

of the earth loss occurred in regions beyond the periphery of the ground system. Fig. 27 is an average curve obtained for this condition.

When only two radial wires, separated 180 degrees, were used, the resistance was independent of wire length since the current vanished from the wires within a few feet of the antenna. The results of this test are shown in Fig. 28.

The reactance of the antenna was found to vary slightly with the ground system. For all practical purposes, the reactance may be re-

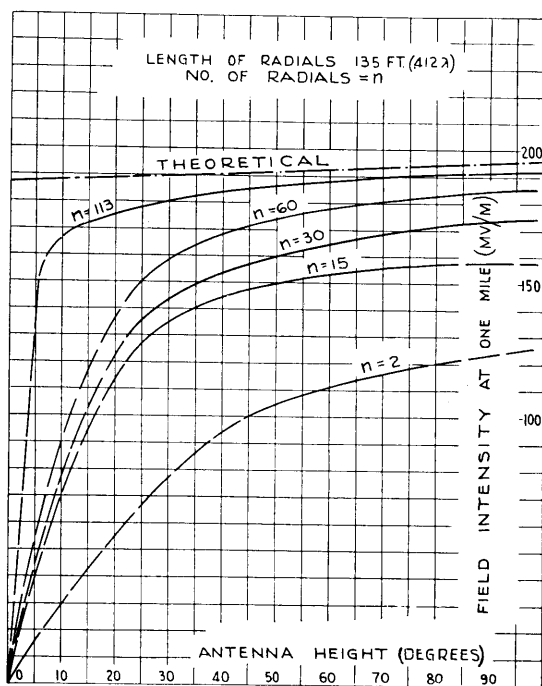


Fig. 30

garded as constant for a given antenna height. The antenna reactance as a function of antenna height is given by Fig. 29.

The field intensity at one mile for an antenna power of 1000 watts is given in Fig. 30, when the ground system was 135 feet in radius. It is seen that the ground system consisting of 113 radial wires is very nearly perfect. It was found that the antenna shown in Fig. 31 ($G = 22$ degrees) gave a field strength only 8.5 per cent less than the antenna shown in Fig. 20 ($G = 99$ degrees). Fig. 32 shows the field intensity when the ground system was 90 feet in radius. The results are somewhat inferior to those obtained with the larger ground system. In Fig. 33, we see that the field strength is nearly independent of the number of