SPACE WAVE
Lecture-25

TDC PART -1

PAPER 1(GROUP B)

Chapter -6

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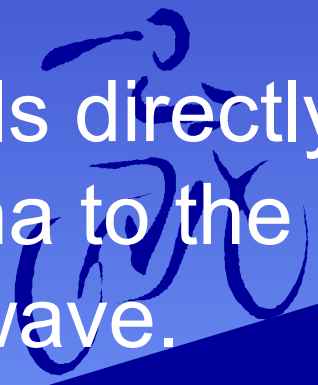
SPACE WAVE

- Space wave propagation is defined for the radio waves that occur within the 20km of the atmosphere ie; troposphere, comprising of a direct and reflected waves.
- These waves are also known as tropospheric propagation as they can travel directly from the earth's surface to the troposphere surface of the earth.

Sky wave and Space wave

- A radio wave transmitted towards the sky and reflected by the ionosphere towards the desired location of the earth is called a sky wave.

- A radio wave that travels directly from a high transmitting antenna to the receiving station is called space wave.



Range of space wave propagation

- Space waves are the radio waves of very high frequency (i.e. between 30 MHz to 300 MHz or more).
- The space waves can travel through atmosphere from transmitter antenna to receiver antenna either directly or after reflection from ground in the earth's stratosphere region

Components of Space wave

- The space wave has three components:
- Direct wave : Along path, radio waves reach receiving antenna directly.
- Ground reflected wave: The radio waves reach the receiving antenna after reflection from ground.
- Tropospheric wave:The radio waves reach the receiving antenna after reflection from.