SER No	CONTENT

LESSON PLAN : MR 3
TOPOGRAPHICAL FORMS AND TECHNICAL TERMS

Period - Two

Type - Lecture

Code - MR 3

Term - I& II

Training Aids

1. Computer Slides, Pointer, Charts, Black board & Chalk.

Time Plan

2. (a) Introduction - 05 Min

   (b) Topographical terms - 35 Min

   (c) Technical terms - 35 Min

   (d) Conclusion - 05 Min

INTRODUCTION

3. The following list of technical terms and topographical forms is by no means exhaustive and is meant to include only those which are more commonly used. Topographical forms is a name used to describe geographical features which occur on the ground.

AIM

4. The aim of this lecture is to introduce the JD/JW NCC Cadets to the various topographical forms and understanding technical terms in map reading.

PREVIEW

5. The lecture will be conducted in the following parts:-

   (a) Part I - Topographical terms

   (b) Part II - Technical terms

(a)

PART I

6. **Topographical Forms.**

(a)	Basin	-	An area of fairly level ground surrounded by hills or the area drained by a river and its distributaries.
(b)	Col or Saddle	-	A narrow ridge of high land joining up to higher hills.
(c)	Crest	-	The highest part of a hill or mountain range. It is that line on a range of hills or mountains from which the ground slopes down in opposite directions.
(d)	Dead Ground	-	Ground which by reason of undulations or hills is not visible to the observer.
(e)	Defile	-	Any feature whether natural or artificial which could cause a body of troops to contract its front. An example of a naturai defile is mountain pass while a bridge is an example of an artificial defile.
(f)	Escarpment	-	The steep hill side formed by a sudden drop in the general ground level usually from a plateau.
(g)	Knoll	-	A small isolated hill.
(h)	Plateau	-	A table land, an elevated region of considerable extent generally fairly level.
(j)	Ravine	-	A long deep valley closed at one end separating two spurs.
(k)	Ridge	-	The line along a hill or range of hills or mountains from which water flows in opposite directions.
(l)	Spur	-	A piece of high ground jutting out from a range of hills into lower ground.
(m)	Watershed	-	The line separating the water flowing into two different river systems, the edge of a river basin.

(b)

PART II

7. **Technical Terms.**

(a)	Bearing	-	The angle formed by a line joining two points and the North and South line. Bearings are always measured clockwise.
(b)	Bench Mark	-	A permanent mark usually cut into a wall recording exact height for future reference, marked BM with the height on Ordnance Survey Maps.
(c)	Contours	-	A line drawn on the map joining up all points of equal height above sea level.
(d)	Detail	-	All the Topographical information on a map.
(e)	Gradient	-	The slope of a hill expressed as a fraction.
(f)	Grid Lines	-	Lines running parallel to and at right angles to a North and South line through approximately the centre of the area covered by the grid system.
(g)	Grid North	-	Except through the origin, grid lines do not lie true North and South or East and West, Grid North is the direction of the North South grid lines on a map.
(h)	Horizontal Equivalent (HE)	-	The distance measured on the map between adjacent contour lines. It varies according to the nature of the relief.

(i)	Magnetic Variaíion	-	The difference between True North & Magnetic North.
(k)	Setting	-	Placing a map so that North on the map points toward the North so that the objects on the map are placed in relationship to the same objects on the ground.
(1)	Spot Height	-	A point on a map whose height has been determined by Survey methods. This height is printed alongside the point.
(m)	Trig Point	-	A point fixed during the triangulation at the beginning of a survey, marked on Ordance Survey Maps by a small triangle with the height.
(n)	True North	-	The direction of the North Pole from the point.
(o)	Vertical Interval (VI)	-	Successive controur lines. The VI is generally the same for any given scale.