

Current Trend in ELF/VLF Research

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A survey of research work done based on the study of natural (whistlers and VLF emissions) and man-made (fixed frequency transmitters signals) very low frequency electromagnetic signals during the period from 1950 to 2009 is made. It is seen that most of the initial work on this subject was done during 1950-1960. The research work at low latitudes have progressed coherently with those at middle and high latitudes. Some unsolved problems in the field of low latitudes are indicated. The orientation of the research and some new discoveries which include the relation of ELF/VLF signals with earthquakes, ionospheric perturbation due to earthquakes as revealed by phase and amplitude measurements of VLF transmitter signals, effect of lightning, transient luminous events (TLE), solar flares and eclipse on VLF propagation. and satellite observations of ELF-VLF waves are highlighted with special reference to the work done at low latitudes, especially in India.