
CHAPTER I

INTRODUCTION

SECTION I GENERAL

1. Purpose

The purpose of this manual is to provide information required by the map user when reading modern Soviet military topographic maps.

2. Scope

This manual presents, as a convenient reference guide, symbols and abbreviations which appear on available Soviet maps of various scales.

3. Organization

a. Chapter 1 explains briefly the responsible authorities involved in Soviet mapping. It also contains additional general information concerning symbols and a detailed explanation of the Soviet map numbering system.

b. Chapter 2 is a listing of map symbols generally common to all scales except for size, which varies from scale to scale.

c. Chapter 3 is a list of symbols found only on maps at scale of 1:10,000.

d. Chapters 4 through 6 provide additional symbols found on 1:200,000, 1:500,000 and 1:1,000,000 scale maps.

e. Appendix I provides a transliteration of the Russian alphabet.

f. Appendix II is a list of abbreviations appearing on Soviet maps, arranged according to the Russian alphabet. Symbols which are general in nature (such as mine, factory and tower) are accompanied by abbreviations indicating the specific use or activity of the feature.

g. Appendix III is a list of translated, selected terms primarily appearing in the compilation credit note of Soviet maps.

SECTION II NOTES ON SYMBOLIZATION

1. In a few cases two symbols may be found representing one feature. This is due to a continuing evolution of mapping specifications.

2. A symbol qualified by the words "drawn to scale" means that the size is delineated true to the scale of the map.

3. Many of the symbols presented in Chapters 4 through 6 exceed normal map size; exact specifications are not available.

4. It is possible that symbols other than those listed herein may be discovered.

SECTION III SOVIET MAPPING RESPONSIBILITIES

1. The principal topographic map producing organization of the USSR is the Chief Administration of Geodesy and Cartography (GUGK) under the Ministry of Internal Affairs (MVD). This vast organization, controlling mapping functions throughout the USSR, is responsible for the production of all military-topographic, economic and civil-use mapping.

2. The Military Topographic Administration (VTU) under the General Staff of the Ministry of Defense is also involved in Soviet mapping, operating in close cooperation with GUGK. Its responsibilities are flexible but apparently its authority takes precedence during wartime.

SECTION IV SHEET NUMBERING SYSTEM OF SOVIET TOPOGRAPHIC MAPS

1. 1:1,000,000 Scale

The Soviet topographic 1:1,000,000 sheets follow the International Map of the World (IMW) numbering system. Sheets are designated by a Roman letter and Arabic number. In the Northern Hemisphere the numbering system begins at the Equator and the 180° meridian with sheet number A-1. Sheet numbers progress northward and eastward in letters and numbers respectively. The individual sheets cover 4° of latitude and 6° of longitude. Example: Sheet M-36 is located between 48° and 52° north latitude and 30° to 36° east longitude.

2. 1:500,000 Scale

Each 1:1,000,000 sheet area is divided into four 1:500,000 sheets, each covering 2° of latitude and 3° of longitude.

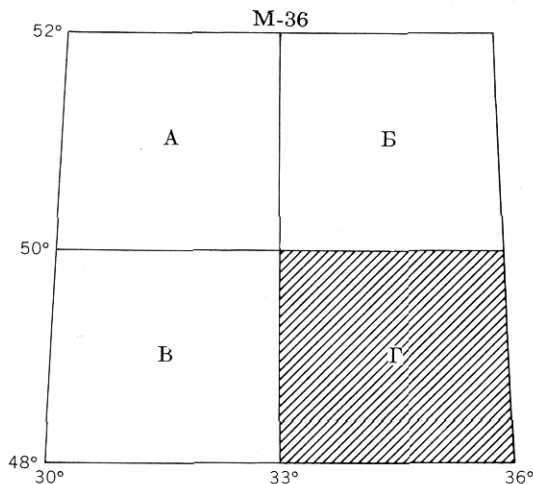


FIGURE 1. 1:500,000 scale division of 1:1,000,000 sheet M-36.

Each sheet is identified by the number of the 1:1,000,000 sheet within which it falls, followed by a Russian letter to designate each quarter: A for NW, B for NE, B for SW and Γ for SE. Example: M-36- Γ.

3. 1:300,000 Scale

Each 1:1,000,000 sheet area is divided into nine 1:300,000 sheets, each covering 1°20' of latitude and 2° of longitude.

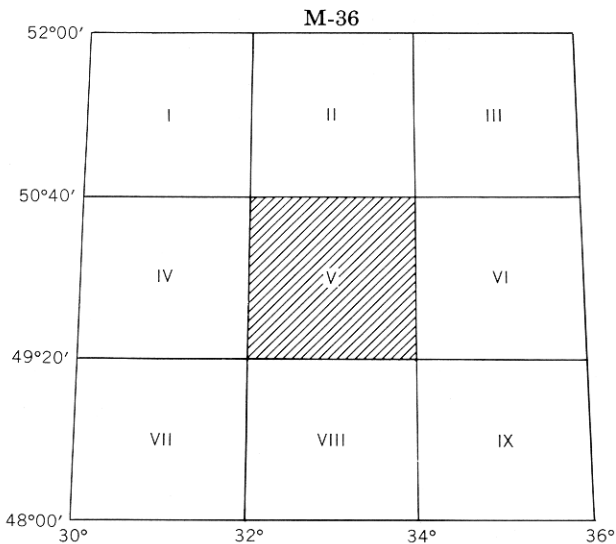


FIGURE 2. 1:300,000 scale division of 1:1,000,000 sheet M-36.

Each sheet is identified by a Roman numeral that precedes the 1:1,000,000 sheet number. Example: V-M-36.

4. 1:200,000 Scale

There have been several variations of the format and numbering systems used during the history of the 1:200,000 scale maps. Three of these, recently and presently used, are described below.

- a. One numbering system divides the 1:1,000,000 sheet area into 36 1:200,000 sheets, each covering 40' of latitude and 1° of longitude.

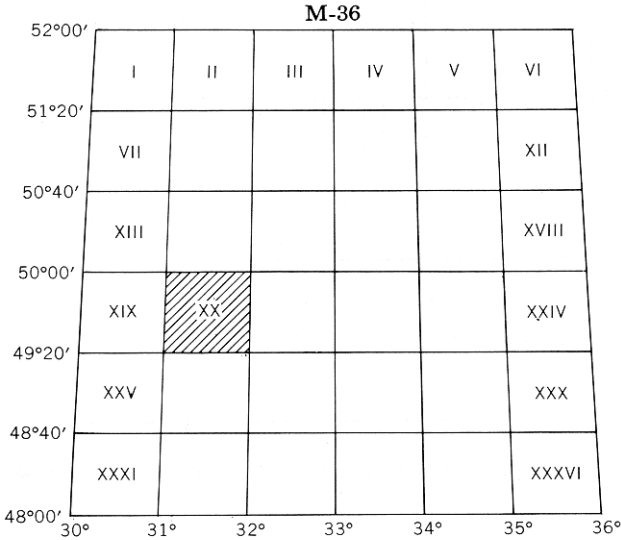


FIGURE 3. Method 1, 1:200,000 scale division of 1:1,000,000 Sheet M-36.

Each sheet is identified by the number of the 1:1,000,000 sheet within which it falls, followed by a Roman numeral. Example: M-36-XX.

b. A second system divides the 1:1,000,000 sheet area into 18 1:200,000 sheets, each covering 40' of latitude and 2° of longitude.

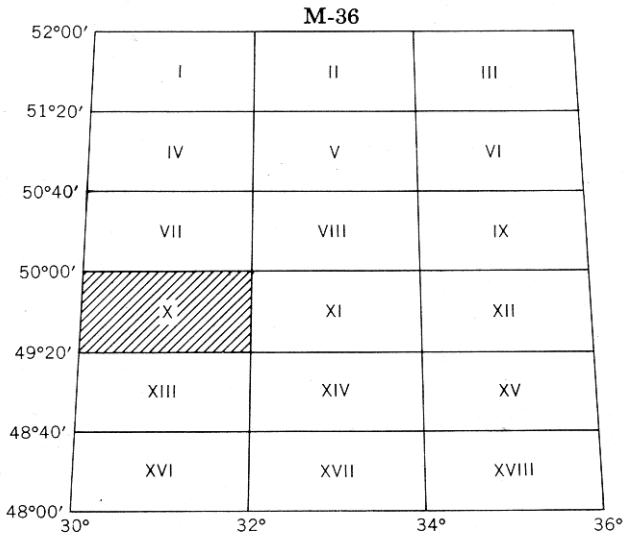


FIGURE 4. Method 2, 1:200,000 scale division of 1:1,000,000 Sheet M-36.

Each sheet is identified by the number of the 1:1,000,000 sheet within which it falls, followed by a Roman numeral. Example: M-36-X.

c. A third system divides the 1:1,000,000 sheet area into nine 1:200,000 sheets, each covering 1°20' of latitude and 2° of longitude. It will be seen in comparing diagrams that in this system each sheet contains the area of four 1:200,000 sheets shown in method No. 1. It is known as the four-in-one method.

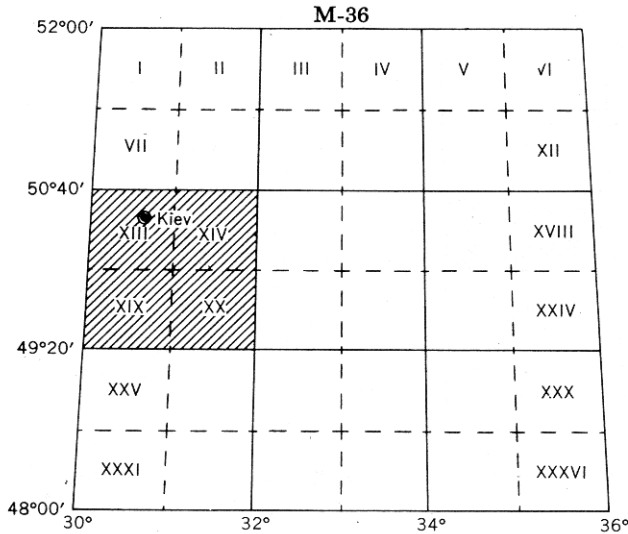


FIGURE 5. Method 3, 1:200,000 Scale division of 1:1,000,000 Sheet M-36.

In this case the 1:200,000 sheet has two identifications. At the top-center of a sheet will be the name of the principal town of the area, followed by a serial number, such as Kiev M-36-(4). The numeral 4 appears in parentheses to prevent confusion with sheet designation of 1:100,000 scale maps. A second sheet identification is found in the upper-right corner, such as, M-36-XIII, XIV, XIX, XX which indicates the numbers of the basic 1:200,000 scale maps involved in the single sheet. Example: Kiev M-36-(4) and M-36-XIII, XIV, XIX, XX.

5. 1:100,000 Scale

Each 1:1,000,000 sheet area is divided into 144 1:100,000 sheets, each covering 20' of latitude and 30' of longitude.

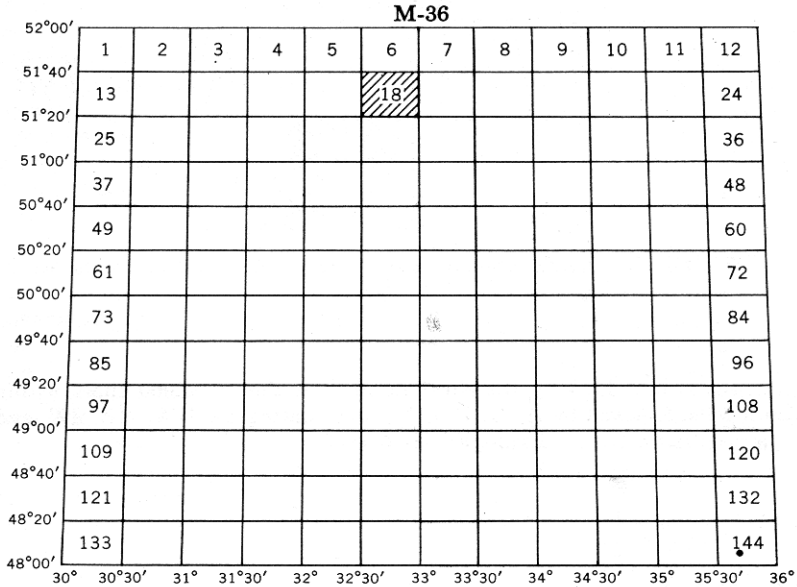


FIGURE 6. 1:100,000 scale division of 1:1,000,000 Sheet M-36.

Each sheet is identified by the number of the 1:1,000,000 sheet within which it falls, followed by an Arabic number. Example: M-36-18.

6. 1:75,000 Scale

The sheet line diagram and numbering system of the 1:75,000 scale maps is not illustrated. The maps were produced by Latvia previous to Soviet domination and were designed to a format and numbering system adjusted to the size and shape of Latvia only. The maps are 15' N-S x 30' E-W. Apparently the 1:75,000 scale is no longer active but the existing maps are still in use. The sheets are identified by an Arabic number followed by the name of the principal town within the map limits. Example: 102-Karsava.

7. 1:50,000 Scale

Each 1:100,000 sheet area is divided into four 1:50,000 sheets, each covering 10' of latitude and 15' of longitude.

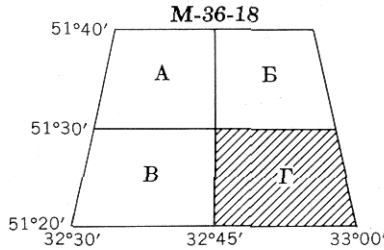


FIGURE 7. 1:50,000 scale division of 1:100,000 sheet M-36-18.

Each sheet is identified by the sheet number of the 1:100,000 sheet within which it falls, followed by A, B, B or Γ, representing the NW, NE, SW, and SE quarters respectively. Example: M-36-18-Γ.

8. 1:25,000 Scale

Each 1:50,000 sheet area is divided into four 1:25,000 sheets, each covering 5' of latitude and 7'30" of longitude.

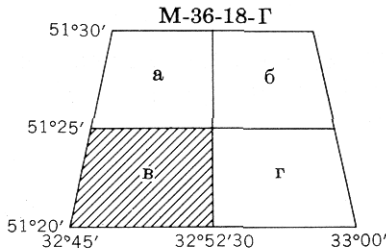


FIGURE 8. 1:25,000 scale division of 1:50,000 sheet M-36-18-Γ.

Each sheet is identified by the number of the 1:50,000 sheet within which it falls, followed by the Russian letter a, б, B or Γ, representing the NW, NE, SW and SE quarters, respectively. Example: M-36-18-Γ-B.

9. 1:10,000 Scale

Each 1:25,000 sheet area is divided into four 1:10,000 sheets, each covering 2'30" of latitude and 3'45" of longitude.

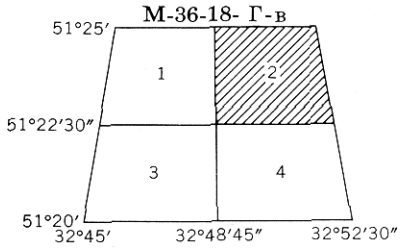


FIGURE 9. 1:10,000 scale division of 1:25,000 sheet M-36-18-Γ-B.

Each sheet is identified by the number of the 1:25,000 sheet in which it falls, followed by an Arabic number - 1, 2, 3 or 4. Example: M-36-18-Γ-B-2.