LAND NAVIGATION, OVERLAY AND MAP GRAPHICS CHEAT CARD

Ref. FM 3-25.26. FM 3-22.31 and FM 1-02

MARGINAL DATA - Important Information

Map name, series, adjoining sheets

Contour interval

Grid reference box

GM Angle information

TERRAIN FEATURES

Major - hill, ridge, valley, saddle, depression,

Minor - draw, spur, cliff.

Supplementary - cut, fill.

MAP COLORS

Black - Indicates cultural (man-made) features such as buildings and roads, surveyed spot elevations, and all labels.

Red-Brown - Red and brown are combined to identify cultural features, all relief features, non-surveyed spot elevations, and elevation, such as contour lines on red-light readable maps.

Blue - Identifies hydrographic or water features such as lakes, swamps, rivers, and drainage.

Green - Identifies vegetation with military significance, such as woods, orchards, and vinevards.

Brown - Identifies all relief features and elevation, such as contours on older edition maps, and cultivated land on redlight readable maps.

Red - Classifies cultural features, such as populated areas, main roads, and boundaries, on older maps.

Other - Occasionally other colors may be used to show special information. These are indicated in the marginal information as a rule

GRAPHIC SYMBOL COLORS

Blue - Friendly forces

Red - Enemy forces

Black - Boundaries

Yellow - Contaminated areas Green - Engineer obstacles

GRIDS (12A BC 345678)

Grid Zone Designator - "12A." 60 worldwide.

100.000m-Square Identifier - 100.000m x 100.000m "BC" Grid - "345678"

Rules - Always read right, then up.

ANGLES, AZIMUTHS

Westerly GM Angle Conversion:

 $M \rightarrow G(-)$

 $G \rightarrow M(+)$

Easterly GM Angle Conversion:

(1) $M \rightarrow G(+)$

 $G \rightarrow M(-)$

Back Azimuths - Add/Subtract 180°

VII. INTERSECTIONS (two occupied known points, third location unknown)

Shoot Azimuths - Shoot azimuths from both known points to unknown location.

Convert - Convert azimuths to grid.

Plot - Plot grid azimuths from two known points.

Read Location - Unknown point is located where plotted azimuths intersect

NOTE: A modified intersection may be used if unknown point is located along a known terrain feature (creek, road, ridge-line, etc). If this is the case, only one occupied known point and one azimuth is required.

RESECTIONS (your location unknown, two known points spotted in the distance) Shoot Azimuths - Shoot azimuths from your

(unknown) location to each known point. Convert - Convert azimuths to grid.

Back Azimuths - Create back azimuths.

Plot - Plot back azimuths from two known points.

Read Location - You are located where plotted back azimuths resect.

NOTE: A modified resection may be used if you are located along a known terrain feature (creek, road, ridge-line, etc). If this is the case, only one known point and one azimuth is required.

POLAR COORDINATES (used to hastily determine a grid location)

a. Shoot Azimuth - Shoot an azimuth to the unknown point.

Convert - Convert azimuth to grid.

Determine Distance - Determine distance to the unknown point by guessing, laser range finder, or terrain association.

d. Plot - Plot grid azimuth on map from your location. Measure along azimuth the distance to the unknown point. Unknown location at end of

PACE COUNT

ALONG ROAD:

OFF ROAD:

SECTOR SKETCH EXAMPLE



