

Development of VLF/LF field strength prediction program using wave-hop theory

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A numerical calculation program for VLF/LF radio wave field strength by means of wave-hop theory adopting the recommendations of the International Telecommunication Union Radiocommunications Sector (ITU-R). The electric field at the receiving point consists of a ground wave and sky waves of from 1-hop to 10-hop modes reflected between the ground and bottom of the ionosphere. Parameters at every ground and ionospheric reflection point are calculated for given day, time, transmitting power, transmitting/receiving location within 16000km. A detailed calculation algorithm and some characteristic results are presented.

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