

#### Chapter IV.—Continued

the field of vision, and having the recruits count them, the errors of the men being noted.

Tests in judging distances will be carried out by placing the recruits at some previously selected point and having each man estimate the distance to four separate objects in the landscape which will be pointed out, the actual distances having been previously ascertained by the instructor by the use of the Marindan Range Finder, or actual measurement, these distances not to be less than 200 yards or more than 1,400 yards. It is especially important that all men should be able to judge accurately distances up to 600 yards.

Four objects will be taken, two of them marked by fatigue men, who will fire blank ammunition giving off smoke to enable the men to estimate the distance by noting the time taken by the sound to travel after the smoke appears, explaining beforehand that if the men can count eleven beats correctly in three seconds, each beat between seeing the smoke and hearing the sound of the shot will represent a distance of 100 yards travelled by the sound, and will be a reliable check on the estimate of the distance.

Each man's estimate of the distance to each object should be taken down silently, and without prompting or coaching, and the percentage of error tabulated and filed so as to show the improvement after repeated practices.

In each practice of distance judging, local influences which may affect the apparent distance of the object will be explained to the men, and why the objects are likely to be under or over estimated. Instructors are referred to Paragraph 315, Section 67, page 125, Musketry Regulations, Part I., 1914 for this.

Aids to judging distance will also be explained, such as the lateral angle or jump of the eye, the foresight of the rifle, the barrel or bore of the rifle, and how distances may be estimated by making a maximum and a minimum estimate, and taking the mean, or by dividing the distance and estimating the half distance first.

Too much time should not be allowed for estimating after the position of the object is clearly seen; rough guesses should not be permitted, and every man should be able to give a substantial reason for arriving at his estimate.