

MAP READING

I. GENERAL

1. A map is as important to a soldier as his weapon, or piece of survival equipment. Actually, a map in a combat area is a piece of survival equipment. When used correctly a man will show you key terrain features, accurate distances, locations, heights and a good selection of routes for patrolling. You as a soldier, will probably get to use them quite often. Improper use of map or lack of knowledge of the map reading can result in casualties in a combat area.

2. In combat areas you won't find street sign or road markers. Therefore, map reading is essential. Most patrols sent out during combat are small unit patrols. In the near future you may very well find yourself a small unit leader. You will be responsible for selecting patrol routes, ambush site, and others. You can not do this without thorough knowledge of map reading.

II. MAPS

1. Definition - a map is a line drawing to scale of a portion of the earth's surface as seen from above.

2. Importance of Map.

- a. Used for strategic, tactical and combat planning of all command.
- b. Used to show relative position on a certain given area.
- c. Used to show accurate distance, location, best routes, and key terrain features.
- d. To avoid getting lost, to save life and to be alive.

3. Care of Maps.

- a. Map can be forded by
 - 1) Accordion
 - 2) Slit and fold
- b. Always carry maps in water proof pocket and use acetate to cover maps.
- c. Avoid-drawing on the surface to avoid confusion/

4. Security of Maps

- a. Avoid indication of plan on areas of interest on the maps.
- b. When in danger, destroy it.
- c. Always be sure that the map does not fall into unauthorized person.

5. Classification of map by types.

- a. Topographic map - A topographic map portrays the natural and manmade features of the earth's surface in a measurable form showing both their vertical and horizontal position.
- b. Photo map - A photo map is an aerial photograph on which grid lines, marginal data, elevation and other important data usually found on the map have been superimposed.
- c. Plastic relief map - a topographic map printed on plastic and molded into three dimensional form.
- d. Planimetric map - present only horizontal position. An example is the roof map.
- e. Photomosaic - an assembly of aerial photographs to form a complete picture.
- f. Military City Map - a large scale topographic map of a city or town and the standard scale is 1:12,000.
- g. Special Map - maps for special purposes such as trafficability maps, transportation maps and boundary maps.
- h. Terrain Model - a three dimensional representation of an area, molded on plastic, rubber or other material symbolically.

6. Classification of map by scale.

Scale - means the ratio of distance on the map to the ground.

Ex: 1:600,000 means 1 inch on the map is 600,000 inches on the actual ground.

- 1) Small Scale - 1:600,000 and smaller. Large unit commander uses them for general planning and for strategic studies at the high echelon.
- 2) Medium Scale - larger than 1:600,000 but smaller than 1:75,000. They are used for planning operations, including the movement and concentration of troops and supplies.
- 3) Large Scale - the scale of 1:75,000 and larger. They are used for tactical technical and administrative needs of unit commander.

NOTE: The larger the number the smaller the scale.

7. Scale for Various Types of Maps:

- a. General Maps - all maps with the scale smaller than 1:1,000,000 are classified general maps. Such small scale maps are used by staffs for general planning purposes.
- b. Strategic Maps - the standard scale is 1:1,000,000. These maps are used by higher command for planning strategic operations including the movement and concentration of troops and supply.

c. Strategic Tactical Maps - the standard scale is 1:250,000 or 1:500,000. These maps are usually topographic maps which are used for tactical purposes by the fast moving armored units.

d. Road Maps - the standard scale is 1:250,000. Such maps are used for tactical and administrative troops movement.

e. Tactical Maps - the standard scale is 1:50,000. However, a scale of 1:25,000 or 1:100,000 are an acceptable substitute. Such maps are used for tactical and supporting troops for technical operations and detailed planning by arm and services.

f. Artillery Maps - these topographic maps must have sufficient accuracy to meet artillery requirements for controlling unobserved fires and for selecting gun positions. The normal scale is 1:25,000 but 1:50,000 maybe substituted.

g. Photo Maps - the standard scale is 1:25,000 with 1:12,500 as an alternate.

h. Town Maps - it used as supplements to tactical artillery maps and road maps for tactical and administrative purposes in build-up areas. The standard scale is 1:12,500.

III. MARGINAL INFORMATION

1. Definition - are those printed notes as an instruction guide outside the printed diagram of a maps for a user in reading a map.

2. Marginal Information and their uses:

a. Sheet name - found in the center of the top margin, a map is named after the outstanding cultural features.

b. Sheet number - found in the upper right margin.

c. Series name and scale - found on the upper left margin. Name and scale of map. A series comprises a group of similar maps at the same scale on the same sheet line.

d. Series number - found at the upper and lower left margin. There are more than one series of a map so there is an identifying number.

e. Edition number - found on upper and lower margin. Tells the age of the map, in relation to the other edition of the same map.

f. Map Scale and Bar Scale - found on the lower center margin. Maps have three or more scales with different unit of measures.

g. Credit Note - found in lower left margin. Marginal used to list the producer and reference method compilation for use of technician.

h. Index to boundaries diagram - found in lower right margin. Show the boundaries and principal shorelines within the map area.

i. Index to adjoining sheet - found in lower margin (right) identifies the map sheet surrounding maps.

- j. Projection notes - found in the lower margin. Indicate method used to portray the map area.
- k. Grid note - found at the lower center margin. Gives information pertaining to the grid system used. The interval of grid lines and number of digits omitted from grid values.
- l. Grid reference box - found at the lower margin. Contain information, identifies grid zones and 100,000 meters in which the area represented by map is located and instruction on giving reference on maps.
- m. User note - located at the lower center margin.
- n. Datum note - located at the lower center margin.
 - 1) Vertical Datum Note - designates basis for all vertical control station and elevation appearing on the map.
 - 2) Horizontal Datum Note - indicates basis for all horizontal control station.
- o. Legend - found at the lower left margin, shows, identifies some of the symbols used in the maps.
- p. Declination Diagram - found at lower left margin. Show relationship of map features to TN, GN, MN.
- q. Protractor Scale - found in the upper right margin. Used for lining out magnetic north lines on the maps.
- r. Unit Imprint - found at lower, right margin, identifies agency which the map, date of printing.
- s. Contour Interval Notes - found at lower margin. Indicates vertical distance of contour lines of the maps.
- t. Coverage Diagram - on map class 1: