Abstracts

Depolarization Measurements on the ATS-6 20-GHz Downlink: A Description of the VPI & SU Experiment and Some Initial Results (Short Papers)

C.W. Bostian, W.L. Stutzman, E.A. Manus, P.H. Wiley and R.E. Marshall. "Depolarization Measurements on the ATS-6 20-GHz Downlink: A Description of the VPI & SU Experiment and Some Initial Results (Short Papers)." 1975 Transactions on Microwave Theory and Techniques 23.12 (Dec. 1975 [T-MTT] (1975 Symposium Issue)): 1049-1053.

This paper discusses the depolarizing effects of precipitation at millimeter wavelengths and describes an experiment in which depolarization on the ATS-6 satellite 20-GKz downlink is measured. Data are presented for unexplained clear weather variations in the observed polarization and for depolarization by rain and snow. A preliminary analysis indicates that for a given attenuation level, a satellite path exhibits more severe depolarization than experiments with ground systems would predict.

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