SKY WAVE
Lecture-24

TDC PART -1

PAPER 1(GROUP B)

Chapter -6

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SKY WAVE

- In radio communication, skywave or skip refers to the propagation of radio waves reflected or refracted back toward Earth from the ionosphere, an electrically charged layer of the upper atmosphere.

GROUND WAVE AND SKY WAVE

- Ground Wave propagation is a method of radio wave propagation that uses the area between the surface of the earth and the ionosphere for transmission.
- Sky-wave ionospheric propagation is not possible during the day because of the attenuation of the signals on these frequencies caused by the D region in the ionosphere.

Sky wave frequency

- Frequencies above 10 MHz (wavelengths shorter than 30 meters) typically propagate most efficiently during the day. Frequencies lower than 3 kHz have a wavelength longer than the distance between the Earth and the ionosphere. The maximum usable frequency for skywave propagation is strongly influenced by sunspot number.

Sky wave propagation uses

- Since it is not limited by the curvature of the Earth, skywave propagation can be used to communicate beyond the horizon, at intercontinental distances. It is mostly used in the shortwave frequency bands.