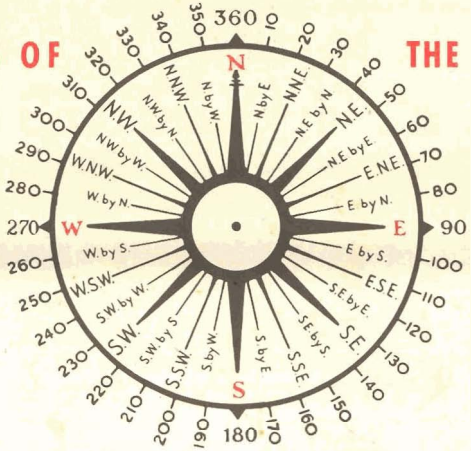
POINTS OF THE COMPASS



LEARN TO ASSOCIATE BEARINGS WITH POINTS OF THE COMPASS

METRIC SYSTEM

10 MILLIMETRES	1 CENTIMETRE	1 MILLIMETRE	.039 inches
10 CENTIMETRES	1 DECIMETRE	1 CENTIMETRE	.394 ..
10 DECIMETRES	1 METRE	1 DECIMETRE	3.937 ..
1000 METRES	1 KILOMETRE	1 METRE	39.37 ..
	1 KILOMETRE	1,093.633 Yds.	
	8 KILOMETRES	5 MILES (APPROX.)	

ROUTE CARD

CAN YOU MAKE AND USE A ROUTE CARD?
A GREAT HELP TO MECHANIZED TROOPS

SPECIMEN ROUTE CARD

FROM: 514310 T RD. TO: 717418 PLAITFORD (WOODS)

REF. SHEET 131 1/63360 M.P.H. 18 M.I.H. 15 V.T.M. 10

GEN. DRCTN.	MLGE.	TIME	MAP REFERENCES	DIRECTIONS	DIAGRAMS
	3.0	0810	551328	BRIDGE OVER R.R. LEFT FORK	
	1.5	0805	524327	TURN RIGHT	
	0	0800	514310	S.P. X	

Read Route Card from Bottom Up

43

BKB Feb. 52

A SOLDIER MUST BE ABLE TO USE A MAP

The object is to form a true

MENTAL PICTURE OF THE GROUND

Arranged by
S.M.I. SHAW, C.G.
(Instructional Wing)
1 Cdn. A. S. C. Rft. Unit

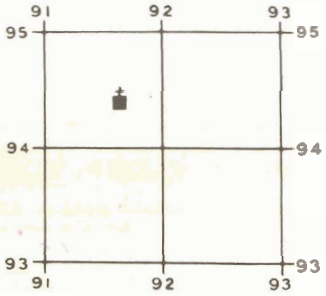
15M-9-50(3761)
H.Q.223-14-4

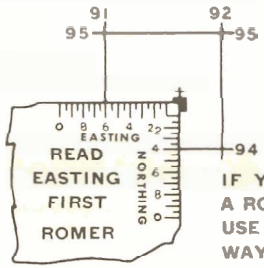
NORTHING
SCALE
1 63360
EAST-NG

A soldier MUST read

MAP REFERENCES

QUICKLY AND ACCURATELY





IF YOU USE A ROMER → USE IT THIS WAY.

SCALE 1 in. = 1 MILE

To find Map reference of ✝ proceed as follows—

1. Find Number of Grid Line West of ✝ (91)
   Ascertain number of tenths ✝ is east of (91)
   This is observed to be 6.
   Set it down thus, 916. This is known as EASTING

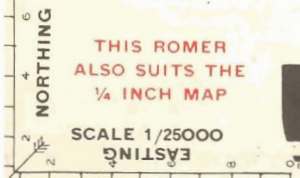
2. Find Number of Grid Line South of ✝ (94)
   Ascertain number of tenths ✝ is North of (94)
   This is observed to be 4.
   Set it down thus, 944. This is known as NORTHING

The Map reference of ✝ is therefore 916944

ALWAYS MEASURE OVER TO THE EAST AND THEN UP TO THE NORTH. IN OTHER WORDS FIND THE EASTING AND THEN THE NORTHING.

Note—When using a reference on the ¼ inch map give the letter of the large square concerned.
Map Reference on ¼ in. to mile is U9294

USE THESE ROMERS



A MAP IS "SET" when it is made to

CORRESPOND with the ground it represents—
NORTH IS THE TOP OF THE MAP—

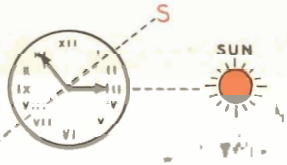
Here are the four ways to set a map—

By COMPASS Place the Compass opened on the Magnetic North and South Line of the Map. Turn the Map and compass together slowly until the Magnetic Needle of the Compass points to Magnetic North on the Map.

By OBJECTS—When the observer knows his position on the map and can identify the position of some distant object. Turn the Map so that it corresponds with the ground.

By WATCH AND SUN—
(FOR NORTHERN HEMISPHERE)

If summer time is in effect first set watch back on Standard Time. Place watch flat with hour hand pointing to the SUN. True South is midway between the hour hand and XII. True North is directly opposite. This method is very rough.



By THE STARS—
Polaris is never more than 2¼° Bearing from True North

These constellations revolve anti-clockwise around Polaris

CONVENTIONAL SIGNS ARE THE FOUNDATION

FOOTPATH

UNFENCED ROAD

EMBANKMENT

BRIDGES

OVER

UNDER

SWING

ROADS

CLASS 1

CLASS 2

MINOR ROAD

JUNCTION

CROSS RDS.

SLOPES STEEPER THAN 1/7

WINDING

DANGEROUS BOG

MARSH

GRAVEL PIT

QUARRY

FOOT PASSENGERS

VEHICLES

FORD

FERRY

FOOTBRIDGE

LOCK

LAKE

RIVER

AQUEDUCT

CANAL

CURRENT

RAIL JNT.

TUNNEL

RAILWAYS

DOUBLE LINE

SINGLE LINE

VIADUCT

PRINCIPAL STATION

STATION

STATION (CLOSED)

TRANSMISSION LINES

LEVEL CROSSING

CUTTING

ORCHARDS

PARK

MIXED WOODS

ROUGH PASTURE

P.H.

PUBLIC HOUSE

BOUNDARIES

COUNTY

PARISH

CONIFEROUS WOODS

DECIDUOUS WOODS

CHURCH

WELL

LIGHTHOUSE

WINDMILL

WIND PUMP

CHURCH WITH SPIRE

C.A.D.

E

S.R.H.

DUMPS

VILLAGE

CHURCH WITH TOWER

.275

SPOT HEIGHT

ANTIQUITIES

250

150

NUMBERS MEAN INTERVAL BETWEEN CONTOURS

10 TONS

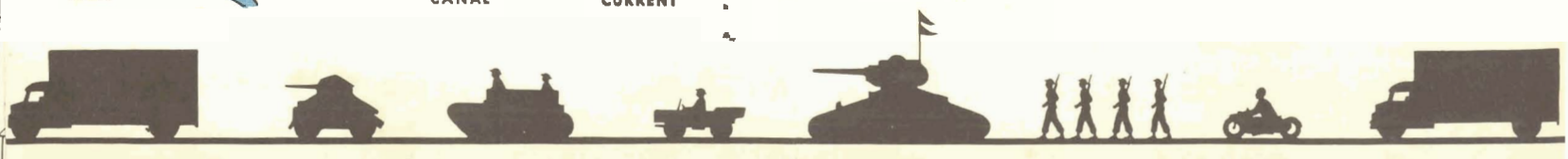
WEIGHT LOAD OF BRIDGE

AIRFIELDS

MOSQUE

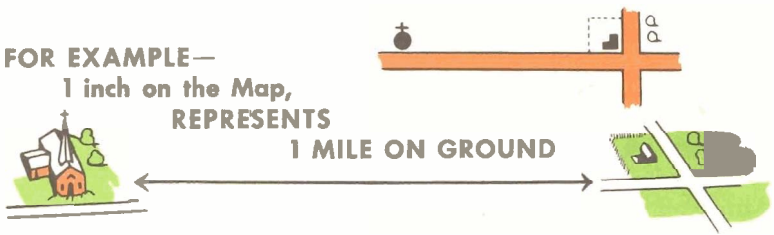
P

POST OFFICE WITH TELEGRAPH & TELEPHONE



Maps
ARE BUILT TO
SCALE
WHICH MEANS THE PROPORTION
A DISTANCE ON THE MAP
BEARS TO THE ACTUAL DISTANCE
ON THE GROUND

FOR EXAMPLE—
1 inch on the Map,
REPRESENTS
1 MILE ON GROUND



IN THIS CASE THE SCALE
WOULD BE 1 INCH=1 MILE

OR $\frac{\text{DISTANCE ON MAP}}{\text{DISTANCE ON GROUND}} = \frac{1}{63360}$

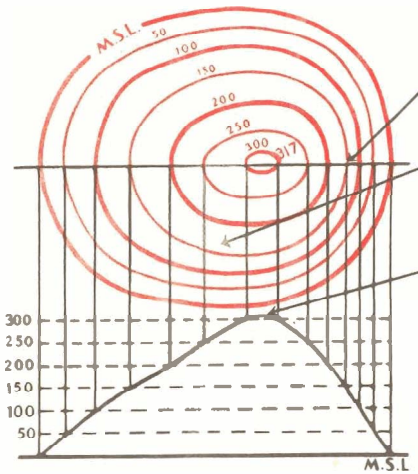
LEARN TO USE SCALE LINES CORRECTLY AND MEASURE DISTANCES ACCURATELY

Use the secondary division on the left of Scale Line, for measuring fractional parts as shown below.

IN THIS EXAMPLE THE LENGTH OF THE MEASUREMENT IS 2⅜ MILES

CONTOUR LINES

are drawn through positions of the same height. They show the height of ground above mean sea level (M.S.L.) in either feet or metres and can be drawn at any desired interval. On the 1 inch map, the contours are drawn for every 50 ft., while on the ¼ inch map, they are drawn for every 200 ft. of height above M.S.L.



Close Contour Lines indicate a steep slope.

When far apart they show a gentle change of level.

.317

Spot heights are heights between Contour levels and are shown thus .317

The vertical distance between contour lines is called the Vertical Interval (V.I.) or Contour Interval (C.I.). The horizontal distance between contours is called the Horizontal Equivalent (H.E.)

HENCE $\frac{\text{V.I.}}{\text{H.E.}}$ = GRADIENT = A SLOPE EXPRESSED BY A FRACTION

EXAMPLE $\frac{\text{V.I. 50 FT.}}{\text{H.E. 100 YDS.}} = \frac{\text{50 FT.}}{\text{300 FT.}}$ = GRADIENT $\frac{1}{6}$

Study the Contours