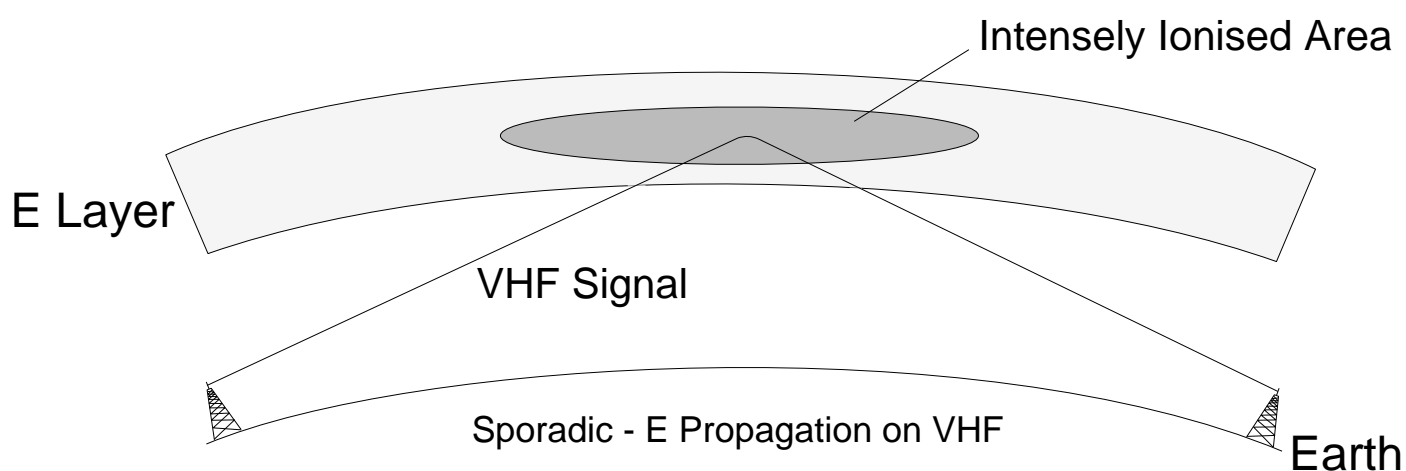


Sporadic - E Propagation

Sporadic-E propagation is the name given to intense ionisation of the E layer which happens intermittently, and can give rise to propagation over distances of several hundred kilometres at frequencies up to about 200MHz. This means that signals on the 50MHz, 70MHz and 144MHz amateur radio bands are reflected by

these intensely ionised regions. For 144MHz signals to be reflected, the ionisation must be very intense indeed and thus the effect on the 2m band may last for only a few minutes. The effect will normally last for several hours on the lower VHF frequencies and for several days on the 28MHz band.



Sporadic-E is seasonal and is most likely to occur between May and August (in Europe) although events outside that period are not unknown. The times of maximum activity are generally within the periods of 0700-1300 gmt and 1500-2200 gmt.

In its conventional form Sporadic-E consists of horizontal sheets about 1Km thick and some 100Km across, usually at a height of 100-120Km. Clouds form in an apparently random manner. Some sheets may travel

across continents for several hundreds of kilometres whereas others remain almost stationary.

Although Sporadic - E affects several of the VHF bands, the 50MHz band seems to be the most vulnerable, signals from distant stations being heard on this band at the beginning of a sporadic - E event. These events may occur two or three times a day or perhaps miss a few days during the season.