

CHAPTER VI

Conclusion and Recommendation.

The purpose of this Thesis is to carry out a theoretical research for the characteristic of Corner Reflector Antenna. It's found out that this kind of antenna can provide circular polarization in axial direction when $90^\circ/\gamma$ is integer where γ is the corner angle, and dipole angle β is set to that calculated from equation (39) This equation is used to calculate the dipole angle which it gives circular polarization at a given corner angle and dipole distance. This antenna can give a circularly polarized wave in other direction by setting the short dipole to a suitable angle.

To find the polarization patterns, a half wave dipole is used as receiving antenna to pick up the electric field from corner reflector antenna by rotating the receiving antenna in the vertical plane. The results of this experiment show that this kind of antenna has the characteristic similar to that derived from theoretical research and also found that the dipole distance should be far from the corner angle to reduce the mutual impedance.

Corner reflector antenna is a kind of antenna which gives circular polarization. It can be used instead of those antennas which have the same characteristic. Its simple geometry and uncomplicated feeding system are its advantages.

The future works should be concerned about

- 1 The radiation resistance as a function of corner angle, dipole angle and dipole distance.

2 The characteristic of corner reflector antenna when dipole at any length is used.

3 Study the effects of using any size of plate reflector.

4 Study the effects of grid reflectors instead of plate reflector.