ANALYSIS OF REFRACTION LOSS, ATTENUATION AND WAVE LENGTH OF ELECTROMAGNETIC WAVES FROM SURFACE OF SEA TO 5500 M DEPTH OF SEA USING SEA WATER REAL TIME DATA AT 15KHz FREQUENCY

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ABSTRACT

In this paper we find out the Refraction Loss, Attenuation and wave length of electromagnetic waves from surface of sea water to 5500 m depth of sea water using real time data from National Oceanic and Atmospheric Administration (USA). It is a data base of real time data of salinities and temperatures of sea water from surface of sea water to depth of sea water at different latitude and longitude. We used this real time data and applying to modified version of Ellison et al model 1998, to find conductivity of sea water from surface of sea to depth of 5500 m, and we also from conductivity of sea water, we calculate Refraction Loss, Attenuation and wave length of Electromagnetic waves from surface of sea to depth of 5500 m using mat lab simulation as a tool.

Keywords: Refraction Loss, salinity, attenuation, Temperature, conductivity.