Derivation of ionospheric irregular structure from integrated observations with HF Doppler and direction finding techniques(2)

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HF Doppler (HFD) technique has long been applied to investigate the ionospheric irregularities by taking advantage of capability to cover a wide range of irregularity scale with good sensitivities. Its fundamental principle is to detect the frequency shift of the sky waves which is a compsite function of the refractive index as well as the path length. The actual irregular structure, therefore, cannot be determined with the HFD technique alone. This paper will present the formulation and the results of the deduction of ionospheric irregular structure from integrated observations with HF Doppler and direction finding tecniques.