SER No	CONTENT

LESSON PLAN :FC & BC 2
JUDGING DISTANCE

Period - One

Type - Lecture/Practice

Code - FC & BC 2

Term - I& II

Training Aids

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

Time Plan

2. (a) Introduction and Aim - 05 Min

(b) Methods of Judging Distance - 15 Min

(c) How to use the methods - 15 Min

(d) Conclusion - 05 Min

INTRODUCTION

3. Accurate fire with any weapon depends on the correct judging of distance. Although a cadet is not normally required to open fire at range over 100 yards, he must be able to judge distance up to about 1000 yards, so that he:-

(a) Knows when to open fire.

(b) Can indicate targets to supporting arms or to men in a sub-unit.

(c) Can pass back information accurately when acting as an observer.

4. An individual should be able to judge distance accurately with his eyes so that the individual: -

(a) Knows when to open fire.

(b) Knows which weapon to be used (51 mm mortar, rifle or carbine).

(c) Can indicate targets to other men in his section/direct the fire of sp weapons.

(d) Pass back accurate information when acting as an observer.

AIM

5. To teach the methods of Judging Distance.

PREVIEW

6. The lecture shall be conducted in the following parts: -

(a) Part- I - Methods of Judging Distance.

(b) Part -II - How to use the methods.

(a)

PART I - METHODS OF JUDGING DISTANCE

7. The following are the six methods of Judging Distance.

(a) Unit of measure.

(b) Appearance method.

(c) Section average.

(d) Key range.

(e) Halving.

(f) Bracketing.

(b)

PART II - HOW TO USE THESE METHODS

7. **Unit of Measure**. This method is also termed as the 100 yards method. The unit of measure chosen is normally 100 yards and therefore one should form a good idea of 100 yards distance on the ground. The length of a hockey field is the best yard stick for this purpose.

8. The distance of a given object will be a multiple of the imaginary unit of 100 yards, as placed between the observer and the object.

9. This method is not accurate above 100 yards and is of little use if there is dead ground between the observer and the object.

10. **Appearance Method .** The distance can be judged by noting the detailed appearance of man at various ranges. This is the best method under service conditions. The following is a guide to distance:-

(a) At 200 yards, all parts of the body are distinct.

(b) At 250 yards, blade of the foresight covers a kneeling man.

(c) At 300 yards the face becomes blurred.

(d) At 400 yards the body remains same in shape but face is difficult to distinguish. Blade of the foresight covers a standing man.

(e) At 500 yards body appears to taper slightly from the shoulder but movement of limbs can still be seen.

(f) At 600 yards head appears as a dot. Details are not visible and body tapers from shoulders downwards noticeably.

(c) 11. **Section Average.** Each man in the section is asked to judge the distance of a given object. The average of the answers given by the whole section is then accepted as the distance. Here caution must be exercised in the estimation of a few who may foolishly over estimate the distance. This method may be resorted to under the following circumstances:-

(a) Ample time is available.

(b) Judging of distance is made difficult by mist or darkness.

(c) Judging of a long distance is involved e.g. beyond 400 yards.

12. **Key Range.** If the range of the certain object is known, distance to other objects can be found in relation to the known range. This method is called 'Key Range' method.

13. **Halving.** An object is selected half way between the observe and the target, the distance to the selected object is judged and doubled to get the distance to the target.

14. **Bracketing.** The observer works out the maximum and the minimum possible distance of the object and then accept the mean as the distance e.g. maximum possible distance 1000 yards, minimum possible distance 500 yards therefore estimated range is 750 yards. The greater the range wider the bracket. In no case the bracket should be less than 300 yards.

Practical Hints

15. **During Night** Judging distance at night will depend upon the visibility. The only suitable method is the 'Key Range'. Therefore mark prominent objects and work out their distances while there is still day light.

16. **During Day**. Conditions which mislead the observer when judging distances are as follows:-

(a) Distance are over-estimated when:-

(i) Light is bad.

(ii) The sun is in the observer's eye.

(iii) The object is small in relation to its surroundings.

(iv) Looking through a valley of narrow lane e.g. street.

(v) Lying down.

(b) Distance are under- estimated when:-

(i) The light is bright or the sun is shining from behind the observer.

(ii) The object is large in relation to its surrounding.

(iii) There is some dead ground between observer and the object.

(iv) Looking up hill.

CONCLUSION

17. In order to bring down effective fire judging distance is extremely essential. It is also necessary for indication of landmarks. Hence all cadets should be able to judging distance accurately.