

The HF Ambient Noise Floor

There are two main sources of noise at a typical suburban location

Man-made noise

This consists of a “floor” plus discrete emissions and occasional bursts of relatively high level broadband noise.

Atmospheric Noise

This varies with the season and the time of day.
It is often below the man-made noise in the UK.

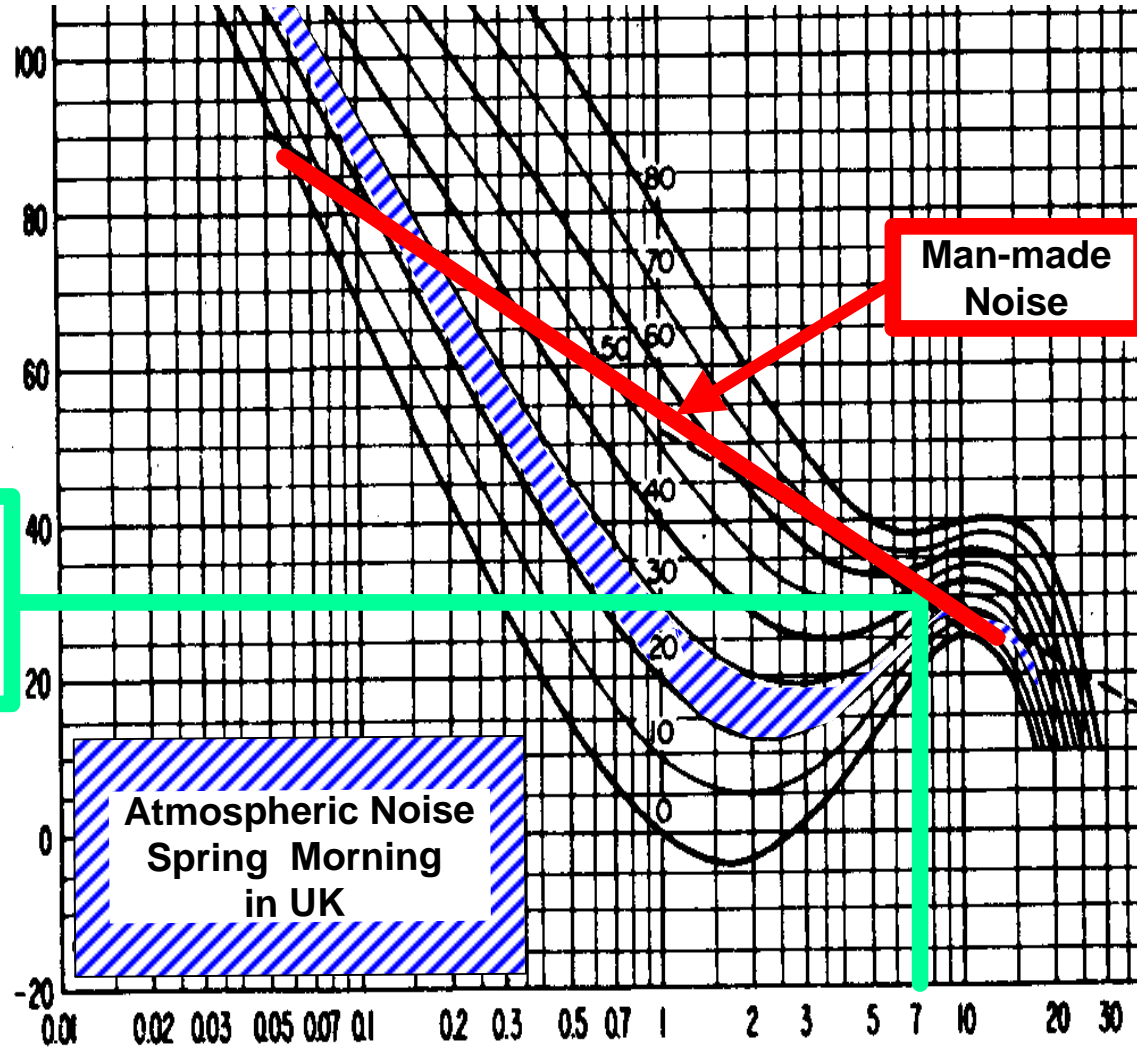
This is the ultimate limit on HF communications.

The following three slides illustrate the fact that the noise floor is lower than many people think.



**dB above
thermal
noise**

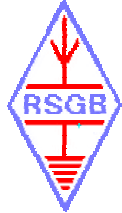
**Noise at 7MHz
approximately
-9dB(uV/m)
in 9kHz**



Frequency in MHz

From CCIR Report 322.

(Spring Morning in UK - Quiet location)



ITU-R PI.372-6 man-made noise levels 2 - 20MHz

