

AMS TECHNICAL MANUAL NO. 18

Map Room

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.U5

POLISH MAP SYMBOLS

FIRST EDITION
NOVEMBER 1946

ARMY MAP SERVICE
CORPS OF ENGINEERS, U. S. ARMY
WASHINGTON, D. C.

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INTRODUCTION

This publication presents in convenient form the symbols appearing on Polish maps at the scales of 1:25,000, 1:100,000 and 1:300,000 published by the Wojskowy Instytut Geograficzny (Polish Military Geographical Institute).

Material has been drawn largely from a symbol book published by that agency. In addition, some symbols have been added as a result of an exhaustive study made by the Army Map Service of original maps.

For further information on the definitions of terms found on Polish maps, use should be made of AMS Technical Manual No. 13, Glossary of Polish Map Terms, Army Map Service, U. S. Army, Washington, D. C. (key number 204334).

DISCUSSION OF POLISH MAPS

Topographic mapping in Poland up to World War II came under the jurisdiction of the Wojskowy Instytut Geograficzny (Military Geographical Institute). This agency maintained excellent standards of delineation and reproduction, and as a result their maps are generally noteworthy contributions to cartography.

Polish cartography is strongly influenced by the countries which controlled the nation prior to its establishment as a republic. This is especially true of the symbolization which was adapted with certain modifications from the Austrian KuK. Although converted to metric values, the contours on many of the 1:100,000 sheets falling in areas formerly under Czarist Russia reflect the influence of that country inasmuch as the contour intervals are based on the Russian sazhen.

The mapping program of the Polish Military Geographical Institute provided for three companion series of maps (1:25,000, 1:100,000, and 1:300,000), each to cover the entire country. The 1:300,000 series, consisting of about 43 sheets, was completed. The 1:100,000 series, consisting of about 482 sheets, was also completed, although many sheets were monochrome provisional editions and others were already out of date by 1939. Of the 3904 sheets planned for the 1:25,000 series, only a scattered few were completed.*

The maps are erected on the Polyhedral projection, based on the Ferro Meridian (20° West of Paris). While most sheets now bear Greenwich values, certain of the older 1:100,000 sheets still are labelled with Ferro values. Confusion on the 1:100,000 sheets is avoided by identifying the prime meridian in the northwest corner of each sheet. In converting from Ferro to Greenwich the German value of 17°40' was applied rather than the correct value of 17°39'46.05".

A 1,000 meter military grid appears on the 1:25,000 and 1:100,000 sheets. The entire country is covered by a single grid zone. Originating at about 14° East of Greenwich and about 47° North, the grid runs 1200 Km. easterly and 1100 Km. northerly. The grid system is centered on the intersection of the meridian 22° East of Greenwich (the x axis and the 600 Km. easting grid line) and the 52° parallel (the point of origin of the y axis, which is the 500 Km. northing grid line).

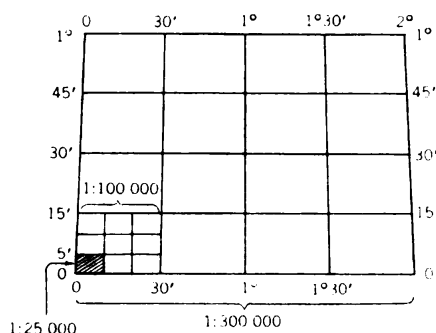
A comparison between the U.S. Army and Polish systems for reading a grid reference is interesting. According to the U.S. Army system, the easting is read first and the northing, second; the easting is the x coordinate and the northing the y coordinate. Under the Polish system, the northing is read first and the easting, second; the northing is designated as the x coordinate and the easting, as the y coordinate. Following standard military practice under the U.S. Army system, a grid reference for a point might read: (796.8-505.5). Under the Polish system the reading for the same point would be:

x 505.5

y 796.8

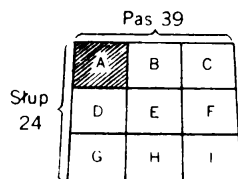
The 1:300,000 sheets are 1°NS x 2° EW, each including approximately 15,000 square kilometers. These sheets are combination strategic-road maps and are printed in six colors: culture, black; drainage, blue; contours, brown; woodland, green; road classifications, red; and boundaries, orange. The 1:300,000 sheets are designated by name.

*In addition, the country was completely mapped by a smaller scaled series consisting of several irregularly shaped sheets—5 at the scale of 1:400,000 and 2 at the scale of 1:600,000.



The 1:100,000 sheets are 15' NS x 30' EW, each including approximately 900 square kilometers. Sixteen 1:100,000 sheets are included within a single 1:300,000 sheet. Normally, the 1:100,000 sheets are printed in four colors: culture, black; drainage, blue; contours, brown; and woodland, green. In mountainous areas, a hill shading tint is surprinted in dark violet over the contours. The 1:100,000 sheets are designated by number and name. Every row (Pas) of 1:100,000 sheets (15' NS) is assigned a number. The row numbers begin at 56° North and progress southward. The first row (55°45' to 56°) is numbered 25. Each column (Slup) of 1:100,000 sheets (30' EW) is likewise assigned a number. The column numbers begin at 15°20' East of Greenwich and progress eastward. The first column (15°20' to 15°50') is numbered 21. A sheet number is determined by reading the row (Pas) number first and the column (Slup) number second; for example: Pas 39 Slup 24.

The 1:25,000 sheets are 5' NS x 10' EW, each including approximately 100 square kilometers. Nine 1:25,000 sheets are included within a single 1:100,000 sheet. Normally each sheet is printed as a monochrome, in black. Special "tourist" editions for certain sheets have been reproduced in polychrome: culture, black; drainage, blue; contours, brown; woodland, green; hill shading, dark violet; and tourist trails and points of interest in red. A 1:25,000 sheet is designated by number—being assigned that of the 1:100,000 sheet within which it falls, followed by a capital Roman letter indicating its location within the 1:100,000 sheet. The terms for row (Pas) and column (Slup) are omitted. Hyphens appear between the numerals and letter of the sheet number. The letters are assigned to the nine 1:25,000 sheet comprising a 1:100,000 sheet in a left to right-top to bottom fashion as:



Thus, the number of the NW 1:25,000 sheet in the illustration would read as:

39-24-A

Wide use is made of abbreviations especially on the 1:25,000 and 1:100,000 maps. These abbreviations usually occur with buildings, indicating the type of structure, although they often appear augmenting other features. For proper interpretation of Polish maps the table of abbreviations which follows should be freely consulted.

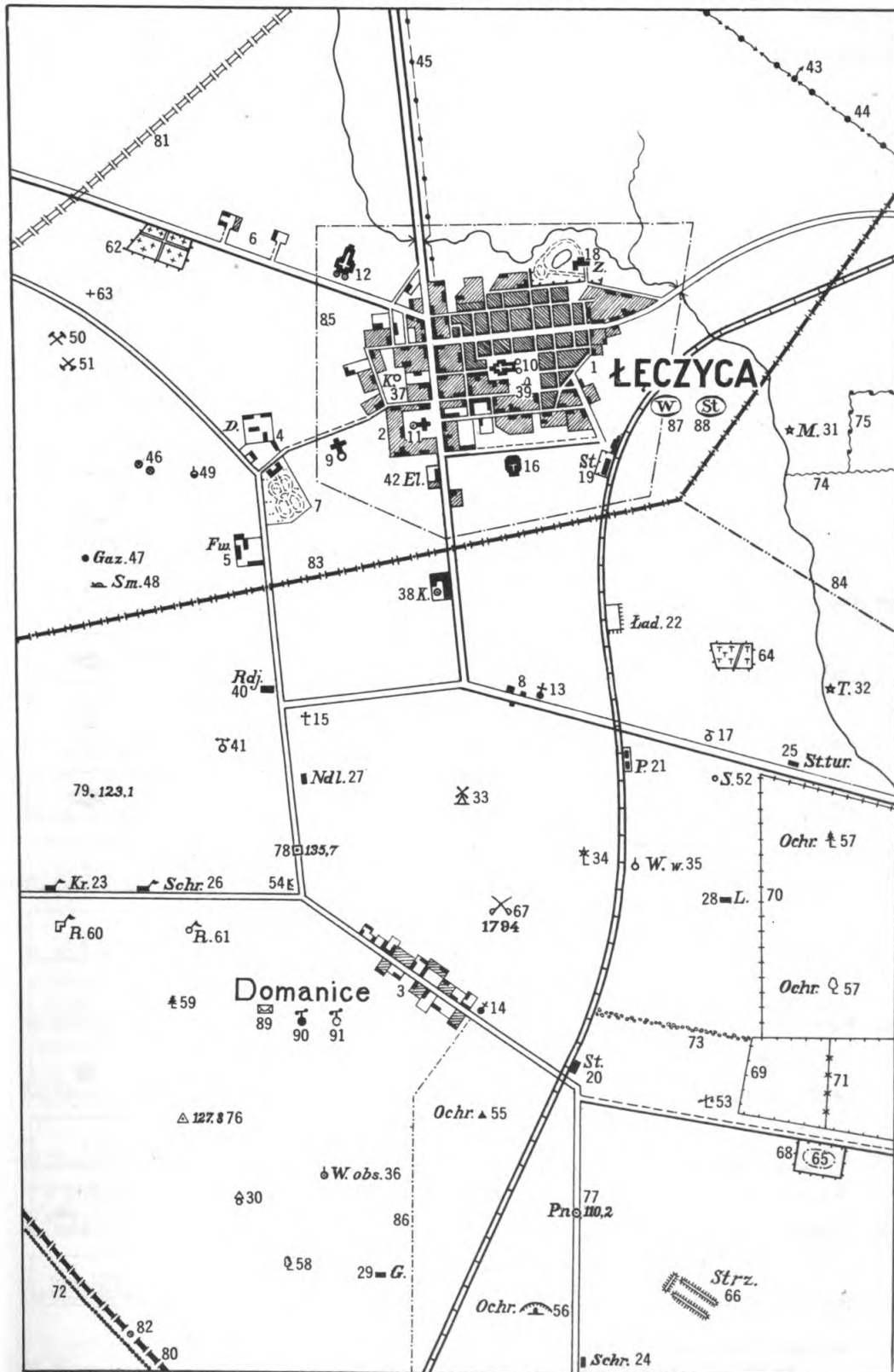
ABBREVIATIONS








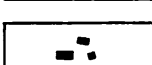
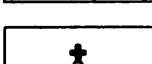
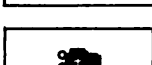

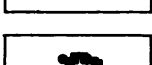
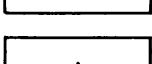
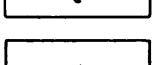
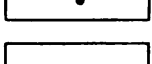
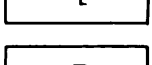



B.	Bród	Ford
Bas.	Basen	Reservoir
Bg.	Bagno	Marsh
Bl.	Blok kolejowy	Railroad block
Br.	Browar	Brewery
B.w.	Bród dla wozów	Ford for vehicles (on older maps)
Cg.	Cegielnia	Brick kiln
Ckr.	Cukrownia	Sugar refinery
D.	Dwór	Estate
Dln.	Dolny	Lower
Dr.	Dróżnik	Railroad guard's hut
Dw.	Dworzec kolejowy	City railroad station
Dzgc.	Dziegciarnia	Tar hut
El.	Elektrownia	Power station
Farb.	Farbiarnia	Dye house
Fb.	Fabryka	Factory
Fut.	Futor	Small farm
Fw.	Folwark	Farmstead
G.	Gajówka	Forester's guard house
Garb.	Garbarnia	Tannery
Gaz.	Gazownia	Gas works
Gl.	Glinianka	Clay pit
Gm.	Gmina	Village
Gorz.	Gorzelnia	Distillery
Grn.	Górny	Upper
Ht.	Huta	Foundry
K.	Komin (dalekowidoczny)	Chimney (visible from distance)
Kan.	Kanał	Canal
Kap.	Kaplica	Chapel
Kl.	Klasztor	Convent, monastery
Km.	Kamieniołom	Quarry
Kol.	Kolonia	Colony
Kop., Kp.	Kopalnia	Mine
Kosz.	Koszary	Barracks
Kp.	Kopalnia	Mine
Kr.	Karczma	Inn
L.	Leśniczówka	Forester's lodge
Ład.	Ładownia	Landing stage
Łaz.	Łazienki	Bathing pavilion
M.	Młyn	Mill
M.m.	Młyn motorowy	Motor driven mill
M.p.	Młyn parowy	Steam mill
Mag.	Magazyn	Warehouse, store
Mij.	Mijanka	Railroad by-pass
Mł.	Mały	Small
Ndl.	Nadleśnictwo	Chief forester's office
Nw.	Nowy	New
Ochr.	Ochrona (przyrody, zabytków)	State protected landmark feature
Odlew.	Odlewnia	Foundry
Ok.	Okolica	Neighborhood
Ol.	Olejarnia	Oil mill
P.	Przystanek kolejowy	Railroad halt
P.n.	Punkt niwelac	Benchmark
P.ż.	Przystań żegluga	Landing stage
P.cel.	Posterunek celny	Customs post
P.str.gr.	Posterunek straży granicznej	Frontier-guard post

Pap.	Papiernia	Paper mill
Pas.	Pasieka	Apiary
Pl.	Plac (Pl. ćw.-Plac ćwiczeń)	Square
Pom.	Pomnik	Monument
Pr.	Prom	Ferry for vehicles
Pr.p.	Prom parowy	Steam ferry for vehicles
Pr.m.	Prom motorowy	Motor-driven ferry for vehicles
Pw.	Przewóz dla ludzi	Passenger ferry
Pw.ł.	Przewóz łodziami dla ludzi	Ferry for foot passengers
Pw.m.	Przewóz motorowy dla ludzi	Motor-driven ferry for foot passengers
Pw.p.	Przewóz parowy dla ludzi	Steam ferry for passengers
Pw.w.	Przewóz dla wozów (prom)	Passenger ferry
Przędz.	Przędzalnia	Spinning mill
R.	Ruiny	Ruins
Raf. nft.	Rafinerja nafty	Oil refinery
Rest.	Restauracja	Restaurant
Rdj.	Radjostacja	Broadcasting station
Rzeź.	Rzeźnia	Slaughterhouse
S.	Studnia	Well, spring
Schr.	Schronisko	Tourist hostel
Skł.	Skład	Store
Śl.	Śluza	Sluice
Sm.	Smolarnia (turpentyniaria)	Tar works (or turpentine)
St.	Stacja kolejowa	Railroad station
St.tow.	Stacja towarowa	Freight station
St.tur.	Stacja turystyczna	Tourist shelter
Std.	Stodoła	Barn
Str.	Stary	Old
Strażn.	Strażnica	Frontier-guard post
Strz.	Strzelnica	Rifle range
Sz.	Szyb	Pit, shaft
Szk.	Szkoła	School
Sz.nft.	Szyb naftowy	Oil well
Szpital.	Szpital	Hospital
Sz.went.	Szyb wentylacyjny	Ventilation shaft
T.	Tartak	Sawmill
T.m.	Tartak motorowy	Motor-driven sawmill
T.p.	Tartak parowy	Steam sawmill
Terp.	Terpentyniarnia	Turpentine works
Tr.	Transformator	Transformer
U.cel.	Urząd celny	Customs-house
U.gm.	Urząd gminny	Municipal office
W.	Wieża	Tower
W.p.	Wielki piec	Blast furnace
W.w.	Wieża wodna	Watch tower
Wap.	Wapiennik	Lime-kiln
Wdc.	Wodociąg	Water pipeline
Wdsp.	Wodospad	Waterfall
Więz.	Więzienie	Prison
Wlk.	Wielki	Large
W.obs.	Wieża obserwacyjna	Watch tower
Wsk.	Wodowskaz	Water-gauge
Z.	Zamek	Castle
Zaśc.	Zaścianek	Farm
Żr.	Źródło	Spring
Żw.	Żwirowy dół	Gravel pit

PART I
SYMBOLS APPEARING ON
MAPS AT THE SCALE OF
1:25,000


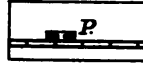

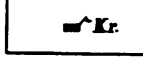
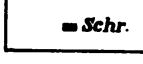
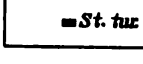
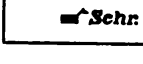
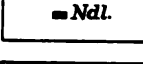
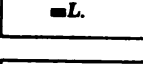
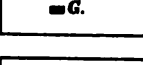
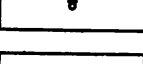
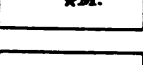
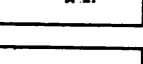
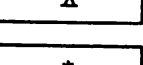
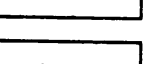
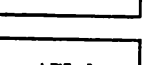
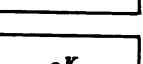
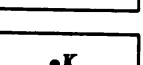
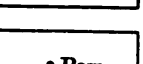

CULTURAL FEATURES


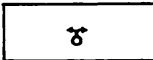
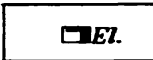
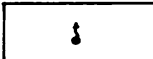
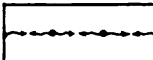
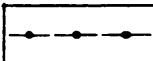
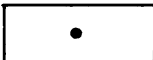
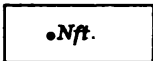

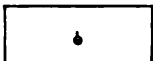
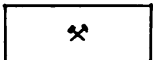
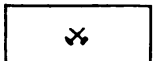
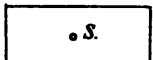
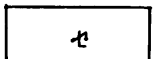
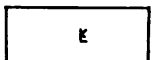
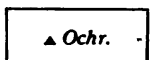
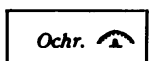
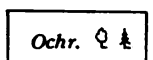
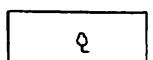
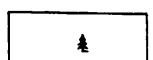










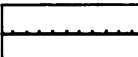
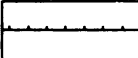
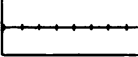
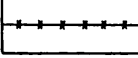
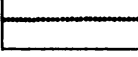
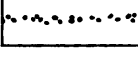
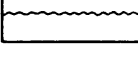
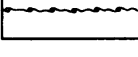




1. City or town, built-up area _____	
2. Inclosures, vegetable and flower gardens _____	
3. Village _____	
4. Estate _____	
5. Farmstead _____	
6. Isolated inclosures _____	
7. Park _____	
*8. Buildings in general _____	
**9. Church with one steeple _____	
**10. Church with two steeples _____	
11. Church with one steeple, visible from afar _____	
12. Church with two steeples, visible from afar _____	
13. Chapel _____	
14. Chapel _____	
15. Cross _____	
16. Large synagogue _____	
17. Small synagogue _____	
18. Castle _____	
19. Railroad station _____	

* Abbreviations indicate type of building. For definitions see page 5.

** Kl. with church symbol indicates convent or monastery.

20. Railroad station _____	
21. Railroad halt _____	
22. Loading platform _____	
23. Inn _____	
24. Tourist shelter _____	
25. Tourist hostel _____	
26. Tourist hostel, with keeper _____	
27. Chief forester's office _____	
28. Forester's lodge _____	
29. Forester's guard hut _____	
30. Shepherd's hut _____	
31. Watermill _____	
32. Sawmill _____	
33. Windmill _____	
34. Windpump _____	
35. Tower (abbreviation indicates type) _____	
36. Tower, visible from afar _____	
37. Factory chimney _____	
38. Factory chimney, visible from afar _____	
39. Monument _____	

40. Radio station _____	
41. Radio mast _____	
42. Electric power plant _____	
43. Transformer station _____	
44. High tension line _____	
45. Telephone and telegraph lines _____	
46. Oil well _____	
47. Tank (abbreviation indicates type) _____	
48. Refinery _____	
49. Well, with derrick _____	
50. Mine _____	
51. Abandoned mine _____	
52. Well _____	
53. Well with lift _____	
54. Highway signpost _____	
55. State protected landmark rocks _____	
56. State protected landmark cave _____	
57. State protected landmark tree _____	
58. Deciduous tree visible from afar _____	
59. Coniferous tree visible from afar _____	

60. Large historical ruins _____	 R.
61. Small historical ruins _____	 R.
62. Christian cemetery _____	
63. Isolated grave _____	
64. Hebrew cemetery _____	
65. Athletic field _____	
66. Rifle range _____	
67. Historical battlefield (with date) _____	 1794
68. Stone wall _____	
69. Fence _____	
70. Fence or wall _____	
71. Wire fence _____	
72. Hedge _____	
73. Loose stone wall _____	
74. Ditch _____	
75. Ditch with low stone wall or hedge _____	
76. Triangulation station _____	 127.8
77. Bench mark _____	 P. n. 110.2
78. Bench mark _____	 135.7
79. Spot height _____	 123.1

80. National boundary, fixed _____	
81. National boundary, not fixed _____	
82. Boundary monument _____	
83. Province boundary _____	
84. District boundary _____	
85. Municipal boundary _____	
86. Reservation boundary _____	
87. Seat of province government (appended to place name) _____	
88. Seat of district government (appended to place name) _____	
89. Post office (appended to place name) _____	
90. Telegraph station (appended to place name) _____	
91. Telephone station (appended to place name) _____	

POPULATED PLACES

Population indicated by size of type.
 Classification indicated by style of type.

City, over 75,000 population _____ **POZNAŃ**

City, between 25,000 and 75,000 population _____ **SIEDLCE**

City, between 5,000 and 25,000 population _____ **ŁECZYCA**

City, less than 5,000 population _____ **ŻURAWNO**

Town, over 2,000 population _____ **Stopnica**

Town, less than 2,000 population _____ **Radzanów**

Suburb of city, sectional name _____ **ŁYCZAKÓW**

Village, over 200 houses _____ **Grabówka**

Village, between 40 and 200 houses _____ **Domanice**

Village, between 20 and 40 houses _____ **Siedlików**

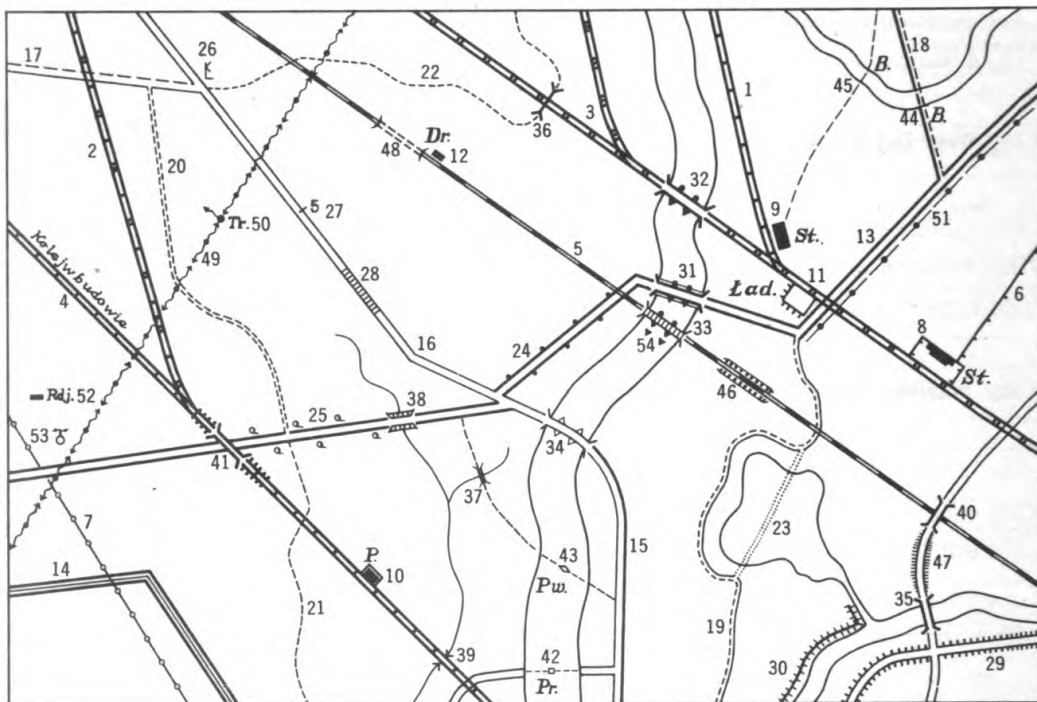
Village, between 4 and 20 houses _____ **Kazimierka**

Village, less than 4 houses _____ **Bobrowniki**

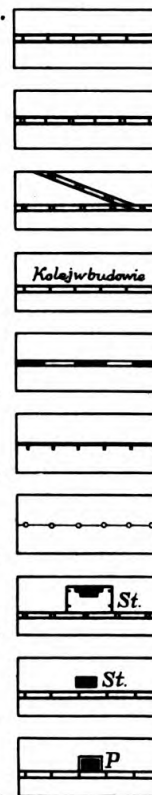
The exact number of houses in a populated place is indicated
 by a figure appearing below the place name; for example:

Laski
 14


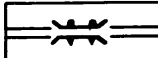

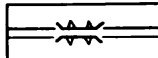
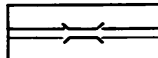
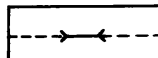
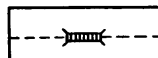
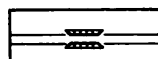

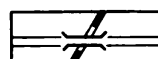

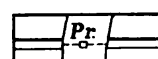
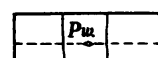
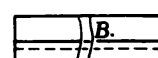
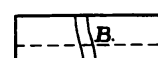

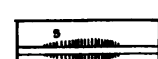
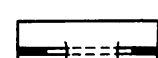
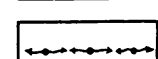
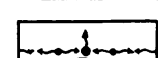
COMMUNICATIONS AND RELATED FEATURES



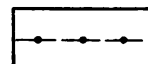
1. Single track railroad _____
2. Single track with substructure for second track _____
3. Double and multiple track railroads _____
4. Railroad under construction _____
5. Narrow gauge railroad _____
6. Tramway _____
7. Aerial cableway _____
8. Railroad station _____
9. Railroad station _____
10. Railroad halt _____



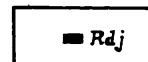
- | | |
|---|--|
| 11. Loading platform _____ | |
| 12. Railroad watchmen's cabin _____ | |
| 13. First class road, metalled _____ | |
| 14. First class road, metalled (1931-32 maps) _____ | |
| 15. Second class road, metalled _____ | |
| 16. Improved road _____ | |
| 17. Improved road, in poor condition _____ | |
| 18. Country road _____ | |
| 19. Cart track _____ | |
| 20. Cart track, in poor condition _____ | |
| 21. Bridle path _____ | |
| 22. Foot path _____ | |
| 23. Winter track _____ | |
| 24. Road lined with trees _____ | |
| 25. Road with row of trees _____ | |
| 26. Highway signpost _____ | |
| 27. Kilometer marker _____ | |
| 28. Steep grade in road _____ | |
| 29. Levee with road _____ | |
| 30. Levee _____ | |

- | | |
|--|---|
| 31. Steel bridge _____ |  |
| 32. Masonry bridge _____ |  |
| 33. Wooden bridge _____ |  |
| 34. Pontoon bridge _____ |  |
| 35. Unclassified bridge _____ |  |
| 36. Foot bridge _____ |  |
| 37. Small wooden bridge _____ |  |
| 38. Small steel or masonry bridge _____ |  |
| 39. Culvert _____ |  |
| 40. Overpass _____ |  |
| 41. Underpass _____ |  |
| 42. Vehicular ferry _____ |  |
| 43. Passenger ferry _____ |  |
| 44. Vehicular ford _____ |  |
| 45. Passenger ford _____ |  |
| 46. Cut (number indicates depth in meters) _____ |  |
| 47. Fill (number indicates height in meters) _____ |  |
| 48. Tunnel _____ |  |
| 49. Power line _____ |  |
| 50. Transformer _____ |  |

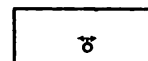
51. Telephone or telegraph line



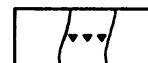
52. Radio station



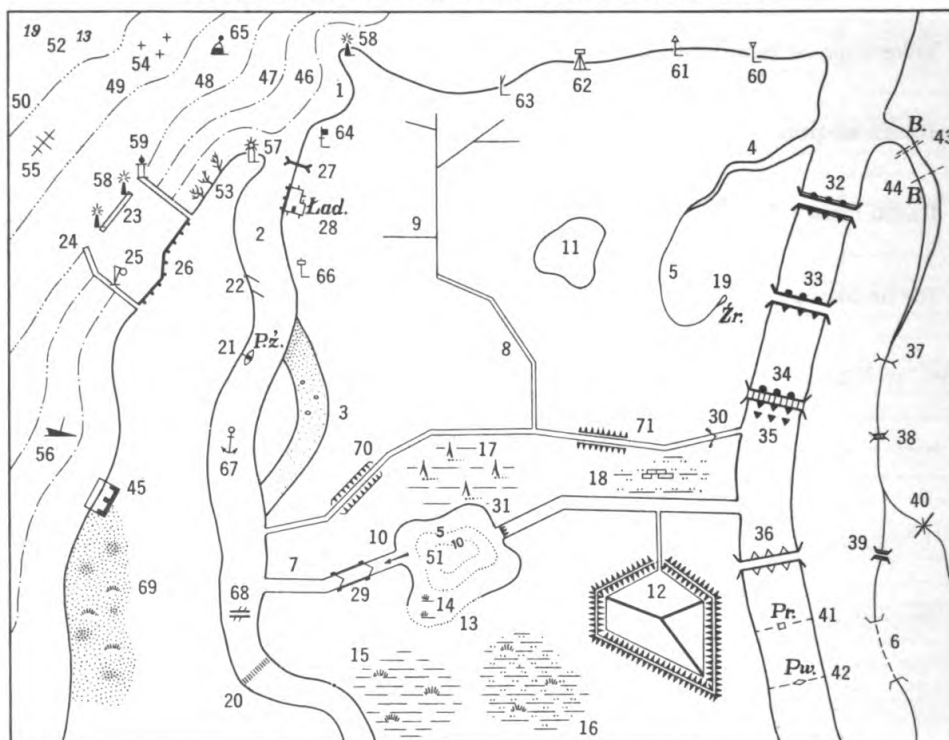
53. Radio mast



54. Ice breakers



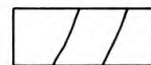
HYDROGRAPHY AND RELATED FEATURES



1. Shoreline _____



2. Large stream _____



3. Abandoned river meander _____



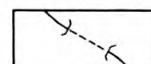
4. Stream more than two meters wide _____



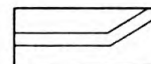
5. Stream less than two meters wide _____



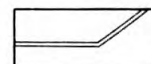
6. Underground stream _____



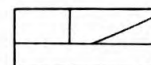
7. Navigable canal _____



8. Ditch more than two meters wide _____




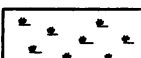
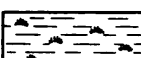
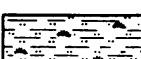
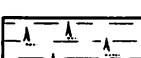

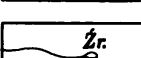
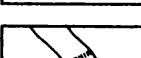
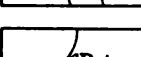
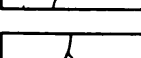
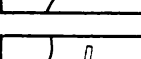

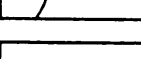
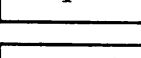
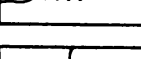
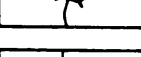
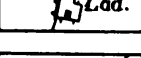
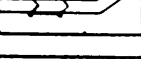













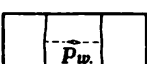
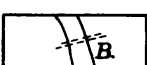
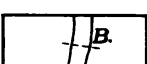

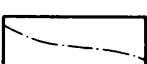
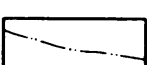
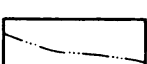
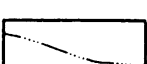
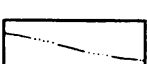
9. Ditch less than two meters wide _____

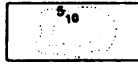
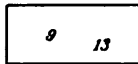
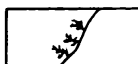
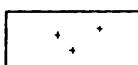
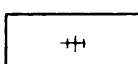
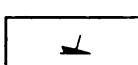
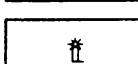
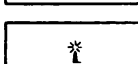
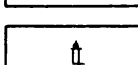
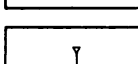
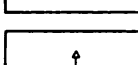
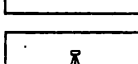
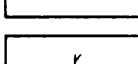
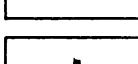
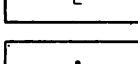
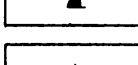
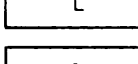
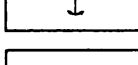
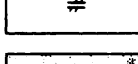

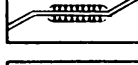


10. Flow arrow _____









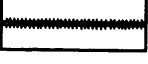



11. Lake _____	
12. Artificial ponds _____	
13. Indeterminate shoreline _____	
14. Reeds _____	
15. Marsh or swamp _____	
16. Marsh bearing harvestable vegetation _____	
17. Boggy ground _____	
18. Peat bogs _____	
19. Spring _____	
20. Falls _____	
21. Steamboat landing _____	
22. Diversion dam _____	
23. Breakwater _____	
24. Pier _____	
25. Crane _____	
26. Sea wall _____	
27. Wharf _____	
28. Loading platform _____	
29. Chamber locks _____	
30. Lock _____	

- | | |
|----------------------------------|---|
| 31. Dam _____ |  |
| 32. Steel bridge _____ |  |
| 33. Masonry bridge _____ |  |
| 34. Wooden bridge _____ |  |
| 35. Ice breakers _____ |  |
| 36. Pontoon bridge _____ |  |
| 37. Foot bridge _____ |  |
| 38. Small wooden bridge _____ |  |
| 39. Small steel bridge _____ |  |
| 40. Culvert _____ |  |
| 41. Vehicular ferry _____ |  |
| 42. Passenger ferry _____ |  |
| 43. Vehicular ford _____ |  |
| 44. Pedestrian ford _____ |  |
| 45. Bathing pavilion _____ |  |
| 46. Depth curve, 2 meters _____ |  |
| 47. Depth curve, 4 meters _____ |  |
| 48. Depth curve, 6 meters _____ |  |
| 49. Depth curve, 8 meters _____ |  |
| 50. Depth curve, 10 meters _____ |  |

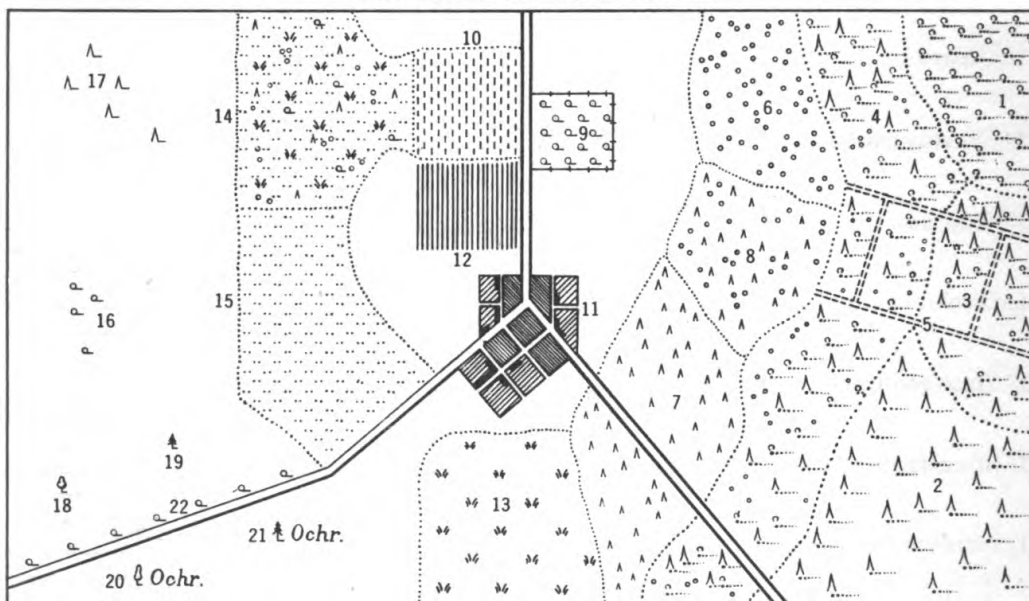
51. Submarine contours in meters _____	
52. Soundings in meters _____	
53. Seaweed _____	
54. Sunken rocks _____	
55. Sunken wreck _____	
56. Partially exposed wreck _____	
57. Lighthouse _____	
58. Lighted beacon _____	
59. Harbor beacon (time signal) _____	
60. Navigation marker (on land) _____	
61. Navigation marker (on land) _____	
62. Navigation marker (on land) _____	
63. Semaphore _____	
64. Signal mast _____	
65. Buoy _____	
66. Kilometer post _____	
67. Head of steam navigation _____	
68. Head of raft navigation _____	
69. Sand dunes _____	
70. Cut _____	
71. Fill _____	

RELIEF FEATURES

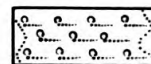
1. Contour, flat areas, 20 meter index _____	
2. Contour, flat areas, 5 or 10 meter intermediate _____	
3. Contour, flat areas, 2.5 meter auxiliary _____	
4. Contour, flat areas, 1.25 meter auxiliary _____	
5. Contour, hilly areas, 100 meter index _____	
6. Contour, hilly areas, 10 or 20 meter intermediate _____	
7. Contour, hilly areas, 5 meter auxiliary _____	
8. Contour, mountainous areas, 100 meter index _____	
9. Contour, mountainous areas, 20 meter intermediate _____	
10. Contour, mountainous areas, 10 meter auxiliary _____	
11. Ravines, cliffs, escarpments, 20 meters high _____	
12. Ravines, cliffs, escarpments, 10 meters high _____	
13. Ravines, cliffs, escarpments, 5 meters high _____	
14. Ravines, cliffs, escarpments, 2.5 meters high _____	
15. Ravines, cliffs, escarpments, 1 meter high _____	
16. Rock outcroppings _____	
17. Rocky ground, moraine, boulders _____	
18. Mounds, hillocks, ramparts _____	
19. Depression _____	
20. Sand _____	

- | | |
|--|---|
| 21. Quarry _____ |  |
| 22. Gravel or sand pit _____ |  |
| 23. Clay pit _____ |  |
| 24. Cave _____ |  |
| 25. State protected landmark cave _____ |  |
| 26. State protected landmark rocks _____ |  |
| 27. Levee with road _____ |  |
| 28. Levee _____ |  |
| 29. Indication of direction of slope _____ |  |
| 30. Depression _____ |  |

VEGETATION FEATURES



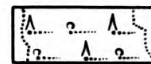
1. Deciduous forest _____



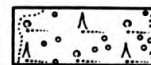
2. Coniferous forest _____



3. Mixed forest _____



4. Mixed forest with undergrowth _____



5. Fire breaks _____



6. Low growth and brushwood, deciduous _____



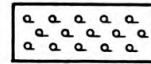
7. Low growth and brushwood, coniferous _____



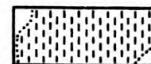
8. Low growth and brushwood, mixed _____



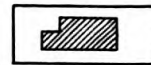
9. Orchard _____



10. Hop plantations and vineyards _____



11. Vegetable and flower gardens _____



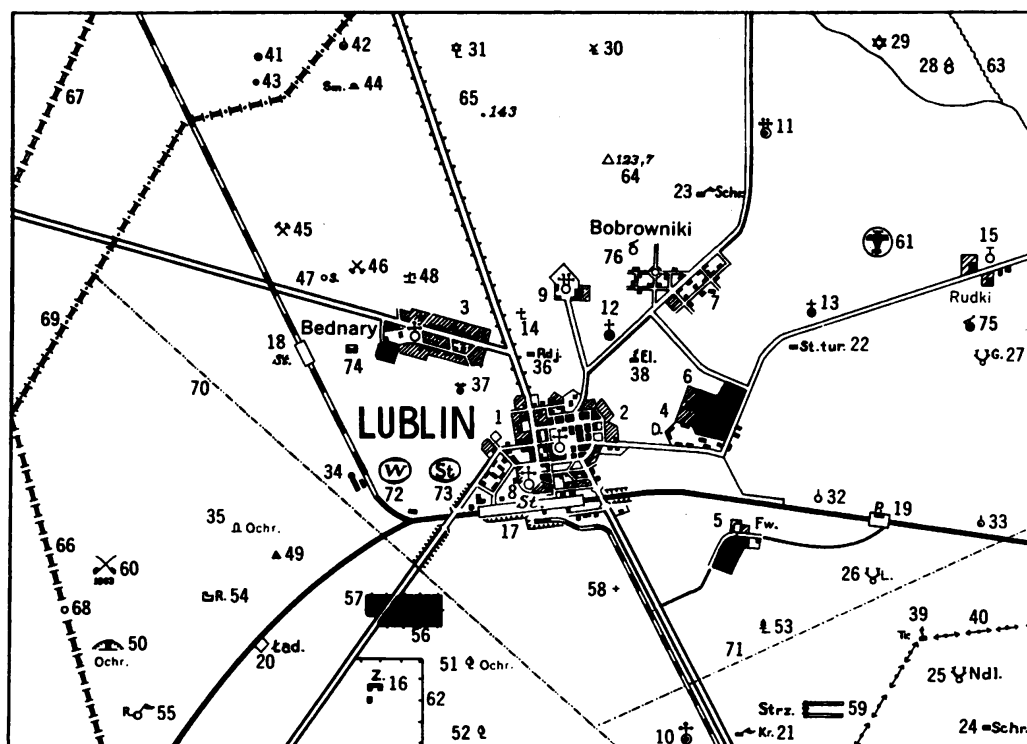
12. Cultivated land _____



13. Wasteland _____	
14. Pastureland _____	
15. Meadow _____	
16. Isolated trees, deciduous _____	
17. Isolated trees, coniferous _____	
18. Deciduous tree, visible from afar _____	
19. Coniferous tree, visible from afar _____	
20. State protected landmark tree, deciduous _____	
21. State protected landmark tree, coniferous _____	
22. Trees lining road _____	

PART II
SYMBOLS APPEARING ON
MAPS AT THE SCALE OF
1:100,000

CULTURE FEATURES



1. City or town, built-up area _____



2. Inclosures, vegetable and flower gardens _____



3. Village _____



4. Estate _____



5. Farmstead _____



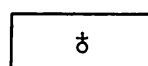
6. Park _____



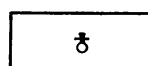
7. Buildings in general* _____



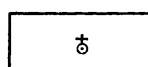
8. Church with one steeple** _____



9. Church with two steeples _____








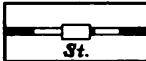

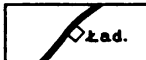
































10. Church with one steeple, visible from afar _____

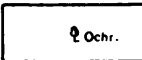
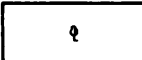
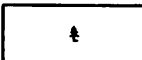
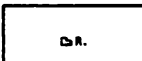
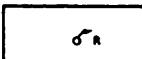


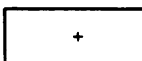

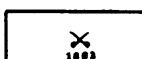

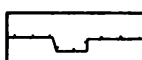
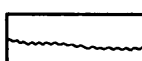
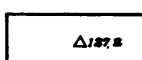
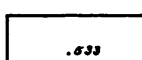

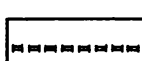
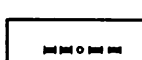
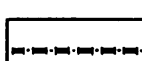
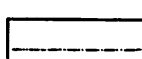


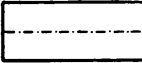



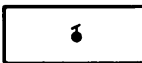
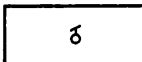
* Abbreviations indicate type of building. For definitions see page 5.

** Kl. with church symbol indicated convent or monastery.

11. Church with two steeples, visible from afar _____	
12. Chapel _____	
13. Chapel _____	
14. Cross _____	
15. Synagogue _____	
16. Castle _____	
17. Railroad station _____	
18. Railroad station _____	
19. Railroad halt _____	
20. Loading platform _____	
21. Inn _____	
22. Tourist shelter _____	
23. Tourist hostel _____	
24. Tourist hostel, with keeper _____	
25. Chief forester's office _____	
26. Forester's lodge _____	
27. Forester's guard hut _____	
28. Shepherd's hut _____	
29. Watermill, sawmill _____	
30. Windmill _____	

31. Windpump _____	
32. Tower (abbreviation indicates type) _____	
33. Tower, visible from afar _____	
34. Factory chimney, visible from afar _____	
35. Monument _____	
36. Radio station _____	
37. Radio mast _____	
38. Electric power plant _____	
39. Transformer station _____	
40. High tension line _____	
41. Oil well _____	
42. Well with derrick _____	
43. Tank (abbreviation indicates type) _____	
44. Refinery _____	
45. Mine _____	
46. Abandoned mine _____	
47. Well _____	
48. Well with lift _____	
49. State protected landmark rocks _____	
50. State protected landmark cave _____	

51. State protected landmark tree _____	
52. Deciduous tree, visible from afar _____	
53. Coniferous tree, visible from afar _____	
54. Large historical ruins _____	
55. Small historical ruins _____	
56. Christian cemetery _____	
57. Hebrew cemetery _____	
58. Isolated grave _____	
59. Rifle range _____	
60. Historical battlefield, with date _____	
61. Airfield _____	
62. Stone wall, hedge or fence _____	
63. Ditch _____	
64. Triangulation station _____	
65. Spot height _____	
66. National boundary, fixed _____	
67. National boundary, not fixed _____	
68. Boundary monument _____	
69. Province boundary _____	
70. District boundary _____	

71. Reservation boundary _____ 
72. Seat of province government (append to place name) _____ 
73. Seat of district government (append to place name) _____ 
74. Post office (append to place name) _____ 
75. Telegraph station (append to place name) _____ 
76. Telephone station (append to place name) _____ 

POPULATED PLACES

City, over 200,000 population _____ **KRAKÓW**

City, between 75,000 and 200,000 population _____ **LUBLIN**

City, between 25,000 and 75,000 population _____ **KALISZ**

City, between 5,000 and 25,000 population _____ **WIELUN**

City, less than 5,000 population _____ **PNIEWY**

City, less than 2,000 population _____ **Górzno**

Large suburb _____ **MARYMONT**

Small suburb _____ **Kapusciska**

Town _____ **Białobrzegi**

Village, over 150 houses _____ **Sieraków**

Village, between 40 and 150 houses _____ **Kłodnica**

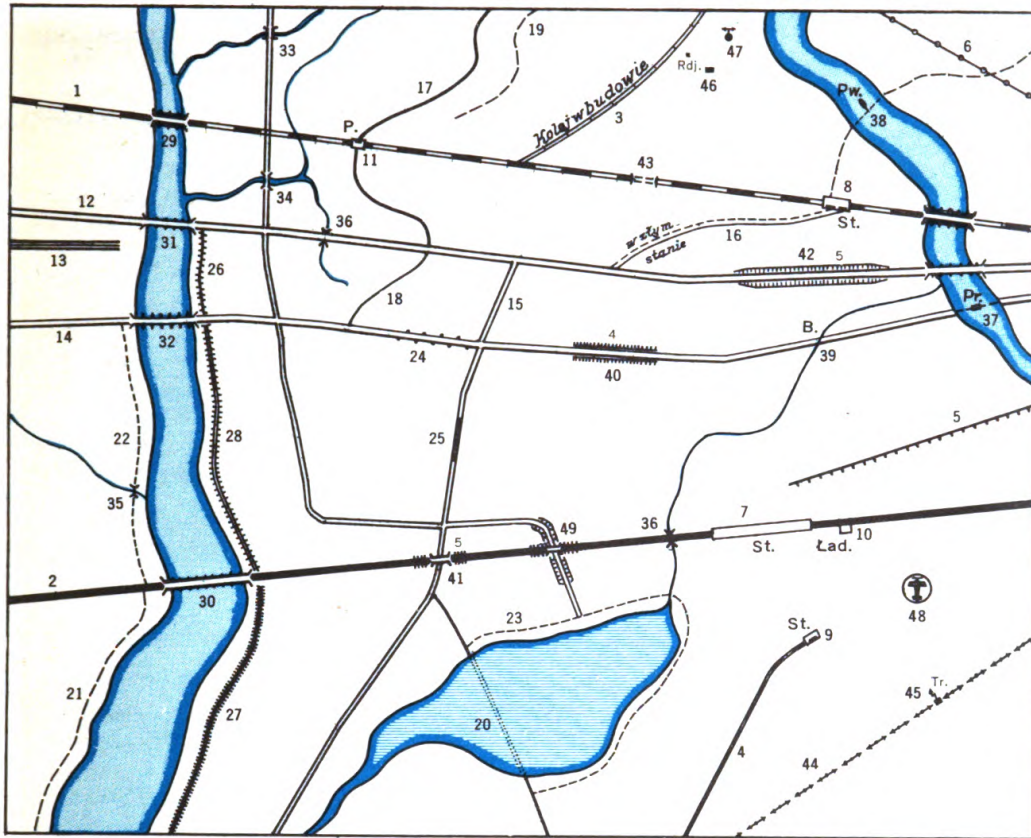
Village, between 30 and 40 houses _____ **Bednary**

Village, between 10 and 30 houses _____ **Żuków**

Village, less than 10 houses _____ **Rudki**

The exact number of houses in a populated place is indicated
by a figure appearing below the place name; for example: _____ **Kazimierka**
142

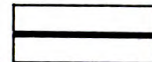
COMMUNICATIONS AND RELATED FEATURES



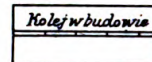
1. Single track railroad _____



2. Double and multiple track railroads _____



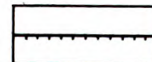
3. Railroad under construction _____



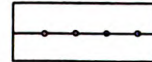
4. Narrow gauge railroad _____



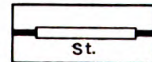
5. Tramway _____



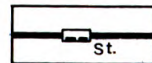
6. Aerial cableway _____



7. Railroad station _____

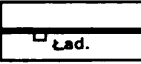
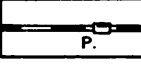
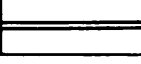
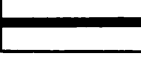
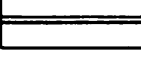
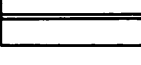
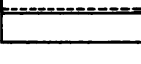
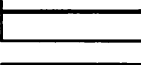
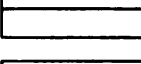
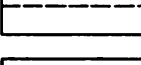
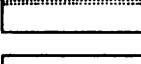
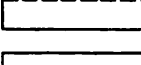
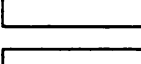
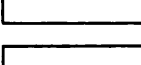
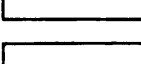
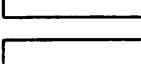
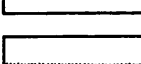
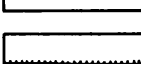
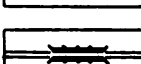



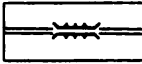
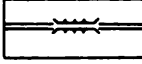

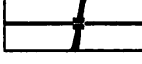
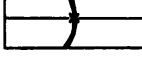
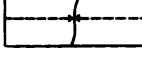
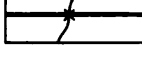
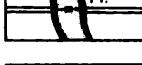
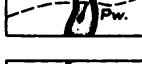
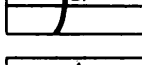
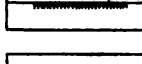
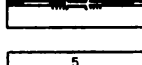
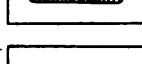
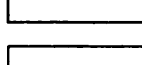
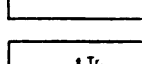
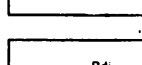
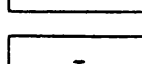



8. Railroad station _____



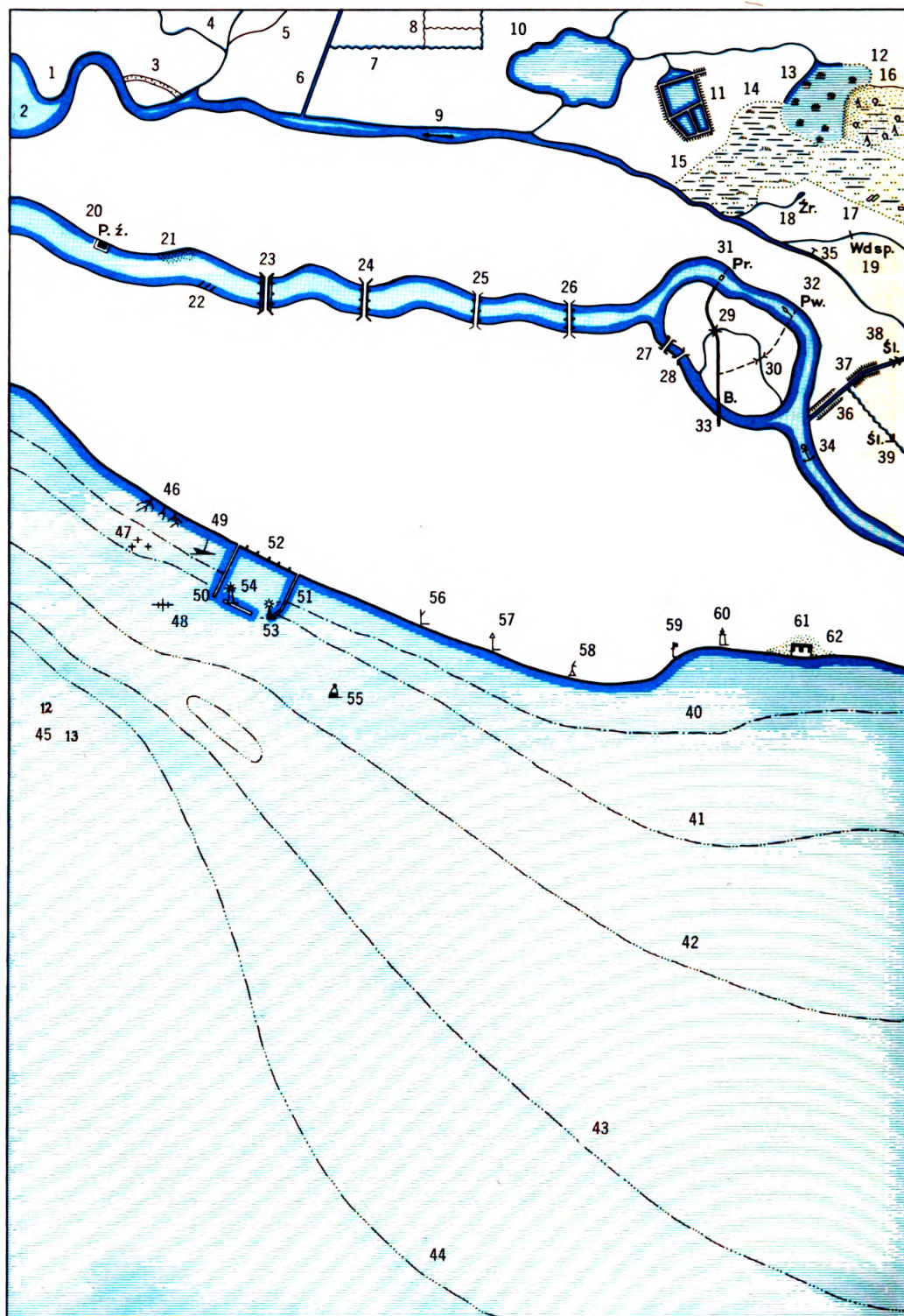
9. Railroad station _____




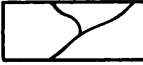


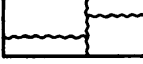

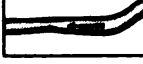




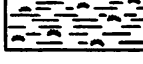


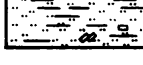





10. Loading platform _____	
11. Railroad halt _____	
12. First class road, metalled _____	
13. First class road, metalled (1931-32 maps) _____	
14. Second class road, metalled _____	
15. Improved road _____	
16. Improved road, in poor condition _____	
17. Country road _____	
18. Cart track _____	
19. Cart track (on older maps) _____	
20. Winter track _____	
21. Bridle path _____	
22. Foot path _____	
23. Foot or bridle path (maps prior to 1932) _____	
24. Road lined with trees _____	
25. Steep grade in road _____	
26. Small levee _____	
27. Large levee _____	
28. Levee with road _____	
29. Steel bridge _____	

30. Masonry bridge _____	
31. Wooden bridge _____	
32. Pontoon bridge _____	
33. Small steel or masonry bridge _____	
34. Small wooden bridge _____	
35. Foot bridge _____	
36. Culvert _____	
37. Vehicular ferry _____	
38. Passenger ferry _____	
39. Ford _____	
40. Fill on road (number indicates height in meters) _____	
41. Fill on railroad (number indicates height in meters) _____	
42. Cut (number indicates depth in meters) _____	
43. Tunnel _____	
44. Power line _____	
45. Transformer _____	
46. Radio station _____	
47. Radio mast _____	
48. Airfield _____	
49. Viaduct _____	

HYDROGRAPHY AND RELATED FEATURES



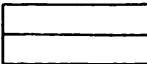
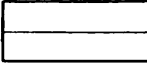
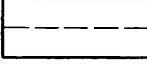
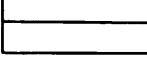
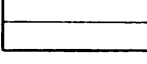
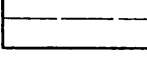
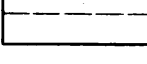
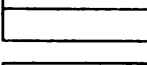
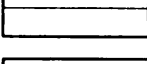
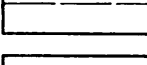
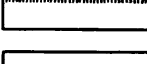
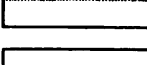
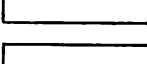



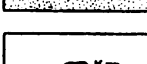



- | | |
|--|---|
| 1. Shoreline _____ |  |
| 2. Large stream _____ |  |
| 3. Abandoned river meander _____ |  |
| 4. Small stream, perennial _____ |  |
| 5. Small stream, intermittent _____ |  |
| 6. Canal _____ |  |
| 7. Ditch _____ |  |
| 8. Dry ditch _____ |  |
| 9. Flow arrow _____ |  |
| 10. Lake _____ |  |
| 11. Artificial ponds _____ |  |
| 12. Indeterminate shoreline _____ |  |
| 13. Reeds _____ |  |
| 14. Marsh or swamp _____ |  |
| 15. Marsh bearing harvestable vegetation _____ |  |
| 16. Boggy ground _____ |  |
| 17. Peat bogs _____ |  |
| 18. Spring _____ |  |
| 19. Falls _____ |  |
| 20. Steamboat landing _____ |  |


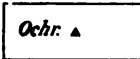
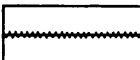
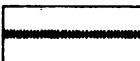

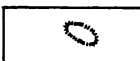


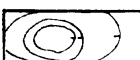
21. Shoals _____
22. Diversion dam _____
23. Steel bridge _____
24. Masonry bridge _____
25. Wooden bridge _____
26. Pontoon bridge _____
27. Small steel or masonry bridge _____
28. Small wooden bridge _____
29. Culvert _____
30. Foot bridge _____
31. Vehicular ferry _____
32. Passenger ferry _____
33. Ford _____
34. Head of steam navigation _____
35. Head of small boat navigation _____
36. Cut _____
37. Fill (raised canal) _____
38. Lock _____
39. Sluice gate _____



-

RELIEF FEATURES

1. Contour, flat areas, 20 meter index _____	
2. Contour, flat areas, 5 or 10 meter intermediate _____	
3. Contour, flat areas, 2.5 meter auxiliary _____	
4. Contour, hilly areas, 100 meter index _____	
5. Contour, hilly areas, 20 meter intermediate _____	
6. Contour, hilly areas, 10 meter auxiliary _____	
7. Contour, hilly areas, 5 meter auxiliary _____	
8. Contour, mountainous areas, 200 meter index _____	
9. Contour, mountainous areas, 20 meter intermediate _____	
10. Contour, mountainous areas, 10 meter auxiliary _____	
11. Ravines, cliffs, escarpments, 20 meters high _____	
12. Ravines, cliffs, escarpments, 10 meters high _____	
13. Ravines, cliffs, escarpments, 5 meters high _____	
14. Ravines, cliffs, escarpments, 2.5 meters high _____	
15. Rock outcroppings _____	
16. Rocky ground, moraine, boulders _____	
17. Sand _____	
18. Quarry _____	
19. Gravel, sand or clay pit _____	
20. Cave _____	

21. Cave _____	
22. State protected landmark rocks _____	
23. Levee _____	
24. Large levee _____	
25. Levee with road _____	
26. Mound _____	
27. Depression _____	
28. Indication of direction of slope _____	
29. Depression _____	

1:100,000 RELIEF

Contours on the Polish 1:100,000 sheets appear in meters based on two systems.

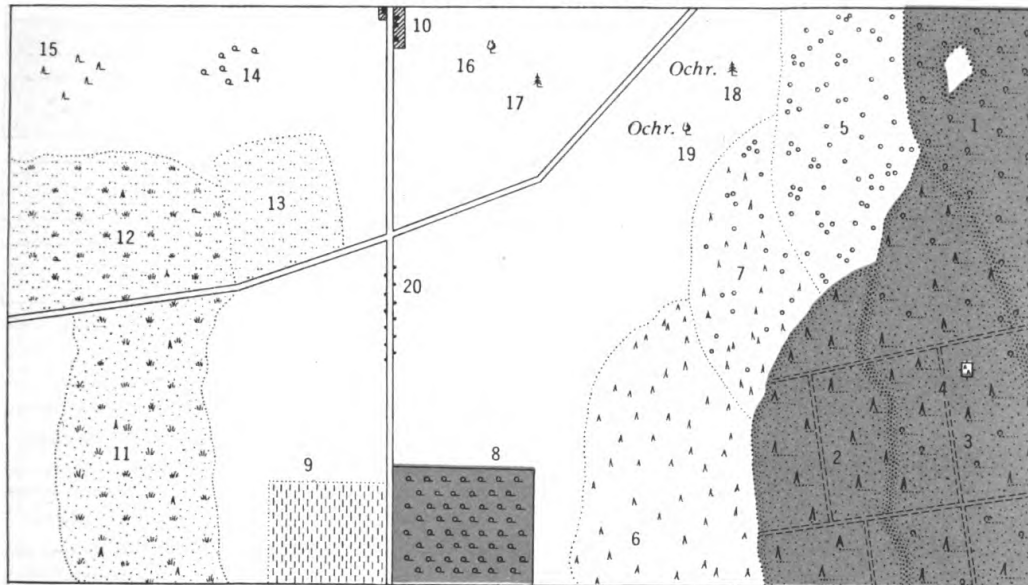
The first system uses a uniform metric interval and is usually employed on newly compiled sheets and on sheets covering areas which prior to 1918 were under the control of Germany or Austria. The contour interval is compatible to the type of terrain, being: 5 or 10 meters with 20 meter index contours in flat areas, 20 meters with 100 meter index contours in hilly areas, and 20 meters with 200 meter index contours in mountainous areas. Auxiliary contours are employed wherever the normal interval would omit significant relief formations.

The second system appears on sheets covering areas which prior to 1918 were under the rule of Czarist Russia. The contours are based on the Russian sazhen (1 sazhen=7 feet=approximately 2.1336 meters) but are expressed to the nearest full meter. The original interval was 2 sazhens (4.2672 meters) with every fourth contour accentuated in weight. Auxiliary contours of 1 sazhen were used where needed to properly portray the relief. The table which appears on the following page indicates the correct metric values (to 0.1 meter) of the contours and the corresponding rounded off values as they appear on the maps.

VALUES OF CONTOURS CONVERTED FROM SAZHENS TO METERS

Column A: Value to nearest 0.1 meter Column B: Value to nearest 1 meter Bold face type in column B indicates index contours (8 sazhan or approximately 17 meters)							
A	B	A	B	A	B	A	B
17.1	17	170.7	171	324.3	324	477.9	478
21.3	21	175.0	175	328.6	329	482.2	482
25.6	26	179.2	179	332.8	333	486.5	486
29.9	30	183.5	183	337.1	337	490.7	491
34.1	34	187.8	188	341.4	341	495.0	495
38.4	38	192.0	192	345.6	346	499.3	499
42.7	43	196.3	196	349.9	350	503.5	504
46.9	47	200.6	201	354.2	354	507.8	508
51.2	51	204.8	205	358.4	358	512.1	512
55.5	55	209.1	209	362.7	363	516.3	516
59.7	60	213.4	213	367.0	367	520.6	521
64.0	64	217.6	218	371.2	371	524.9	525
68.3	68	221.9	222	375.5	376	529.1	529
72.5	73	226.2	226	379.8	380	533.4	533
76.8	77	230.4	230	384.0	384	537.7	538
81.1	81	234.7	235	388.3	388	541.9	542
85.3	85	239.0	239	392.6	393	546.2	546
89.6	90	243.2	243	396.8	397	550.5	550
93.9	94	247.5	247	401.1	401	554.7	555
98.1	98	251.8	252	405.4	405	559.0	559
102.5	102	256.0	256	409.6	410	563.3	563
106.7	107	260.3	260	413.9	414	567.5	568
110.9	111	264.6	265	418.2	418	571.8	572
115.2	115	268.8	269	422.4	422	576.1	576
119.5	119	273.1	273	426.7	427	580.3	580
123.7	124	277.4	277	431.0	431	584.6	585
128.0	128	281.6	282	435.2	435	588.9	589
132.3	132	285.9	286	439.5	440	593.1	593
136.5	137	290.2	290	443.8	444	597.4	597
140.8	141	294.4	294	448.0	448	601.7	602
145.1	145	298.7	299	452.3	452	605.9	606
149.3	149	303.0	303	456.6	457	610.2	610
153.6	154	307.2	307	460.8	461	614.5	614
157.9	158	311.5	311	465.1	465	618.7	619
162.2	162	315.8	316	469.4	469	623.0	623
166.4	166	320.0	320	473.7	474	627.3	627

VEGETATION FEATURES



1. Deciduous forest _____



2. Coniferous forest _____



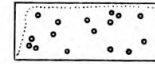
3. Mixed forest _____



4. Fire breaks _____



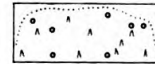
5. Low growth and brushwood, deciduous _____



6. Low growth and brushwood, coniferous _____



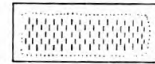
7. Low growth and brushwood, mixed _____



8. Orchard _____



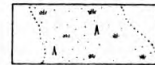
9. Hop plantations and vineyards _____



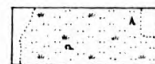
10. Vegetable and flower gardens _____

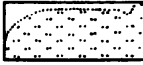

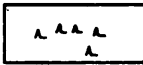


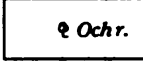

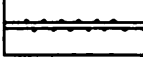


11. Wasteland _____



12. Pastureland _____

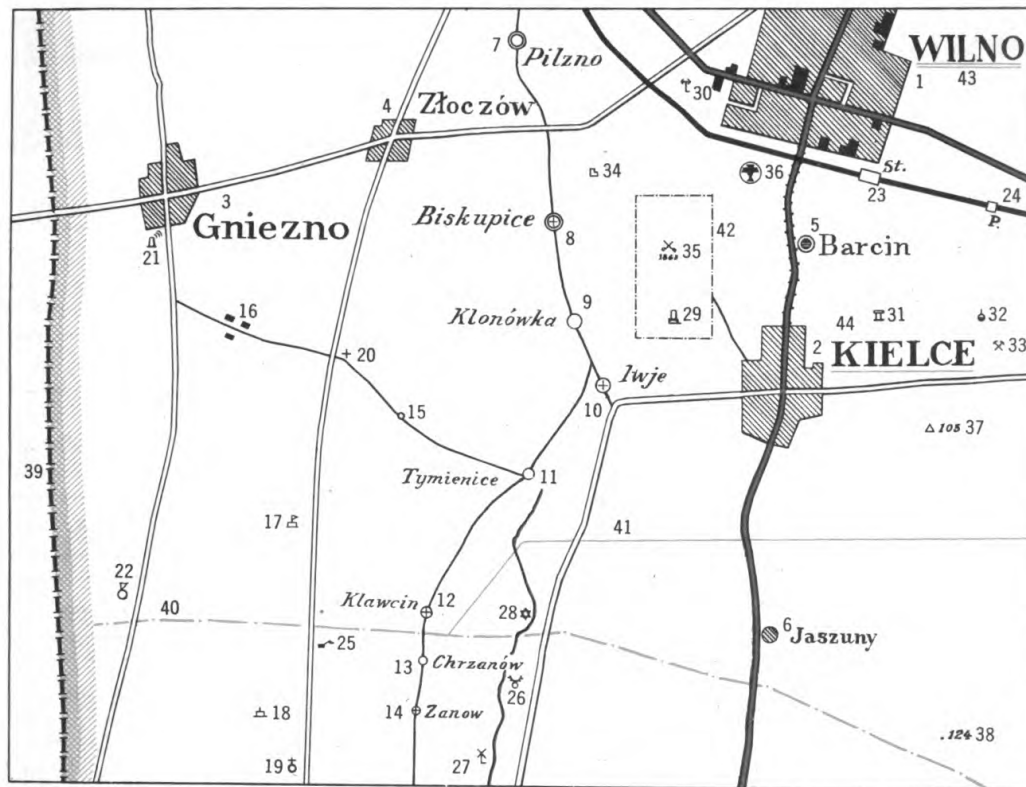


- | | |
|---|---|
| 13. Meadow _____ |  |
| 14. Isolated trees, deciduous _____ |  |
| 15. Isolated trees, coniferous _____ |  |
| 16. Deciduous tree, visible from afar _____ |  |
| 17. Coniferous tree, visible from afar _____ |  |
| 18. State protected landmark tree, deciduous _____ |  |
| 19. State protected landmark tree, coniferous _____ |  |
| 20. Trees lining road _____ |  |

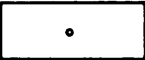

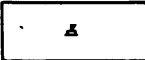

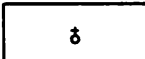
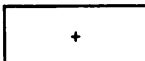

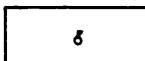
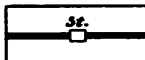
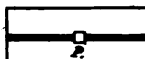
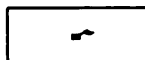
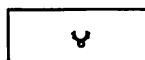
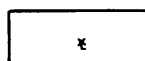
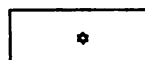
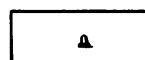
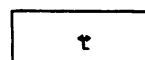
PART III
SYMBOLS APPEARING ON
MAPS AT THE SCALE OF
1:300,000



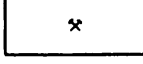
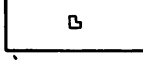
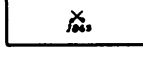

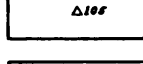
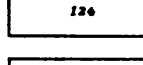

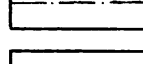
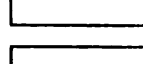
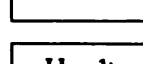
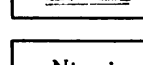
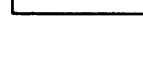
1:300,000 MAPS
CULTURAL FEATURES

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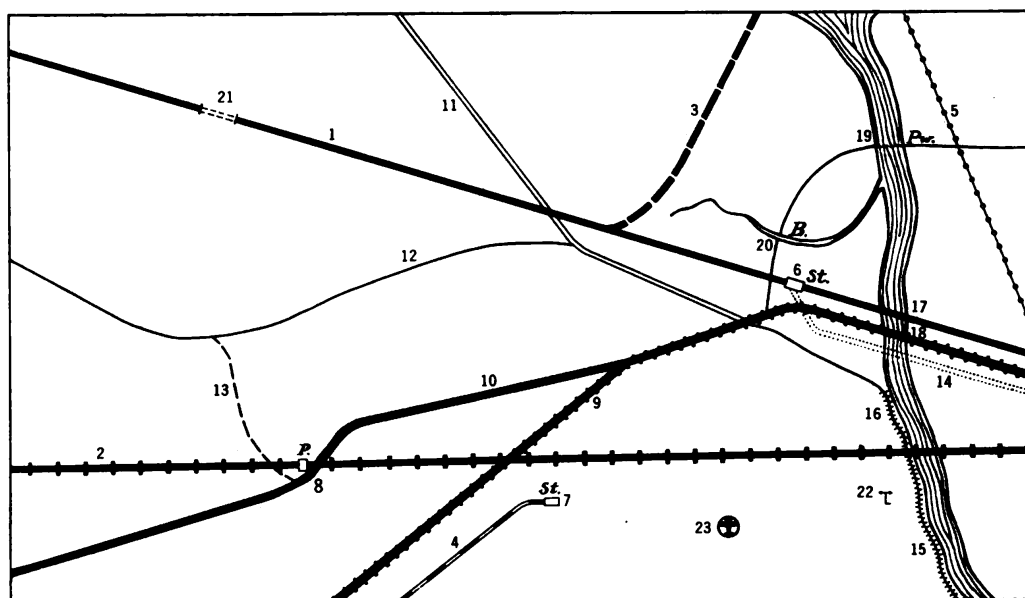


1. City, over 200,000 population _____ **WILNO**
2. City, between 75,000 and 200,000 population _____ **KIELCE**
3. City, between 25,000 and 75,000 population _____ **Gniezno**
4. City, between 5,000 and 25,000 population _____ **Złoczów**
5. Town, between 2,000 and 5,000 population _____ **Barcin**
6. Town, less than 2,000 population _____ **Jaszuny**
7. Village, over 2,000 population _____ **Pilzno**
8. Village, over 2,000 population with church _____ **Biskupice**
9. Village, between 1,000 and 2,000 population _____ **Klonówka**
10. Village, between 1,000 and 2,000 population with church _____ **Iwje**

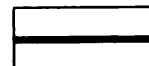
11. Village, between 300 and 1,000 population _____ *Tymienice* ○
12. Village, between 300 and 1,000 population with church _____ *Klawcin* ⊕
13. Village, less than 300 population _____ *Chrzanow* ○
14. Village, less than 300 population with church _____ *Zanow* ●
15. Hamlet, without proper name _____ 
16. Landmark buildings _____ 
17. Estate _____ 
18. Farmstead _____ 
19. Isolated landmark church _____ 
20. Cross _____ 
21. Factory _____ 
22. Castle _____ 
23. Railroad station _____ 
24. Railroad halt _____ 
25. Inn, tourist hostel _____ 
26. Forester's lodge or hut _____ 
27. Windmill, windpump _____ 
28. Watermill, sawmill _____ 
29. Monument _____ 
30. Radio station _____ 

31. Oil well _____	
32. Oil well _____	
33. Mine _____	
34. Historical ruins _____	
35. Historical battlefield with date _____	
36. Airfield _____	
37. First order triangulation station _____	
38. Spot height _____	
39. National boundary _____	
40. Province boundary _____	
41. District boundary _____	
42. Reservation boundary _____	
43. Seat of province government _____	
44. Seat of district government _____	

COMMUNICATIONS AND RELATED FEATURES



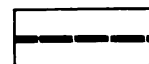
1. Single track railroad _____



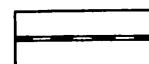
2. Double and multiple track railroads _____



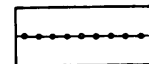
3. Railroad under construction _____



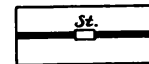
4. Narrow gauge railroad _____



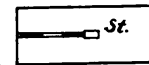
5. Aerial cableway _____



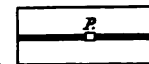
6. Railroad station _____



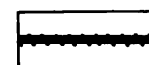
7. Railroad station _____



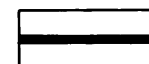
8. Railroad halt _____



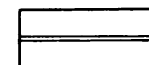
9. First class road, metalled _____



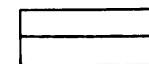
10. Second class road, metalled _____



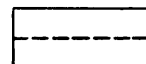
11. Improved road _____



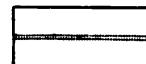
12. Country road _____



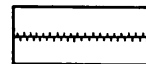
13. Cart track, bridle path, foot path _____



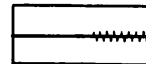
14. Winter track _____



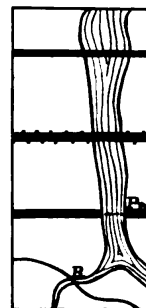
15. Levee _____



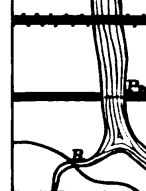
16. Levee with road _____



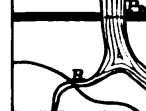
17. Railroad bridge _____



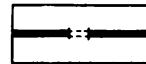
18. Highway bridge _____



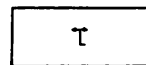
19. Vehicular ferry _____



20. Ford _____



21. Tunnel _____



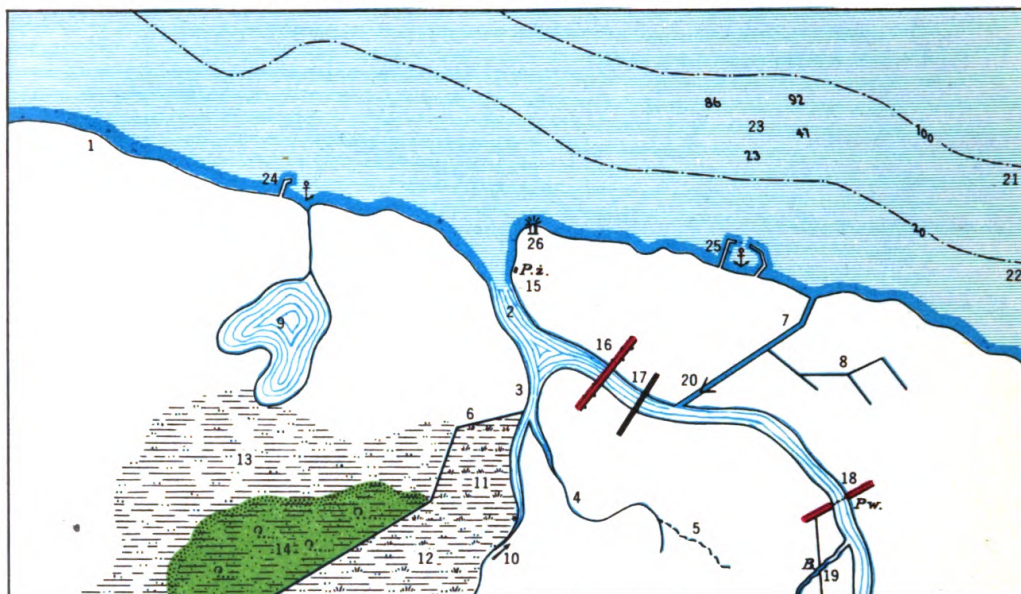
22. Radio station _____



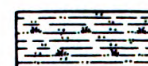
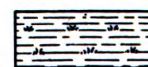
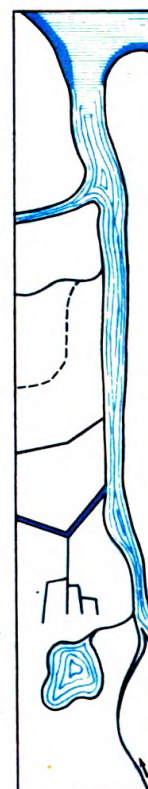
23. Airfield _____



HYDROGRAPHY AND RELATED FEATURES



1. Shoreline _____
2. Large stream _____
3. Navigable stream _____
4. Small stream, perennial (non-navigable) _____
5. Small stream, intermittent _____
6. Canalized stream _____
7. Navigable canal _____
8. Canals and ditches _____
9. Lake _____
10. Flow arrow _____
11. Marsh or swamp _____
12. Marsh bearing harvestable vegetation _____



13. Peat bogs _____



14. Boggy ground _____



15. Steamboat landing _____

16. Highway bridge _____

17. Railroad bridge _____

18. Vehicular ferry _____

19. Ford _____

20. Lock _____

21. Depth curve, 100 meters _____

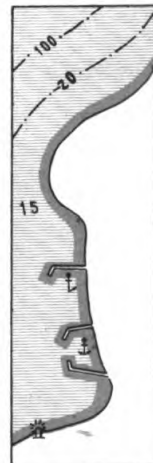
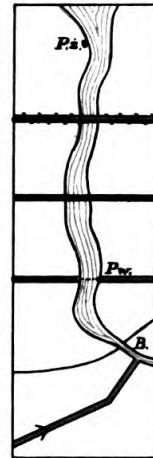
22. Depth curve, 20 meters _____

23. Soundings in meters _____

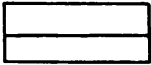
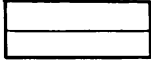
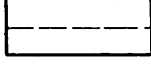
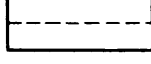
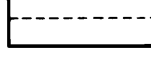
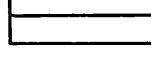
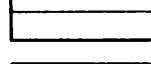
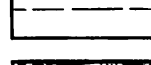
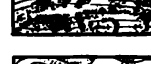


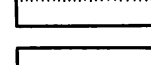
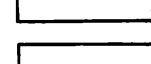
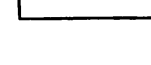
24. Fisherman's harbor _____

25. Seaport _____

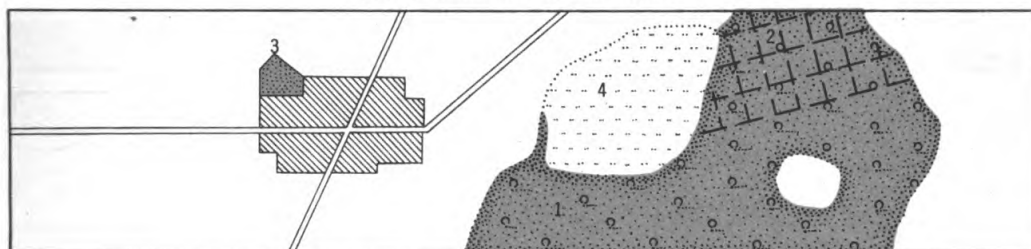
26. Lighthouse _____



RELIEF FEATURES

- | | |
|---|---|
| 1. Contour, flat areas, 100 meter index _____ |  |
| 2. Contour, flat areas, 20 meter intermediate _____ |  |
| 3. Contour, flat areas, 10 meter auxiliary _____ |  |
| 4. Contour, flat areas, 5 meter auxiliary _____ |  |
| 5. Contour, flat areas, 2.5 meter auxiliary _____ |  |
| 6. Contour, mountainous areas, 500 meter index _____ |  |
| 7. Contour, mountainous areas, 100 meter intermediate _____ |  |
| 8. Contour, mountainous areas, 50 meter auxiliary _____ |  |
| 9. Rock outcroppings _____ |  |
| 10. Rocky ground moraine, boulders _____ |  |
| 11. Sand _____ |  |
| 12. Levee with road _____ |  |
| 13. Levee _____ |  |
| 14. Mound _____ |  |

VEGETATION FEATURES



1. Forest _____



2. Fire breaks _____



3. Orchards and vegetable and flower gardens _____



4. Meadow _____

