earlier edition, 10 August 1940)

1. Textheft
2. Große Kartenskizzen zum Textheft (im Umschlag)

Anlage 1 - Bodenarten, 1:8,500,000
Anlage 2 - Bewachung, 1:8,500,000
Anlage 3 - Funkstellen, 1:8,500,000
Anlage 4 - Fehlt (omitted)
Anlage 5 - Bodenorganisation der Fliegertruppe, 1:3,333,333
Anlage 6 - Industrie, 1:5,750,000
Anlage 7 - Kraftwerke, 1:8,500,000
Anlage 8 - Dichte der ländlichen Bevölkerung, no scale

3. Ortschaftsverzeichnis
4. Bildheft
5. Gewässerverzeichnis
6. Gewässerkarte: Europäisches Russland 1:2,500,000
7. Übersichtskarte: Europäisches Russland 1:2,500,000
8. Wehrgeologische Übersichtskarte des Europäischen Russland, 1:2,500,000
9. Heft: Erläuterungen zur wehrgeologischen Übersichtskarte
10. Verkehrs karte: Europäisches Russland (Eisenbahnen und Strassen) 1:2,500,000
11. Strassenkarte: Europäisches Russland 1:2,500,000

Mappe B. Die Baltischen Länder (Estland, Lettland, Litauen); March 1941

Teil I

Textheft
Bildheft
Karte: Übersichtskarte der Baltischen Länder, 1:1,000,000
Karte: Gewässer und sonstige Geländenhindernisse, 1:1,000,000
Teil II

Strassenkarten, 1:300,000

Blatt 1, Estland Westblatt
Blatt 2, Estland Ostblatt
Blatt 3, Lettland Westblatt
Blatt 4, Lettland Ostblatt
Blatt 5, Litauen Westblatt
Blatt 6, Litauen Ostblatt

Heft Stadtdurchfahrtpläne

Teil III

Stadtpläne (see D-1)

Mappe C. Gebiet Leningrad; 10 June 1941

1. Textheft
2. Bildheft
3. Karte: Übersicht 1:1,000,000
4. Karte: Verwaltungsgliederung und nationale Minderheiten 1:1,000,000
5. Karte: Strassenübersicht 1:1,000,000
6. Karte: Bevölkerungsdichte 1:1,000,000
7. Karte: Bodenarten 1:1,000,000
8. Karte: Eisenbahnen und Schifffahrtslinien 1:1,000,000 mit Stationsverzeichnis auf der Rückseite
9. Stadtplan von Leningrad, 1:25,000
10. Stadtplan von Pskow (Fleskau), 1:25,000 (see also D-2)
11. Plan des Leningrader Hafens, 1:15,000

Mappe D. Karelien und Kola; 15 June 1941

1. Textheft
2. Bildheft
3. Karte: Übersicht 1:2,000,000
4. Karte: Verwaltungsgliederung 1:2,000,000
5. Karte: Nationalitäten 1:2,000,000
6. Karte: Bevölkerungsdichte 1:2,000,000
7. Karte: Vegetationszonen 1:2,000,000
8. Karte: Strassenübersicht 1:2,000,000
9. Karte: Strassenübersicht 1:1,000,000
10. Plan: Eisenbahnen u. Schifffahrtslinien 1:2,000,000
Mappe E. Weissrußland; 22 April 1941

1. Textheft
2. Bildheft
3. Karte: Weissrußland, Übersichtskarte 1:1,000,000
4. Karte: Weissrußland, Strassenkarte 1:1,000,000
5. Karte: Weissrußland, Gelände- und Gewässerkarte 1:1,000,000
6. Karte: Weissrußland, Eisenbahnkarte 1:1,000,000
7. Karte: Pript-Polesse, Operationskarte 1:500,000
8. Heft: Stradtdurchfahrtspläne
9. Stadtpläne (im Umschlag) (see D-3)

Mappe F. Ukraine; 5 September 1941, third edition

Teil I

Textheft
Ortschaftsverzeichnis
Bildheft
Übersichtskarte 1:1,500,000
Strassenkarte 1:1,500,000
Gewässerkarte 1:1,000,000
Industriekarte 1:1,500,000
Schema der Eisenbahnen 1:1,500,000
Dornz-Industriegebiet 1:500,000

Teil II (5 September 1941)

Heft Stadtdurchfahrtspläne
Stadtplan (see D-4)

Mappe G. Zentral-Russland (ohne Moskau); 15 May 1941

1. Textheft
2. Ortschaftsverzeichnis
3. Heft: Stadtdurchfahrtspläne
4. Bildheft
5. Karte: Zentral-Russland, Übersichtskarte 1:2,500,000
6. Karte: Zentral-Russland, Strassenkarte 1:1,000,000
7. Karte: Zentral-Russland, Gelände- und Gewässerkarte 1:1,000,000, Nordteil, Südteil
8. Karte: Zentral-Russland, Schema der Eisenbahnen und Schifffahrtslinien 1:1,500,000
Mappe II. Moskau; 20 June 1941

1. Text- und Bildheft
2. Atlas
3. Mil-Geo-Plan Moskau I, 1:25,000
4. Mil-Geo-Plan Moskau II, 1:10,000 (see also D-5)
5. Moskau: Verkehrsmittel, 1:35,000

(No Mappe I)

Mappe J. Kaukasien; first edition, 10 August 1941; second edition, 17 August 1942

1. Textheft
2. Bildheft
3. Karte: Übersichtskarte 1:1,500,000
4. Karte: Geländekarte 1:1,500,000
5. Karte: Schema der Eisenbahnen und Schifffahrtslinien 1:1,500,000
6. Stadtpläne (first edition) (see D-6)

Mappe K. Die Wolgagebiete; 10 July 1941 (supplement, 1 December 1941)

1. Textheft
2. Ortschaftsverzeichnis
3. Bildheft
4. Karte: Die Wolgagebiete: Übersichtskarte 1:1,500,000
5. Karte: Die Wolgagebiete: Strassenübersicht 1:1,500,000
6. Karte: Die Wolgagebiete: Gelände- und Gewässerkarte 1:1,500,000
7. Karte: Die Wolgagebiete: Schema der Eisenbahnen und Schifffahrtslinien, 1:1,500,000
8. Stadtplan Gorkij (see D-7)

Mappe L. Ural-Gebiete; 30 September 1941

1. Textheft
2. Ortschaftsverzeichnis
3. Bildheft
4. Karte: Ural-Gebiete: Übersichtskarte 1:1,750,000
5. Karte: Ural-Gebiete: Strassenübersicht 1:1,750,000
7. Karte: Schema der Eisenbahnen und Schifffahrtslinien 1:1,500,000
8. Stadtpläne (see D-8)
Mappe M. Gebiete Wologda-Archangelsk; 5 August 1941

1. Textheft
2. Bildheft
3. Stadtplan von Wologda ) (see also D-9)
4. Stadtplan von Archangelsk )
5. Karte: Gebiete Wologda-Archangelsk, Übersichtskarte (zugleich Strassenübersicht), 1:2,500,000
6. Karte: Gebiete Wologda-Archangelsk, Gewässerkarte, 1:2,500,000
7. Karte: Gebiete Wologda-Archangelsk, Schema der Eisenbahnen und Schifffahrtslinien, 1:1,500,000

Mappe N. Nordost Russland (Entwurf); 1 June 1942

1. Textheft
2. Bildheft
3. Karte: Nordost-Russland, Übersicht, 1:2,500,000
4. Karte: Nordost-Russland, Gewässerkarte, 1:2,500,000
5. Karte: Nordost-Russland, Schema der Eisenbahnen und Schifffahrtslinien, 1:2,500,000

2. Militärgeographische Angaben über das Asiatische Russland

Mappe A. Allgemeiner Überblick (Entwurf); 27 April 1942

1. Textheft
2. Bildheft
3. Karte: Asiatisches Russland, Übersicht, 1:10,000,000
4. Karte: Asiatisches Russland, Eisenbahnen und Schifffahrtslinien, 1:12,500,000
5. Karte: Asiatisches Russland, Flugwesen (Gesamtübersicht der Bodenorganisation), 1:10,000,000

Mappe B. Kasachstan-Turkestan (Entwurf); December 1942 (first edition April 1942)

1. Textheft
2. Einzelheft: Übersicht über die Verwaltungseinheiten
3. Einzelheft: Gewässerbeschreibungen
4. Einzelheft: Ortschaftsverzeichnis
5. Bildheft
6. Karte: Gelände- und Strassenübersicht, 1:5,000,000
7. Karte: Übersicht, 1:5,000,000
8. Karte: Gewässerkarte, 1:5,000,000
9. Karte: Schema der Eisenbahnen und Schifffahrtslinien mit Angabe der Stationen, 1:2,500,000
3. Die Hochgebirgspässe im Kaukasus; 10 January 1943 (first edition, 18 July 1942)
   1. Heft: Das Hochgebirge des Kaukasus; Literaturnachweis; Alphabetisches Namensverzeichnis
   2. Heft: Beschreibungen der Übergänge über die Hochgebirgspässe im West-Kaukasus
   3. Heft: Beschreibungen von Übergängen über Hochgebirgsände im Zentral-Kaukasus (in first edition only)
   4. Heft: Beschreibungen von Übergängen und Hochgebirgsänden im Ost-Kaukasus (in first edition only)
   5. Heft: Umgehungswege im Gebiet des Nenskra-Tales (Ober-Swanetien)
   6. Heft: Alphabetisches Namenverzeichnis zu den Heften 2-4

4. Militärgographische Angaben über das Stromgebiet der Düna und der benachbarten Küstenflüsse (by Mil-Geo-Gruppe Ostland); 1943. Geheim
   10 Kartenblätter, 1:300,000 (see CIA 10708, First Revision)

5. Militärgographische Angaben über das Stromgebiet der Memel und der benachbarten Küstenflüsse (by Mil-Geo-Gruppe Ostland); 1943. Geheim
   10 Kartenblätter, 1:300,000 (see CIA 10708, First Revision)


7. Mil-Geo-Beschreibung Kampfraum Staraja Russia; by X A.K. la/Mess; December 1943.
   1. Textheft
   2. Höhenschichtkarte, 1:200,000
   3. Baustoffkarte, 1:200,000
   4. Überschwemmungskarte, 1:200,000
   5. Schematische Darstellung der Fluss- und Talprofile entnommen aus Brückenbauplänen
   6. Waldkarte, 1:200,000
   7. Strassenkarte, 1:200,000
   8. Verwaltungsgrenzen u. Dorfzerstörungsübersicht, 1:200,000

8. Mil-Geo-Studie Kuban-Gebiet; 5 August 1942; typewritten manuscript; (at CIA Map Library)
   1. Textteil
   2. Bildteil
   3. Objektverzeichnis
   4. Karte: Target map; shows bridges, three classes of roads, and railroads on four sheets of Osteuropa, 1:300,000.
9. Aufstellung des Ortsnamenverzeichnis von Litauen; by Mil-Geo-Gruppe Kauen; 15 May 1944; manuscript; at CIA Map Library

10. EOK files, GMDS H 29 ID 2.57, -58, -59, -60, -61, -62, -63

B. Translations

1. Translations (mostly "extract translations") published by Foreign Documents Division (FDD), CIA

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<tr>
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<td>134</td>
<td>7 April</td>
</tr>
<tr>
<td>B</td>
<td>136</td>
<td>9 April</td>
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<td>C</td>
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<td>D</td>
<td>119</td>
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Asiatic Russia:

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<td>B</td>
<td>127</td>
<td>22 March</td>
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2. Other translations:

a. Parts of A-2, Mappe A, Tex theft, incorporated in FDD Summary No. 3/49
b. A-2, Mappe B, 3, translated by FDD as Translation No. 45/49
c. 51-page translation of Asiatic Russia made by Service Branch, ID, for Topographic Detachment, ID, 23 Sept. 1948, as E-8542
e. A-1, Mappe J, 1st edition, Ergänzungsheft: Strassen und Pässen in Kaukasus-Gebirge, translated by Engineer Strategic Intelligence Division, AMS, as EIF 71215, 71216, October 1947

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C. Map Series

1. Mil-Geo-Karte Osteuropa, 1:300,000; March 1942 to June 1944

2. Durchgängigkeit des Kaukasus, 1:500,000; May 1942 to August 1942

3. Militärgeographische Angaben über des Stromgebiet der Düna und der benachbarten Küstenflüsse, 1:300,000, 10 sheets, 1943 (A-3)

4. Militärgeographische Angaben über des Stromgebiet der Memel und der benachbarten Küstenflüsse, 1:300,000, 10 sheets, 1943 (A-4)

5. Durchgängigkeit des Pripetgebietes, 1:300,000, 6 sheets (actually a part of C-1 with a separate title)

D. City Plans

1. In A-1, Mappe B, Teil III:

   Dorpat (Tartu), 1:7,500
   Dünaburg (Daugavpils), 1:15,000
   Kowno (Kaunas), 1:15,000
   Libau (Liepaja), 1:10,000
   Mitau (Jelgava), 1:10,000

   Narwa, 1:10,000
   Pernau (Pärnu), 1:15,000
   Reval (Tallinn), 1:12,000
   Riga, 1:25,000
   Wilna (Vilnius), 1:15,000

2. In A-1, Mappe C (9, 10, and 11):

   Leningrad, 1:25,000
   Pskow (Pleskau), 1:25,000
   Leningrader Hafens, 1:15,000

3. In A-1, Mappe E (9):

   Białystok, 1:7,500
   Bobruisk, 1:25,000
   Borissow, 1:10,000

   Grodno, 1:10,000
   Minsk, 1:15,000
   Witebsk, 1:7,500

4. In A-1, Mappe F, Teil II:

   Mil-Geo-Plan Charkow, 1:15,000
   Mil-Geo-Plan Cherson, 1:15,000
   Stadtplan Czernowitz, 1:12,500
   Mil-Geo-Planskizze Dnjepropetrowsk, 1:15,000
   Bildplanskizze Dnjepropetrowsk, 1:15,000
   Bildplanskizze Feodossija, 1:10,000
   Bildplanskizze Kertsch, 1:15,000

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5. In A-1, Mappe H (3, 4, and 5):

   Mil-Geo-Plan Moskau I, 1:25,000
   Mil-Geo-Plan Moskau II, 1:10,000
   Moskau: Verkehrsmittel, 1:35,000


   Batum, Bildskizze mit Mil-Geo-Objekten, 1:10,000
   Erewawan, Stadtplanbildskizze mit Mil-Geo-Objekten, ca. 1:12,000
   Noworossijsk Bildplanskizze mit Mil-Geo-Objekten, 1:15,000
   Rostov a. Don, Mil-Geo-Objekten, 1:15,000
   Tagenrog, Mil-Geo-Plan, 1:5,000
   Tbilissi (Tiflis), Mil-Geo-Plan, 1:7,500

7. In A-1, Mappe K (8):

   Stadtplan Gorkij -- new town plan, dated 1 December 1941,
   in supplement to Mappe K; no scale given

8. In A-1, Mappe L (8):

   Kirow, 1:12,500
   Magnitogorsk, 1:22,000
   Sswerdlowsk, 1:33,000
   Tscheljabinsk, 1:50,000

9. In A-1, Mappe M (3 and 4):

   Archangelsk
   Wologda

10. On back of sheets of C-1:

    Armawir
    Astrachan
    Cetetea Alba (Adderman)
       (see Rumania)
    Jefremoff
    Jelez
    Kasan
    Kolomna

   - 134 -
11. Alphabetical list of city plans:

("S" indicates a separate plan not included in the Mappen or on the map series)

<table>
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<tr>
<th>City</th>
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<td>Bialystok</td>
<td>D-3</td>
<td>Kiew</td>
<td>D-4</td>
<td>Tighina (Bendery)</td>
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<td>Jaroslawl</td>
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<td>Jefremoff</td>
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<td>Magnitogorsk</td>
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<td>Melitopol</td>
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<td>Jerewan (see Ereewan)</td>
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<td>Minsk</td>
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<td>Mitau</td>
<td>D-1</td>
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E. Remarks

Although there are a large number of Mil-Geo studies on the USSR, their quality varies widely, and the information must be carefully scrutinized before being accepted as reliable.

The greatest variation in quality occurs on the maps. The maps included in the text volumes are of more consistently high quality than the map series, but they are all much smaller in scale. Many of the maps showing the distribution of industry, power plants, natural resources, landforms, railroads, and telecommunications are based on the Great Soviet Atlas of the World.

The Gewässerkarten contain data on water features, such as depth and width of rivers, extent of flood plains, valleys with dams, the type and location of bridges over important rivers, and the opening and closing dates of navigation in relation to ice conditions.
Most of the maps of railroad show gauge, stations, and distances between main stops.

A-1, Mappe C, item 4, is a type of map not commonly found in the Mil-Geo studies. It locates national minority groups but gives no indication as to their size. A-1, Mappe D, item 5, a somewhat similar map, shows the areal but not the numerical distribution of six nationalities, one of which is Russian. All are based on pre-war censuses.

A-1, Mappe E, item 7, is a detailed operations map that shows the distribution of nine types of land surface and gives descriptions of the land forms, vegetation, terrain trafficability, obstacles to military movement, and availability of fresh water.

Two versions of Mappe G (A-1) were published on the same date. One is marked Entwurf and contains only the first three items. Why two versions were published at the same time is not known.

The Textheft of Mappe H (A-1) deals at some length with the location and identification of hospitals, industrial establishments, bridges, and other features in Moscow. Item 2 of Mappe H is a large-scale atlas of Moscow, but the information presented is now obsolete. The atlas contains 25 maps that show the distribution of industry, bridges, hospitals, telecommunications, etc.

The two editions of Mappe J (A-1) differ greatly. For the second edition, all of the maps were brought up to date; the Textheft was revised; and the city plans were omitted.
A-2, Mappe A, item 1, follows the same organization as the Textheft of A-1, Mappe A, but because of the larger size of Asiatic Russia and the smaller amount of material available, the Textheft of A-2 is less detailed. Mappe B, item 2, is a translation of an undated official Soviet handbook on the territorial-administrative organization of Asiatic USSR. It gives the complete administrative breakdown, with figures on area, population, etc., but is not reliable in view of the numerous changes made in the Soviet system.

Two additional handbooks were planned for Asiatic Russia. Mappe C was to cover west Siberia, Mappe D east Siberia. No copies of either are known to have been printed, and no manuscripts have been discovered.

Many of the 1941 and 1942 city plans are poor. Later, with the availability of aerial photography, revisions of some plans were made by field units and published as separates rather than in the handbooks. The best maps are those that were made for the air force and ground troops just before their advance over the area mapped.

A-3 is a specialized study of the Caucasus Mountains. The geography, climate, population distribution, and other general features are discussed in one volume, and three other volumes cover passes through the mountains in the west, central, and east Caucasus, respectively.

A-4 is a series of 10 maps on the drainage basin of the Düna River (Daugava) with marginal descriptions of the river, the bridges, and strategic military features along the river. A-5 is a similar study of the Memel River.
A-6 is one of the earliest Mil-Geo studies. The organization is slightly different from that of the later studies, and the material is much less detailed. A large proportion of the one-volume study consists of a list of places, some with as few as four inhabitants. A small photograph section is included. The two maps are in a pocket in the back cover of the handbook. The general map is different in appearance from later Mil-Geo maps. The legend is very long; there are eight insets with information similar to that later put in Stadtdurchfahrtpläne, hachures are used instead of contours, and some of the colors on the map are difficult to correlate with those in the legend.

A-7 is a microgeographical study with a text, accompanied by maps, that gives much finer detail than most of the studies.

A-8 is a small unpublished manuscript. The usual Mil-Geo organization is followed but in less detail. The Bildteil contains only 12 pictures with annotations. The Objektverzeichnis lists bridges and dams with approximate dimensions and is keyed to the accompanying map. Railroads, railroads under construction, and three categories of roads are hand-drawn on the map.

The base of C-1 is the regular Osteuropa topographic series. A purple overprint indicates strategic targets such as industrial developments, military installations, airports, power stations, mines, bridges, and communication centers; the width and depth of the main rivers at a number of places; the width, surface, strength of roadbed, and type of traffic the roads can carry; and the number of railroad tracks.
The features are keyed to a target list on the margin of the sheet. Also in the margins is a textual description of the administrative organization, physical features, roads, population, settlements, and economy.

The base of C-2 is the *Deutsche Weltkarte* (DKW) at 1:500,000. The routes are shown in red, with numbers keyed to a descriptive text. Curves, tunnels, passes, surface types, and road widths are shown in purple, with strategic targets keyed by purple numbers to an annotated list. An orientation map at 1:1,000,000 on the back of the sheet serves as an index to the series and also shows the main routes and strategic targets, though in a more general manner than the main map. This series gives the most detailed analysis of transportation routes and facilities in the Caucasus and is considered to be useful still.
THE MIDDLE EAST

A. Textual Materials

1. Militärangeographische Übersicht über den Vorderen Orient; 31 March 1941
   Textheft (19 April 1941)
   Bildheft
   Vorderer Orient, 1:4,000,000
   Verkehrstäbfe, 1:4,000,000
   Übersicht über Flugplätze, 1:3,000,000
   Bergbau, 1:3,000,000
   Industrie, 1:300,000

2. Ortsnamen im Vorderen Orient (Vorläufige Ausgabe); 31 May 1941

3. Mil-Geo-Studie über Syrien, Irak, Nordarabien: Gelände-
   formen, Verbindungen, Versorgungsmöglichkeiten; 31 January 1941; (typewritten manuscript)

4. Militärangeographische Angaben über Arabien; Entwurf; (manuskript)

B. Translations -- None

C. Map Series

1. Mil-Geo-Karte Vorderer Orient, 1:500,000; September 1941
   to April 1943

2. Durchgängigkeit des Kaukasus

3. Mil-Geo-Karte [Kaukasusgebiet] [Östeuropa]

4. Mil-Geo-Karte Vorderer Orient

5. Strassenkarte Vorderer Orient, 1:1,000,000; 20 August 1942

D. City Plans -- None

E. Remarks

   The general study on the Middle East (A-1) includes Turkey,
   Iraq, Iran, Palestine, Jordan, Sinai Peninsula, Kuwait, the northern

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RESTRICTED
part of Saudi Arabia, Syria and Lebanon, Bahrein, and Qatar. Part of Egypt is included on most of the maps. In the 170-page Textheft, a fairly comprehensive survey is given of physical geography, population and settlement, economy and transportation, and the military significance of each. In the first part of the Textheft the treatment is on a functional basis. Part B provides data that supplement those in Part A. The Textheft includes 11 black-and-white maps on a variety of subjects and 12 sectional maps on transportation in the transportation section.

The arrangement of the pictures in the Bildheft follows the order in which the subjects are discussed in the Textheft.

The large-sized general map of the Middle East in A-1 is based on the GSGS 1:4,000,000 series on Eurasia, although no credit line is given. The other four maps in A-1 are highly generalized. The maps of minerals and industries show data obtained from OKW, WiRü Amt, Wi. Data on the airfield map were obtained from the Luftwaffe, Genst. 5. Abt. The transportation map shows roads and railroads in relation to terrain trafficability types.

A-2 is a 39-page gazetteer keyed to place names on well-known maps at various scales from 1:4,000,000 to 1:50,000. Arrangement of names is alphabetical by country.

A-3 is a 73-page typewritten study that was never published. Most of the material is included in the later and more comprehensive study on the Middle East (A-1). Three of the four maps in the folder of A-3 are also included in A-1. The fourth is a general map of the "middle Near East" at 1:2,500,000.
A-4 was issued in manuscript form and is not known to be available in the United States. The study includes Saudi Arabia, Yemen, and Aden.

C-1 shows, by purple overprint on the Deutsche Weltkarte at 1:500,000, strategic targets and road data (width, surface, roadbed, passes, curves, tunnels, and narrow passages). Data are keyed to an Objektverzeichnis in the margin. Other items shown are seasonally flooded areas and steep hills or escarpments. A complete legend for the series is given on each sheet. A text in the margin gives a description of physical features, population and settlement, economy, roads, and health situation. Insets in the marginal texts illustrate these topics. On the back of some sheets are city plans on which streets and important buildings are identified.

The area along the boundaries between the USSR and Turkey and between the USSR and Iran is shown on three map series, C-2, C-3, and C-4. C-2 and C-3 show Mil-Geo data for the area within the USSR, and C-4 for the area not in the USSR. The Mil-Geo-Karte /Kaukasusgebiete/Osteuropa/ duplicates coverage of some of the area included in Durchgängigkeit des Kaukasus, but the data given are not identical.

C-5 is an 8-sheet transportation map emphasizing roads. It was prepared under the direction of Mil-Geo by A.O.K.12. A.Pi.Fü. u. Sonderstab "F." The series is not plotted on the index map, CIA 10708, First Revision. The data are now out of date, since most
of the roads now classified as good were improved after the map was
published, in the course of transporting supplies to Russia during
World War II. The standards used in classifying the roads are not
known, but apparently they were not strict. Although most of the
railroad information given is correct, there are some notable inac-
curacies. Sheet 8, for example, shows a narrow-gauge line from
Bushire to Borazjan that does not exist. The railway from Qum to
Kashan, shown on sheet 6 as completed in 1942, was not actually
completed until 1949. The pipeline information is fairly accurate
but not up to date.
Afghanistan and Western Pakistan

A. Textual Materials

1. Militärgeographische Angaben über Afghanistan, Baluchistan und die Britisch-Indische NW-Grenzprovinz; Entwurf; 25 August 1942

Textheft Afghanistan
Textheft Baluchistan
Textheft Britisch-Indische Nordwest-Grenzprovinz
Bildheft, Militärgeographische Angaben über Afghanistan, die Britisch-Indische NW-Grenzprovinz und Baluchistan Übersichtskarte, 1:2,000,000
Verkehrsubersicht, 1:3,000,000

B. Translations

1. Textheft Afghanistan: translated by Division of Language Services, Department of State; copy in CIA Map Library

C. Map Series -- None

D. City Plans -- None

E. Remarks

A-1 includes three separate booklets: Afghanistan, 109 pages; Baluchistan, 30 pages; and British India, Northwest Frontier Province, 60 pages. The last two areas now form the major part of western Pakistan. The handbook provides a general but useful survey of Afghanistan and western Pakistan, the value of which is enhanced by the scarcity of other basic studies of the area.

All three Textthefte have the same functional organization. Part A of each discusses location and administration, physical geography, population and settlement, economy, transportation, and military interpretation. Textheft Britisch-Indische and Textheft Afghanistan each contain a Part B, which describes the area by regions. Textheft
Afghanistan also contains a Part C (Einzelangaben), which gives an inventory of administrative divisions (in detail), water features, town descriptions, hospitals, money and weights, and road routes. Textheft Baluchistan has no Part B or C.

Each Textheft contains 6 to 10 black-and-white maps, one showing ethnic elements and the others summer and winter precipitation. Textheft Britisch-Indische also contains maps showing the administrative divisions and terrain regions. Textheft Afghanistan includes maps of administrative divisions, land use, terrain regions, and main roads.

The Bildheft covers all three areas and contains 156 photographs.

The Übersichtskarte is a full-color topographic sheet based on the GSGS Southern Asia series at 1:2,000,000. The Verkehrsüber-sicht, also in color, shows transportation, with rail gauges indicated and roads and routes classified according to passability.
Iran

A. Textual Materials

1. Militärgeographische Angaben über Iran; Entwurf;
   31 January 1943 (earlier edition, Vorläufiger Teilabdruck,
   25 September 1942)
   
   Textheft
   Ortschaftsverzeichnis
   Bildheft (10 February 1943)
   Übersichtskarte von Iran, 1:2,000,000 (fourth edition,
   December 1942)
   Verkehrsübersicht, 1:3,000,000
   Industrie und Bergbau, 1:3,000,000
   Flug- und Landeplätze, 1:4,000,000
   Telegraphen- und Telefonnetz, Sendeanlagen, 1:3,000,000

2. EOK file, GMDS H 29/II A6.3 through A6.5

B. Translations

Parts of Textheft translated:

1. Pages 14-30, Physical features, CIA-00-W-6431/49
2. Pages 84-92, Elburz Mountains, CIA-00-W-2540/49
3. Pages 165-172, 74-79, 191, Waterways, CIA-00-W-78/49

C. Map Series

1. Mil-Geo-Karte Vorderer Orient, 1:500,000 (see Middle East)

D. City Plans

1. On back of sheets of C-1:
   
   Astara
   Babul
   Babulsar
   Bandar Shah
   Bebehahr
   Firuzkuh
   Julfa
   Kermanshah
   Naushahr
   Pahlevi
   Shahi
   Tabriz
   Teheran

E. Remarks

The 1943 edition of the handbook is one of the best basic

studies of Iran currently available. The preliminary edition
contains only part of the text material and only a few of the maps included in the later edition. Although Iran is covered comprehensively in other German and English studies, the Mil-Geo material is particularly useful because of the number, variety, and quality of the maps.

The Textheft (293 pages) is divided into three parts: Allgemeine Übersicht (with chapters on functional aspects), Einzellandschaften, and Einzelangaben. Thirteen black-and-white maps are included. Subjects treated are administrative divisions (before and after 1938), land forms and terrain regions, winter and summer climate, water and water supply, vegetation, population density, distribution of ethnic groups, crop-production areas, and roads and railroads.

Over 100 towns are described briefly in the Ortschaftsverzeichnis.

The 212 photographs in the Bildheft are grouped by region and by subject within each region.

The map of Iran, based on IMW sheets, is an excellent general map as of its date, December 1942. It has detailed legends for terrain and transportation. Major terrain features are emphasized by plastic shading.

The general transportation map is a clear presentation of the road and rail networks of Iran by classes. Some terrain data are also shown.

The map on industry and mining is one of the best available economic maps of Iran. Nine types of the mineral exploitation
and 56 kinds of industrial activity are identified and located by symbols, and major, secondary, and minor installations are distinguished. Some transportation features are given.

The schematic telecommunications map, although out of date, is still one of the best available.

Translations B-3 and B-4 incorporate information from other sources.
A. Textual Materials

1. Militärgeographische Angaben über den Irak; Entwurf; second edition, 1 August 1943 (GMDS H29/II A5.1); first edition, 15 October 1941, with supplement dated 15 April 1942

Textheft
Bildheft
Vorderer Orient, 1:4,000,000 (in first edition only)
Irak, 1:1,000,000
Übersicht über Flugplätze in Syrien, Irak, Palästina, Transjordanien, 1:3,000,000 (third edition, 1 July 1943)
Syrien-Irak-Palästina-Transjordanien; Verkehrsübersicht, 1:2,500,000 (second edition, June 1943)
Syrien, Irak, Palästina, Transjordanien: Industrie - Ölgewinnung, 1:3,000,000 (in first edition only)
City plans (see D-1)

B. Translations

1. Parts of Textheft dealing with physical features, CIA-00-W-05646/49
2. Parts of Textheft dealing with roads, FDD Summary No. 33, 25 September 1950

C. Map Series

1. Mil-Geo-Karte Vorderer Orient, 1:500,000 (see Middle East)

D. City Plans

1. In A-1:

Baghdad, 1:15,000
Basra (Umggebungskarte), 1:25,000
Basra-Maqil (Hafenplan), 1:10,000

2. On back of sheets of C-1:

Haditha
Kirkuk
Mosul
E. Remarks

The first and second editions of the handbook, A-1, differ very little. In the latter, three pages of text and one black-and-white map were added, two colored maps were omitted, and two were revised.

The Textheft of 137 pages has three parts: Allgemeine Übersicht, Beschreibung der Einzellandschaften, and Einzelangaben. In the last part, major emphasis is given to transportation. The more important maps show administrative division, climate, terrain and terrain regions, vegetation, new irrigation districts of lower Mesopotamia, population densities, communications, crop areas, several separate irrigation districts, transportation, and harbors and land routes in the Persian Gulf area, the last in color.

The Bildheft contains 80 photographs in 4 sections: landscape areas, transportation, settlement, and economy and water supply.

The detailed map of Iraq at 1:1,000,000 was based on IMW sheets and printed in IMW style. Transportation features were corrected to January 1942.
Israel, Arab Palestine, and Jordan

A. Textual Materials

1. Militärgeographische Angaben über Palästina und Transjordanien; 15 October 1941

Textheft
Bildheft
Vorderer Orient, 1:4,000,000
Syrien, Irak, Palästina, Transjordanien; Industrie -
Ölgewinnung, 1:3,000,000
Übersicht über Flugplätze in Syrien, Irak, Palästina,
Transjordanien, 1:3,000,000
Palästina-Transjordanien, 1:1,000,000
Strassenkarte von Palästina, 1:500,000
Wehrgeologische Übersichtskarte von Palästina, 1:300,000
City plans (see D-1)

B. Translations -- None

C. Map Series

1. Mil-Geo-Karte Vorderer Orient, 1:500,000 (see Middle East,
   C-1 and E)

2. Mil-Geo Wehrgeologische Karte der Wasserversorgung von
   Mittelpalästina, 1:100,000 (11 sheets)

D. City Plans

1. In A-1:
   Gazā, 1:10,000
   Haifa, 1:15,000
   Jaffa und Tel Aviv, 1:10,000
   Jerusalem, 1:10,000
   Lydda und Er Ramle, 1:10,000

E. Remarks

The handbook on Israel, Arab Palestine, and Jordan is very
similar in organization to that on Syria and Lebanon: The Textheft
(93 pages) is divided into three parts: functional aspects of the
region, terrain regions, and Einzelangaben. A brief index and 12
black-and-white maps are included. The most important maps deal
with the following subjects: administrative divisions, precipitation, population density, land use and Jewish colonization, agricultural production areas, Rutenberg hydroelectric installation, surface features and terrain regions, radio stations, wells in the southern desert area of Palestine, and main routes.

The 76 photographs in the Bildheft are keyed to the text.

The first two maps cited under A-1 are the same as those in the handbook for Syria and Lebanon. The airfield map is a later and revised edition of that in the handbook. The general map of Israel, Arab Palestine, and Jordan is a very clear composite of parts of three IMW sheets. The road map is merely a copy of a 1937 British map of Palestine. The military geology map covers Palestine north of a line through Gaza and Hebron and shows 10 categories of terrain. The map is in color and uses a British base. Terrain types and their military uses are described in an elaborate table.
Syria and Lebanon

A. Textual Materials

1. Militärgeographische Angaben über Syrien; 15 October 1941

- Textheft
- Bildheft

Vordered Orient, 1:4,000,000
Syrien, Irak, Palästina, Transjordanien: Industrie - Ölgewinnung, 1:3,000,000
Übersicht über Flugplätze in Syrien, Irak, Palästina, Transjordanien, Nordarabien, 1:3,000,000
Syrien, 1:1,000,000
City plans (see D-1)

2. EOK file, GMDS H 29/II A4.3

B. Translations

1. Parts of the Textheft translated as CIA-00-W-5205/49

C. Map Series

See Middle East, C-1

D. City Plans

1. In A-1:

- Aleppo, 1:10,000
- Beirut, 1:10,000
- Damascus, 1:10,000
- Deraa, 1:5,000
- Hama, 1:25,000
- Homs, 1:5,000
- Latakia, 1:5,000
- Palmyra (Tadmor), 1:10,000
- Saida, 1:5,000
- Tripoli - El Mina, 1:10,000

E. Remarks

The handbook, A-1, covers the former French mandate area of Syria and Lebanon. The Textheft of 115 pages is divided into three parts: (1) functional aspects of the area as a whole; (2) regional descriptions, including a section on coasts and harbors; and (3) Einzelangaben, which emphasizes water features and roads and also
contains a short section on towns. The more important of the 11 maps included deal with administrative divisions, rainfall and temperature, surface features and terrain regions, vegetation, population density, nationalities, radio stations, crop areas, and roads. A short index is included.

The Bildheft contains 87 photographs arranged in the following groups: landscapes, transport, settlement, and economy and water supply.

Of the four maps in A-1, three are similar to maps in the handbook for the Middle East. The 1:4,000,000 map in A-1, however, is probably a reproduction of a Bartholomew map on the Middle East, whereas the corresponding map in the handbook for the Middle East is probably a reproduction of part of a GSGS series. The map in the handbook for Syria and Lebanon is superior in every respect to that in the handbook for the Middle East and also to the two British originals. The map on industry is a later edition than that in the handbook for the Middle East, covering a smaller area but locating more industrial plants. Except that it also covers a smaller area, the airfield map in A-1 is almost identical with that in the handbook for the Middle East. Both maps of Syria were reprinted from an IGN map dated February 1941, with a German legend added.
Turkey

A. Textual Materials

1. Militärgeographische Angaben über die Türkei; 10 August 1941

Textheft
Bildheft
Ortschaftsverzeichnis
Türkei, 1:2,000,000
Operationskarte der Türkei, 1:2,000,000
Bevölkerungskarte, 1:4,000,000
Industrie und Bergbau, 1:2,000,000
Fernsprech- und Telegraphenkarte sowie Funkstellen, 1:2,000,000
Übersicht über Flugplätze, 1:3,000,000
City plans (see D-1)

2. Militärgeographische Angaben über die Europäische Türkei einschliesslich der Meerengen; 20 December 1940

Textheft
Übersichtskarte der Europäischen Türkei einschliesslich der Meerengen mit Hervorhebung des Hauptstrassennetzes, 1:500,000
Bosporus. Übersichtskarte 1:100,000 mit militärgeographischen Eintragungen
Izmit und Umgebung. Übersichtskarte 1:100,000 mit militärgeographischen Eintragungen
Militärgeographischer Plan von Istanbul, 1:15,000

3. Türkei: Übersicht über Strassen und Eisenbahnen; 31 January 1941. Geheim

Textheft mit Bildanhang
Heft Stadtdurchfahrtpläne (February 1942) (see D-3)
Übersichtskarte der Strassen und Eisenbahnen, 1:1,000,000 (2 sheets)

4. EOK file, GMDS H 29/II A1.5 through A1.7

B. Translations

1. Parts of Textheft, A-1, dealing with physical features, CIA-00-W-6224/49
2. All handbooks on Turkey have been translated by Engineer Strategic Intelligence Division, AMS (555 pp.). Call No. DR428G37 English Translation

C. Map Series

See Middle East, C-1

D. City Plans

1. In A-1:

   Ankara, 1:15,000  Izmir (environs), 1:40,000  
   Bursa, 1:10,000  Izmit, 1:8,000  
   Istanbul, 1:15,000 (also in A-2)

2. In A-2:

   Istanbul, 1:15,000  
   Izmit and environs, 1:100,000

3. In A-3, Stadtdurchfahrtpfläne:

   Through-way plans of 37 towns

4. On back of Middle East map series, C-1:

   Many plans of Turkish cities

E. Remarks

The first Mil-Geo publication on Turkey appeared in December 1940 as a study of European Turkey (A-2). A special study on roads and railroads of Turkey (A-3) followed in January 1941. In March 1941 a section on Turkey appeared as a part of the general handbook on the Near East. The regular Mil-Geo handbook on Turkey (A-1) was published in August 1941, following an incomplete preliminary edition.
The Textheft of A-1 is divided into four parts: general review, regional description, coasts and harbors, and Einzelangaben. The inclusion of a separate section on coasts and harbors reflects the importance of the coasts of Turkey. Because of the separate study on transportation (A-3), little attention was given to that subject in A-1. The Textheft contains 10 monochrome maps, several of which have red overprints. The more important maps show administrative divisions, climate, percentage of the population with malaria for selected places, minority groups, forest areas, agricultural land use, and terrain regions. An unusual feature of the Einzelangaben section of the Textheft is a 10-page detailed list of power plants.

The Ortschaftsverzeichnis gives information on over 100 cities and towns. The 243 photographs (some panoramic) in the Bildheft are grouped by terrain regions and, within each region, by subject. The general map of Turkey at 1:2,000,000 is based on a Turkish map published in Vienna in 1941; a gazetteer is printed on the back. The Operationskarte is a trafficability map with some industrial and transportation data added. The population map shows seven categories of population density and six of cities.

The industry and mining map locates 53 types of manufacturing and gives the number of plants of each type by cities. Mines are located, and in some cases production figures are given.
In the Textheft of A-2 a brief description of the area is followed by individual descriptions of eight regions. A-2 has no Einzelangaben section. Photographs are assembled in a separate section of the Textheft. Four black-and-white maps show distances between points, terrain regions, communications, and airfields. Of the separate maps in the handbook, only the general map is worth mentioning. It is enlarged from a Turkish sheet at 1:800,000 and shows the straits area and all of European Turkey in conventional topographic style, with roads overprinted in red.

The Textheft of A-3 gives brief summaries of terrain and climate and of roads and railroads. Most of the 67 pages of text are devoted to a description of individual railroad lines and roads. For this purpose, the country is divided into seven transportation areas (shown on a map). A short section describes the connections between the Caucasus area and northern Iraq, and 38 photographs illustrate transport features. Two maps in the back show mountainous areas and roads. Red is used to emphasize connections from southeastern Europe to Syria and the Iraq oil area on one map, and between the USSR and the Iraq oil fields on the other.

Detailed road and railroad information is presented in color on two maps included as separate sheets in the folder.
Mil-Geo devoted considerable attention to Turkey and published a comprehensive survey of its military-geographical aspects. Although postwar intelligence studies on Turkey have rendered much of the work obsolete, the Mil-Geo texts still serve as an introduction to the geography of the area, and a few of the maps are still of use.
AFRICA

A. Textual Material
   1. EOK file, GMDS H 29/III Bl.2; H 29/III A.2

B. Translations -- None

C. Map Series
   1. Mil-Geo-Karte /Afrika/, 1:500,000; January-March 1943

D. City Plans
   1. On back of sheets of C-1

E. Remarks

   There is no Mil-Geo handbook dealing with Africa as a whole. The handbook on northeastern Africa is considered along with that for Egypt in the section on Egypt and northeastern Africa.

   The 1:500,000 map of Africa (C-1) is described here as a unit rather than under each of the numerous countries of North Africa that it covers. The base is the Deutsche Weltkarte, 1:500,000, /Afrika/. A purple overprint that shows strategic targets and road data (width, surface, roadbed) is keyed to a target list. Other items shown by overprinting are passes, sharp curves, narrow road cuts, land too steep for crossing by motor vehicles, land impassable for other reasons, land temporarily impassable, and land passable only with great difficulty. Dunes, seasonally flooded areas, and escarpments are noted. A text in the margin gives descriptions of the physical features, transportation, population and settlement, and economy.

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The legends for the overprints describe only those items used on the individual sheets. Insets in the marginal text show the areal extent of the landforms and geological formations.

In the city plans printed on the back of most of the sheets, street names are generally given, and many of the buildings are identified.
Algeria

A. Textual Materials

1. Militärgeographische Angaben über Algerien; Entwurf; 10 November 1942

Textheft  
Bildheft  
Ortbeschreibungen  
Nord-Algerien: Übersichtskarte, 1:2,000,000  
Strassenkarte von Algerien, 1:2,000,000  
Verkehrswege durch die mittlere Sahara, 1:4,000,000  
City plans (see D-1)  

2. EOK file, GMDS, H 29/III Bl.2; H 29/III A.2

B. Translations -- None

C. Map Series

1. 10 sheets of the Mil-Geo 1:500,000 series cover Algeria  
   (see Africa, C-1)  

D. City Plans

1. In A-1:  

   Algier, 1:10,000  
   Constantine, 1:5,000  
   Oran, 1:10,000  
   Sisal-bal-Abbes, 1:5,000

2. In A-1, Ortbeschreibungen:  
   Sketch plans of 37 towns

E. Remarks

The Mil-Geo handbook on Algeria, published in November 1942,  
is more comprehensive than most of the earlier handbooks.  
Approximately 40 pages in the Textheft are devoted to the physical,  
economic, and social aspects of the country, and another 40 pages to  
regional descriptions. Compendia of administrative divisions,
electric power installations, airfields, routes of travel, etc., occupy about 50 pages. The nine black-and-white maps in the Teilheft show the distances from Algiers to other Mediterranean points, annual precipitation, language distribution, population density, land use, railroads, terrain regions, administrative divisions, and dams and irrigated lands.

The 112 photographs in the Bildheft are arranged by major landscape areas. A Baedeker-like inventory of over 100 towns, with sketches of 37 of them, is given in the Ortsbeschreibungen of A-1. Town descriptions are based on the 1938 editions of "Guide Bleu," and "Guide du Tourisme au Sahara."

The general map of northern Algeria in A-1 is a composite of two sheets of Africa 1:2,000,000. The road map is an adaptation of a Michelin map, 1939 edition. The map showing transport routes through the middle Sahara, based on a special Michelin map and a French Army map, is a very detailed presentation of motor transport routes, with helpful notes on trafficability, accommodations, water supply, airfields, and garages. In general, only north-south rail lines are shown.
Dakar
(Including Senegal and Gambia)

A. Textual Materials

1. Militärgeographische Angaben über Dakar und sein Hinterland (Senegal und Gambia); second edition, 31 January 1942 (with a supplement dated 10 November 1942)

Text- und Bildheft
Übersichtskarte Senegal und Gambia, 1:1,000,000
Gewässer und Brunnen im Hinterland von Dakar, 1:500,000
City plans (see D-1)

B. Translations -- None

C. Map Series -- None

D. City Plans

1. In A-1:

Dakar, 1:5,000
Dakar, 1:25,000
Saint Louis, 1:5,000

E. Remarks

The Texttheft is more comprehensive than many of the texts on other areas. It covers physical geography, population, economic development, transportation and communications, and landscape areas. Section C of the Texttheft contains a discussion of the administrative divisions (with a map); climatic tables (qualitative only); a section on water features; description of towns; discussion of important diseases and sanitary facilities; descriptions of routes from Dakar to several distant places; lists of airfields in Senegal (with a map) and of radio stations

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in Senegal and Gambia; and a map showing the sheet lines for the 1:100,000 map series on Senegal. The unusually small Bildheft contains only 19 photographs.

The most important map in the Textheft is a tipped-in colored map at 1:2,000,000, on which terrain and vegetation distribution are shown in considerable detail and with unusual clarity.

Of the separate maps in the folder, one that is unusual for Mil-Geo shows water features and wells, the latter classified according to depth and quality of water. Each of the three city plans in the folder has an overprint of strategic buildings and areas.
Egypt and Northeastern Africa

A. Textual Materials

1. Militärgeographische Beschreibung von Nordost-Afriks;
28 November 1940
   Text- und Bildheft
   City plans (see D-1)

2. Militärgeographische Angaben über Ägypten; Entwurf;
20 June 1942
   Textheft
   Bildheft
   Übersichtskarte, 1:2,000,000
   Befahrbarkheitskarte, 1:500,000 (2 sheets)
   Karte der wichtigsten Kanal- und Flussübergänge in
   Ägypten, 1:500,000 (3 sheets)

3. EOK file, GMDS R29/III Al.3 through Al.6

B. Translations

1. Most of the Textheft of A-2, on Egypt, has been
   translated. Pages 12-14, 38-90, 95-112, and 162-181
   were translated by the Topographic Section, Intelligence
   Division, General Staff, U.S. Army; and pages 18-31 by
   Foreign Documents Division, CIA, as CIA-00-W-6122/49

C. Map Series

1. Mil-Geo-Karte /Äfriks/, 1:500,000 (see Africa)

2. Befahrbarkheitskarte, 1:500,000: Sheet 1, Matruch;
   Sheet 2, Kairo

3. Karte der wichtigsten Kanal- und Flussübergänge in Ägypten,
   1:500,000: Sheet 1, Kairo; Sheet 2, Assiut; Sheet 3,
   Kena

4. Mil-Geo-Karte Ägypten, 1:200,000 (4 sheets); 20 June 1942
D. City Plans

1. In A-1:

Alexandria, 1:15,000
Beni Suef, 1:5,000
Cairo, 1:25,000
Hurghada, 1:15,000

Port Said und Port Fouad
Qena, 1:5,000
Zagazig, 1:5,000

2. In A-2, Taxtheft:

Assiut
Assuan
Benha
Beni Suef
Damanhur
El-Mahalla el-Kubra
El-Manṣūra
El-Minǰa
Es-Simballawen
Heliopolis

Heluan
Hurghada
Kena
Luksor
Mit Ghamr
Sagasig
Schibin el-Kom
Sifta
Talcha
Tanta

3. On backs of sheets of C-1:

Sheet Marsa Matruch --
   Sollum, 1:10,000
   Marsa Matruch, 1:25,000

Sheet Assiut --
   Beni Suef, 1:5,000
   El Minǰa, 1:12,500
   Assiut, 1:10,000

Sheet Cairo --
   Sues, 1:10,000
   Heluan, 1:12,500

Sheet Kena --
   Assuan (and environs), 1:25,000
   Kena, 1:5,000
   Luksor, 1:12,500

Sheet Baharije --
   Baharije

4. On backs of sheets of C-4:

Sheet Rosette --
   Alexandriien, 1:10,000
   Damanhur, 1:20,000
   Talkha, 1:7,500
   Mansura, 1:10,000

Sheet Kairo --
   Kairo, 1:10,000

Sheet Ismailija --
   Ismailija, 1:10,000
   El Kantara, 1:15,000
   Environs of El Kantara

Sheet Port Said --
   Port Said, 1:10,000

   Zagazig, 1:8,000
E. Remarks

A-1 and A-2 are similar in scope and content. A-1, on northeastern Africa, emphasizes Egypt but also covers eastern Libya. A-2, on Egypt, published more than a year and a half later, both supplements and complements the earlier study; some new subjects are discussed, and some corrections have been made; sections on economic resources, transportation, and communications have been expanded; and the number of city descriptions has been increased. In A-1 the Bildheft is bound into the Textheft, whereas in A-2 the Bildheft is a separate volume and contains more photographs. Each Textheft has over two dozen black-and-white maps. A-1 contains 14 sketch maps, which deal mostly with small sections of Egypt or eastern Libya, and 12 maps, which cover mainly transportation and cases; there is also a large, highly generalized, colored map of transportation and land use, Nordöstliches Afrika, at 1:2,000,000. Of the 32 sketch maps in A-2, 20 are city plans. Most of the others cover a variety of subjects for Egypt as a whole. Great attention is given to terrain and water conditions. A-2 also has an index, an unusual feature for a Mil-Geo study.

The Übersichtskarte of A-2 is a detailed topographic map similar to an IMW. The two-sheet trafficability map, Befahrbarkeitskarte (A-2 and C-2), was made for Mil-Geo by Wehrgeologie.
Stelle 12. The significant obstacles to overland travel in northern Egypt and northeastern Libya as far west as Sollum are overprinted in bold symbols on Ägypten 1:500,000.

The three-sheet map of important canal and river crossings in the Nile Valley from the Mediterranean almost to Aswan (A-2 and C-3) is an overprint by Mil-Geo on Ägypten 1:500,000. Every bridge and ferry crossing is shown on the map and also listed in the margin with a reference to a large-scale map sheet.

On the four sheets of C-4, overprinted on Egypt 1:200,000, Mil-Geo data include only symbols locating military installations, airfields, bridges, and hindrances to traffic; figures on the depth, width, and rate of flow of rivers, canals, and flooded areas; and notes describing the roads and water supplies. Textual description concerns the physical features, roads, population and settlement, and economy. Each sheet has a target list.

In D-1 the plan of Cairo is on Sheet 81/630 of Ägypten 1:25,000. The map of Alexandria includes a partial street directory and shows contours. Both English and German names of targets are given on the plan of Zagazig. In addition to the plan of Port Said and Port Fouad listed in D-1, a sketch map of Port Said appears on page 69 of the Textheft of A-1.
The town plans in D-2 appear as black-and-white sketches supplementing the section on towns in the Textheft of A-2. The scales vary, but most are about 1:20,000. The German forms of place names, as they appear in the introductory list in the Textheft, are given in D-2; the names are spelled differently on some of the plans.
A. Textual Materials

1. Militärgeographische Beschreibung von Libyen (Entwurf); 29 January 1941

   Text- und Bildheft
   Übersichtskarte von Libyen, 1:3,000,000
   Verkehrskarte von Nord-Libyen, 1:2,000,000
   [Karte der Oase] Cufra, 1:100,000

2. Ergänzungen zu Militärgeographische Beschreibung von Libyen; December 1942; typewritten manuscript.

   Befahrbarkeit und Wasserverhältnisse im Gebiet der Grossen Syrte, 1:1,000,000 (2 maps)
   Erläuterungen zur Karte

B. Translations

1. Parts of the Textheft (GMDG H29/3) were translated by FDD as unpublished report U-967

C. Map Series -- None

D. City Plans

1. In A-1, Textheft:

   Bengasi, app. 1:35,000 (p. 47)
   Tripoli, app. 1:35,000 (opp. p. 54)

E. Remarks

The Mil-Geo treatment of Libya appears to contain no serious errors. It is particularly useful because there are few studies of Libya in English.

The text of A-1, although called an Entwurf (survey), is a fairly comprehensive study of the military geography of Libya.

Section A is a general description of the country. The principal
regions and important oases are treated in Section B. Section C is a description, in more than usual detail, of important towns and harbors; Section D devotes more than 30 pages to routes of travel; and a glossary gives the German equivalents of Arabic words. The picture section of 96 photographs is bound with the text.

There are 10 black-and-white maps in the Textheft. Subjects covered are (1) distances between points in Libya, Sicily, and Crete, and rainfall averages along the Mediterranean Coast; (2) colonization in Cyrenaika; (3) city plan of Bengasi; (4) city plan of Tripoli; (5) terrain and road network; (6) climate, vegetation, and crops; (7, 8, 9) sketches of three oases; and (10) water supply in the Tripoli area, at approximately 1:500,000, showing distribution of wells. Three colored maps in the folder are adequate but not outstanding.

In A-2 are two trafficability maps prepared by the German military geology staff (Wehrgeologenstab Wannsee, W. Geol. St. 29). Significant terrain and water features are plotted in India ink and colored crayon on the IMW sheets, Sokna and Audjila. Parts of the maps are designated as "unknown," and about half the area of each sheet is not evaluated.

The only city plans (D-1) are two black-and-white sketches bound into the Textheft of A-1. The plan of Tripoli shows the settlement pattern of the city and its environs.
The handbook on Northeast Africa (see Egypt and Northeast Africa, A-1) includes some data on Libya. Three of the maps in that text deal exclusively with Libya: Karte 1 - Verkehrswegwe in der westlichen Libyschen Wüste (approximately 1:5,000,000); Karte 2 - Verkehrsverbindungen in Tripolitanien (approximately 1:2,250,000; and Karte 3 - Verkehrsverbindungen und Wasserleitungen in der Cyrenaika (approximately 1:2,000,000).
Morocco

A. Textual Materials

1. Militärgeographische Angaben über Marokko, Entwurf; 20 July 1942

Textheft
Bildheft
Ortsbeschreibungen
Übersichtskarte, 1:2,000,000
Straßenkarte von Marokko, 1:1,000,000
City plans (see D-1)

2. EOK file, GMDS H29/III B3.3 and H29/III A.2

B. Translations -- None

C. Map Series -- None

D. City Plans

1. In A-1 (all at 1:10,000):

   Casablanca
   Fès
   Marrakech
   Meknès
   Port-Lyautey und Mehdia
   Rabat-Salé

2. In A-1, Ortsbeschreibungen:

   Sketch plans of 26 towns and oases

E. Remarks

This handbook covers Tangier, Spanish Morocco, French Morocco, and Ifni. The major emphasis is on French Morocco, for which coverage is good; the other areas are given only general treatment. The study is less detailed than that on Algeria. All the political units are covered in the discussion of physical, economic, and social features and in the description of sub-regions.
There are 13 black-and-white maps in the Textheft, only one of which is larger than page size. Subjects of the maps are location and distances from neighboring countries; dates of pacification of various parts of French Morocco; topography; vegetation and soils; precipitation; distribution of Arab- and Berber-speaking peoples; population density; mines in French Morocco; power stations and lines in French Morocco; railroads; physical regions; administrative areas of French Morocco; and roads.

Part C of the Textheft contains inventories of water resources, power facilities, airfields, and landing possibilities on the coasts, besides 40 pages on roads, with routes and distances between places. This is one of the few Mil-Geo texts with an index.

The 146 photographs in the Bildheft are arranged according to physical regions and are referred to in the Textheft. The pictures are keyed to a map showing locations of the views.

The Ortsbeschreibungen contains descriptions of about 80 towns and oases and sketch plans of 26 of them, including Tangier. This booklet is one of the most valuable parts of the handbook.

The Übersichtskarte is a fairly complete map of the IMW type. The Strassenkarte is a detailed transportation map based on two Michelin sheets published in 1941.
The detailed city plans (D-1) are based on plans published by the Service Géographique du Maroc in 1930-35. All plans but that of Meknès have street gazetteers, and all but that of Casablanca have contours. Strategic installations are overprinted in red. Most of the 26 sketch plans in the Ortsbeschreibungen are from the Guide Bleu, Maroc, 1938.
Spanish Sahara

A. Textual Materials

1. Militärgeographische Studie über Spanish-West-Sahara (Río de Oro mit Spanish-Sahara und Spanish-Süd-Marokko); Entwurf; 10 November 1942

B. Translations -- None

C. Map Series -- None

D. City Plans -- None

E. Remarks

In this very short handbook the terrain, population and settlement, economy, transportation, and telecommunications of Spanish Sahara are described. The photo supplement contains views of some of the terrain and cultural features described in the text. The three maps included are highly generalized sketches of the terrain.
Tunisia

A. Textual Materials

1. Militärgeographische Beschreibung von Tunis; 10 October 1941 (earlier edition, 16 May 1941)

Text- und Bildheft
Übersichtskarte, 1:1,000,000
Verkehrskarte von Tunis, 1:1,000,000
Stadtdurchfahrtpläne (see D-2)
City plan of Tunis (see D-1)

2. EOK file, GMDS, H 29/III A.2

B. Translations -- None

C. Map Series

All of Tunisia but the southernmost part is covered on six sheets of the 1:500,000 Mil-Geo series on North Africa (see Africa)

D. City Plans

1. In A-1:

Tunis, 1:10,000

2. In A-1, Stadtdurchfahrtpläne:

Plans of 13 towns, with an index map

E. Remarks

The handbook on Tunisia probably set the pattern for the studies on Morocco and Algeria, which appeared more than 6 months later. The Tunisian study has as many maps (10) in the text as the others, but it is less detailed and comprehensive. Photographs, town descriptions, and compendia of miscellaneous data, as well as the usual functional and regional descriptions,
are all in the Texttheft. Five large maps are included. Among the subjects presented are precipitation, drainage, mines, power stations, railroads, terrain regions, soil conditions on the south Tunisian coastal plain, airfields, water supply of the city of Tunis, land use, population density, administrative divisions, transportation along the Tunisian-Tripolitanian border, and water supply of the country.

The city plan of Tunis (D-1) shows details of land use, especially water facilities, in the suburbs. On the back of the map is a street directory and a map of the environs of Tunis at 1:30,000. The Stadtdurchfahrtpläne are not in the usual booklet form; the 13 town plans and a small-scale map that locates the towns are printed on one long, narrow sheet.
FAR EAST - PACIFIC BASIN

(Including the United States)

A. Textual Materials

1. Studie über den ostasiatisch-pazifischen Kampfraum;
   18 December 1941
   
   Text und Beschreibung
   Anlagen: Übersichtskarte des ostasiatisch pazifischen
   Kampfraumes, 1:40,000,000
   Ostasiatischer Raum, 1:10,000,000

2. Mil-Geo-Unterlagen zu Orientierungsheft "U.S.A."
   --
   Die Vereinigten Staaten von Amerika; ca. 1942; (manuscript)
   (at CIA Map Library)

B. Translations -- None

C. Map Series -- None

D. City Plans -- None

E. Remarks

A-1 is a 16-page booklet that gives the strategic picture
of the Far East-Pacific area in a general manner. A black-and-
white map shows population figures of the constituent countries.
A colored map at the scale of 1:40,000,000 portrays the empires,
bases, distances, and strategic raw materials of the area.
Another colored map shows railroads and cities of the Far East
in considerable detail.

A-2 is an introduction to the geography of the United
States in seven typewritten pages, with no maps. Probably the
manuscript was never printed.
APPENDIX B: GLOSSARY

A

Abdruck: separate print
Abgeschlossen: completed (as of a given date)
Abkürzung: abbreviation
Abschnitt: section, segment
Division for Military Maps and Surveying
Ackerbau: agriculture (cultivation of fields)
aligemein: general
Amt: office (governmental)
Änderung: alteration, variation
Angaben: data
angrenzend: bordering on, adjacent to
Anhang: appendix, supplement
Anlage: appendix, annex, plan or lay-out (of a city)
anliegend: adjacent, attached
Ansichtsskizze: sketched view
Anweisung: directions, instruction
Anzahl: number, quantity
Arbeit: work
Auflage: edition (printing)
Ausgabe: edition
Ausgearbeitet: to compile, to work out (as a problem)
Ausland: foreign
Ausschnitt: cut (out of), section (of a map)
Aussenstelle: outpost
Aussprache: pronunciation
Ausstattung: outfit, equipment, provision
Auswertung: evaluation, interpretation

B
Bahnhof: railway station
Baugut: construction material
Bearbeitung: compilation, treatment
Bedingungen: conditions
Befahrbarkeit: trafficability (vehicular)
Befestigung: fortification
behelfsmässig: temporary, improvised, makeshift
beiderseits: on both sides
Beilage: enclosure, supplement (in a manual)
Beispiel: example
Belegungsmöglichkeit: billeting possibility
benachbart: neighboring, adjoining
Benutzbarkeit: usability
Bereich: scope, area (figuratively and literally)
Bergbau: mining
Bergstriche: hachures
Berichtigung: revision (map), correction
Berücksichtigung: consideration (taking into)

mit Berücksichtigung -- with special reference

Beschreibung: description

Beschriftung: legend, caption (including all printed matter, e.g. on a map)

Besiedlung: settlement

besonders: distinct, especial

Beurteilung: judgment, criticism, evaluation

Beutekarte: captured map

Bevölkerung: population

Bevölkerungsverteilung: population distribution

Bevölkerungsdichte: population density

Bewachsung: vegetation cover

beziehungsweise (bzw): respectively, making allowance for circumstances

Bezirk: district (usually political)

Bildanhang: picture appendix or supplement

Bildbeilage: picture supplement

Bildheft: picture volume

Bildplan: photomap

Binnenschifffahrt: inland navigation

bis: up to, down to, as far as, until

bisher: up to now, until now

Blatt: sheet (of a map)

Blattbereich (BB): area covered by map sheet
Blattbereichseinteilung: index of map sheets
Blattnumerierung: sheet numbering (of a map)
Blattrand: sheet margin (of a map)
Bodenart: soil type
Bodenbedeckung: vegetation
Bodenbeschaffenheit: condition of the soil, nature or quality of the soil
Bodenbewachsung: vegetation cover, overgrowth
Bodenorganisation: ground personnel
Bodenschätze: minerals, natural resources
Brücke: bridge
Brückenbauplan: bridge construction plan
Brunnen: well
Bucht: bay

C

Chaussee: highway

D

Darstellung: presentation, representation
Dorfzerstörungsübersicht: map of destroyed villages
Durchfahrt(s)plan: through-way plan
Durchgängigkeit: passability
Durchgangstrasse: through-way road

E

ehemalig: former, old
Eigennname: proper name

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Einfluss: influence, power, inlet (e.g., of a lake)
eingehend: thorough
einsehen: to view
Einheitsblatt: unit map (refers to small-size edition of 1:100,000 series on Germany or equal-sized sections of a Grossblatt)
Einheitsobjektkartei (EOK): individual or uniform subject file
einschließlich: inclusive
Einteilung: distribution, classification, subdivision
Eintragung: registration, entry, recording
Einwirkung: influence, effect
Einzelangaben: individual data, detailed data, data on individual subjects
Einzeldarstellung: presentation as a unit, presentation of a single subject
Einzelheft: single volume
Einzellandschaft: individual region
Eisenbahn: railroad
Eisenbahnnetz: railroad net
Elektrizitätswirtschaft: electricity system
endgültig: final, conclusive, definitive
Energieversorgung: power supply
entnommen: taken from, borrowed
Entwurf: rough draft, outline, sketch, project, survey
Ergänzung: supplement
Erläuterung: explanation
Ermöglichen: render possible or feasible
erweitern: to enlarge

F
Fähre: ferry
Faltblatt: folder sheet (map)
fehlt: omitted, missing
Fernautobuslinien: long-distance bus routes
Fernsprechnetz: telephone net
Fernverkehrstrasse: long-distance highways
Fliegertruppe: air force, air troops
Flugplatz: airfield
Flugwesen: airway system, aviation
Flurkarte: field map
Fluss: river
Forstwirtschaft: forest economy
Führung: operations (military) staff
Funkstelle: radio station

G
Generalstab: general staff
Gangbarkeit: passability (on foot)
Gau: district (usually administrative)
Gebiet: area, region
gegenwärtig: present
geheim: secret
geheime kommandosache: top secret
Geländeform: land form
Geländehindernis: terrain obstacle
Geländename: terrain name (designation)
Gemeinde: commune, minor civil division (of Germany)
Geneigtaufnahme: slope survey
Generalkommando: corps headquarters
gesamt: total, entire
Gesamtbeurteilung: over-all evaluation
Gewässer: waters, drainage
Gewässerabschnitt: section of a drainage system (description or map)
Gitternetz: military grid (on map)
Gliederung: distribution, configuration, classification
greifbar: palpable, tangible
Grenze: border, boundary
Grenzgebiet: border area
Grenzübergang: border crossing
Grossblatt: large sheet (map)
Grossformat: large size (map or book)
Gruppe: group
gültig: valid, authentic

H
H. Dv. g. [41], Heeres Druckvorschriften geheime [41]: Army
printing regulation, secret [41]
Hafen: harbor
Halbinsel: peninsula
Haltestelle: stop (railroad or bus)
Hauptband: main volume
Hauptbodenart: main soil type
Hauptstrassennetz: principal road net
Hauptteil: main part
Heer: army
Heft: paper-bound volume or brochure
herausgeben: to publish
Herstellung: production
Hervorhebung: emphasizing, stressing.
Hochgebirge: high mountains
Hochgebirgspass: high mountain pass
Höhenlage: altitude
Höhenschichtenkarte: contour map

Industriegebiet: industrial area or region
Inhalt: contents
Insel: island
Insgesamt: total, altogether

Jahreszeit: season
Joch: narrow pass, col
K

Kampfraum: combat area

Karte: map

Kartenanhang: map supplement

Kartenberichtigung: map correction

Kartenblattnumerierung: map sheet numbering

Kartenlager: map depot

Kartenmappe: map folder

Kartenskizze: sketch map

Kartenstelle: map depot

Kerngebiet: nucleus or core area

Kleinformat: small size

Klima: climate

Kraftwerk: power plant

Kriegskarte: war map, military map

Kulturland: cultivated land

Küste: coast

Küstenbeschaffenheit: nature of coasts

Küstenbeschreibung: description of coasts

Küstenfluss: coastal river

Küstengebiet: coastal area

Küstengestaltung: coastal configuration

L

Lage: location, position, situation

Lagerstätte: deposit (of minerals)
Landesplatz: landing place (airplane)
länderweise: by countries
Ländesaufnahme: survey of the country, topography, also survey agency
Landesbeschreibung: description of the country
Landeskunde: knowledge of a country, geography
Landesplanung: regional planning
Landschaftsbild: picture of a landscape or region
Landschaftsgliederung: subdivision of land into geographic regions
Landwirtschaft: farming (including livestock-raising), agriculture
Leistungsfähigkeit: capacity
Literaturnachweis: bibliography
Luftlandemöglichkeit: place where air landing is possible

Mappe: folder
Masstab: scale (of a map)
Meerenge: strait
Mehrheit: majority
Militärbefehlshaber: army commander
Minderheit: minority
Möglichkeit: possibility, feasibility, opportunity
Muster: sample, model

Nachdruck: reprint
Nachrichtenverbindung: signal communications

Nachtrag: supplement

Namensverzeichnis: index of names (e.g. gazetteer)

nautisch: nautical

nebst: alongside of, including, and also

Niederschlag: precipitation, rainfall

nördlich: northern

Oberkommando (des Heeres-OKH, der Kriegsmarine-OKM, der Luftwaffe-OKL, der Wehrmacht-OKW): High Command of the Army, the Navy, the Air Force, the defense forces

Oberflächengestalt: surface configuration, relief

Objektbilder: pictures of objectives, target photos

Objekterläuterung: target (or objective) explanation

Objekteintragung: indication of objectives

Objektkarte: map of objectives, target map

Objektverzeichnis: target (or objective) directory

Ölgewinnung: oil production

Operationskarte: (military) operations map

Orientierung: orientation

Ort: place

Ortsbelegungskarte: billeting map

Ortschaftverzeichnis: gazetteer of towns and cities

Ortskarte: place map

Ortsname: place name
Ortsverzeichnis: gazetteer
östlich: eastern

Pause: tracing
Pegel: water-level gauge
Pegelstation: gauging station
Pflanzendecke: plant cover
Piste: track

Quellgebiet: head-water region

Raumforschung: regional research
Referat: report (reporting agency)
Reichsgau: administrative district of the [Third] Reich
Rückseite: back, reverse side
Rundbild: panorama

Sammelheft: collection of articles in a single volume
Schema: diagram, plan
Schiesskarte: fire control map
Schiffahrtslinien: navigation lines or routes
Schleuse: lock (e.g., in a canal)
Schriftmuster: sample of type
Seekarte: hydrographic chart
Sendeanlage: radio transmitter

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Siedlung: settlement
Signatur: legend, symbols
Skizze: sketch
Sonderausgabe: special edition
Sonderbeilage: special supplement
Sonderkarte: special map
Stadtdurchfahrt(s)plan: through-way town plan
Stadtplan: town plan
Starkstrom: high tension current
Stationsverzeichnis: directory of railroad stations
Stellvertreter: representative, assistant (commander, etc.)
Strasse: road, street, strait (e.g., of Gibraltar)
Strassenausbau: road improvement or development
Strassenzustandskarte: map of condition of roads
Strassenübersicht: general road map
Streckenverzeichnis: list of distances
Stromgebiet: drainage basin
Stromversorgung: electric power supply
Stück: piece
südlich: southern

T
Tal: valley
Talprofil: valley profile or cross section
Talsperre: dam
Teil: part
Teilabdruck: partial reprint

Telegrafennetz: telegraph network

Texteit: text volume

Truppenführung: conduct of troops, field service manual

Über: over, across

Überblick: survey

Übergang: crossing

Übersicht: survey, over-all view

Übersichtskarte: general map, orientation map, index map

Überschwemmungskarte: map showing floodability

umfassend: comprehensive

Umgebung: environs, surroundings

Umgehungsweg: route for evading (the enemy)

Umschlag: wrapper, jacket (of a book)

Unterlage: basis, evidence, source material

Unterkunft: shelter, billet

Unterrichtungswerk: training manual

verbessern: to improve, to correct

Verbindung: connection

verfügbar: available

Verhältnis: relationship, condition

Verkehr: transportation, traffic
Verkehrskunstbaute: engineering structure along transportation routes (bridges and tunnels)
Verkehrslinien: communication lines
Verkehrsmittel: means of communication
Verkehrverbindung: transportation connections
Verkehrsweg: transport route, traffic route
vermerkt: noted, marked, recorded
Vermessung: survey, surveying
Vermessungswesen: conduct or operation of a survey
Versorgung: supply
Verteidigung: defense
Verteilung: distribution
Verwaltungseinheit: administrative unit
Verwaltungsgliederung: administrative structure or organization
Verwaltungs grenze: administrative boundary
Verwaltungskarte: administrative map
Verwendung: use, application
zur besonderen Verwendung -- z.b.V. -- for special work, unattached
Verzeichnis: list, index, directory
Viehzucht: stock farming, livestock raising
Volksgruppe: ethnic group
Volkstumskarte: ethnographic map
vorläufig: provisional, preliminary
W

Wasserführung: aqueduct
Wasserleitung: water supply or management
Wasserversorgung: water supply
Weg: way, route
Wehrgeologisch: military geological
Wehrkreis: military district
Wehrkreiskartenlager: military district map depot
Wehrkreiskommando: military district command
Wehrmacht: military services

Wehrmachtsbefehlshaber: Department of Defense commander, as distinguished from Militärbefehlshaber

westlich: western
wichtig: important
Wirtschaft: economy
Wirtschaftskarte: economic map
Wirtschaftsobjekt: industrial (economic) target

Z

Zeit: time

zur Zeit -- at present
zerstören: to destroy
zugleich: simultaneously
Zusammendruck: composite printing
Zusammenfassend: comprehensive, collective, summarizing
Zusammenstellung: list, inventory, table

zuständig: competent

zwischen: between, among