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Ionospheric sporadic E and HF radio wave propagation

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Sporadic E (Es) layers in the ionosphere are produced by the vertical shear of the horizontal wind at mid-latitudes. Study of patches of increased electron density embedded in the stratification are due to turbulence developing with the increase of wind shear. Thus, patches would correspond to eddies in the layer. Transparency of Es layers from the point of view of radio wave propagation is the greater, the greater is their ripping up. Thus, a thin diffraction screen is obtained, the characteristics of which in relation to radio wave propagation are discussed.